71-10,644

MASCARENHAS, Adolfo Caridade, 1937-
RESISTANCE AND CHANGE IN THE SISAL PLANTATION SYSTEM OF TANZANIA.

University of California, Los Angeles, Ph.D., 1970
Geography

University Microfilms, A XEROX Company, Ann Arbor, Michigan

UNIVERSITY OF CALIFORNIA

Los Angeles

Resistance and Change in the Sisal Plantation System of Tanzania

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Geography

by

Adolfo Caridade Mascarenhas

Committee in charge:

Professor Benjamin E. Thomas, Chairman

Professor Howard J. Nelson

Professor Norman J. Thrower

Professor Michael F. Lofchie

Professor John F. Povey

1970

The dissertation of Adolfo Caridade Mascarenhas is approved, and it is acceptable in quality and form for publication on microfilm:

[illegible]

[illegible]

Howard J. Nelson

Norman J. W. Thrower

B. E. Thomas

Committee Chairman

University of California, Los Angeles

1970

TABLE OF CONTENTS

LIST OF TABLES

LIST OF MAPS

LIST OF PLATES

ACKNOWLEDGEMENTS

I find it impossible to express in words my gratitude to all who directly or indirectly helped me to complete this work. My special thanks go to my advisory committee, Professor Benjamin E. Thomas (Chairman), Howard J. Nelson, Michael F. Lofchie and Professors John F. Povey and Norman J. Thrower, who, at short notice, agreed to replace Professors Joseph E. Spencer and Terence Ranger when they had to depart for overseas research. Thanks are also due to Professor Jonathan Sauer who commented on some chapters of the dissertation.

I also wish to take this opportunity to express my deep sense of indebtedness and gratitude to Professor Benjamin E. Thomas. His professional interest in my academic career goes back to my undergraduate days. In the formal classroom atmosphere and the shared breaks at the Makerere University canteen he awakened in me the first ambitions in post-graduate studies. In the fall of 1963, through his recommendations, I started my career in University education. Since then I gained a great deal from his experience, advice and encouragement which often extended far beyond what could be reasonably expected. His visits to Tanzania in 1966 and 1968 during my field work and his painstaking criticism of my drafts helped to remove some very rough edges of this dissertation. Yet, he left me with the spirit of self-

accomplishment. His personal interest in my welfare has extended beyond academic matters. For all these things I am grateful.

Research on the topic was made possible through the assistance of a great many people in Tanzania. At the University College in Tanzania these included: Dr. W. Chagula, and Chief Patrick Kunambi, the former principal and registrar, who worked on the technicalities of providing administrative and financial support; Professor Len Berry and Dr. Paul Temple whose understanding and assistance included the patience of manipulating my time table to my maximum benefit; the Ian Thomases whose cheerfulness and interest helped to lighten some of the frustration of research; members of the History Department who encouraged the re-assessment of Tanzania's past; the Mbilinyis, Justinian Rweyemamu and fellow worker at the National Archives, Dr. I. Kimambo who all made me accept the challenge of the hidden past; Dr. I. Langnickel and Dr. J.D. Heijnen who generously helped in German translations; Professor Gerry Helleiner who took an interest in my work; and the students in my tutorial and field classes of 1966 and 1967 who acted as my sounding boards. A number of students who have been mentioned specifically in the text helped in several surveys, some of which have been included in this text. Mr. O.R. Mwansenge who accompanied us on these field trips acted as my barometer to the sensitivity of rural Tanzania. In 1967, Mr. Peter Lawrence,

a graduate in Economics from Leeds, entered the field as a fellow researcher. By sharing his thoughts, experiences and data, he provided a new stimulus to my interest in sisal.

In the sisal world of Tanzania special mention must be made of the help given by the Amboni Group of Estates. Messrs. H.P. Amman, A. Torriani, Abdulla Mwinyihamisi and A. Brunner introduced me to the intricacies of the sisal industry. The generosity of their time, hospitality and assistance even when they were pre-occupied with the crisis in the sisal industry is greatly appreciated. Similarly, Messrs. R. Naburi, A.A. Karimjee, M.C. Othman, J.F. Osborne, W.S. Massesa and A.K. Rugahurura also assisted my research in a tangible way. Above all, special thanks are due to the villagers at Kabuku Settlement Scheme who allowed themselves to be questioned by researchers even when they had major problems of their own. There are many other people at the regional and district agricultural offices and at the National Archives who ungrudgingly gave of their time.

Financial assistance for several trips in the Tanga region was available by the University College and Geography Department, Dar es Salaam. My residence in the United States from the Fall of 1969 to 1970 to complete this study would have been difficult to accomplish without the support of the Rockefeller Foundation. In this respect, thanks are due to the University College and Dr. James Coleman who supported my application for the Rockefeller Fellowship. Professor

Michael Lofchie, through the African Studies Center, University of California, Los Angeles, also made available supplemental funds for the reproduction of this dissertation.

Fellow doctoral candidates at UCLA provided the milieu in which to complete this work. My appreciation also extends to Mrs. Pearl Segal and Miss Carol LeBoy who, through their personal interest helped me out from bureaucratic entanglements, Mrs. Kathy Marcus of Glendale, the cartographer whose work on my draft maps gave them a professional finish and to Mrs. Virginia Woodall, the typist from Palms, whose calm and experience left me with few filing crises.

Thanks are due to my parents who broke away from convention and started all this. Most of all, thanks are due to my wife, Ophelia, who from the inception of the study has given preciously of herself so that this study could be a reality.

VITA

February 11, 1937 -- Born, Mahenge, Tanzania

1961--B.A. (Hons.), London-Makerere University College

1962--Diploma of Education, Makerere University College

1962-63--Head Geography Master, St Francis' College, Pugu, Tanzania

1963-65--Teaching Assistant, Department of Geography, University of California, Los Angeles

1966--M.A., University of California, Los Angeles

1966--Special Lecturer, University College, Dar es Salaam, Tanzania

1967--Secretary, Tanzania National Committee of the International Geographical Union

1967- --Lecturer, University College, Dar es Salaam

1969-70--Study Leave, under Rockefeller Foundation Fellowship

PUBLICATIONS

"The Impact of Nationhood on Dar es Salaam," East African Geographical Review, No. 5, 1967, pp. 39-46.

"Aspects of Food Shortages in Tanganyika, 1925-45," Proceedings, Social Sciences Conference, East African Institute of Social Research, Makerere University College, Kampala, Uganda, 1966. Reprinted in Journal of the Geographical Association of Tanzania, No. 3, 1969, pp. 37-59.

With S. Mbilinyi
Research on Subsidiary Staple Food Marketing in Dar es Salaam, University College, Dar es Salaam, Economic Research Bureau, ERB Paper 68.16, 1968, 16 pp. Forthcoming as a Chapter in Marketing in East Africa, edited by B. Riordan and to be published by East African Publishing House, Nairobi, Kenya.

Mapwork with Pictures for Tanzanian Secondary Schools, compiled for the Subject Panel, Ministry of Education, Dar

es Salaam, 1968, 30 pp.

"Urban Studies," in Geographical Fieldwork, a Handbook for Teachers, edited by L. Berry and J. Battersby, Institute of Education, Dar es Salaam, 1968, pp. 42-47.

With L. Berry, I. Jackson, and I. Thomas
"Tanzania," Chapter in Developing Countries of the World, edited by C.P. Chatterjee, International Geographical Union, Calcutta, 1968, pp. 171-186.

With S. Mbilinyi
The Sources and Marketing of Cooking Bananas in Tanzania, University College, Dar es Salaam, Economic Research Bureau, ERB Paper 69.14, 1969, 38 pp. Forthcoming in the East African Journal of Rural Development, Nairobi, Kenya.

Rationalizing the Orange Trade of Dar es Salaam, University College, Dar es Salaam, Economic Research Bureau, ERB Paper 69.15, 1969, 28 pp.

"The Port of Dar es Salaam," Tanzania Notes and Records, No. 71 (1970) Special issue: Dar es Salaam, City, Port, and Region, pp. 85-118.

"Agricultural Vermin in Tanzania, Exploration of a Problem in Tropical Agriculture," in Studies in East African Geography and Development, edited by S. Ominde and to be published by Heinemann, London.

The following texts and maps in Tanzania in Maps, edited by L. Berry, to be published by London University Press, London.

German Rule and Achievement
Sisal
Growth and Function of Dar es Salaam
Land Use in Dar es Salaam
Major Urban Centres
The Port of Dar es Salaam
Tanga and Mtwara
Air Transport
External Trade

Abstracts

"Modification of a Plantation System in Tanzania," No. 377 in Abstracts of Papers, International Geographical Union; New Delhi, India, 1967, p. 169.

Reviews

Jones, Emery. Towns and Cities. London: Oxford University Press, 1966, in East African Geographical Review, No. (196), p. 89.

Fuggles-Couchman, N.R. Agricultural Change in Tanganyika: 1945-1960. Stanford, Food Research Institute, 1965, in Tanzania Notes and Records, No. 66 (1966), p. 215.

Ruthenberg, Hans. Agricultural Development in Tanganyika. Berlin, Springer Verlag, 1964, in Tanzania Notes and Records, No. 66 (1966), p. 216.

_____. Smallholder Farming and Smallholder Development. Berlin: Weltforum Verlag, 1968, in Tanzania Notes and Records, No. 69 (1968), pp. 64-5.

De Wilde, John C. Experiences with Agricultural Development in Tropical Africa. Baltimore: Johns Hopkins Press, 1967, in Tanzania Notes and Records, No. 70, (1969), pp. 65-67.

FIELDS OF STUDY

Major Field: Geography

Studies in Africa
Professor Benjamin E. Thomas

Studies in Urbanization
Professor Howard J. Nelson

Studies in Tropical Agriculture
Professor Joseph E. Spencer

ABSTRACT OF THE DISSERTATION

Resistance and Change in the Sisal Plantation System of Tanzania

by

Adolfo Caridade Mascarenhas
Doctor of Philosophy in Geography
University of California, Los Angeles, 1970
Professor Benjamin E. Thomas, Chairman

The cultivation of sisal in Tanzania was first established under a plantation system and exhibited most of its characteristics. Thus, the plantations were foreign owned and managed, the holdings were large, and cheap labor was extensively used to produce only a primary raw material. The process by which the main characteristics of the Tanzanian sisal plantation system were retained and perpetuated has not previously been adequately explained. This is especially true for the period when the sisal industry reached its zenith during British rule of Tanganyika. The purpose of this dissertation is to investigate and explain the factors affecting changes in the system.

Research was conducted in Tanzania, mainly between April 1966 and September 1969. The fundamental picture of the industry was obtained through library research. Then, for the early period, the process of change or of stagnation

in the characteristics of the industry was interpreted through a study of the interactions of plantation owners with people and institutions. This could be accomplished by examining the records of the Tanganyika Sisal Growers Association (TSGA), by interviewing those involved with decision making and by examination of letters and other documents at the Tanzania National Archives. After it became apparent that the TSGA disapproved of anything other than general enquiries about the industry, and that the high turnover of personnel connected with the industry reduced the value of interviews, attention was focused mainly on the Archives. The National Archives, which previously had been largely overlooked were very helpful in interpreting the evolution of the important characteristics of the sisal industry. Finally, six trips were made to the Tanga Region to investigate the development of new organizational forms since 1961. Data were obtained from interviews, local records and field work.

The botany of the plant, the pattern of cultivation first established by the Germans and the economics of the industry only partly account for the almost exclusive cultivation of sisal on a plantation basis. A better explanation is that the TSGA was able to establish itself as an institution within the colonial system, and its development was facilitated by the importance of sisal in the economy of the country. After the establishment of the TSGA, the colonial government looked to it for advice so that the laws and

regulations enacted were often in favor of the growers, and not necessarily in the public interest. This was best exemplified by the methods by which African peasant cultivation of sisal was deliberately hindered and the awkward system for determining wages for sisal laborers.

Following independence of the country in 1961, the virtual monopoly position of the plantation system became untenable and changes in the characteristics of the sisal industry were accelerated. New forms of sisal cultivation were encouraged. The goals of national development embodied in the Arusha Declaration led to nationalization of part of the industry, and as a result, the cultivation of sisal in Tanzania has entered a new phase.

CHAPTER I

INTRODUCTION

Motivation

To the majority of people in Tanzania,[1] agriculture is the way of life.[2] All available evidence points to the fact that for the foreseeable future agriculture will remain as the foremost contributor to the development of the people and the nation. The cultivation of sisal represents an important element in the agriculture of the country.[3] Although

---

[1]Tanzania has gone through several changes of names. Between 1884 and 1919 it was known as German East Africa. Under the British Mandate which followed, it became known as Tanganyika. The name was retained even after the independence of the country in 1961. Following the union with Zanzibar in 1964, it was briefly called the United Republic of Tanganyika and Zanzibar and eventually shortened to Tanzania. As far as possible, these names have been used in their correct historical context.

[2]In 1966 there were only 336,497 wage earners in Tanzania out of a total population of 12 million. The majority of people were therefore self-employed farmers. Even among the wage earners, nearly a third were employed in agricultural enterprises. Tanzania, Central Statistical Bureau, Employment and Earnings, 1966 (Dar es Salaam: 1967), p. 5.

[3]This statement can be measured from the viewpoints of export earnings and land use. Since 1925, more than 25% of the annual earnings from exports have come from sisal. In 1951 earnings from sisal reached an all-time high when sisal exports were valued at 61% of the total earnings. Tanzania Today (Nairobi: University Press of Africa, 1969), p. 115. Since 1965 earnings from sisal have declined but still constitute a significant portion of the total earnings.

During the agricultural census of 1958 it was estimated that sisal accounted for 536,000 acres out of 2.1 million acres under cultivation. East African Statistical Dept. Tanganyika Unit, Agricultural Census (Dar es Salaam: Government Printer, 1959), Table 19, p. 11.

the plant was not indigenous to the area, its cultivation has been so intensified that for the last twenty-five years Tanzania has ranked as the world's largest producer of sisal.[1] More important in the context of the country, sisal has, for over four decades, been the leading source of revenue and the largest single and collective source of employment.[2]

The introduction of sisal in 1892 by the German, Richard Hindorf, brought a new element into the geography of Tanzania. The scale at which the enterprise was undertaken demanded that forest and bush be displaced over vast areas by sisal. In a sense then, the landscape over most of Tanga Region, in certain sections along the Central Railway Line, and in the vicinity of Lindi in the southeastern part of the country became very humanized by row upon row of sisal. This

---

[1]Despite the decline of the sisal market and competition from other countries, Tanzania produced over 37% of the world's sisal in 1964. C.W. Guillebaud, An Economic Survey of the Sisal Industry in Tanzania (Welwyn, England: James Nisbet, 1966), p. 5. The country still holds the first rank. Food and Agriculture Organization of the United Nations, Study Group on Hard Fibres, Tanzanian Sisal (Rome: 24th January 1969), Doc. No. CCP:HF/69/9, p. 1.

[2]At its peak the sisal industry employed over 127,000 people or about 1/3 of the people in the wage economy. J.T. Jack, Report on the State of Industrial Relations in the Sisal Industry (Dar es Salaam: Government Printer, 1959), p. 1. Even with the decline in the employment in the sisal industry, it still represents one of the largest employers of labor.

orderliness was significant. It was a visible manifestation of the great change brought about by the cultivation of the crop.

The transformation of the landscape was induced by radical changes in human organization and relationships. In the process of this transformation the lives of thousands of people became affected. For instance, the repercussions arising from labor needs went far beyond the confines of the territory.[1] The physical, economic and social milieu of the country was as much affected by the cultivation of the crop as by the agricultural system peculiar to the crop. One of the main objectives of this thesis is to examine the factors which governed the establishment of the agricultural system and to gain an insight into the factors which were responsible for the survival of the system.

Statement Of Problem

Central to any agricultural practices are three components: man, land and plants. The interaction of these components gives one the factors which can be combined to give an agricultural type. The integration of several types of agriculture leads to what is known as an agricultural system. This study concerns itself with the specific analysis

[1]Apart from Tanzanian labor, migrant labor has come from Ruanda and Mozambique and to a lesser extent, from Kenya, Uganda, Burundi and Malawi.

of the sisal plantation system of Tanzania. As has been suggested in the introductory statement of this paragraph, any analysis of an agricultural system must be holistic. However, as Spencer and Horvath have noted in another context in agricultural geography, the holistic concept is too broad to be used as an analytical tool.[1] Instead, they have suggested six different categories of cultural processes by which to study agricultural regions. The six categories of cultural processes suggested were: psychological, political, historical, technological, economic and agronomic.[2] While the approach in this work is essentially holistic in the inclusion of most aspects of the system, preferential consideration has been given to the cultural processes.

Although there is no accepted definition for plantation systems, the plantation form of agriculture has

---

[1] J.E. Spencer and R.J. Horvath, "How Does an Agricultural Region Originate?" Annals of the Association of American Geographers, Vol. 53 (1963), pp. 74-92.

[2] Ibid., p. 90.

attracted scholars from a number of different disciplines.[1] This study does not aim to define plantation systems, but accepts that the system had the following common characteristics: specialization in one crop, foreign ownership, high capitalization, large scale land and labor use, and production geared for export. These characteristics of the system

---

[1]A full list of works on plantations would run into several pages and is outside the scope of this study. However, some of the works which this writer found useful include the following: L.A. Best, "A Model of Pure Plantation Economy" Social and Economic Studies, Vol. 17 (1968), No. 3, pp. 283-326; Josiah Bowman, The Pioneer Fringe (New York: American Geographical Society, 1931); Horace B. Davis, "The Decolonization of Sugar in Guyana," Carribbean Studies, Vol. 7 (1967) No. 2, pp. 35-7; Clifford Geertz, Agricultural Involution (Berkeley: University of California Press, 1970); J.S. Furnivall, Netherlands India (Cambridge: Cambridge University Press, 1939); Ramiro Guerra y Sanchez, Sugar and Society in the Caribbean (New Haven: Yale University Press, 1964); W.K. Hancock, Survey of British Commonwealth Affairs, Vol. II, Parts 1&2 (London: Oxford University Press, 1940, 1942); U. Nla Myint, The Economics of the Developing Countries (London: Hutchinson, 1964); Gunnar Myrdal, Asian Drama (New York: Twentieth Century Fund, 1968); Pan American Union, Plantation Systems in the New World (Washington, D.C., 1959); Sir Alan Pim, Colonial Agricultural Production (London: Oxford University Press, 1946); Joseph E. Spencer, Land And People in the Philippines (Berkeley: University of California, 1952); Edgar Thompson, "The Climatic Theory of Plantation," Agricultural History Vol. XV (1941) No. 1, pp. 49-60; Pierre L. Van den Berghe, Caneville (Middletown, Conn: Wesleyan University Press); Leo Waibel, "The Climatic Theory of the Plantation: a critique," The Geographical Review Vol. XXXII (1942) pp. 307-10; Die Rohstoffgebiete des Tropischen Afrika (Leipzig: Bibliographisches Institut AG, 1937); "The Tropical Plantation System," Scientific Monthly Vol. 52 (1941), pp. 156-160; Ruth C. Young, "The Plantation Economy and Industrial Development in Latin America," Economic Development and Cultural Change Vol. XVIII (1970) No. 3, pp. 342-361. Works cited in the text have been excluded from the above list.

have been treated as static entities, and constant correlation in time and space of the gross features have rationalized the various characteristics and given them attributes which have been used to justify the perpetuation of the system. Also, these characteristics have been viewed as if they were independent of the subjective decision of man.

Wickizer has looked at plantations from the organizational point of view. He is overtly concerned about the difficulty of defining them as indicated in the following statement:

> To characterize various types of organizations for tropical (export) crop production in terms of systems is convenient but may be somewhat misleading. The plantation system is at one end of the scale and peasant farming at the other. In between are types of production not accurately classifiable in either category.[1]

This opinion is reiterated with the addition that since the Second World War, attention has been given to possible alternatives and there is an attempt to define plantations thus:

> The term 'plantation' has long been applied to large scale agricultural enterprises, located in tropical and sub-tropical areas primarily engaged in cultivating (and often processing) one or two crops out of a group of many which are peculiarly adaptable to conditions found in such places. With some exceptions, these crops will not thrive in temperate zones. The plantation systems in the past ordinarily involved the use of imported capital and

---

[1] V. D. Wickizer, "The Plantation System in the Development of Tropical Economies," Journal of Farm Economics, Vol. XL (1958), p. 69.

> management in colonial-type areas for the purpose of developing and exploiting export crops. It reached its highest state of development before World War II in the European colonies of Southern and Eastern Asia. Here, the scientific management of land, the development of improved varieties, cultural practices and processing techniques, the recruiting, housing and supervising of labour compared with methods employed by large scale industrial enterprises in Western countries.[1]

More recently, Courtenay has stated that there is no accepted definition of plantations.[2] His descriptions of the main attributes of plantations, though similar to those of Wickizer, have a number of extensions of viewpoints. Notable are his concepts of central management, year round production, products of little local value, and a system producing much profit and generally tied to the western capitalistic world.[3] The significance of the nineteenth century political and economic situation is emphasized as an important aspect in the evolution of the plantation system.[4] Courtenay extends his introductory statement that there is no definition of a plantation by suggesting that the distribution and evolution permits:

> . . . the recognition as plantations of a variety of types of growing tropical crops provided they are concerned with the scientifically organized production for sale of usually one principal commodity.[5]

---

[1] Ibid., pp. 63-64.

[2] P.P. Courtenay, Plantation Agriculture (London: Bell, 1965), p. 1.

[3] Ibid., p. 7.

[4] Ibid.

[5] Ibid., p. 69.

Courtenay absolves himself from taking into consideration the socio-political factors as contributing to the continuity of plantations by stating that:

> . . . [I]t is not a function of a geographical study to make moral judgments . . . . [W]hile equally a statement of the advantages of plantations for the most efficient or economic productions of a particular crop does not rule out the possibility that other means may be preferable on social grounds.[1]

This dissertation questions, as a point of departure, the basic assertion that the advantages of plantations gives a true perspective about the nature of plantations. In fact, it aims to show how at least in one plantation system continuity would have been disrupted had it not been for socio-political factors. Indeed, a much earlier work on plantations by Thompson explicitly emphasises that:

> The plantation is perhaps best defined in terms of authority and purpose of the planter not in terms of real estate or of population or of agriculture, although these are all necessary elements . . . . . [T]he plantation ends where the planter's authority ends . . . .[2]

Thompson also notes that the plantation is always an institution of the frontier and plantations are situated in the tropics not because of climate but because tropical areas represent the important and accessible agricultural

---

[1]Ibid., p. 4.

[2]E.T. Thompson, "Population Expansion and the Plantation System," American Journal of Sociology, Vol. XV (1935), p. 314.

frontiers.[1]

In Tanzania, the gross features of sisal cultivation have been so interwoven in the mesh of arguments which generally start with the characteristics of the plantation system that factors responsible for the genesis and continuity of these features are completely ignored. The opinion that sisal could be grown only in a plantation system was consequently thought to be based on objective factors. In reality, some of the major characteristics of the system were propped up by subtle reorganization and very subjective decisions taken by those who were in power. The gross features alone should not be used, as they have been in the past, to explain the perpetuation of sisal cultivation on estates. This analysis intends to show that the gross features were given continuity by modification from within and from without the industry. The cultivation of sisal in Tanzania could have taken several forms even before the independence of the country; that it did not is a reflection that agricultural practices are a product of time and culture. The 'suitability' of one form of cultivation was mainly the expression of the ascendency of one group of planters. Therefore, this study attempts to examine and explain some of the contradictions as well as to evaluate the impact brought about by the cultivation of sisal in an exclusive agricultural system. The natural sequel is to examine alternative forms of organization

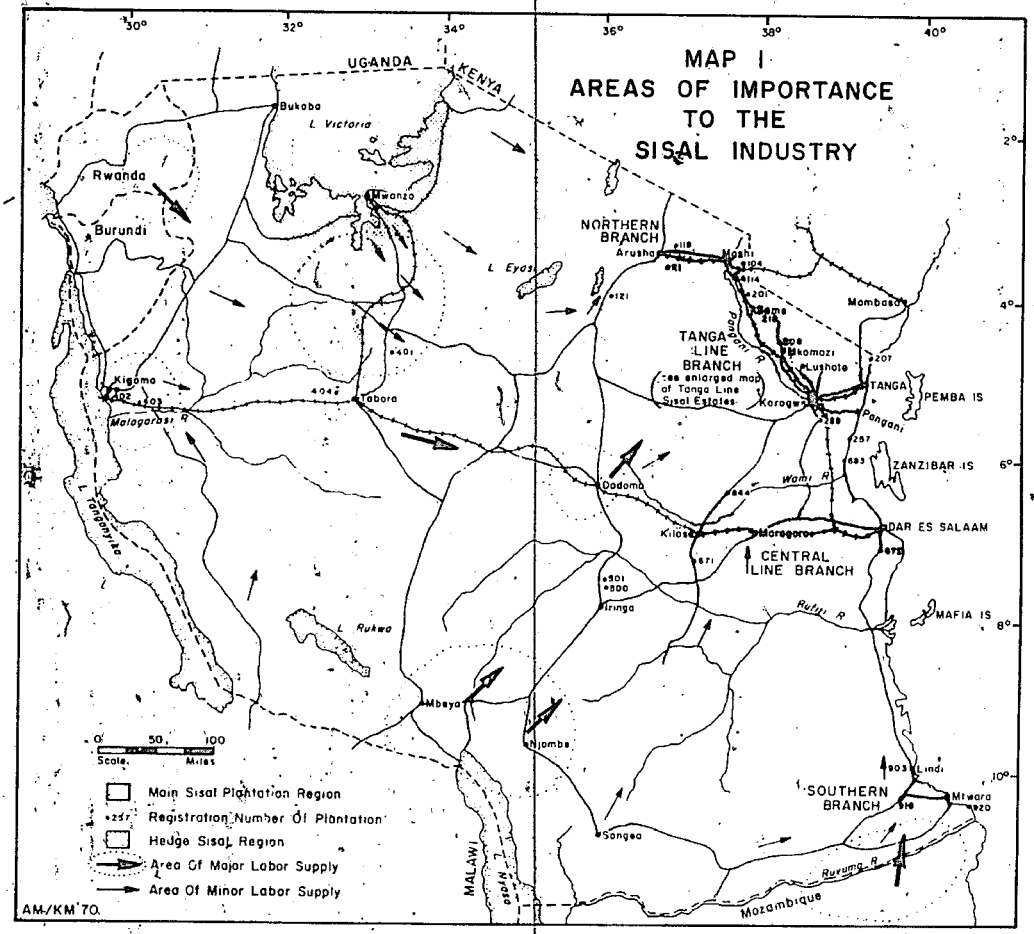
[1] Ibid., p. 315.

of sisal cultivation and to contrast their impact with previously held opinions.

Area Of Study

Plantation sisal is grown in four major areas in Tanzania [See Map 1 p. 11 below]. These concentrations are found on the northeast coast based on Tanga, a northern zone in the Kilimanjaro and Arusha regions, an elongated zone along the Central Railway Line and finally a southeastern coastal node in the vicinity of the port of Mtwara. Although variations exist, among the four sisal areas, the major factors under discussion are uniform for the four areas. For several reasons, specific examples have been drawn largely from the Tanga area. In the first place, sisal was introduced into and dispersed from this region. Secondly, Tanga also has the greatest concentration of estates. Thirdly, this area formed the core from which the major personalities and institutions influenced policy. Finally, it was largely in Tanga that one could observe the emergence of other forms of sisal cultivation.

It has also been necessary to impose a limit on the time span of the study. Thus, although it would be interesting to study modifications from the inception of the industry to its present state, the events which followed World War I provide a convenient break and from the point of view of documentation and consistency, the study will focus


MAP I
AREAS OF IMPORTANCE
TO THE
SISAL INDUSTRY
UGANDA
KENYA
Bukoba
L Victoria
Rwanda
Burundi
Kwanza
L Eyasi
NORTHERN
BRANCH
Arusha
Moshi
Mombasa
TANGA
LINE
BRANCH
see enlarged map
of Tanga Line
Sisal Estates
Mkomazi
Lushoto
Korogwe
TANGA
PEMBA IS
Pangani
ZANZIBAR IS
Wami R
Dodoma
Kigoma
Tabora
Malagarasi R
L Tanganyika
Kilosa
Morogoro
DAR ES SALAAM
CENTRAL
LINE BRANCH
Iringa
Rufiji R
MAFIA IS
L Rukwa
Mbeya
Njombe
SOUTHERN
BRANCH
Lindi
Mtwara
Songea
Ruvuma R
MALAWI
Mozambique
0 50 100
Scale, Miles
Main Sisal Plantation Region
•257 Registration Number Of Plantation
Hedge Sisal Region
Area Of Major Labor Supply
Area Of Minor Labor Supply
AM/KM'70.

largely upon the last fifty years. In following this line it has been possible to cover a continuous period from the British colonial rule to the present period of independence and nationhood.

Methodology And Sources Of Reference

Whenever scholars from particular disciplines study given topics, there is the danger of a disciplinary bias fossilizing these studies. In this respect, Watters notes that:

> All too often geographers confine themselves to the relationship between a land use institution and its physical environment, forgetting that this institution--like all institutions--is just as much the product of the type of society in which it evolved and the manner in which it functions.[1]

Indeed, sisal lends itself to the study of the inter-relationship between cultivation and physical environment.[2] The approach of the study will be multi-disciplinary in order to give a new perspective to the agrarian aspects of development in Tanzania. This stance is also called for because the synthesis of a problem in an agricultural form has so many facets that it cannot be narrowly examined. However,

---

[1]R.F. Watters, "Sugar Production and Culture Change in Fiji," Pacific Viewpoint, Vol. IV, No. 1 (1963), p. 26.

[2]C.M. Waller, A Case Study Of A Sisal Estate. Thesis, University of East Africa, Dar es Salaam, 1966.

the study makes no claim to be a model for economic evaluation of the sisal industry nor to being a thesis about the dissolution of power.

The cultivation of sisal has been considered important enough that several major studies have been written about it. The earliest major reference is the comprehensive account by the founder of the industry in Tanzania, Dr. Richard Hindorf.[1] More recently, there have been works confined to two major aspects of the sisal industry. First, there is the authoritative agro-botanical study by Lock.[2] Secondly, the economic aspects have been covered by Guillebaud in a study commissioned by the Tanganyika Sisal Growers Association [hereinafter, TSGA].[3] These works as well as various other publications provided valuable basic information for the study.

The consultation of primary sources produced some major problems. Initially, the intention was to begin at a level where the attitudes of individual planters were turned into a consensus. Unfortunately, the TSGA first ignored and then refused the request for permission to examine their

---

[1]R. Hindorf, Der Sisalbau in Deutsch-Ostafrika (Berlin: Dietrich Reimer, 1925).

[2]G.W. Lock, Sisal (London: Longmans, 1962).

[3]C.W. Guillebaud, Economic Survey of the Sisal Industry of Tanganyika (Tanga: Tanganyica Sisal Growers Association, 1958).

past working files. Despite the absence of some of the controversial documents including the entire series on labor, the working files at the National Archives opened an important and untapped source of information. This source provided insights at an institutional level. Information after the late 1950's begins to phase out from the National Archives. Six field trips to the Tanga area helped to reconstruct the more recent picture. Primary data were made available largely through the generosity of the Amboni Group of estates and the patience of a number of 'settlers' and peasants.

CHAPTER II

SISAL AND SISAL ESTATES

A proper perspective of the continuity and change of the sisal industry in Tanzania can best be appreciated by considering two inter-related aspects of the sisal plant: its botanical characteristics and the manner in which it has been exploited in Tanzania.

Sisal is one of many species in several genera now categorized in the family Agavaceae. Although the family is widespread in the New World, Mexico is the hearth of the two most important fiber bearing species, Agave fourcroydes or henequen and A. sisalana or sisal.[1] Although both species are hardy, the former is more widespread and this led to its early commercial exploitation on a large scale under the name of Mexican hemp or Mexican sisal or Henequen. The possibility that the latter species could be exploited elsewhere on a large scale was not lost on a few commercially-minded people. Around 1835-37 the American consul in Yucatan, Dr. Perrine, specially chose sisal, then considered a variety of A. rigida, for introduction into Florida.[2] A plantation

---

[1]Lock, Sisal, op. cit., p. 19. Also: E. Jerome Stuart, Report on the Fibre Industry of Yucatan Addressed to Sir Ambrose Shea, Governor of the Bahamas, quoted in Kew Bulletin Vol. CCLXXVIII (1892), p. 273.

[2]U.S. Senate Doc. 300 (Washington, D.C.: Govt. Printing Office, March 12, 1838). Also: "Sisal Hemp," Kew Bulletin, CCXXVII, (1892), p. 25.

was established there in 1846.[1] In the Indian War which soon followed, Dr. Perrine was killed and the plantation was abandoned. One of the legacies of Perrine's connection with the plant is its botanical name, Agave sisalana Perrine. The species name was derived from the old Mexican port, Sisal, later superseded by Progreso, as the outlet for the Yucatan fiber.[2] Commercially and popularly, the fiber is simply known as sisal. Since the late nineteenth century the plant has diffused widely from its ancestral home.

In appearance, the sisal plant is most impressive. It rises from a very short thick pineapple-like stem [See Plate I]. Radiating directly from the single stem are long, stiff, narrow, dark, bluish-green leaves. Among the agaves mentioned in this text sisal has the largest leaves. The maximum length of a leaf can be about 2 meters but generally the leaves are about 120cm long.[3] From the thick, almost triangular, butt end the leaf thins and broadens about 10cm and then tapers to a sharp lignified tip. Unlike the other varieties including Henequen, the edge of the sisal leaf is not spiny. New leaves appear from the center of the plant so that the older ones are on the outside and get more and

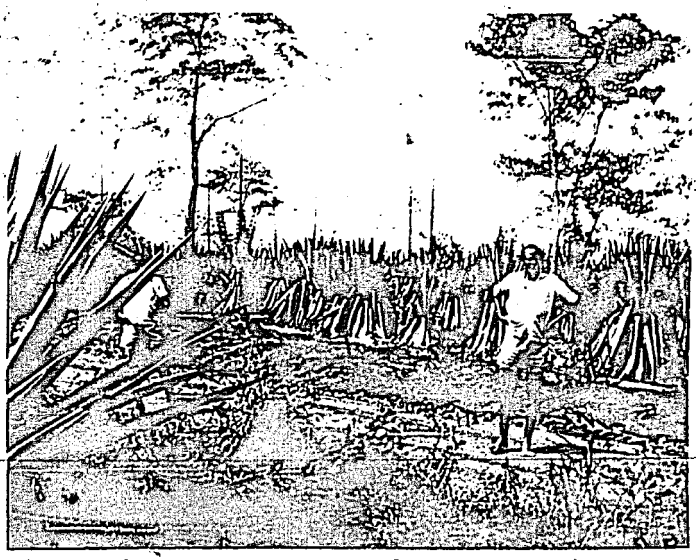
---

[1] Ibid., p. 30.

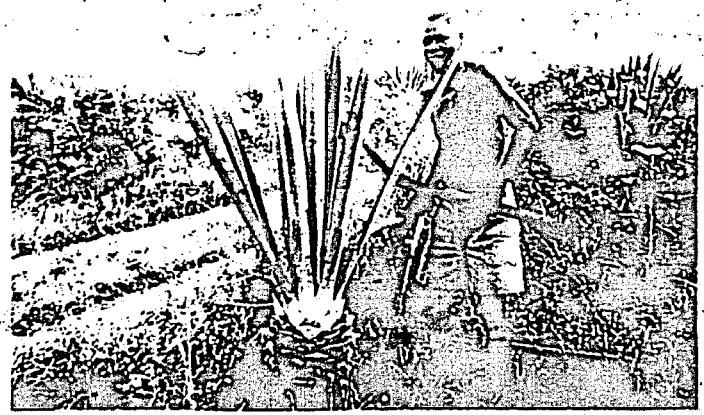
[2] Hamel H. Smith, Sisal, Production and Preparation (London: John Bale, 1929), p. 60.

[3] Ibid.

PLATE I



A. The foreground shows part of a mature sisal plant. In the background is a block of 'poled' sisal. The drooping leaves are a result of a recent grass fire.



B. A sisal cutter ending the life cycle of a sisal plant.

more inclined away from the center of the plant. Leaf growth takes place continuously so that harvesting can take place at any time. In addition, provided 20 or 30 leaves are left on the plant, harvesting the leaves in no way interferes with the completion of its life cycle. During its life time, the plant produces between 200-250 leaves.[1]

The weight of the leaves is directly related to the age of the plant. A leaf from a four year old plant can weigh as much as 1,000 grams but normally at two years (the age when the leaves can first be exploited) they are in the neighborhood of 550 grams.[2] Only a small proportion of the gross weight of the leaves is made up of fiber. Generally, the fiber, when extracted from the leaf, weighs between 10-30 grams depending on the age of the plant among other factors.[3] A maximum of only 5 tons of fiber can be obtained from 100 tons of raw leaf. Scutching the tissues to obtain the fiber is extremely laborious so that the widespread use of the fiber has, to a large extent, depended on mechanical inventions.[4]

Sisal is a hardy plant from several points of view. It will survive drought for a considerable length of time.

---

[1] Lock, op. cit., p. 26.

[2] Ibid., p. 128. Fig. 10.

[3] Ibid., p. 126.

[4] "Sisal Hemp," (1892), op. cit., p. 22.

Xerophytic adaptions include waxy leaves, leaves that can absorb moisture and a dual fibrous root system.[1] The root system is adapted to many soil types but is intolerant of wet and swampy soils.[2] Altogether, the plant does well in areas of low rainfall and is adversely affected by rainfall in excess of 70 inches per annum. Aridity prolongs the plant's life cycle. In Yucatan the home of the plant has been described as "gravelly, stony and in some places of a rocky character."[3] In Tanzania the plant has done well over a wide range of soil types from sandy red earths to grey volcanic soils.[4] Although in its wild state the plant could regenerate indefinitely, its systematic cultivation over long period can impoverish the soils of important minerals required by the plant.[5] Chief among these minerals are calcium, nitrogen, phosphorous and potassium. In addition, since sisal is a clone, it is genetically not easily changed.[6]

---

[1]Lock, Sisal, op. cit., pp. 18-34.

[2]J. Glover, "The Root System of Agave sisalana in Certain East African Soils," Empire Journal of Experimental Agriculture, Vol. VII (1939), No. 25, pp. 11-20.

[3]"Sisal Hemp," (1887), op. cit., p. 6.

[4]F. Leutenegger, "Provisional Reports of Soils of Sisal Estates in Tanganyika," Sisal Research Station, Milangano, Tanga: Research Bulletins, Nos. 12-19, (1955-56).

[5]Lock, Sisal, op. cit., pp. 173-195.

[6]Irwin H. Herskowitz, Genetics (London: Little, Brown & Company, 1962), p. 329.

The characteristics of the plant are, therefore more dependent on the vegetative development of the plant.[1] Lastly, the plant is not susceptible to large scale attack by disease or pests.[2]

As the plant reaches maturity the leaves become shorter and eventually a pole grows out from the stem of the plant. The upper end of the pole is tufted by small lateral branches which bear blossoms. Six months after their pollination, the blossoms bear fruit which produce sisal seeds.[3] In East Africa, however, with the major exception of high altitude areas (above 5,000 feet), the perfectly normal fertile flowers do not seed.[4] Fortunately sisal propagates vegetatively as a clone in two ways. First, arising from each flower stalk are buds which develop into plantlets. Each plantlet, which is known as a bulbil, is a complete miniature (2 to 3 inches in size) of a fully grown plant. A heavy pole can have from 2,000 to 3,000 bulbils.[5] As the

---

[1]Lock, Sisal, op. cit., p. 40.

[2]A comprehensive list of diseases is found in I.A. Black, Report on a Preliminary Survey of Sisal Diseases in Tanganyika Territory (Tanga: TSGA, Research Report No. 4, 1948). Routine preventive and curative measures are described in A Handbook for Sisal Planters, compiled at the Sisal Research Station, Mlingano, Tanga, for TSGA, 1965, pp. III/1-IV/12. (In this publication pages have roman numerals indicating the section, and arabic numerals for pages within the section, so IV/12 means page 12 of Section IV.)

[3]Lock, Sisal, op. cit., p. 29.

[4]Ibid., pp. 29-30.

[5]Ibid., p. 29.

plant dies, the bulbils, which are easily disentangled even by the wind, may take root when they fall to the ground. The bulbils are very hardy, however, and can be kept without planting for a considerable time.

Secondly, a plant one or two years old produces from the bottom of its bole a subterranean stem each with several buds. Generally, the terminal buds rise through the soil to produce new plants (suckers). The number of suckers produced per plant tends to decrease as the plant becomes old but as many as 20 suckers can flourish during the life-time of a plant.[1] The stem or rhizome can also be stimulated to produce suckers.

There is little to choose between the effectiveness of the two methods of vegetative reproduction. However, it is possible to get larger numbers of uniformily aged plantlets with bulbils than it is with suckers. It is also easier and quicker to collect large numbers of bulbils than it is suckers.

These botanical aspects have been described to show that the advantages of the plant can be enjoyed both by peasants and plantation owners. Briefly, the advantages include the ease with which the plant can be propagated in a variety of ways, its drought resistant quality which is a tremendous asset in an area that can be affected by long periods of drought and finally, the fact that the plant is

---

[1]Lock, Sisal, op. cit., p. 23.

not easily afflicted by disease and pests. The argument that it is a long-term plant and therefore not suitable for peasants cannot be substantiated because indigenous people in the area have accepted plants like the coconut which have an even longer waiting period before yielding returns.

The production of sisal, for which Tanzania has become world famous, was until recently carried out exclusively on estates. Even with alternate forms of production which have developed over the last 6 years, smallholders account for only 2% of the total output.[1] The major characteristics of estates, therefore, merit attention. Following a discussion of the general pattern, a case study of Kigombe estate has been included to illustrate the development of these characteristics in a specific sisal estate.

Main Features Of Estates

In principle, the organization and operations within an estate are aimed at taking every advantage of the botanical characteristics of the plant. An examination of the features of estates will also demonstrate that there is a close integration of cultivation, processing and settlement. In a visible manner, the land use in estates reflects the cohesion and control of these three fundamental aspects of

[1] TSGA - Annual Report, 1967-68, (Dar es Salaam: 1968), p. 51.

agricultural economy. A viable estate is normally operated so that there is a steady supply of leaf available throughout the year for processing. The economic operation of the expensive machinery used for processing strongly influences the acreages and organization so that together with the botanical characteristics of the plant there is a rhythm and pattern imposed on the agricultural system of an estate. In trying to assess resistance and change in the plantation system, the three fundamental aspects of an estate will be described and discussed separately.

Cultivation

Areally, the cultivated section covers the largest portion of any estate. Because of the magnitude and dovetailing of operations, the variety of land use over the cultivated area is not readily appreciated. Functionally, the cultivated area can be divided into three unequal sections. In the parlance of sisal growers these are: the nursery, areas under immature sisal, and areas under mature sisal.[1] [See Map 2]

Although sisal can reproduce naturally, the main aim of a sisal nursery is to produce large quantities of

---

[1] Lock makes the point that designating sisal as 'mature' when the leaves are ready to cut is incorrect. Botanically, the plant is mature when it flowers or poles. Lock prefers the term 'bearing' to mature. Lock, Sisal, op. cit., p.315.

uniformly high quality planting material in the shortest time possible.[1] Because young plantlets detached from the parent plant are vulnerable in the early stages, the nursery receives careful preparation and intense care. Wherever possible, the nursery is sited on an optimum location and proximity to the area of cultivation is also desirable. The primary concern, however, is to produce a favorable environmental situation in which the young plants can develop on good and well-drained soils. When the soils are dry their condition can be improved by irrigation or a polythene mulch may be used to attain the right level of moisture. On poor soils fertilizers may be used. Fortunately, a high density of cultivation of about 64,000 to 80,000 plants to a hectare makes it economically feasible to have nurseries. An estate replanting 125 ha. annually would require a nursery space of about 8 to 10 hectares. For reasons already described, bulbils rather than suckers are used as planting material in the nurseries. When the plants reach a height of 50 cm. to 70 cm., they are ready to be transplanted.[2] The intensity of cultivation makes it imperative to use a good deal of human labor.

Before the young sisal is transplanted, the land on the estate has to be prepared. The objectives are to clear and control weeds and other competitive vegetation, to break

---

[1] A Handbook for Sisal Planters, op. cit., I/1.

[2] Ibid., I/8.

up the surface crust and subsurface pans, and to combine and mix the organic and mineral components of the soil. As these operations are undertaken on a large scale, most of this preliminary work is now mechanized. The actual transplanting, however, is still done manually because every care must be taken to ensure uniform planting material.

To assure full development of the leaves, the young plants have to be spaced. Also, the spacing should be such that the needle pointed leaves can be cut without injury to the laborers. If it is planted too close, sisal can grow into an impenetrable wall. On level land it is planted in rows [See Plate IIA]. Mechanization of some of the activities has tended to favor long rows. Several parallel rows constitute a block of land representing plants which will be ready to be cut around the same time [See Plate IVB]. Blocks are separated from each other sufficiently to permit vehicles to be driven through during the harvesting period.

Within each block the sisal can be planted in single or double rows. More and more estates have tended to plant in double rows.[1] The distance between double rows, between plants and between pairs of rows can vary from 2 feet to

---

[1]The advantages stem from the fact that high plant densities are possible, intense shade between plants in each row suppresses creeping grasses more effectively and supervision is also easier. Because of the broad lanes between the double rows it is possible to use machines to control vegetation and it gives room for laborers to cut the leaves and heap them conveniently for collection.

4 feet, 2 feet to 4 feet, and from 10 feet to 18 feet respectively. The possibility of various combinations makes it feasible to have planting densities varying from 3,630 to 990 plants to an acre.[1] The precise spacing of plants and the size of blocks is dependent not only on the decision of the management but also on the fertility of the soil and configuration of the land. The effect of soil conditions on planting densities is summarized in Table I.

TABLE I.

SOIL CONDITIONS AND PLANTING DENSITIES

Soil Conditions	Approx. No. of Plants per hectare
Exceptionally fertile	6,600
Normal virgin land	6,000
Good rotation land	5,500
Normal rotation land	5,000
Rock terrain	4,700
Indifferent land	4,000

Source: A Handbook for Sisal Planters, "Field Spacing," op. cit., p. 1/9.

The time taken before sisal leaves can be cut varies from about 2 to 4 years. This is determined by soils, climate and the standard of husbandry. During the period when the land is under immature sisal considerable attention to weeds is required.[2] As many as ten weedings are necessary

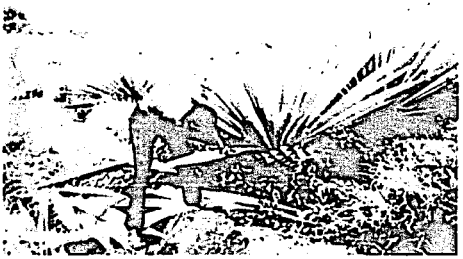
[1] Lock, Sisal, op. cit., pp. 329-330.

[2] Lock, Sisal, op. cit., p. 373.

PLATE II

A.

A sisal plantation landscape in the Tanga area. The sisal had been recently planted in a double-row pattern.

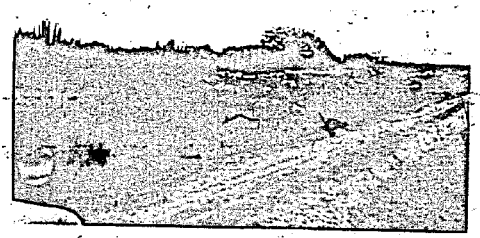


B.

A cutter harvesting sisal leaves from a healthy plant. The plant will continue to survive as long as 20 to 30 leaves are left on the plant.

C.

Cut leaves are bundled in batches of 30 leaves. The bundles are then piled in stacks of 1 metre by 1 metre.



per year. In the initial year the land may be disc-harrowed but this is discontinued later so as not to injure the root system. To invigorate their growth the plants have to be desuckered periodically. Erosion of exposed land makes it necessary that a non-competitive cover crop be grown between sisal rows. The most favored cover plants are legumes, such as the kudzu, soy beans or peas. Non-leguminous crops like cotton, maize and sesame have also been cultivated between rows but these tend to retard the growth of sisal by as much as 6 months in areas of mediocre soils.[1] As a reflection of the care and attention received, land under immature sisal is typically neat in appearance.

Harvest

Once the plant is 'mature' the focus of activity is no longer on care but on exploitation. In extreme cases, dense grass and weedy undergrowth manifest the reduced care. A sisal plant is ready for harvesting when the leaves are in excess of 60 cm. in length or when they begin to touch the ground.[2] At this stage the plant can have from 80 to 150 leaves [Plate IIB]. Harvesting consists of the leaves being cut as close to the bole as possible [See Plate I]. The lignified tip of the leaf is also lopped off. Harvested

[1] A Handbook for Sisal Planters, op. cit., p. I/17.

[2] Ibid., p. I/18.

leaves are assembled in bundles which are then stacked at conventient gathering points [See Plate IIC]. Each bundle consists of 30 leaves.

The plant can continue to grow as long as 20 to 30 leaves are left after each cutting. Where soil fertility and growing conditions are generally favorable, fewer leaves can be left. The actual number of leaves cut and the frequency of exploitation depends on economic adjustments. For instance, too frequent cuttings is expensive and unfavorable prices may tip the balance in favor of under exploitation. Exploitation of sisal leaves goes on from 4 to 6 years. When 80% of the plants in a block have poled, the cycle is complete and cultivation has to be started afresh.

In Tanzania the management of the estate is responsible for both cultivation and processing. There are advantages in this type of organization but it is not the only arrangement possible. For example, circumstances very similar to those prevailing in the sisal industry occur in cultivation of sugarcane but in the West Indian sugar industry cultivation is sometimes divorced from processing.[1] The advantages of integrating cultivation and processing have appeared largely because of the high ratio of waste to fiber. With the very maximum yields this ratio is in excess of 20

[1]E. Helmut, "Types of Agricultural Regions and Land Tenure in the West Indies," Revista Geografia, No. 67 (1967) pp. 1-17.

to 1 and it can be as high as 40 to 1. Therefore, until processed, the sisal leaves are heavy and bulky and of very little value. Also, the leaves deteriorate quickly and must be processed within 1 to 2 days after cutting. Thus, the ideal location for the processing factory is one that is as central to the estate as possible.[1]

The factory forms the nerve center of a sisal estate. It is at the office of the factory that day to day decisions are taken, statistics are gathered, orders for stock are made out, and from which the finished product is despatched. The factory also has a workshop where most of the repairs to equipment are undertaken. But more important, it is at the factory that one finds the processing complex which includes decortication, drying, brushing, baling, and storage.

The fiber can be crudely extracted manually by beating the leaves to pulp and then drawing the leaf between a firmly embedded knife and a block of wood. Small mobile machines known as raspadors can also be used. In principle, this machine consists of a broad flat rimmed wheel to which are attached a number of iron blades or beaters which smash the leaves against an attached concave breast plate. Leaves are fed endwise. This involves feeding one end at first and then withdrawing the crushed leaf and inserting the other end. Between 400 and 500 leaves can be processed per hour on

---

[1]L.A. Notcutt, Sisal Techniques (London: John Bale, 1923), p. 29.

one raspador. In Tanzania, the trend of the estates right from the inception of the sisal industry has been towards large automatic machines, decorticators. In a large decorticator as many as 25,000 leaves can be processed per hour.[1] In this system a conveyor belt carries the leaves crosswise to two large, heavy rotating drums which with one sweep crush and scrape off the fiber from the leaves. Although in all types of processing machines the fiber has to be cleaned of its pulp and juices, the large decorticator simultaneously crushes, extracts and washes the fibers. A minimum of 8,000 gallons of water per hour is required for a decorticator to clean the fiber and also dispose of the waste.[2] The sheer size of equipment and the great quantity of water required make it necessary that the decorticator is fixed or mounted permanently in a factory.

As each leaf is processed, hanks of fibers emerge from the decorticator [Plate IIIB]. The hanks are accumulated and eventually transferred to the drying grounds where they are evenly spread on suspended poles or on three stranded wire drying lines [Plate IIIC]. The drying grounds required for a decorticator processing an average 5 tons of fibers per day is 1 1/2 to 2 hectares, normally of level land which has a grass cover to prevent the fibers from being discolored. In a matter of a day or a few hours the

---

[1]Lock, Sisal, op. cit., p. 290.

[2]Ibid.

sisal fiber, which had been wet and slightly tinged with green due to chlorophyll from the leaves, is bleached white and dry. Without disturbing the natural alignment of the hanks, the fiber is taken to the machine known as the brusher [Plate IIID].

The purpose of a brushing machine is to comb and free each fiber. As a handful of fiber hanks are fed into the machine they are beaten and brushed so that the fibers are straightened while at the same time the short fibers or tow are ejected.[1] Wisps of the long clean fibers are then inspected, graded and without folding put into a packing container where they are weighed and compressed by means of a hydraulic baler. The dimensions of each bale are roughly 56cm. x 56cm. x 137cm., so as to give 4 bales per ton. The bales, which can be wrapped in hessian and secured with steel straps or sisal rope are then stencilled with the estate mark, grade, date and other relevant information. After this has been completed, the bales are taken to the store where they are ready for despatch.

Settlement Pattern

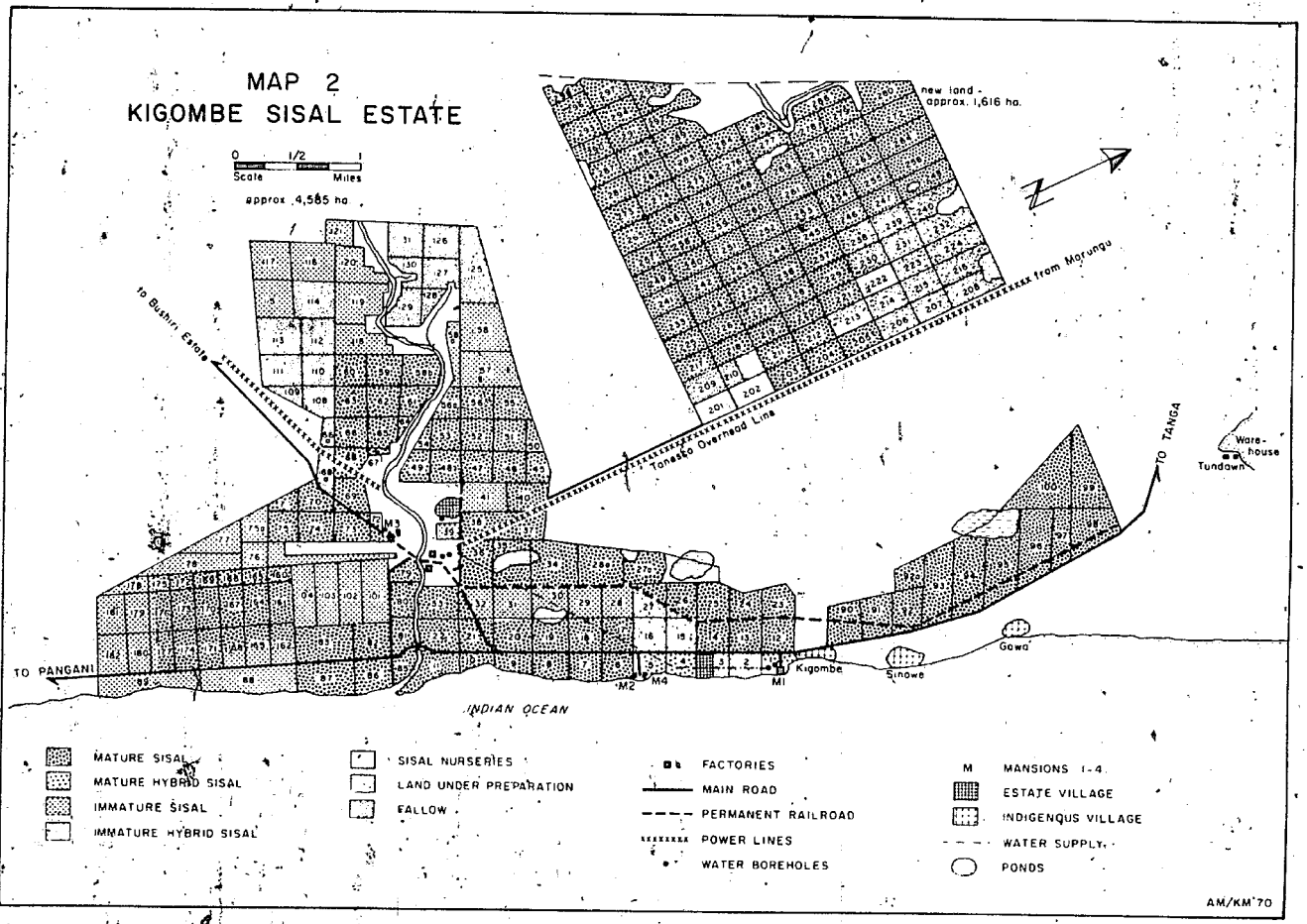
After this description of the cultivation and processing on an estate there is need to comment on settlement,

[1]During the decorticating process short fibers are also ejected with the waste. The short fibers known as flume tow are collected from the waste, and sold as padding material.

which is the third spatial element in an estate. Despite the mechanization of many of the activities on an estate, it still remains a labor intensive enterprise. A distinctive settlement pattern is therefore closely associated with the cultivation of sisal. The large amount of labor can partly be explained by the sheer magnitude of logistics within even the smallest estate and the difficulty of mechanizing some activities. Thus, a Corona decorticator processing 25,000 leaves per hour would require some 240 laborers even at the prevailing maximum rate of cutting. The dexterity and judgment required for cutting the leaves and leaving enough on the growing plant have yet to be mechanized. The availability of cheap labor also brought about a stagnation in the evolution of new forms of mechanization. For instance, transplanting which is still done manually could have been mechanized. As it is, as many as 40 laborers are required for a period of 2 months to replant 125 hectares.

In the heyday of sisal the working population in many estates exceeded 1,000 workers. They were housed in spartan dwellings which formed a nucleated settlement on the estate. Amenities often included club houses, sports fields, a place or places of worship, a market and shops. Surplus labor and some workers also dwelt in neighboring villages which grew as satellite centers close to estates.

At this stage it is only intended to establish the fact that a sizable labor force is required to satisfactorily


MAP 2
KIGOMBE SISAL ESTATE
0 1/2 1
Scale Miles
approx. 4,585 ha
new land - approx. 1,616 ha.
to Bushiri Estate
from Morungu
Tonasco Overhead Line
TO TANGA
Ware-house
Tundawa
TO PANGANI
INDIAN OCEAN
M2
M4
M1
Kigombe
Sinowe
Gowa
MATURE SISAL
MATURE HYBRID SISAL
IMMATURE SISAL
IMMATURE HYBRID SISAL
SISAL NURSERIES
LAND UNDER PREPARATION
FALLOW
FACTORIES
MAIN ROAD
PERMANENT RAILROAD
POWER LINES
WATER BOREHOLES
M MANSIONS 1-4
ESTATE VILLAGE
INDIGENOUS VILLAGE
WATER SUPPLY
PONDS
AM/KM '70

operate an estate. Control over labor could best be assured if the workers lived on the estate. Matters pertaining to labor will, however, be elaborated upon elsewhere.

Kigombe Sisal Estate[1]

Kigombe Sisal Estate is located in the Tanga Region. It lies adjacent to the coast and astride the road connecting the two ports of Pangani and Tanga. The location of the estate in the core area of the sisal country has also been strategic in the sense that the nucleus of the sisal industry was established close to the former town while the latter port has since emerged as the sisal capital of the world. [See Map 1.]

The real or apparent reasons for the selection of the site are not difficult to reconstruct. The first attraction is the flat, low-lying country with a general altitude of 30 feet above sea level. Even in the days before sisal cultivation was mechanized, the almost level land would still be considered as a favorable attribute. The only major interruptions in the physical monotony of the Kigombe landscape are a small stream and several minor water-logged depressions. The location of processing plants close to natural

[1] Most of the material in this section is derived from interviews with the Management of the Amboni Group of Estates and the Manager of Kigombe Sisal Estate, Mr. Brunner, and from observations made during three field trips. Citations are made only for material derived from other sources.

sources of water supply has always been imperative. As indicated before, this is because large quantities of water are required during the extraction of the fiber and the subsequent disposal of waste.

Thirdly, the first impression that the German settlers got of the area is that it was a dry country. For instance, natural vegetation, the visible climatic indicator of the area, consists of a cover of short grass dominated in places by grotesque baobab trees. The monotony is broken by low lying areas marked by taller grass and the doum palms. The actual rainfall experienced fluctuates and monthly and annual variations can be considerable [See Table II]. The unattractiveness of the physical environment was not without advantages to prospective plantation owners. Earlier German settlers had been held off by the nature of the country and its distance from the two towns, Pangani and Tanga. Large scale enterprises needing land cheaply for a crop which was essentially xerophytic could benefit from the disinterestedness of the cautious settlers.

Agriculturally, the land was not suitable for dense settlement but this is not to imply that the land was empty. The concept of empty land cannot be supported from traditional land rights concepts. The forerunners of the estate settlement, in fact, were a number of small villages. The largest of these was Kigombe, from which the estate took its name. [See Map 2] The villages were completely displaced by the

TABLE II

Kigombe, Monthly Rainfall (in mm.), 1964 and 1968

Month	1964	1968
January	35.7	---
February	25.5	42.9
March	47.3	343.1
April	212.3	448.3
May	102.2	282.1
June	15.6	309.1
July	18.8	36.2
August	16.2	40.0
September	16.7	6.0
October	137.5	89.3
November	12.6	286.5
December	87.0	192.2
Total	727.4	2,076.0

Kigombe, Annual Rainfall (in mm.), 1927-1968

Year	Rainfall	Year	Rainfall	Year	Rainfall
1927	1,376.0	1941	1,156.1	1955	1,364.0
1928	907.0	1942	1,120.4	1956	757.3
1929	871.0	1943	1,139.5	1957	737.3
1930	921.0	1944	1,520.5	1958	1,176.5
1931	1,411.0	1945	1,131.9	1959	1,435.7
1932	1,174.0	1946	1,520.5	1960	1,290.5
1933	854.4	1947	1,413.4	1961	1,723.8
1934	1,256.0	1948	1,610.3	1962	945.3
1935	1,615.1	1949	634.6	1963	1,552.6
1936	1,936.5	1950	837.3	1964	727.4
1937	1,129.4	1951	1,573.3	1965	988.7
1938	1,525.2	1952	858.7	1966	1,327.4
1939	1,419.2	1953	1,082.7	1967	1,738.2
1940	1,524.7	1954	827.7	1968	2,076.0

Source:- Kigombe Sisal Estate, Rainfall Data.

Germans. The traditional attempt to make the best use of the environment is reflected even today in the duality of the major enterprises of the villagers who are both fishermen and agriculturalists.[1]

The estate was first developed by the German owned 'Sisal Agaven Gesellschaft'.[2] As its name implies, its sole interest was in sisal and it soon joined the first few companies already beginning to show confidence in sisal cultivation. In 1904, 158,000 sisal plants were cultivated on 50 ha. By 1907, 400 ha. were already under cultivation and produced 100 tons of sisal.[3] Only about a quarter of this concession of nearly 3,000 hectares had been developed by the Germans. Like most German properties, it was expropriated after World War I and turned over to a progressive Swiss Company called Amboni Sisal Estates. Extension was slow during most of the 1930's because of poor economic conditions. However, by 1945 the acreage under cultivation was enlarged to approximately 1,220 hectares. Thereafter, with the beginning of the sisal boom, the increase was more rapid [See Table III].

---

[1]Leif C.W. Landberg, We Are All Ndugu: Social Composition of Ngalawa Fishing Crews in a Swahili Village of Mrima Coast (University of East Africa, Social Science Conference, Kampala, Dec. 1968), p. 1. Also, personal communication with the author.

[2]K. Braun, "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. IV, No. 4 (1908), p. 49.

[3]Ibid.

TABLE III

ANNUAL INCREASE OF CULTIVATED AREA AT KIGOMBE, 1947-52

Year	Area in hectares
1947	42.0
1948	118.70
1949	106.75
1950	144.00
1951	198.60
1952	270.85
TOTAL increase in acreage 1947-52	880.90
AREA cultivated up to 1947	1,220.35
TOTAL CULTIVATED AREA, 1952	2,101.25

Source: Compiled from Cultivation Records, at Kigombe Sisal Estate, Kigombe.

The 1,616 hectares of the new concession which lay to the northeast and which had been acquired after World War II were not developed until a decade later. At the present time, however, nearly 90% of the total property of 4,585 hectares is utilized.

Functionally, the estate is divided into three areal components represented by the sections set aside, first, for cultivation; secondly, for processing and associated activities and, thirdly, for settlement [See Map 2]. These three aspects have been closely integrated so that the factory is located approximately at the center of the estate and the settlements, sited within the cultivated area, reduce the distance that the laborers have to travel to work. By far

the largest part of the estate, nearly 4,000 hectares, is utilized for cultivation.

The operation within Kigombe Estate is more akin to an industry than to agriculture and thus contrasts sharply with the indigenous agricultural practices. For instance, production and cultivation goes on the year round. Planning is undertaken several years ahead of time and exploitation is very systematic. Thus, the cultivated area exploited in 1969 consisted of acreages which had cumulatively been cultivated from 1961-66. [See Table IV]

The 54 hectares of nurseries are located in several different parts of the estates which are to be replanted with sisal. [See Map 2] Because of the care devoted to the nurseries it has been possible to cultivate 80,000 plants per hectare which appears to be about the maximum density possible. Transplanting is carried out after a period of 12 to 18 months.

The estate has a battery of expensive equipment to assist in cultivation. There are six wheeled tractors, two D-4 caterpillars, 2 Rome Ploughs, 5 Goble disc harrows and 3 Gyramos (grass cutting machines). The clearing and preparation of the land is therefore almost entirely mechanized. However the transplanting is still done manually.

Planting densities are relatively high at 4,800 plants to a hectare. After planting, the main nutrient added is about 100kgs of potash per hectare. In recent years no cover

TABLE IV

ORIGIN OF THE 1969 SISAL CROP AT KIGOMBE ESTATE

Planting Year	Hectares of Bearing sisal	Hectares of Unbearing sisal
1961	995	----
1962	196	---
1963	373	---
1964	616	---
1965	273	---
1966	123	98
1967	---	355
1968	---	241
1969 Accumulated Total	2,576	694

Source: Compiled from Status of Field (Charts), Kigombe Sisal Estate.

NOTE: The cultivated area in 1969 at Kigombe might be functionally divided into the major categories shown in TABLE V.

TABLE V

FUNCTIONAL CLASSIFICATION OF CULTIVATED AREA

Land Use	Hectares
Mature Areas (including Hybrid)	2,694.45
Immature Areas (including Hybrid)	691.35
Under Preparation	277.50
Fallow	283.35
Nurseries	51.00
TOTAL ACREAGE cultivated and fallow	3,997.65

Source: Compiled from Land Use Maps, Kigombe Sisal Estate.

crop has been grown. To keep costs down, only 4 to 6 weedings are now undertaken. The first cutting is made 24 to 26 months after transplanting. During the first harvest 30 leaves per plant are cut and thereafter 22 to 25 leaves at intervals of 10 to 14 months.

A large force of laborers is required to cut the leaves [See TABLE VII]. The cut leaf is transported over an internal light, narrow-gauged rail system [Plate IIIA] and, where necessary, by trailers hauled by tractors. In all, there are 35 kilometres of rail on the estate and 373 rail-cars drawn by ten simplex locomotives.

The estate operates two of the large D/4 Corona Krupp decorticators [Plate IIIB]. Nearly 100 tons of sisal fiber were produced per day in 1968. Power for operating these machines is tapped from a natural electric grid system (Tanesco). A pond and three bore holes produce 26,500 gallons of water per hour. Disposal of waste has been facilitated by the siting of the two decorticators close to a small stream which empties into the ocean. Adjacent to the factories are two drying grounds [Plate IIIC]. There are 10 twin Kanzler and 4 other brushers [Plate IIID]. Sisal bales are first stored at the estate before being taken to Tanga on trucks belonging to contract transporters. During 1968 the estate produced 3,644 tons of fiber of the different categories shown in Table VI.

TABLE VI

GRADES OF SISAL FIBER PRODUCED IN KIGOMBE IN 1968

Grade of Sisal	Production in tons
A	192
2	286
3L	2,282
3	531
UG	98
Tow 1	231
Tow 2	24
Total	3,644

Source: Compiled from Production Data, Amboni Estates, Amboni.

During the heyday of sisal, Kigombe employed over 1,000 laborers. Because of the rise in wages since 1962, the number of laborers was reduced to 680 in 1966. Table VII, which shows the job allocation of workers, also indicates the extent to which labor must be used despite mechanization.

Most of the workers are housed in two settlement units within the estate [See Map 2]. Altogether, Kigombe and the other estates which form the Amboni Group have a reputation for maintaining a comparatively high standard of housing. In addition to the workers living on the estate, there is a floating labor force available at the villages of Kigombe and Sinowe. Amenities include a community hall, a market, shops, and Christian and Moslem places of worship. An emergency dispensary takes care of first aid and minor

TABLE VII

KIGOMBE: JOB ALLOCATION OF WORKERS IN 1966

	Number
Supervisory Staff	38
Field Operations	
a. Hoeing, clearing of land, etc.	102
b. Cutters	270
c. Others	54
Factory Production	
a. Decorticators and Baler Room	85
b. Maintenance of Equipment and Factory	43
Transportation	38
Welfare	10
Administration	9
Unclassified workers	32
Total	680

Source: Extracted from an unpublished survey of labor carried out by the Amboni Group of Estates.

illnesses. A full hospital is maintained for the whole group of the Amboni Estates at the headquarters near Tanga. At present, there are only four expatriates working on the estate.

Kigombe Estate differs in one major aspect from the other estates in Tanzania in that it utilizes sisal waste to produce hecogenin. Waste juice from the crushed leaves is fermented and chemically treated to form hecogenin which is a base for producing cortisone. Apart from the equipment and 32 extra laborers at the hecogenin plant, the operations on the estate are not otherwise modified.

Kigombe, like the other sister companies which form the Amboni Group, is among the few that have a consistently high reputation for productivity and efficiency. By contrast a few of the estates which had started during the same period have already ceased operating. Yields at 1.4 tons to a hectare at Kigombe are above average. Fiber content at an average of a ton from 17.36 metres of leaf is also above average. The estate has already cultivated nearly 100 hectares of the prolific hybrid sisal. Other innovations include an automatic feeder table which aligns and regulates the flow of sisal leaves into the decorticator, thereby increasing the efficiency of the machine and cutting down the labor needed to operate the decorticator. The reputation of the Amboni Group of Estates extends beyond the improvements in cultivation practices and the use of machines and also includes progressive policies for national development.

CHAPTER III

THE INITIATION AND DEVELOPMENT OF THE SISAL PLANTATION SYSTEM IN GERMAN EAST AFRICA

Although Germany claimed a territory of some 384,000 square miles in East Africa, her influence over the country was extremely varied and uneven.[1] The northeastern sector had the earliest and strongest German influences. Despite the lapse of nearly 54 years since direct German influence was terminated by World War I, the area agriculturally still bears the imprint of the German period when it became a plantation area *par excellence*. The selection of this area for development by the Germans was partly due to its attractive physical attributes and partly to historic events which shaped the acquisition of the colony.

The gateway into East Africa for most colonial enterprises during the nineteenth century was the offshore island of Zanzibar. A number of caravan routes converged on the mainland coast opposite and to the north of Zanzibar partly

---

[1]For a general account of German claims and their recognition in East Africa see Roland Oliver and Gervase Mathew, *History of East Africa*, Vol. I, (London: Oxford University Press, 1963), and Vincent Harlow and E.M. Chilvers, *History of East Africa* Vol. II, (London: Oxford University Press, 1965). A more recent work is P. Gifford and W.R. Louis, *Britain and Germany in Africa* (New Haven: Yale University Press, 1967). A detailed and authoritative account of the demarcation of the boundaries can be found in E. Hertslet, *The Map of Africa by Treaty* (London: Harrison and Sons, 1894, reprinted by Cass, 1967.)

because the terrain there was easier to cross. On the mainland the largest coastal caravan center was the town of Bagamoyo which is on the coast opposite Zanzibar. North of Bagamoyo there were important caravan centers at Sadaani, Pangani, Mtangata, Tanga and Moa [See Map 3 inset]. Proximity to Zanzibar and the convergence of established route-ways into the interior were major reasons why the northeastern sector of East Africa drew the attention of the Germans. The descriptions of Baumann, the explorer and geographer, give considerable insight into contemporary evaluations of routes, settlements and trade possibilities.[1] Specifically, he notes that the northern routes were more significant to the Germans because they were not under the influence of the Arabs and because they were among the safest caravan routes in Africa.

Another important consideration of the region was the juxtaposition of the highland areas to the coast [See

---

[1]In the late 1880's Dr. Oscar Baumann was commissioned by the German East Africa Society to undertake an exploratory trip in the northeastern part of German East Africa. His findings are well documented in O. Baumann, Usambara und Seine Nachbargebiete (Berlin: Reimer, 1891). The pages cited in this text refer to an unpublished translated version: O. Baumann, Usambara and Its Neighbouring Regions, translated by Mrs. M.A. Godfredsen, mimeo, 1968.

[2]Baumann, op. cit., p. 182. It will be noted also that several Europeans visited the Western Usambara before Baumann, notably J. Rebmann and J. Krapf (1848-1852), Sir Richard Burton and William Henning Speke (1857), Otto Kersten and Baron Carl Claus von der Decken (1861) and J.P. Farler (1877).

Map 3 inset]. European fascination with the East African mountains had been triggered by the snow-capped peak of Kilimanjaro--the highest mountain in Africa. This esoteric interest was soon followed by the lure of developmental possibilities which the highland areas promised. Nowhere else in East Africa do the highland areas come so close to the coast for, aligned south southeastwards from Mount Kilimanjaro, is the massif of the Pares, and overlooking the coast are the Usambara Mountains. The close proximity of the highland belt therefore acted as a powerful magnet for European activities.[1]

The subjective judgment of the early European commentators was that the highlands were preferable to the lowland areas.[2] Despite some reservations about the suitability of the region for northern Germans (in contrast to southern Europeans), Baumann states that:

---

[1]In this respect it will be noted that the highland area of South Central Tanzania which is farther from the coast contrasts with the highland area of North Eastern Tanzania. Pioneer groups moved into the former area in 1904-1905 or almost 15 years later than in Usambaras. And, as Gillman notes, it was not until 1925-27 that Europeans made a concerted effort to settle in the area. C.C. Gillman, "White Colonization in East Africa," Geographical Review, Vol. XXXII (1942), p. 587.

[2]Farler calls the Usambaras the Switzerland of Africa. J.P. Farler, "The Usambara Country in East Africa," Proceedings of the Royal Geographical Society, New Series, Vol. I (1879), p. 82. Burton and Speke were equally impressed. R.F. Burton and J.H. Speke, "A Coasting Voyage from Mombasa to the Pangani River," Journal of the Royal Geographical Society, Vol. XXVIII (1858), pp. 215-6.

> . . . [H]owever, it seems to me beyond all doubt that these cool fertile regions will prove to be, if not absolutely healthy, at least far healthier than the depressions. The pleasant air, the for the most part excellent drinking water, the availability of abundant sources of food, all these factors seem to me to speak very much in favour of these mountain regions. If there is any region of Central Africa at all where the European can live for many years without injury to his health, then it must be here . . . .[1]

In contrast, in the lowland areas man had to contend with disease, especially malaria, and the range of crops which could be grown was limited.

Physical Features

The physical geography of the area is dominated by two very contrasting areas, the coastal lowlands and the highland areas of the Usambara Mountains. At altitudes below 500 feet the coastal lowlands are widest along the valleys of two major rivers, the Umba in the north and the Pangani in the center [See Map 3 inset]. The lowlands reach a maximum width of 25 miles along the Pangani. There are numerous minor streams and tributaries of the two rivers just mentioned but most of them are intermittent. Similarly, several creeks encroach into the lowland areas. The lowland surface is far from uniform and in the center and north vigorous stream action has broken the limestone area considerably.[2]

---

[1]Baumann, op. cit., p. 193.

[2]H.J. Cook, "The Cave System of the Tanga Limestone," Tanzania Notes and Records No. 67 (1967), pp. 1-14.

Towering above the coastal area is the Usambara Mountain complex. At Shagein 8,428 feet high the mountains reach their highest point. The mountains are sharply defined along the Western edge. The eastern flank is comparatively lower and the river Lwengera separates the outliers from the main mass. The Usambara complex is broken up into several units.

The contrasting types of physical forms have also had distinctive climatic and vegetative effects. There is a marked variation in the rainfall and temperature of the lowland and the highland areas. In the highland areas there is abundant water and the vegetation was organized originally luxuriant. At higher altitudes this gave way to cattle pastures. Baumann noted that at altitudes above 1,500 metres the crops of the lowland areas notably grains such as sorghum, maize and leguminous plants no longer grew well. However, bananas and other fruits and vegetables were abundant.

The major distribution of settlements and population is easy to explain in the general framework described above, but more difficult when it comes to the details. Clinging to the coast where fresh water was available were villages separated by large tracts of 'empty' land.[1] An additional reason for this picture of 'empty' land was that when grains are cultivated with the associated system of bush fallowing

---

[1]Burton and Speke, op. cit., pp. 188-220. Baumann, op. cit., also has several references to the coastal settlement pattern.

there is a misleading impression of unused land. Baumann states that in the foreland zone he came across "extensive inhabitable but uninhabited areas."[1] Raiding Masai groups had caused most people in the Pangani Valley and the surrounding areas to retire to fortified villages or into the highland areas.[2] Baumann concluded that there was ample land available.[3] In the Usambaras, forests and the ease with which settlements could be fortified hindered Masai raids, and Burton's impression was that parts of the highland areas were thickly inhabited.[4]

The range of physical environment made it possible for the indigenous people to grow a variety of crops. When the Germans took over the land, they too had several alternatives for agricultural development. Not all Germans responded to the possibilities in the same way and therefore the origins of the sisal plantation system in the Tanga area can best be appreciated in the perspective of four inter-related questions. First, what was the status of the external economies of this part of the country shortly prior to and following, the establishment of German rule in East Africa?

---

[1]Baumann, op. cit., p. 190.

[2]Burton and Speke, op. cit., and Baumann, op. cit. Both works describe the rise of fortified villages to stave off Masai raiders.

[3]Baumann, op. cit., p. 190.

[4]Burton and Speke, op. cit., p. 216.

Secondly, what were the pressures to obtain colonies and how did the Germans take control of the country? Thirdly, why, and to what extent, did the Germans initiate agricultural development? Fourthly, did the cultivation of sisal provide advantages which facilitated its development?

External Economy

The main agricultural activity of this region before the arrival of the Germans was of a subsistence type. There was a modest local trade in agricultural products.[1] Despite the increasing tempo of Arab intrusion a few decades before the arrival of the Europeans in the nineteenth century, the Arabs did not have the interest or technology to stimulate the agricultural development anywhere but in the immediate vicinity of the coast. The difficulties of transportation tended to restrict the long range export trade to those items which had a high value per unit volume. This test was best

---

[1]S. Fierman, "The Shambaa," and I.N. Kimambo, "The Pare," in Tanzania Before 1800, edited by Andrew Roberts, (Nairobi: East African Publishing House, 1968), pp. 3-4 and 25-28 respectively.

Burton and Speke, op. cit., pp. 199-200, 211-12. On p. 215 they mention that Kimwere, one of the chiefs of the Usambaras, collected taxes in the form of agricultural produce which was then sent to the coast for trading purposes.

Baumann, op. cit., has several references to markets and exchange. In Chapter 9 he summarizes the economic value of the region.

stood by ivory and slaves.[1] These products of plunder and raiding supplemented each other.[2]

Regionally, the coast and the offshore islands were an exception to the general picture described above. The impetus for agricultural development was particularly strong near the main caravan centers of the coast, and indeed, Arab settlers and some Swahilis through the use of slave labor participated in agriculture. Therefore, superimposed on the indigenous agricultural practices of the coastal area was a plantation system initiated by the Arabs.[3] The main products cultivated on these plantations were cloves, coconuts, sugar, rice and a variety of fruits. However, with the exception of cloves, the important items of the external economy were those derived from gathering copal, wax and mangrove poles.

---

[1]Burton and Speke, op. cit., p. 200, estimates that in the 1850's 70,000 lbs of ivory passed annually through Tanga, and 35,000 lbs. through Pangani.

Baumann, op. cit., pp. 183-4, feared that the trade in ivory would lead to the extermination of the elephant.

[2]Meyer estimates that between 100,000 to 200,000 slaves were taken from 1880 to 1890. Hans Meyer, Das Deutsche Kolonialreich (Leipzig & Wien: Verlag des Bibliographischen Instituts, 1909), p. 391.

[3]Burton and Speke, op. cit., p. 203. "Plantains, arecas, cocos grow in the town; around are betel, pawpaws, and the jamli, an Indian fruit, and in the vicinity extensive shambas or plantations of holcus, maize, sesamum and other grains; cloves thrive . . . ."

Bauman, op. cit., p. 186, was impressed with the extent of coconut cultivation and estimated that there were 800,000 trees.

German Interest In East Africa

The background to the German activities in East Africa and other regions was the growing realization in Germany that colonies were indispensable.[1] Already, as early as 1841 Friedrich List in his National System of Political Economy, advocated that for Germany to become a great power she would have to emulate Great Britain, "especially in the acquisition of natural riches of tropical countries. . . ."[2] He urged Germans to form colonization companies, steamship lines and mining companies. More recently Sheridan has argued that European expansion in the tropics was aimed to achieve,

> . . .a temperate-tropical balance. . .based on two propositions: first, that resource endowments vary widely in time and space; and secondly, that to the extent that prevailing technologies of production and transport permit, each successive culture expands the range of 'natural resources' so far as it is capable.[3]

In the last few decades of the 19th century events in Germany caught up with ideas about colonies. A rapidly

---

[1]Mary Townsend, Origins of Modern German Colonialism, 1871-1875 (New York: Columbia University Press, 1921) and W.O. Henderson, Studies in German Colonial History (London: 1962 reprinted by Cass, 1967).

[2]Friedrich List, National System of Political Economy, translated by Sampson Lloyd (London: 1885), p. 366.

[3]Richard B. Sheridan, "Temperate and Tropical: Aspects of European Penetration into Tropical Regions," Caribbean Studies Vol. III, No. 2 (1963), p. 5.

industrialized Germany found that it increasingly purchased tropical and subtropical[1] products from Britain, the United States, France and Spain, and, in fact, even in this way enriched her small next door neighbor, the Netherlands. In addition to this, because of migration, Germany had lost a considerable number of her nationals to other countries. Special attention was paid to Africa because land suitable for settlement elsewhere had already been claimed by other powers and commercial colonization demanded colonies in the tropics.[2] East Africa represented the last large desirable area which had not been claimed.

In the nineteenth century East Africa was agriculturally poor compared with much of the rest of tropical Africa. It is therefore not surprising that Henderson notes that, "East Africa was no promising field for colonisation in the 19th century."[3] European interest, chiefly British, was focused on East Africa mainly to protect imperial lines of communication and to assist missionaries and traders.[4] German commercial interests which had been ahead of their government in initiating overseas connections managed to get

---

[1]Ibid., p. 4.

[2]Henderson, op. cit., Chapter I. Mary Townsend, The Rise and Fall of Germany's Colonial Empire (New York: Macmillan, 1930), p. 44.

[3]Harlow et al, op. cit., p. 123.

[4]Ibid., pp. 123-4.

a foothold in East Africa in 1844 when the firm of Hertz and Sons started and built up important trade in cowrie shells.[1] By 1871 German firms which had concentrated on Zanzibar Island, the entrepôt for East Africa, had secured nearly 25% of the Island's trade.[2] Also since the 1860's, German travellers in East Africa like Otto Kersten, Baron von Decken and Richard Brenner had recommended that colonies be established on the mainland.[3]

At long last in the early years of the 1880's formal organization gave a powerful boost to theorists, explorers, and commercial interests clamoring for colonies.[4] In 1884 Carl Peters and his colleagues landed in Zanzibar and changed the course of East African history. Ignoring the Sultan of Zanzibar's interests,[5] Carl Peters crossed to the mainland and in one swoop claimed 60,000 square miles south

---

[1]Townsend, Rise and Fall, op. cit., pp. 45-46.

[2]Harlow et al, op. cit., p. 124.

[3]Townsend, Origins of Colonialism, op. cit., pp. 32-33.

[4]Two organizations were especially important, Deutscher Kolonieverein (German Colonial Union), a propaganda society, and Gesellschaft für Deutsche Kolonisation (Society for German Colonization), aimed at starting colonies.

[5]The sultan of Zanzibar claimed suzerainty over the whole area later to be called Tanzania and also part of Kenya. He had effective control only in parts of the coast.

of Pangani and north of Kingani.[1] Fired with the success of the first trip, Carl Peters returned again to East Africa and signed some more treaties and assigned himself more territories.

In order to turn paper claims to reality, the Society for German Colonization formed the Deutsch Ostafrikanische Gesellschaft (D.O.A.G.) or German East Africa Company in 1885 with a board of 5 directors including Carl Peters.[2] The Company was publicly subscribed and among the stockholders was the industrialist Friedrich Krupp. Carl Peters returned to East Africa and in 1887 an agreement was signed between D.O.A.G. an d the Sultan of Zanzibar in which the Company was granted concessions on the coast.[3] It was hoped that by controlling the coast the operations of the Company would be facilitiated. In 1888 when Company officials insensitively tried to implement the agreement, the Arabs, feeling their position threatened, revolted and the German

---

[1]Carl Peter's version of his 1884 expedition is found in his book Das Deutsch-Ostafrikanische Schatzgebiet (Munich: 1895). The basis of his claims were fraudulent 'treaties' signed by chiefs in the Usagara, Ukami, Nguru and Uzigua territories. The context of the treaties is given in Bruno Kurtze, Die Deutsch-Ostafrikanische Gesellschaft (Jena: Verlag von Gustav Fischer, 1913), Anlage I, pp. 178-81.

[2]Kurtze, op. cit., p. 44.

[3]Ibid., Anlage IV, pp. 183-7. The concessions included the privilege of collecting custom dues and rights of mining. In turn the Company agreed to improve communications, etc.

government was forced to intervene. The Company relinquished its sovereignty to the German government, but retained many other rights.[1]

The revolt saved the Company from an even more embarrassing situation. By 1887 the Company had established 10 stations which were both plantations and trading posts. It was hoped that the trading posts, in particular, would deal with the surplus of African agriculture.[2] Operating without experience in the tropics and competing with established German and Indian firms, most of the ventures were costly failures.[3] As a result of the revolt, the Company could start afresh and this time it was not encumbered with administration of a colony. The agreement with the German government was generous in the sense that the Company still retained large tracts of land and could claim the first rights on land in the neighborhood of any railway construction.[4]

The imposition of German rule over East Africa brought into focus the whole question of alternative methods of economic development in the colony. Like all other colonial powers during this period, the German government

---

[1] Ibid., Anlage VIII, pp. 193-96.

[2] Harlow, et al., op. cit., p. 128.

[3] Ibid.

[4] Kurtze, op. cit., Anlage VIII, p. 193-96.

was faced with the three classical and contrasting alternatives: inducing African peasants to produce for the market, attempting European settlement, or encouraging the plantation system. Colonial administrators favored a combination of all three forms but as Iliffe notes, "often no conscious decisions were made and only events determined the alternatives that prevailed."[1] In this respect, Company administration in the northeastern coast represents a decisive, though not the only, factor which determined the alternatives in the agricultural system. Thus with the imposition of German rule, metropolitan politics, European attitudes towards farming and the whole question of European adjustment to the tropics also played a part in fashioning the sisal plantation system in the Tanga Region.

Given that a colony was meant to be for the advantage of Germany, agriculture by German settlers seemed most logical.[2] However, there were conflicting viewpoints as to which group of settlers would be most desirable. To the advocates of German migration, East Africa represented yet another area in which to send settlers. Apart from military considerations, it was felt that the proletarian threat in

---

[1] John Iliffe, Tanganyika Under German Rule, 1905-12 (Nairobi: East African Publishing House, 1968), p. 50.

[2] Not all German parties were convinced that settlement was desirable. The Social Democrats and other liberals considered settlement as detrimental to African interest. Ibid., p. 57.

Germany could be reduced by sending them away as colonists.[1] Even within these groups there were differences of opinion as to whether settlement of peasants or of the middle class should be encouraged. There were many restrictions based on financial factors and the ability of peasants to adjust to a new environment. In 1906, however, the German government deliberately and even to the extent of providing financial assistance, attempted to settle German-Russian peasants in the Kilimanjaro area. The experiment was a fiasco.[2]

The odds were in favor of a settler group emanating from middle-class Germany. Apart from being financially in a better position to practise agriculture, they had some preconceived notions about the adjustment that had to be made in the tropics through information acquired from settlers in South America. The influence of German migrants in Brazil and other parts of South America on settlers in German East Africa was considerable.[3] This is brought out particularly in their attempt to duplicate in East Africa the cultivation of such crops as coffee, rubber and other 'safe' tropical

---

[1]In Europe, the Germans had traditionally migrated eastwards since the early medieval period. Between 1816 and 1826, for instance, 250,000 Germans had settled in Russia. Townsend, Rise and Fall, op. cit., p. 41.

[2]Iliffe, op. cit., p. 57.

[3]Between 1870-80 Brazil was the most favored destination for German migration to the tropics. During this period over 20,000 migrated to Brazil. Townsend, Origins of Modern German, op. cit., p. 42.

plants which had been successfully tried out in South America. The goal of the settlers in East Africa was the highland areas of the Usambaras.[1] From the two major ports of Tanga and Pangani, settlers fanned out towards the promising regions around the Usambaras. The easily accessible eastern flanks of the Usambaras were the first to go. The more densely peopled and less accessible western flanks had to await the arrival of the railway. The German settlers rapidly claimed land piecemeal and, fortunately for them, the Deutsch Ostafrika Gesellschaft did not have blanket claims in the Usambaras as they did on the coast [See Map 3]. In addition, it is fortunate that only a few settlers were involved. In 1906 there were 315 male settlers in the whole of German East Africa. Six years later there were 713.[2] In 1896 the government became so concerned about the way land was being claimed in the Eastern Usambaras that an enquiry was made and after a survey the claims were adjusted.[3]

---

[1]German colonization of the Usambara Highland is described at length in Louis Mihalyi, The Usambara Highland: A Geographical Study of the Changes During the German Period, 1885-1914, doctoral dissertation, Los Angeles: University of California, 1969.

[2]Iliffe, op. cit., p. 57.

[3]The survey demarcated vast areas for plantations. The claims of settlers who had come earlier were generally granted. Some of the more absurd claims were reduced, for instance, the quartermaster in the defence force had his claim reduced from 87,500 acres to 12,500 acres. Ibid., p. 58.

The interest of the settlers then shifted to the more densely peopled and less accessible western flanks of the Usambaras. [See Map 3]

In its attempts to become commercially viable, D.O.A.G. made radical shifts in its policies during the first few years of operation in East Africa. Carl Peters considered agriculture and especially annual crops to be very important. Massive efforts were directed towards the production of tobacco but by 1888 the planned 20,000 hectares were abandoned.[1] Cotton was also attempted but without much success. After the agricultural fiascoes, Vohsens, who had succeeded Peters, decided to emphasize trade.[2] Attempts to get colonists were not too successful either. Over their vast possession of some 60,000 square miles they had managed to attract only two settlers to farm in the outskirts of Dar es Salaam.[3] As sole owners of land along the coast, the Company hoped to recoup some of its losses through the sale of land. Conditions of sale, however, favored only those interested in large-scale agriculture. These conditions stipulated that:[4]

1. Land was to be sold in units of 1,000 hectares.

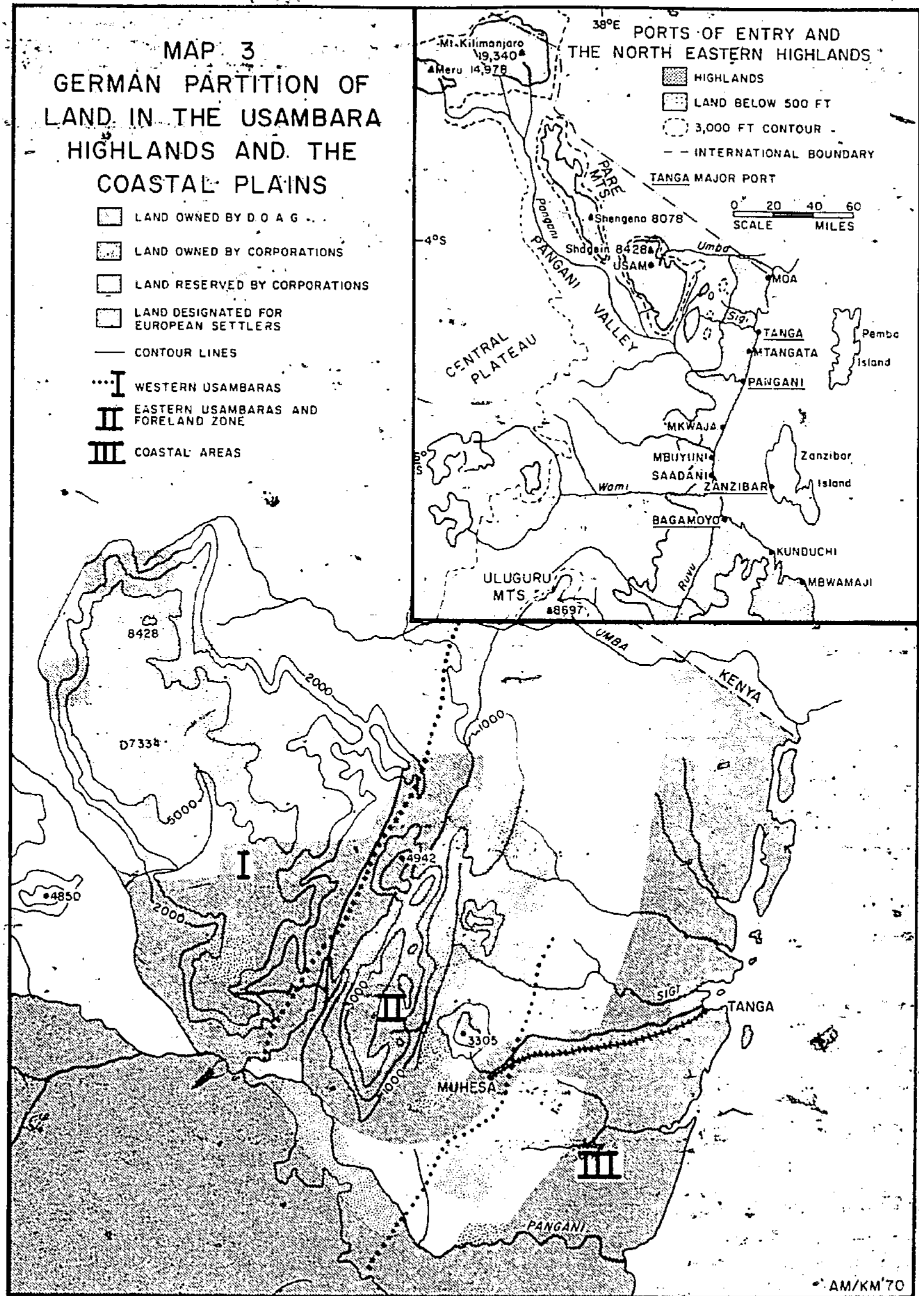
---

[1]Kurtze, op. cit., pp. 80-81.

[2]Ibid., p. 140.

[3]Ibid., p. 103.

[4]Ibid., pp. 151-52.


MAP 3
GERMAN PARTITION OF LAND IN THE USAMBARA HIGHLANDS AND THE COASTAL PLAINS
LAND OWNED BY D.O.A.G.
LAND OWNED BY CORPORATIONS
LAND RESERVED BY CORPORATIONS
LAND DESIGNATED FOR EUROPEAN SETTLERS
CONTOUR LINES
I WESTERN USAMBARAS
II EASTERN USAMBARAS AND FORELAND ZONE
III COASTAL AREAS
PORTS OF ENTRY AND THE NORTH EASTERN HIGHLANDS
HIGHLANDS
LAND BELOW 500 FT
3,000 FT CONTOUR
INTERNATIONAL BOUNDARY
TANGA MAJOR PORT
0 20 40 60
SCALE MILES
38°E
4°S
Mt. Kilimanjaro 19,340
Meru 14,978
PARE MTS
Shengena 8078
Shagein 8428
USAMI
Umba
Pangani
PANGANI VALLEY
CENTRAL PLATEAU
MOA
Sigi
TANGA
MTANGATA
PANGANI
Pemba Island
MKWAJA
MBUYUNI
SAADANI
Wami
ZANZIBAR
Zanzibar Island
BAGAMOYO
KUNDUCHI
MBWAMAJI
Ruvu
ULUGURU MTS
8697
UMBA
KENYA
8428
D7334
2000
5000
1000
4942
4850
3305
SIGI
TANGA
MUHESA
PANGANI
AM/KM'70

2. The price was 4 marks per hectare and cultivation had to start immediately.
3. The buyer had to pay the cost of surveying but the Company would transfer the land titles only when the full sale price was paid.
4. In the first two years, 5%, and in the following years 10%, of the land had to be cultivated. Failure to do this would result in the purchaser losing all but 10 to 20 times the land already under cultivation.
5. One could obtain larger units than 1,000 hectares and clause 4 would then not apply. However, to discourage land speculators, the price of such land would be more than 4 marks per hectare.
6. The Company did not guarantee the safety of person or property.
7. The Company could yearly inspect the property to see that it's conditions were being observed.
8. At a price of 1 mark per hectare, it was possible to add within 5 years land required for depots, experimental plots, etc.

The coastal areas were never the first choice of the European settlers and D.O.A.G.'s policies in disposing of land further assured that small scale farmers would be more interested in areas elsewhere in the country. However, large investors were most likely to take advantage of D.O.A.G.'s

offer.

Commercial enterprises and subsidiaries of large companies interested in tropical resources were in a position to participate in development.[1] Up to 1900, 13 large firms were established for exploiting the resources of the country. Five years later their number had increased to 25 and by 1909 there were 55 such enterprises.[2] The smallest firm had a capital of 48,000 marks and was engaged in rubber cultivation; the largest was the Ostafrikanische Eisenbahngesellschaft with a capital of 21 million marks, principally in the Central Railway Line with an incidental investment in rice, sisal, and coffee plantations. Table VIII shows the extent of the capital that these firms could invest.

---

[1]For instance, the Deutsch Ostafrikanischer Plantagengesellschaft acquired 100 shares of 1,000 marks each from D.O.A.G. This gave it the option of leasing 100,000 morgen from any 20 sites owned by D.O.A.G. Kärtse, op. cit., p. 103.

[2]Meyer, op. cit., p. 397.

TABLE VIII

INVESTMENT OF GERMAN FIRMS IN GERMAN EAST AFRICA 1886-1909

Capital in Marks	No. of Firms
Less than 100,000	1
100,000 to 200,000	9
201,000 to 500,000	13
501,000 to 1,000,000	11
1,000,000 to 2,000,000	11
Over 2,000,000	2
Private	5
Others	3
Total	55

Source: Meyer, op. cit., based on his list of enterprises in German East Africa, his table facing p. 397.

Introduction Of Sisal

During the early stages of D.O.A.G.'s operations in East Africa, the Company was merely a participant in agriculture, rather than an innovator, because it cultivated only those crops already being grown by the indigenous people. Following the 'Arab Uprising' the Company was relieved of its administrative duties over the territory. Now more purely economic in its functions, the Company directed its efforts towards scientifically increasing the base of crops which could be cultivated in the Tanga area. The firm not only had capital but organizationally also had come to a stage where the shareholders were in a position to institutionalize risks. In 1891, Dr. Richard Hindorf arrived at Tanga after

a visit to the Far East where he had gone to make a scientific investigation of the selection of tropical plants.[1] Dr. Hindorf was both a planter and a paid agronomist of D.O.A.G. At Derema, in the Usambaras, where Hindorf was stationed, he planted cocoa, tea, pepper and other spices. Then, in his own words:

> I was concerned to find a plant suitable to the conditions in the plains from the Usambaras to Tanga, where there is neither too little nor too much rain. In the course of my scientific work I kept in touch with the work of Kew and in the Kew Bulletin No. 62 of February 1892, I saw an article referring to sisal in Mexico. Against the wish of one of my directors of the Deutsch Ostafrikanische Gesellschaft and with the agreement of the others, I followed this up but discovered that the export of sisal planting material was prohibited from Mexico. . . . . I therefore wrote to Reasoner Bros., plant dealers in Florida, requesting them to send me sisal plants, and they sent me 1,000 bulbils to Hamburg. I went from Berlin to Hamburg to examine them and found that 80% had died. I repacked the remaining 200 and they arrived well in Tanga, 62 surviving, which I planted at Kikogwe on the south side of the river Pangani. Sisal was next planted at Bushirihof. The plants founded the sisal industry of East Africa. [2]

Hindorf's account emphasizes the element of risk which had to be taken, which few subsistence farmers and settlers could afford. The involved and expensive process before sisal could be introduced into East Africa points to

---

[1] Letter from Hindorf to A. Hitchcock, 26th October, 1947, quoted in full in Man of Importance (Tanga: Tanganyika Sisal Growers Association, n.d.), p. 2.

[2] Ibid.

the need of capital and proper connections. Here, once again, the large firm was clearly at an advantage.

A factor that is often overlooked is that as an innovator, D.O.A.G. had the monopoly of planting material. Hindorf had the first batch of 62 surviving bulbils planted in 1893 and by 1898 only 163,000 bulbils were available for cultivation at Kikogwe itself and at Mwera.[1] It was not until three experimental bales of sisal were sold at Hamburg in 1898 that any outside interest was shown in sisal.[2] Substantial planting material (150,000 bulbils) were sent to Ostafrika Kompanie in 1899 to start two estates in the Lindi area. Even so, there was a shortage of planting material for a considerable time and Hindorf ordered another batch from Florida. In 1905 the Westdeutsche Handels und Plantagen Gesellschaft imported 1,000 bulbils directly from Mexico.[3] Apart from these importations the plantations in German East Africa had to wait and rely on natural increase of planting material. The price of planting material therefore rose to 20 rupees for 1,000 bulbils or 5,000 rupees for half a

---

[1]At 2,000 plants per hectere this was sufficient for 80 ha. of sisal.

[2]Hindorf, op. cit., p. 4.

[3]Lock, op. cit., p. 4.

million.[1] There was also a growing demand for sisal in Kenya and in 1908 the German government imposed a prohibitive export tax of 1/2 rupee per plant.[2]

The expansion of sisal cultivation was accelerated by several companies that had taken up the offer of D.O.A.G.'s sale of land in large tracts near the coast.[3] Agricultural development in the relatively dry coastal belt was limited to a few crops, none of which by the late 1890's was particularly successful. Only rubber seemed promising, but this was in the adjacent foreland zone, rather than on the coast. The opportunity to try sisal as another crop was therefore most enticing and a number of companies with large holding started planting it.

By 1898, from its area of introduction at Kikogwe, D.O.A.G. had extended the cultivation of sisal to the neighboring area of Mwera. In the same year, a few plants were also distributed to Deutsch Ostafrikanische Plantagen Gesellschaft.[3] In 1900, D.O.A.G. began cultivating sisal some 100

---

[1]Braun, (1908), No. 4, op. cit., p. 55. The author (Braun) assumes that since Ngambo Estate belonging to Rheinische Handels und Plantagen Gesellschaft did not seem to be selling fiber, it may have been selling planting material. The high prices for planting material would explain why the Estate sold plants instead of processed fiber.

[2]Lock, op. cit., p. 6.

[3]Land was sold in blocks of not less than 1,000 hectares and there was a time clause during which period it had to be developed.

[4]The Deutsch Ostafrikanische Plantagen Gesellschaft was established by acquiring shares from D.O.A.G. See footnote 1 page 66 above.

miles north of Kikogwe at Moa, Totohovu and Jassini. At the same time the first company to be set up solely to cultivate sisal, the Deutsche Agaven Gesellschaft, was established.[1] Its plantation complex was at Bushirihof (Mundo and Mkuzi Katani estates) opposite Kikogwe on the left bank of the river Pangani. Because of crop specialization, the Deutsche Agaven Gesellschaft was able to cultivate over a million sisal plants by 1903. The Westdeutsche Handels und Plantagen-Gesellschaft also added sisal to their coconut plantation at Kiomoni on Tanga Bay. In 1904 the Sisal Agaven Gesellschaft registered at Dusseldorf in Germany, with a capital of 750,000 marks, started estates at Kigombe and Pongwe. In the same year, one of the first major estates to be owned by an individual was established at Kiuhui with sisal as its major crop. By 1905 most of the choice sites for sisal along the coast were under cultivation.

Attention was then increasingly directed towards the foreland zone and along the Lwengera Valley. The completion of the first section of the Usambara Railway to Mombo in 1905 opened up even more land for sisal.[2] In these areas the first major encroachment next took place on land where rubber had

---

[1]Braun, (1908), No. 4, op. cit., p. 56.

[2]Harlow, et al, op. cit., p. 143.

hitherto been important.[1] The spread of sisal estates between 1893 and 1909 is summarized in Table IX.

TABLE IX

NUMBER OF SISAL PLANTATIONS ESTABLISHED BETWEEN 1893 AND 1908 IN THE TANGA REGION*

Period Established	Districts			
	Tanga	Pangani	Wilhemstal	Total
1893	-	1	-	1
1898-99	1	1	-	2
1900-01	3	3	-	6
1902-03	-	-	-	-
1904-05	9	2	1	12
1906-07	3	1	4	8
1908-09	-	-	1	1
TOTALS	16	8	6	30

* The 8 plantations in the Southern part of the country have been excluded from the above calculations.

Source: Compiled from descriptions found in Braun, (1908), No. 4, op. cit., p. 143.

By 1911 the number of estates had increased to 54 but the majority were still in Tanga district.[2]

Makings of a confrontation between large companies with monocultural sisal plantations, and European settlers growing a variety of crops, perhaps even including sisal,

[1] A. Zimmerman, "Statistiches uber die Kautschukpflanzen in Deutsch-Ostafrika," Der Pflanzer, Vol. III (1907) No. 21-22, p. 322. By 1907, Tanga and Wilhemstal Districts had 3.4 million out of the 5.1 million Manihot Glaziovii trees planted in the country.

[2] Harlow et al, op. cit., p. 153.

was interrupted by World War I. One of the areas of conflict was labor.[1] It is relevant to pursue the topic here because it had a bearing on the emergence of large units of land for cultivating sisal.

Plantations And Labor

African labor found little to choose between working on a sisal plantation or on a settler farm in the mountains. Traditionally, the Sukuma and Nyamwezi from the areas around Lake Victoria had earned the reputation of rendering good service.[2] It was hoped that in the northeastern part of

---

[1]The demand for labor received a tremendous boost during the colonial period. The lavish use of porterage, the pressure to grow cash crops and the even more serious demand for labor to work on European enterprises contributed to the scarcity of labor. At various stages during this period there were a variety of ways of obtaining laborers. In the Usambaras, chiefs were expected to supply labor but in some areas when their authority collapsed in 1903 Europeans were given the sole right to recruit labor in the adjacent areas. Shortages became even more crucial during the next four years partly because of increasing cultivation. In 1907 a district officer introduced the 'Wilhelmstal System'. This made it mandatory for Africans in the Usambaras to work for one month in every four on a plantation or on public works. The German government just recovering from the shock of the Maji-Maji uprising put an end to the system. The question of labor was a constant source of friction among the government, missionaries, German settlers and planters. A recent study discusses the problem of labor against the background of the Maji-Maji Uprising and the administrative setting of German East Africa. Iliffe, op. cit., pp. 64-8, 80-91, 103-8, 132-139.

[2]Ralph Austen, Northwest Tanzania Under German and British Rule (New Haven and London: Yale University Press, 1968), p. 55.

German East Africa where the Germans had focused their agricultural attention, the traditional migratory labor would complement local labor. For a number of reasons these expectations did not materialize. Two of the major plantation crops on the coast, sisal and rubber, were both year round crops and the traditional, seasonal, migratory labor did not like such work. Those that did come discouraged others from joining because they legitimately complained about abuses in the system. These included the lowering of wages in 1903, corporal punishment, and unfamiliar contractual obligations.[1] Also, there were many similarities between Arab plantations worked by slaves and the German plantations. Piecework and individual accounting was alien and disliked.[2]

In 1905 attempts were made, without much success, to induce the Nyamwezi and Sukuma laborers to settle in the coast by granting them free land provided they worked on a plantation for 90 days.[3] In the highland areas, jobs met the criteria of being seasonal but were unpopular because of the cold, damp, upland climate. After 1907, the construction of the Central Railway Line gave workers employment around the Lake region and an additional reason not to migrate. Faced with the situation of plantation owners and others

---

[1]Iliffe, op. cit., pp. 66-67.

[2]Hindorf, op. cit., p. 19.

[3]Iliffe, op. cit., p. 65.

clamoring to the government for compulsory labor and other means of forcing Africans to work for them, the German administration tried to improve conditions of employment. Between 1906 and 1912 wages in Tanga rose from 9-11 rupees to 12-15 rupees per month. But, it was difficult to obtain labor even then and as Iliffe notes, in Tabora alone there were a thousand agents in 1913 recruiting laborers on behalf of Europeans by methods that were questionable.[1]

On the assumption that a laborer worked 300 days per annum, it was calculated that a sisal plantation would require 1 laborer per hectare.[2] Therefore, problems pertaining to labor were inevitable on large sisal estates.[3] Since sisal plantations were located in areas of low population density they had to rely on labor from other districts and thereby they began to compete with the labor needs of other planting communities, especially those in the Usambaras. Several of the settlers considered sisal a threat because it was labor intensive. Hindorf disagreed on this score and claimed that tobacco and tea were more labor intensive than sisal.[4] He believed that labor and production costs would be

---

[1] Ibid., pp. 134-35.

[2] Hindorf, op. cit., p. 18.

[3] By 1907 the large sisal plantations included: Moa 2,100 ha., Mwera/Kikogwe 1,600 ha; Kiomoni 1,081 ha; Bushirihof 675 ha; Kigombe 640 ha; and Ngomeni 500 ha.

[4] Hindorf, op. cit., p. 19.

lowered by more machines, the training of laborers and regular rather than seasonal employment.

In order to offset this problem of labor, there was even the suggestion that sisal estates be dispersed throughout the country.[1] In this respect there were already attempts to cultivate sisal adjacent to centers of high population density.[2]

Mechanization In the Sisal Plantations

The choice of mechanical equipment over labor made large capitalization even more necessary and had a considerable influence on the future characteristics of the industry. Since the basic principle of processing agaves and related fibers is the same, the Germans had a wide range of machines which they could have introduced into East Africa.[3]

---

[1] Ibid., p. 20.

[2] By 1907 sisal estates were established in the Lindi coastal area because it had conditions similar to the Tanga/Pangani region. Experimentally, sisal was also tried by the Evangelishe Brudergemeinde, at Rutenganio in the populous Langenburg (Mbeya) District and also at Bukoba. Braun, (1908) No. 4 op. cit., pp. 58-59.

[3] Braun has a list of 24 major brands of raspadors and decorticators. These included the "La Gratte" which sold at 250 Rps and required 2 men to operate and the giant "La Couronne" which sold at 10,000 francs and was capable of processing 10,000 leaves per hour. In contrast to the several tons of fiber which the latter could produce per day, the former produced only 125-150 kg. per day. K. Braun, "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. II (1906) No. 18, pp. 274-79.

The first sisal fiber from Kikogwe was processed with raspadors. Bushirihof, which had been started by a company specifically to cultivate sisal, introduced the Mola decorticator.[1] During the early years of the sisal industry the Mola decorticator gained considerable popularity.[2] It was certainly more efficient than the raspador giving three or four times the output per operator working on a raspador.[3] For this efficiency plantations had to be prepared to invest even more capital. The Mola decorticator cost approximately 15,000 marks compared to 250 marks for the raspador.

The introduction and popularity of the Mola and other subsequent decorticators increased the need for capitalization in other sectors of the industry. For instance, whereas a raspador is mobile and can be moved around in a sisal field, the decorticator is a very large machine and has to be anchored firmly so that a factory with a strong foundation and capable of withstanding the vibration has to be built to accomodate it. The cost of building such a factory in 1908 was estimated to be 65,000 marks.[4] Again, since leaves had to be brought to the decorticator, it was soon realized that manual transportation of the leaves to the factory was such

---

[1] Ibid., p. 276.

[2] Ibid.

[3] Hindorf, op. cit., pp. 86-8.

[4] Braun, (1906), No. 18, op. cit., p. 277.

a colossal task that other efficient methods of transportation had to be devised. Therefore, most large estates began to install their own internal light railway system.[1] The introduction of large machines also meant that provisions had to be made to have a ready supply of fuel wood. To do this, it was calculated that a plantation needed 100 hectares of woodland.[2]

The processing capacity of the Mola decorticator made it necessary to have a supply of 600,000 sisal plants or 125 hectares of sisal. In any event, by 1905 the size of the estates had gone beyond the capacity of a single Mola and several estates operated more than one decorticator. The stage was therefore set for the introduction of even more expensive but efficient automatic decorticators. The all-pervasive influence of the D.O.A.G. once again made itself felt.

Hubert J. Boeken, an engineer and the brother-in-law of Karl Peters, was urged to interest himself in the development of machines for the tropics.[3] In 1906 he produced a

---

[1]Even in a relatively medium-sized estate like Pongwe, (461 hectares), the cost of building a factory, laying a trolley line and a steam plant meant an additional investment of 80,000 marks. Braun, (1908) No. 4, op. cit., p. 55.

[2]This calculation was based on a consumption estimate of 7,500 cu. metres of wood per annum.

[3]It is not known whether he was related to the firm of H. Boeken and Co. of Duren who were the producers of the La Couronne decorticator.

machine which embodied the cardinal principle of treating the fibers during processing. In addition, the tension of the drums was maintained by sisal ropes rather than by chains thus bringing in a considerable saving on spare parts. The patent for Boeken's machine called the 'Corona' was bought by the firm of Krupp.[1] In 1907 the first 'New Corona' was sent to Kikogwe but it did not perform satisfactorily and had to be returned.[2] With modifications and some later improvements, the Krupp Corona began to replace the Mola and other previous models. The popularity of the Corona was yet another step in optimizing the acreage of sisal plantations.

Ultimately the expansion of sisal cultivation in German East Africa depended upon demand, particularly Germany's own requirements, and also on the anticipated prices for sisal. There were several problems in predicting the demand or price for sisal.

One of the key features of the hard fiber[3] market between the 1880's and World War I was that prices fluctuated from year to year and even from month to month [See Table X]. The world's leading producer was Mexico and the leading buyer

---

[1]"history of the Corona Decorticator," Sisal Review, Vol. II No. 2 (1937), p. 56. It will be remembered that Krupp was one of the industrialists to acquire shares in the D.O.A.G.

[2]Braun, (1908), No. 4, op. cit., p. 57.

[3]Hard fibers include henequen, or Mexican sisal, agave sisal, manila hemp, etc.

TABLE X

AVERAGE ANNUAL SISAL PRICES IN MARKS PER TON*

Year	Price	Year	Price	Year	Price
1880	540	1891	520	1902	1,000
1881	560	1892	440	1903	780
1882	560	1893	400	1904	740
1883	540	1894	340	1905	740
1884	420	1895	230	1906	830
1885	380	1896	320	1907	940
1886	420	1897	250	1908	520
1887	660	1898	760	1909	640
1888	740	1899	780	1910	490
1889	1,050	1900	940	1911	470
1890	600	1901	660	1912	760

*The above prices are for Yucatan sisal. For the 1880-1900 period the prices were quoted by A. Kip of New York. The all time high of 1,050 marks per ton, in 1889, was the result of competition between the two large American buyers, J.S. Cordage Trust and National Cordage Trust Company. The low of 1894 was due to over-production. The high of 1902 was the result of the Spanish-American War which disrupted the world supply of manila hemp.

Source: K. Braun, "Die Agaven, ihre Kultur, und Verwendung," Der Pflanzer, Vol. II (1906) No. 19, p. 290.
W. Arning, Deutsch-Ostafrika (Berlin:Dietrich Reimer, 1936), p. 249.

MONTHLY MINIMUM-MAXIMUM SISAL PRICES PER 100kg.

Month	1901	Month	1901
January	56-62 marks	July	62-66 marks
February	56-62	August	62-66
March	60-66	September	76-80
April	60-64	October	76-80
May	60-64	November	96-100
June	62-66	December	92-96

Source: Braun (1906) No. 19, op. cit., p. 291

was the United States. Since the main use of sisal was as a baler twine its market depended a great deal on the annual status of the cereal crop. It was difficult to respond to the cereal production index because it takes several years from the time that sisal is planted to the stage in which it is marketed. Sisal from German East Africa, to a certain extent, was in a fortunate position. Because of its good quality it could be used for more purposes than the poor quality Mexican sisal. As a result of this good reputation prices for African sisal were generally higher than those for Mexican sisal [See Table XI].

TABLE XI

COMPARISON OF PRICES OF MEXICAN AND GERMAN EAST AFRICAN SISAL

(Maximum and Minimum prices in marks per 100 kgs)

Year	Mexican	German East African
1900	53-84	60-100
1901	36-80	60-100
1902	74-90*	72-80
1903	62-72	68-70
1904	66-70	66-74
1905	70-77	76-90
1906	64-74	76-90
1907	44-74	60-96

*The Spanish-American War disrupted the supply of Philippines manila hemp so that the demand for Mexican sisal increased.

Source: K. Braun, "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. IV (1908) No. 7, p. 101.

Germany's own demand for hard fibers was estimated to be 8,000 tons in 1904,[1] rising to 11,000 tons in 1910.[2] Because of the anticipated demand and favorable prices, production of sisal in East Africa rose rapidly [See Table XII].

TABLE XII

EXPANSION OF SISAL EXPORTS FROM GERMAN EAST AFRICA

Year	Exports (tons)	Year	Exports (tons)
1898	0.6	1906	1,600.0
1899	0.6	1907	3,000.0
1900	7.5	1908	4,000.0
1901	15.0	1909	4,800.0
1902	225.0	1910	7,000.0
1903	350.0	1911	10,000.0
1904	800.0	1912	17,080.0
1905	1,400.0	1913	20,835.0

Source: Lock, op. cit., p. 323.

The fears of over-production were therefore real and some control was necessary. If limitations had been introduced, they would probably have been in favor of established large plantations, and against settlers growing on a small scale. Indirectly, the possibility of competition from other European growers had been pushed into the background because of the interest generated in the cultivation of rubber.

The Germans had found a few species of rubber yielding trees and vines native to East Africa. For instance,

[1] Braun, op. cit., (1906), No. 19, p. 289.

[2] F. Stuhlmann, "Notizen uber Sisal-Agaven und deren Fasern," Der Pflanzer, Vol. III (1907), No. 15-16, p. 239.

between Bagamoyo and Rufiji the Landolphia tondeensis was tapped for export by the indigenous people. The Manihot glaziovii, another rubber tree, did well on the flanks of the Usambaras.[1] It was tried as a plantation crop at D.O.A.G.'s estate at Lewa. The processing costs were considerably lowered when Dr. Ernest Koehler discovered an inexpensive way of making the latex to coagulate by using bitter lemon. Settlers who did not have as much capital as the large corporations quickly realized the advantages of cultivating rubber.

In the relatively dry foreland zone the Manihot glaziovii was suitable, as it could withstand drought. The yield of latex was low but one could expect 100-150 kg. of latex per hectare.[2] Thus a relatively small estate of 100 hectares would give an adequate return even when the market price was as low as 6 marks per kilo. In addition, the trees grew rapidly, the initial capital outlay was modest, and the demand for rubber increased greatly after 1907. Prices fluctuated and rose rapidly and in 1910 reached the all-time high of 28 marks per kilo.

Many planters and settlers rode the rubber boom and

---

[1]The Manihot glaziovii was brought to the mainland from Zanzibar where it had been introduced in the 1870's from South America.

[2]Planting densities of 1,600 - 2,000 trees per hectare were common. With an assumed planting space of 3m x 3m about 1,100 trees could be grown. G. Eisman, "Kautschuk-Kultur in Deutsch Ostafrika," Der Pflanzer, Vol. II (1906) No. 2, p. 27.

generally kept away from sisal. There were 250 rubber plantations by 1910 in Tanga and Morogoro, the overwhelming majority of them being small estates.[1] By 1913, there were only 54 sisal plantations with a total of 25,000 hectares in contrast to the 45,000 hectares under rubber.[2] Several planters fearing over-production and competition from the more productive Hevea brasiliensis plantations in Malaya prudently sold their estates to British buyers and made considerable profit.[3] In 1912 the rubber boom collapsed. The fears that there would be an over-production of sisal had now to be taken seriously. The supposition was that settlers who had failed in rubber would try their fortunes at growing sisal. By 1913, sisal had taken over the commanding position, previously held by rubber, in the economy of German East Africa [See Table XIII]. However, the possibilities of a confrontation between companies with large sisal plantations and European settlers who might have tried cultivating sisal was interrupted by the outbreak of World War I. With the fall of Tanga in 1916 the sisal industry shifted into British hands.

---

[1] Henderson, op. cit., p. 152.

[2] Ibid., p. 153. Also: Great Britain, Foreign Office, German African Possessions (London: H.M.S.O., 1920), p. 67.

[3] Iliffe, op. cit., gives a figure of a penniless planter selling his estate for 45,000.

TABLE XIII

MAIN EXPORTS OF GERMAN EAST AFRICA Value in Mark's 000's

	Ivory	Copra	Rubber	Coffee	Sisal	Sugar	Wax	Cotton	Timber
1896	1,682	103	892	37	---	64	--	--	80
1897	1,495	205	1,149	112	---	88	--	--	100
1898	1,292	315	970	241	---	100	--	--	105
1899	994	108	1,337	96	---	81	--	--	60
1900	997	190	1,059	275	---	126	--	--	61
1901	627	766	1,210	483	---	116	93	--	86
1902			N O	D A T A					
1903	407	805	1,994	526	324	126	138	--	--
1904	414	856	2,226	524	572	100	576	--	--
1905	486	916	2,257	467	857	70	1,290	--	31
1906	434	1,087	2,386	531	1,348	50	889	--	18
1907	663	806	2,069	540	2,149	--	1,471	225	12
1908	606	1,345	1,113	942	2,566	--	1,168	249	79
1909	1,026	798	2,768	887	2,333	--	659	440	85
1910	743	1,909	6,195	838	3,011	--	672	752	370
1911	89	1,894	5,414	856	4,532	--	389	1,277	280
1912	60	1,563	7,279	568	7,000	--	725	2,110	196
1913	--	2,348	8,352	--	10,342	--	--	2,620	--

Source: A. Zimmerman, Geschichte Der Deutschen Kolonial Politik (Berlin: Mittler and Sohn), pp. 254-55.

CHAPTER FOUR

CONSOLIDATION AND GAINS IN THE SISAL INDUSTRY

Under the terms of the Treaty of Versailles, 1920, the Mandate over German East Africa, now called Tanganyika, was given to Great Britain.[1] Part of the heavily populated former German residencies of Ruanda and Urundi in the north western part of the country which had been occupied by the Belgians was excised and given to them as their mandate.

With this transfer of power there was always the danger of the substitution of British for German colonial interests. Thus with the British commitments in the war effort in German East Africa and the strong influence of white settlers in neighbouring Kenya, there were moves to incorporate parts of Tanganyika into the sphere of Kenya settlers. For instance, in 1920 pressures were being applied to duplicate the Kenya type soldier settlement schemes in Tanganyika. The newly appointed governor, Sir Horace Byatt, had neither the inclination nor the mandate to accede to these demands and he resisted them.[2] This resistance and other subsequent demands to treat Tanganyika as a separate colony had a great impact on changing one important characteristic of the sisal

---

[1] Gt. Britain, Report on the Administration of Tanganyika Territory, 1918-1920 (London: H.M.S.O., 1921) p. 4.

[2] Dar es Salaam Times July 10th, 1920, p. 2.

plantation in Tanganyika. In contrast to the usual characteristic of plantations in which subjects from the metropolitan country dominate ownership, in Tanganyika the sisal plantation system became based on the broad participation of a number of national groups and races.

International supervision under the terms of the trusteeship agreement also had a significant influence on developments in Tanganyika.[1] Specifically, the following articles of the mandate had a direct bearing on the characteristics of the sisal plantation system.[2]

Article 3

> The mandatory shall be responsible for the peace, order and good government of the territory, and shall undertake to promote to the utmost the material and moral well-being and the social progress of its inhabitants. The Mandatory shall have full powers of legislation and administration.

Article 5

> The Mandatory:
> (3) shall prohibit all forms of forced or compulsory labour, except for essential public works and services, and then only in return for adequate remuneration;
>
> (4) shall protect the natives from abuse and measures of fraud and force by the careful supervision of labour contracts and the recruiting of labour.

Article 6

> In the framing of laws relating to the holding

---

[1]For a detailed account of the international trusteeship, see B.T.G. Chidzero, Tanganyika and the International Trusteeship (London: Oxford Univ. Press, 1961).

[2]Ibid., Appendix A, pp. 257-268.

or transfer of land, the Mandatory shall take into consideration native laws and customs, and shall respect the rights and safeguard the interests of the native population.

No native land may be transferred, except between natives, without the previous consent of the public authorities, and no real rights over native land in favour of non-natives may be created except with the same consent.

Article 7

Concessions for the development of the natural resources of the territory shall be granted by the Mandatory without distinction on grounds of nationality between the nationals of all States Members of the League of Nations, but on such conditions as will maintain intact the authority of the local Government.

Concessions having the character of a general monopoly shall not be granted. This provision does not affect the right of the Mandatory . . . in certain cases, to carry out the development of natural resources either directly by the State or by a controlled agency, provided that there shall result therefrom no monopoly of the natural resources for the benefit of the Mandatory or his nationals, directly or indirectly, nor with any preferential advantage which shall be inconsistent with the economic, commercial and industrial equality hereinbefore guaranteed.

Article 11

The Mandatory shall make to the Council of the League of Nations an annual report to the satisfaction of the Council, containing full information concerning the measures taken to apply the provisions of this mandate.

A copy of all laws and regulations made in the course of the year and affecting property, commerce, navigation, or the moral and material well-being of the natives shall be annexed to this report.

Some of the articles of the mandate were open to different interpretations and the viewpoints which prevailed

were influenced by economic and political factors as well as by the terms of the Treaty of Versailles. This was particularly true over the question of land rights.

It was accepted that ownership of land was not vested with the British Crown but with the community of Tanganyika. However, in the legislation by the land tenure system drawn up in the Land Ordinance of 1923 the ownership of land by the people of Tanganyika was made effective only after the date of the Ordinance and not prior to it.[1] Claims to the land alienated by the Germans on freehold tenure were upheld as freehold property by a provision in the 1923 Ordinance. The majority of sisal estates fell in the category of land that had already been alienated as freehold property by the activities of D.O.A.G. in the 1880's. In addition, new owners of sisal plantations had all the land necessary for future expansion. Fortunately too for the sisal plantations, the question of 'excessive alienation' did not directly apply to the sisal areas because for the most part estates had been established in areas of low population density.[2]

In three ways the articles of the mandate, in fact, helped to reinforce a pattern of acquisition already in

---

[1]Tanganyika, Land Ordinance, 1923 (Dar es Salaam: Government Printer, 1923).

[2]In some northern parts of the country the government made arrangements to acquire some of the alienated land and restore it to the indigenous people. Gt. Britain, Report on Tanganyika Territory, 1921 (London: H.M.S.O. 1922), pp. 6-7.

operation. First, the occupying authorities were more interested in reconstruction and revenue than in supporting any particular group or faction. Sisal plantations represented some of the very few enterprises from which revenue could still be derived.[1] Secondly, Sir Horace Byatt was opposed to any agricultural experiments by Europeans who possessed inadequate capital or experience.[2] Thirdly, permanent disposal of German sisal estates tended to favor those who had competently operated such estates during the interim period, 1917 to 1919.

During the interim period the Custodian of Enemy Property was empowered to grant annual temporary leases on German sisal plantations.[3] The entry of Asians into plantation management begins during this period although indirectly the connections with sisal are earlier. Prior to World War I the ownership of sisal plantations was almost exclusively in German hands but a few Asians were employed on plantations as clerks and mechanics and some were creditors to the estates. The last were in a position to know about the viability of sisal estates. Therefore at the end of the German rule some of them quickly asserted claims on sisal estates as

---

[1]Harlow et al., op. cit., p. 552.

[2]Ibid., p. 553.

[3]Tanganyika. Enemy Property Dept., Report on the Liquidation, 1917-1933 (Dar es Salaam: Government Printer, 1933), p. 2.

repayment for outstanding debts.[1] In addition, Greek nationals who were only indirectly involved in the war also took the opportunity to gain a foothold in the sisal industry.[2] Besides these two groups there were British interests including some owners of sisal estates in Kenya who would naturally be interested in sisal estates in Tanganyika. The only thing in common among these different groups was the competition to acquire the German estates and take advantage of the favorable prices offered for sisal fiber.[3]

In 1920 the permanent disposal of German and other enemy property was authorized. Descriptions of these properties including sisal estates were published in the Official Gazette, and advertized in the Times (London) and were duly auctioned between 1920 and 1928.[4] In 1924 even German nationals became eligible to acquire property which had not already been liquidated.[5] German nationals with the aid of their government and the Usagara Company were in a position to obtain considerable capital for investment in

---

[1]Interview with Mr. A. Karachiwalla, Oct. 1966. K. Braun notes that German plantation owners resented the Asians. This resentment was based on the allegation that Africans spent their wages in Asian shops and purchased goods which did not come from Germany.

[2]Harlow et al., op. cit., p. 548.

[3]Ibid., p. 552.

[4]Tanganyika. Enemy Property Dept., op. cit., p. 5.

[5]Eldred Hitchcock, "The Sisal Industry in East Africa," Tanganyika Notes and Records No. 52 (1959), p. 6.

East Africa. By the time the sales of ex-enemy property were concluded, the sisal estates had been taken up by Greek, Asian, British, Swiss and German buyers at favorable terms with a 25% down payment.

By the middle of the 1920's, therefore, the sisal plantation system had changed in one major characteristic. Instead of being monopolised by the nationals of the metropolitan power, that is, by the British, the ownership of the sisal estates was broadly based.[1] The peculiar status of the country as a mandate was partly responsible for the evolution of this characteristic. Some of the other characteristics were affected by world price and demand for sisal, its role in the economy of Tanganyika, and the institutions which the sisal plantation owners built around themselves.

World Demand For Sisal And The Increase In Sisal Production In Tanganyika

The growth of the sisal industry in Tanganyika from one that was important only to Germany to one which became world significant can best be understood by studying the relationship of sisal to other hard fibers. The bulk of the

[1]This situation contrasts strongly with that in Kenya where the majority of settlers were English. Some of these were connected to members of the Cabinet and the aristocracy in England and could therefore wield significant influence on policy matters. Harlow et al., op. cit., pp. 266-332.

world's hard fibers are derived from three main sources: henequen or Mexican hemp, abaca or manila hemp and sisal.[1] The cultivation of the first two crops is the virtual monopoly of Mexico and the Philippines, respectively. The cultivation of sisal on a commercial scale attained significance only at the turn of the twentieth century when plantations began production in German East Africa and in Java which then formed part of the Dutch East Indies.[2] In Africa, sisal plantations were also established in Kenya, Angola, and Mozambique. The only other major newcomer is Brazil where production on a large scale started after World War II.

The chief uses of the three hard fibers are closely related. Briefly, their use can be summarized as fibers for making cordage (ropes, cords, string, and agricultural twine) and as paddings for covering steel springs in upholstery for motor cars, mattresses and furniture. Traditionally, manila hemp, which is the most expensive of the hard fibers, has been used for marine ropes while henequen, the weakest of the three hard fibers, was used for padding material and for poor quality agricultural twines. Sisal stands between manila hemp and henequen in quality and generally in price,

---

[1]The other sources, accounting for only a fraction of the world's sources of hard fibers, include: New Zealand flax (Phormium tenax Forst.) Mauritius hemp (Furcraea foetida (L) Haw.), and various Sansevieria species.

[2]Sisal was introduced in the Dutch East Indies in 1895.

too. It can be substituted for either of them as it in turn could by them. The expansion of the demand for sisal can partly be explained by the fact that it has made inroads into the market of the other hard fibers [See Table XIV].

TABLE XIV

INCREASE OF SISAL CONSUMPTION IN RELATION TO OTHER HARD FIBERS

Period	Average Annual Production Manila	Sisal	Henequen	Total	Sisal as % of total
Early 1920's	186,000	60,000	120,000	366,000	16.4
1935-38 (av.)	165,000	250,000	111,000	526,000	47.5
1956	131,000	484,000	117,000	731,000	66.1
1966	101,000	656,000	187,000	944,000	69.1

Source: of figures through 1956: Guillebaud, (1958), op. cit., p. 3.

Source: of figures for 1966: Food and Agriculture Organization of the United Nations. Study Group On Hard Fibres, Hard Fibres: Current Situation, (Rome: 11 Sept., 1967) Doc. No. CCP:HF 67/3, p. 2.

The preference of metropolitan countries to obtain raw materials, whenever possible, from colonies and other dependent territories rather than from sovereign states holds true for sisal as for other materials.[1] The Germans had

[1] One good example in this respect is that Great Britain was instrumental in encouraging the Egyptian and Sudanese cotton industry to make itself less dependent on American-grown cotton.

expanded the market for sisal from its East African colony by substituting it for Mexican henequen. This task was made easier by the superior quality of sisal fiber and therefore its possible use for many purposes.

The British had attempted to grow sisal in the West Indies, Queensland, Kenya and India,[1] but with the exception of the production in Kenya these efforts were not very successful. Even in Kenya, in the European settler-oriented agriculture, there were other more successful crops. Tanganyika therefore sustained its early start as the leading producer even after Great Britain was granted the mandate.

To encourage the use of sisal, the British publicised its advantages and conducted experiments.[2] The market for Tanganyikan sisal became even larger because in addition to the British market the Germans re-invested considerable capital in sisal estates in Tanganyika after 1924 and continued to import from their former colony. The demand for sisal also rose because of the considerable rise in European cereal

---

[1] Smith, op. cit., pp. 1-177.

[2] Semi-official publicity was given in a memo, Empire Grown Sisal, (London: Empire Marketing Board, 1928); "Empire Fibres for Marine Cordage (Sisal Hemp and New Zeland Hemp)" Bulletin of the Imperial Institute Vol. XXX (1932), No. 2.

A letter dated 19th July 1933, from the Trade and Information Officer of H.M. East African dependencies informed the Governor that out of 22 colonies which had been approached about whether they would use sisal 12 had replied in the affirmative, three had other local substitutes and 3 used only a negligible amount of fiber.

production.[1] By the 1930's the pattern which emerged for hard fiber consumption was that Europe used sisal grown in East Africa and the East Indies, while the United States and Canada had an almost virtual monopoly over Mexican henequen. Manila hemp, nearly a third of which was produced by the Japanese,[2] was absorbed mainly by the United States.[3] These trends, however, were not exclusive. For instance, whereas Germany increasingly used sisal for marine purposes the British continued to use Manila hemp and the first British experiments to substitute sisal for manila hemp for naval purposes began only in the 1930's.[4]

When the Japanese invaded the Philippines and Java during World War II, the rest of the world lost virtually all its supply of Manila hemp and over 90,000 tons annually of sisal, representing nearly 35% of the pre-World War II supply.[5] As a strategic item vitally needed in the war, hard fibers were in great demand. According to Hitchcock,

> . . . strenous efforts ware made by the American government throughout Central America and the Caribbean, and even in the rich food producing areas of

---

[1]Guillebaud, (1958), op. cit., p. 28.

[2]E.F. Hitchcock, Notes on the Sisal Industry, No. 2, (Tanga: Northern Province Press, 1946), p. 4. Also: Guillebaud, (1958), p. 26.

[3]Ibid., p. 1.

[4]"Empire Fibres for Marine Cordage," op. cit.

[5]Guillebaud, (1958), op. cit., p. 5.

> Wisconsin, to produce hard fibres; although millions of dollars were poured out in capital outlay, the schemes proved for the most part uneconomic, and their efforts to increase supply had little success.[1]

Since sisal is a long term crop, countries which were already producing had an advantage for there were fewer difficulties to overcome and expansion could be assured within a shorter time. Tanganyika as a major producer and with a strong organization was in a position to respond and become the world's largest producer of sisal even though the wartime demands helped Brazil emerge as a strong competitor. Fortunately for Tanganyika, there was a time lag before the Brazilian industry began to make significant contributions. Until 1945 there was no production in Brazil. In 1946 9,300 tons were produced in that country. Production rose to 25,000 tons two years later and doubled this figure by 1950. In 1955 Brazilian production reached 100,000 tons and a peak of 195,000 tons in 1965.[2] The Indonesian industry did not fully recover during the postwar period. In addition, the postwar consumption of sisal has plateaued at a much higher level than the prewar period,[3] because experience gained during the war generally dissipated prejudices in-

---

[1] Hitchcock, op. cit., p. 4.

[2] Guillebaud, (1958), op. cit., p. 7. Also: Food and Agriculture Organization of the United Nations, Study Group on Hard Fibres, Brazilian Sisal (Rome: 4th May 1967), Doc. No., CCP:HF 67/5, p. 11.

[3] See Table XIV p. 94 above.

Europe and Britain about using sisal instead of the traditional Manila hemp for marine cordage.[1]

Price Of Sisal[2]

One of the key economic features of hard fibers is that the demand for them is inelastic,[3] and there is little correlation between price movements and the annual production and consumption.[4] Since the main use of sisal is in agricultural twine, its demand depends upon the state of the world's harvest and shipping. Furthermore, because the fibers are only a very small fraction of the total cost of the operation in which they are used any steep rise or fall in prices will not affect demand.[5] Prices, in fact, have fluctuated a great deal.

During the early stages of the British administration the price for sisal was lucratively fixed at £99 a ton.[6]

---

[1]Guillebaud, (1958), op. cit., p. 40.

[2]The main purpose of this paragraph is to show the significance of sisal to the economy of Tanganyika. The complex mechanism which determines the price of hard fibers is therefore incidental. The market aspects of the hard fibers including sisal are succinctly described in Chapter 2 of Guillebaud, 2nd edition, 1966, op. cit., pp. 23-59. The periodic and current aspects of the market are described in an international journal, Hard Fibres (London).

[3]Guillebaud, (1958), op. cit., p. 17.

[4]Ibid., p. 30.

[5]For example, the cost of marine cordage required for a small merchant ship constitutes only a tiny fraction of the ship's cost.

[6]Hitchcock, Notes, op. cit., p. 5.

With the return to peaceful conditions in the 1920's the average price levelled off to £36 - 15shs.[1] Altogether, this was a profitable period for the plantations.[2] The world economic depression of the 1930's hit the industry hard. Prices were halved and then reached a low of £9 a ton. There was a recovery between 1934-38 which in the later years was partly accounted for by large demands for sisal from Germany. From the outbreak of World War II, and lasting for a decade, the price of Tanganyikan sisal was divorced from the world market prices and was politically determined by the British government.[3] Even taking into account the stringency required for the war effort, the prices paid for sisal by Britain are

---

[1]Eldred, Hitchcock, The Sisal Industry of East Africa, (Tanga, 1957), p. 10.

[2]According to a report of the administration, one estate in 1922 showed profit of £25,000 and a dividend of 10%. Gt. Britain Report On the Administration of Tanganyika, 1923 (London, H.M.S.O., 1924), p. 38.

[3]Guillebaud, (1958), op. cit., p. 31. Also: Hitchcock The Sisal Industry, op. cit., p. 13.

difficult to explain.[1] After 1948, sisal was back in the free market and the price for Tanganyikan sisal fluctuated a great deal [See Table XV].

TABLE XV

FLUCTUATION IN AVERAGE F.O.B.* PRICES FOR SISAL

(Prices in £ per ton)

Year	Price	Year	Price	Year	Price
1949	93	1956	58	1963	102
1950	100	1957	52	1964	105
1951	166	1958	52	1965	68
1952	137	1959	63	1966	60
1953	75	1960	75	1967	50
1954	65	1961	70	1968	57
1955	57	1962	72	--	-

*F.O.B. = Freight on Buyer.
Source: Compiled from Guillebaud, (1958), op. cit., p. 37, and FAO, Tanzania Sisal, op. cit., p. 11.

The high prices of 1949-52 were largely a result of stock-

[1] At first the price was fixed at £19 per ton c.i.f. (cost includes freight). The British Government was the sole buyer and made all purchases for France. Responding to a representation from the sisal growers, the price was raised to £ 26 per ton. With the fall of France, prices were once again lowered to £19 F.O.B. and growers in East Africa were asked to restrict production. With the fall of the Philippines and Dutch East India, these restrictions became unnecessary but prices were fixed at £22-5 per ton and rose to 27-12 in 1945-46. The prevailing world prices for sisal during this period were £40-46. At the cessation of hostilities the growers put on pressure again and prices were raised to £46 compared to £53-96 per ton on the world market. At low prices, large quantities of sisal were sold to the U.S. In 1948 the British Government ceased to purchase sisal and Tanganyikan sisal was placed on the market. The F.O.B. price for East African sisal was £86. Guillebaud estimates that the generosity of the British govt. led to a loss to Tanganyika of £11 million between 1940 and 1948. Guillebaud (1958), op. cit., p. 33.

piling.[1] The initial rise in the 1960's was based on the fears of unsettled conditions in Africa. Since 1964, over-production, the intrusion of synthetics and the disposal by the United States of its stockpile once again brought a decline in prices. To bring about stability, an international agreement has fixed export quotas among producing countries.[2] The repercussion of prices on the economy of Tanganyika has been considerable. They affected all aspects of the working relationships of the sisal plantations. An interesting feature is that during all the stages when prices were depressed production increased. Since sisal is a long term plant, the repercussions of a depressed market are not immediate. In addition, production can be maintained temporarily in the face of low prices by economizing on labor, cutting down on maintenance of the crop and replanting, and over-cutting leaves.

Sisal In The Economy Of The Country

In the decade before World War I the importance of sisal in the economy of the country took a remarkable turn.

---

[1]For a short time in 1951 the c.i.f. price at New York for Grade I sisal reached an all-time high of £256 per ton.

[2]The export quota for Tanzania was fixed in 1968 at 205,700 metric tons. F.A.O. Study Group on Hard Fibers, Report to the Committee on Commodity Problems (Rome: 22nd Sept. 1967) Doc. No. CCP:HF 67/14, Table 3, p. 12.

In rapid succession, it displaced ivory and coffee in 1904 and copra and wax in 1905. But even in 1910, rubber still occupied first place and accounted for nearly half of the total exports [See Table XIII]. The value of sisal exported was barely half of that of rubber. By 1913, when sisal eventually displaced rubber as the most important export, the contribution of sisal to the export trade of the country was valued at a little over 23%. These figures mask an interesting and impending conflict between African and European agriculture during the last years of German rule in Tanganyika. African peasant grown rubber, coffee and cotton began to compete with the same crops grown on plantations. World War I interrupted this progress of African agriculture much more than it affected sisal production. In spite of the efforts of occasional administrators of the zest and ability of C.C. F. Dundas[1] the recovery of African agriculture was slow and uneven during most of the British period until the end of World War II.

The initial resilience of the sisal plantations depended on fortuitous circumstances and recovery was rapid. The lessees did not have to undertake any heavy investment and could repay lessee fees in installments. The high prices

[1] Dundas was an administrative officer who in the '20's despite European official and unofficial opposition, was instrumental in founding the Kilimanjaro Coffee Cooperative comprising only African coffee growers. The scheme became a landmark in African peasant cooperative development.

paid for sisal not only meant that profits were good but also that the period of franchise enabled the interest in sisal plantations to be buoyant and expansive. During the early 1920's it was thus possible for sisal to contribute approximately the same percentage (25%) to export earnings as it had in the last year of German rule. With the permanent disposal of sisal plantations there was a rapid increase in production and, despite the fall in prices, sisal began to dominate the economy of the country more and more [See Table XVI]. In this position the sisal industry could negotiate from a position of strength.

TABLE XVI

SISAL IN THE ECONOMY OF TANGANYIKA TERRITORY

Period	Sisal Exports* (av.)	% of Total Exports	Period	Sisal Exports (av.)	% of Total Exports
1920-24	422	23.9	1956-60	11,761	26.2
1925-29	1,071	32.0	1961	13,650	28.0
1930-34	861	37.0	1962	15,408	29.0
1935-39	1,553	37.0	1963	22,438	35.0
1940	1,499	29.0	1964	21,420	31.0
1945	3,068	38.0	1965	13,736	22.0
1948-50	10,629	53.0	1966	12,000	14.0
1951	23,689	60.0	1967	10,100	12.0
1952-55	13,880	35.0	1968	11,115	10.0

*in £0000

Source: Compiled from Guillebaud (1958), op. cit., p. 119; Lock, op. cit., pp. 323-24; FAO, Tanzanian Sisal, op. cit., p. 11.

Any threat to the operation of the sisal plantations could be dubbed as interference which would jeopardize the economy

of the country. However, the effectiveness of the planters' position also depended on the type of organization they could establish as a group as well as the linkages they could secure with other institutions.

Institutionalization Within The Sisal Industry

Owners and lessees had been operating sisal plantations since 1916 without feeling the need for any organization. In 1923, however, with the proposed legislation of the Masters and Servants Ordinance and the changes in the terms of payment for plantations directly affecting the sisal growers, it became urgent to formally establish an organization. In December 1923 the leading sisal growers in Tanga formed the Planters Association and the Governor of Tanganyika was approached regarding matters directly affecting them.[1] They also expressed interest in the proposed formation of the Legislative Council. At the helm of the organization as its first chairman was Major Sir William Lead. His debut as spokesman of the sisal growers was the beginning of a long and distinguished service in the cause of the sisal plantations in Tanganyika. As an Englishman and an officer he was able to play a decisive role in influencing government

---

[1] TSGA, First Annual Report, 1937 (Tanga:1938), p. 1.

In 1924 the name Planters Association was changed to the Tanganyika Planters' Association.

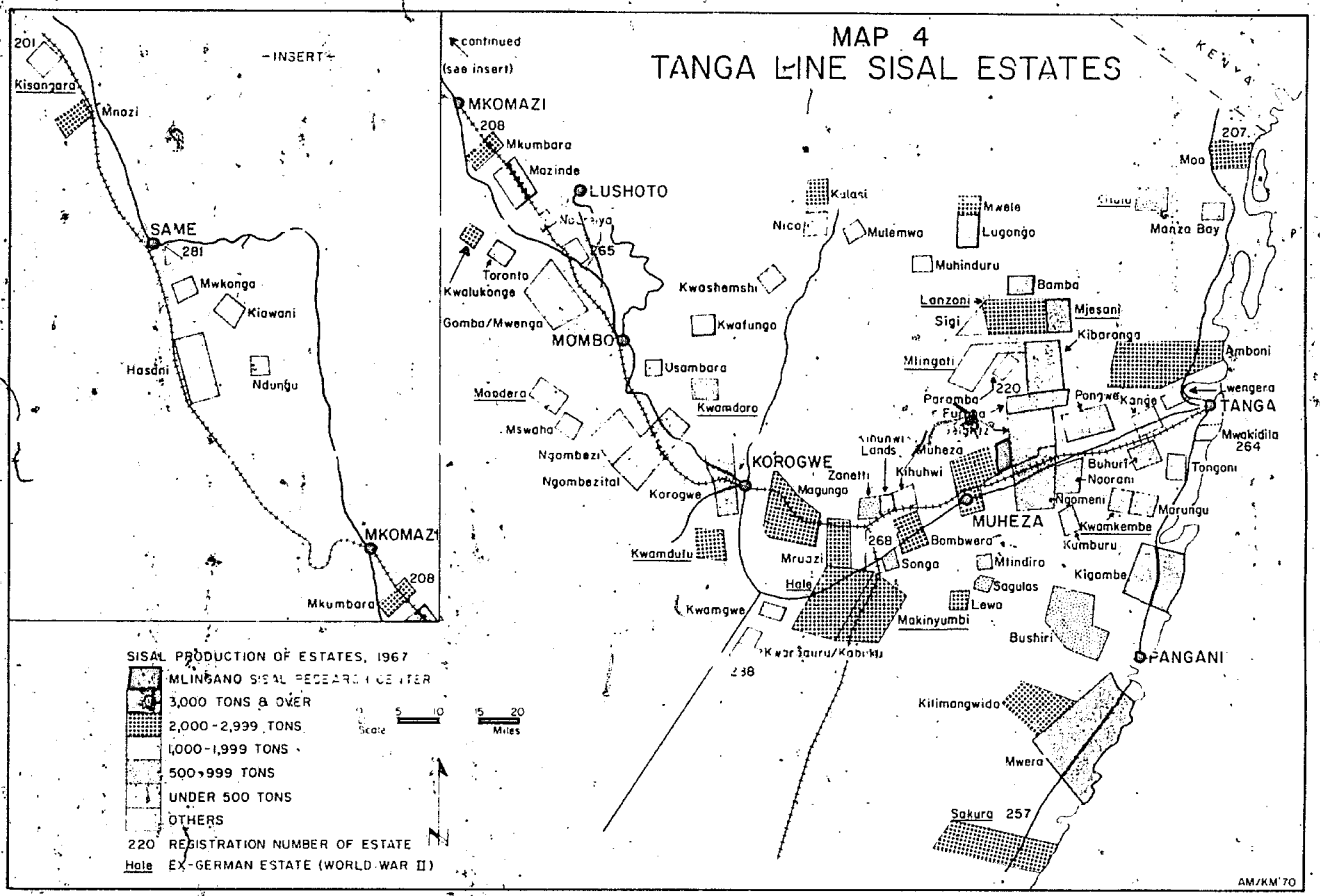
policy.[1] Although meetings were periodically held by the Association, it required the severity of the depression to make the Association an active and effective one. In 1930 the surviving but inactive Tanganyika Planters Association was reconstituted as the Tanganyika Sisal Growers Association (TSGA).[2]

Despite its name, the Association was representative only of the Tanga Region estates. If the name was not challenged, it was because the Tanga area was the largest and best established sisal region in Tanganyika [See Maps 1 & 4]. It took another six years before sisal growers in the south, central and northern parts of the country relinquished their

---

[1]The legislative Council for the country was formed in 1926. Although the Governor was the President and the official members had a majority with 13 members compared to 10 unofficial members, the unofficial members were allegedly "nominated without regard to representation of any particular race, interest or public body, and are selected as being those who are most fitted to assist the Governor in the execution of his responsibilities." Out of the 9 unofficial members nominated in 1929 (1 vacant), there were no African members, 1 Asian and 8 Europeans, mostly of British nationality. Four of them, including Major Lead, were army officers. Gerald F. Sayers, The Handbook of Tanganyika (London: Macmillan 1930), p. 115. The fact that Major Lead was English made him 'officially acceptable.' In contrast, some Germans were excluded from representation." The necessity of loyalty to the British Crown in mandated territories was never seriously discussed in the League of Nations.

[2]TSGA, First Annual Report, 1937, op. cit., p. 1.


MAP 4
TANGA LINE SISAL ESTATES
-INSERT-
continued
(see insert)
KENYA
MKOMAZI
208
Mkumbara
Mazinde
LUSHOTO
Nilo Siya
265
Toronto
Kwalukonge
Gomba/Mwenga
MOMBO
Kwashemshi
Kwafungo
Usambara
Kwamdoro
Maodera
Mswaha
Ngombezi
Ngombezital
KOROGWE
Korogwe
Zanetti
Magunga
Kwamdudu
Mruazi
Hale
Kwamgwe
Kwa Saguru/Kabuku
238
Kulasi
Nicol
Mulemwa
Mwele
Lugongo
Muhinduru
Bamba
Lanzoni
Sigi
Mjesani
Kibaranga
Mlingoti
220
Paramba
Fumba
Pongwe
Kange
Amboni
Lwengera
TANGA
Mwakidila
264
Tongoni
Kihuhwi Lands
Muheza
Kihuhwi
Buhuri
Nooranı
Ngomeni
Marungu
MUHEZA
Kwamkembe
Kumburu
268
Bombwera
Songa
Mlindiro
Kigombe
Sagulas
Lewa
Makinyumbi
Bushiri
PANGANI
Kilimangwido
Mwera
Sakura 257
Moa
207
Manza Bay
201
Kisangara
Mnazi
SAME
281
Mwkonga
Kiawani
Hasani
Ndungu
MKOMAZI
208
Mkumbara
SISAL PRODUCTION OF ESTATES, 1967
MLINGANO SISAL RESEARCH CENTER
3,000 TONS & OVER
2,000 - 2,999 TONS
1,000 - 1,999 TONS
500 - 999 TONS
UNDER 500 TONS
OTHERS
220 REGISTRATION NUMBER OF ESTATE
Hale EX-GERMAN ESTATE (WORLD WAR II)
Scale
5 10 15 20
Miles
N
AM/KM '70

independent status and became branches of the TSGA.[1] Some of the comprehensive objectives of the Association were:

1. To promote, protect and further the interests of the sisal industry in Tanganyika Territory.
2. To promote, support and oppose any legislative or other measures affecting the sisal industry.
3. To improve the methods of production and preparation of sisal fibre.
4. To make representations to Goverment.[2]

Soon after the sisal growers reconstituted their organization to form the TSGA, the chairman wrote a letter to the government.[3] In substance, the letter had three significant points to make. First, it implied that the reconstituted body would be more active than the former organization. Secondly, it stated that all sisal companies and planters of importance had already joined (the names of 11 members of the Committee were attached) and others were expected to join soon. Those that were members had agreed to be bound by the majority vote. Finally, the letter stated that the new body hoped for government sympathy and help in the direction of

---

[1] Ibid., p. 4. The Central Branch was formed in June 1936; the Southern Province Branch, in August 1936 and the Northern Province Branch, in October 1936.

[2] The other objectives of the Association are to be found in Memorandum of Association of the Tanganyika Sisal Growers Association (Tanga: TSGA, May 1931), pp. 1-12.

[3] Tanzania National Archives (hereafter TNA), File No. 19417, Tanganyika Sisal Growers Association, Vol. I Fol. 1, letter from Major Lead to the Chief Secretary, dated 6th December, 1930.

labor and research. A prompt reply from the Chief Secretary on behalf of the governor stated that the government welcomed the formation of the Association and assured the Association of his sympathetic consideration to any representation put forward by it.[1]

One of the major strengths of the Association was that it sharply reduced the risk of competition among the growers themselves. The TSGA consolidated its position through services and other activities and it became almost impossible for sisal plantations to exist outside it. The advantages of sacrificing individuality to majority vote was more than compensated for by gains. Between 1930 and 1935 the Association was thus able to standardize wages ostensibly 'in order that production might be maintained.'[2] Several concessions were obtained on transportation including the reduction of freight and lighterage charges, and the extension of the free storage period at the customs at Tanga from 7 days to 14 days.

The greatest advance, however, was made through representations to the government. Every attempt was made by the TSGA to establish rapport with the highest level rather than with the District or Provincial government officials.[3]

---

[1]Letter from G.F. Sayers, Chief Secretary to the Chairman of TSGA, dated 22nd December, 1930, in TNA, File No. 19417, Vol. I, op. cit.

[2]TSGA, First Annual Report, op. cit., p. 22.

[3]Ibid.

In this way it was possible for the TSGA to influence policy at the decision making level rather than at the implementing or regulating level. Eventually, it was accepted that information on discussion pertaining to labor and other related subjects would be sent to the Provincial Commissioners concerned.[1] It was stated, however, that the detailed minutes of TSGA meetings would not be of particular interest to the local daministration.[2] Once the organization could operate as an institution within the government it was in a commanding position. Being non-Africans growing an important crop, the sisal growers did not find it too difficult to maintain themselves as an institution within the government. The real difficulty was to operate within the framework of the government of the country while still retaining the independence of a separate institution. Early in the 1930's the government decided that certain well established agricultural industries should have a degree of autonomy through the

---

[1]Letter from P.C., Dar es Salaam, to the Chief Secretary, dated 21st Oct., 1937, in TNA, File No. 19417, Vol. I, op. cit. From this letter it seems that six years after the formation of the TSGA, the Provincial Commissioner was not kept informed about the affairs of the Association. He was therefore requesting for copies of the minutes of the meeting of the TSGA so that he could be informed of matters concerning labor and other subjects of interest. A minute in the government records expressed the view that the P.C. could not ask for full TSGA minutes.

[2]Letter from the TSGA to the Chief Secretary, dated 9th November, 1937, in TNA, File No. 19417, Vol. I, op. cit.

creation of statutory boards.[1]

The Tanganyika Sisal Board

The statutory Sisal Board went through several phases in which the relative power of the government and the plantation owners varied. The original Tanganyika Sisal Board was formed in 1934.[2] It consisted of two officials, the Director of Agriculture and the Government Treasurer and nine non-official members. The Board was created at a period when the sisal industry was facing severe difficulties brought about by the depression. The growers were, therefore, more than glad to receive assistance even if it was government assistance. As a reflection of the status of the industry, the functions of the Board were narrowly circumscribed but included the collection of a sisal cess (tax) and assistance in research.[3] An important feature of the Board was that its chairman was the Director of Agriculture, an official member,

---

[1]Statutory boards were established for sisal, coffee, tea, pyrethrum, flue cured tobacco and seeds. Although coffee was grown by Africans there was a large European settler community also involved in growing coffee for a board to be established. The only African grown crop with a board was cotton but its functions were mainly to equitably distribute ginning awards. J.E.R. Hill and J.P. Moffet, Tanganyika: A Review of its Recources and Their Development (Dar es Salaam: The Government of Tanganyika, 1955), pp. 494-95.

[2]Ibid., p. 428. Also: TSGA, First Annual Report, op. cit., p. 3.

[3]TSGA, First Annual Report, op. cit., p. 3.

rather than someone from the ranks of the unofficial majority. This served as a check against undue concentration of power in the hands of the industry.

The powers and functions of the Board were comprehensively broadened a few years later.[1] The number of unofficial members was still nine but they could now be nominated by the TSGA and approved by the Governor. The official membership was increased to four. One of the officials still represented on the Board was the Director of Agriculture. Despite pressure from the TSGA it was scheduled that the Director of Agriculture or his assistant was to be the chairman of the Board. The chairman had the casting vote in addition to the deliberative vote. As a corporate body the Board could alienate land and other property and could seek recognition in the United Kingdom or any other country as a representative body of the Sisal Growers in Tanganyika. Briefly, its three major functions were:

> 1. To expend, subject to the approval of the Governor, such public monies as may be placed at its disposal by vote of the Legislative Council or otherwise in such a manner as it may consider best calculated to promote the interests of the sisal industry.
>
> 2. To consider and advise the Governor upon measures for the promotion and protection of the sisal industry.
>
> 3. To receive, consider and advise the Governor upon recommendation advanced by the TSGA or other Association of a like character in the interests of the sisal industry.

---

[1] Tanganyika, Sisal Industry Ordinance, No. 22 of 1938, published in the Official Gazette, Dar es Salaam, Oct. 28, 1938.

Other functions dealt with the keeping of statistics, registration, grading, marketing, and publicity. Through the Sisal Ordinance the sisal growers were able to influence policies on rationalization of the industry.[1] These dealt with the questions of limitations on sisal production, disposal of German property (during World War II) and research.

Limitation of Sisal Production

The problem of limiting sisal production arose on several occasions after the early 1920's.[2] It will be remembered that during the German period the Tanga area represented the major sisal growing area, with minor centers in the South clustered around Lindi, and another small group in the Northern Province. In the middle of the 1920's, new plantations were started along the Central Line in the vicinity of Dar es Salaam, on the northern flank of the Uluguru Mountains where German interests had opened up the area for rubber, and also in the neighborhood of Kilosa, where the Germans had attempted to grow cotton on a plantation scale.

German property along the Central Railway Line

---

[1] Ibid.

[2] TNA, File No. 11475, Sisal in Tanganyika Territory Vol. I, Fol. 251. Letter from TSGA to Chief Secretary, dated 3rd November, 1931, outlining the main aspects of discussion between the Governor of Tanganyika and the TSGA.

offered large units of land to be leased or purchased. The cultivation of sisal was soon undertaken on a modest scale, especially by Greek and a few Asian farmers. Any thought of expansion, which normally would have followed after the first harvest, was interrupted by the economic depression of the early thirties. This effectively ended any rivalry between the established sisal plantations, mainly around Tanga, and the new ones along the Central Railway Line. The latter were able to weather the economic storm largely by inter-cropping sisal with cotton, maize and other crops.[1]

Restriction of sisal production had been considered by the TSGA for the first time in 1932,[2] but the rise in prices between 1934 and 1937 temporarily shelved the question of restriction and brought another spate of planting. In addition, many new applicants began clamoring for land to be alienated with the intention of growing sisal. When prices once again began to fall in 1938, there were fears that large stocks of sisal would remain on hand. Measures for restricting sisal production once again became a serious

---

[1]The writer, while visiting the Morogoro area in 1966, was surprised to find that the production figures for cotton in the 1930's in the area had not been equalled since. Enquiries at the Agriculture Department and among old sisal hands at Tungi Sisal Estate (Morogoro) verified the important role played by intercropped produce in the 1930's.

[2]TNA. File No. 28376, Sisal Restriction Legislation, Fol. 1. Extract of Minutes of the TSGA meeting of the 26th January, 1940 summarizing restriction proposals prior to 1940.

issue. At this time the sisal growers approached the Tanganyika government and, uniquely for a quasi-settler group, requested that no more land be alienated for sisal and that planting not be permitted without license. An exemption clause, however, stipulated that alienation to bring small existing estates up to an economic size should be permitted.

In 1939 Sir William Lead wrote to all the established producers that the answer to restriction of sisal production was not restriction of land alienation, as the growers were not in a position to know for what purposes the land would be used. He, therefore, favored that power should be given to restrict either the export or planting of sisal, or both.[1] Furthermore, he had stated that this control should be in the hands of the industry and not with the government. If he received the support of all the growers in East Africa, he would request the government to publish these intentions in the Official Gazette.

The fall of France in 1940 made the British government impose a quota on sisal so that the problem of restriction became urgent. A motion passed during a meeting at Tanga carried the resolution that the government of Tanganyika should introduce the Enabling Legislation of a Restrictive Nature to be drawn on the lines suggested by Sir William Lead. A representative from the Northern Line Branch agreed

---

[1]TNA, File No. 28376, op. cit., Fol. 3.

in principle about the restriction but wanted the assurance that bona fide estates be given the right to plant up their available land within a definite period of about three years. This would be protection against what was called 'pirates.'[1]

The observation by one of the members that Tanganyika grew only 20% of the hard fibers and that what was needed was an international agreement was not fully appreciated. The strong opposition of the Central Line growers, prompted by new planting, etc., to the proposal of restriction was defeated. The recommendations of the TSGA which were more representative of the views of the Tanga Line members were sent to the government.

The government did not seem to have a policy about the problem of restriction. In December 1939, a high level committee which included the Director of Agriculture, the Chief Secretary, the Treasurer and Sir William Lead had unanimously recommended that Sir William Lead should be asked to formulate definite proposals, in consultation with the sisal growers and the London financiers to control the output of East African sisal. The committee agreed that while these steps were being taken, the government was not to alienate any land which the Director of Agriculture had reason to believe might be used for sisal. Finally, it was also recommended that the governments of Kenya and Uganda

---

[1]TNA, File No. 28376, op. cit., Fol. 3.

should be informed about the actions that were being taken.[1] These recommendations were approved by the government on the same day that they were submitted.[2]

A letter from Sir William Lead, informed the Director of Lands and Mines that it was the Association's view that restricting output was not advisable or necessary but a large majority of all those concerned had agreed that measures of control by licensing plantations and planting would encure protection of the existing industry. However, since it would take at least a year for legislation to be enacted, he was requesting the Director of Lands and Mines that all applicants for crown land were to be informed of the impending legislation on sisal.[3]

The advice of the Chief Secretary was that the matter should be referred to the Sisal Board and, if the government accepted the recommendations of the Association, it would be necessary to warn prospective sisal growers about the restrictive measures.[4]

---

[1]TNA, Lands and Mines, Confidential File No. 57, Vol. II, Fol. 25.

[2]Letter from Sir William Lead to the Director of Lands and Mines, 27th March, 1940, in TNA, File No. 28376, op. cit., Fol. 4.

[3]Letter from Sir William Lead to the Director of Lands and Mines, dated 27th March, 1940, in TNA, File No. 28376, op. cit.

[4]Minute from Chief Secretary, in TNA, Lands and Mines Confidential File No. 57, Vol. II, Fol. 25.

In the discussion at the Sisal Board it was categorically stated by Sir William Lead that it was absolutely essential that the controlling authority exercising the power of whatsoever legislation was adopted should be integrated as part of the industry.[1] This was tantamount to saying that legislation was acceptable to the industry if the control was placed in the hands of the sisal industry. Such a policy, as Sir William was prepared to admit, was contrary to any previous experience in the dependent territory. It was customary for legislative control to be vested in officials of the colonial government. It was argued by the sisal growers that the normal procedure was not suitable for the sisal industry because it was the largest economic unit in East Africa, provided the bulk of the world's supply of hard fibers, and, with the disposal of land and labor in their hands, could hold a commanding position in the production of the world's hard fibers. Moreover, production was taking place in more than one territory. In addition, it was argued that official control was not suitable because the government lacked the ultimate knowledge of the world market and manufacturers' difficulties; the commercial aspects were involved; and, above all, the government did not (it was implied) possess the speed and commercial procedures which were essential

---

[1]Minutes of the meeting of the Sisal Board held in Dar es Salaam, 21st May, 1940, in TNA, File No. 28376, op. cit., Fol. 8.

for operating a scheme of the magnitude which was necessary to deal with sisal production.

The proposals show that the sisal growers were in a very commanding position. In addition, the argument that sisal was grown in more than one territory is interesting. The implication was that the sisal growers in Tanganyika had the support of their European counterparts in Kenya. Therefore the argument was aimed to forestall any objections of the government to their proposals on the grounds that they were too excessive.

The Sisal Board agreed to recommend to the government that the principle of control by the industry itself should be accepted. The Board also agreed that the TSGA should be invited to prepare the draft of the Enabling Bill which should then be published by the government.[1] These recommendations had the support of even the official representative, the Director of Agriculture, who was the chairman of the Board.

The colonial government of even the 1940's was not in a position to grant this autonomy. The fall of France and the imposition of a sisal quota by the British government, however, made it urgently necessary to have some control over sisal production. The government had emergency machinery to effect control through notices passed as Defense

---

[1] Ibid.

Regulations and accordingly control measures were passed in October 1940. The substance of the notice (No. 905) incorporating the measures was a warning to potential growers of sisal that restrictive measures might be introduced for the protection of the industry and that new interests would be the first to be affected in the event of these restrictions being passed.[1]

In a Board meeting after the decision to publish notice No. 905, Sir William Lead requested that it be put on record that the industry would only agree to control if the entire control were vested in the industry itself. There was also the allusion that financial interests at 'home' (England) would not permit any other form of control.[2]

The notice clearly implied that the government was not prepared to permit the authority for controlling the industry to be vested in the industry itself. This official response, contrary to the recommendations of the Board, is not as strange as it may seem to be. First, once away from the Sisal Board, it was possible for goverment officials to evaluate recommendations without confrontations with the sisal producers. Thus, for the first time questions could be raised and statements made about issues which had not been

---

[1]General Notice No. 905, published in the Official Gazette (Dar es Salaam), October 4, 1940.

[2]Extract of the minutes of the Sisal Board meeting held on 23rd Sept., 1940 in TNA, File No. 28376, op. cit.

considered by the official representatives on the Board. The following views were decisive in formulating the official opinion published in Notice 905:[1]

1. Control of the industry by the industry itself means control of the industry for the industry rather than control for the public good.
2. Control by the industry means control by those who happen to be in the industry and it would be easy to refuse permission to would-be entrants even if it was in the interest of the country to increase production.
3. State control of the rubber industry, in which complex interests were involved, had demonstrated for, rather than against, state control.
4. Control by the industry really meant control by the estate owners and not by all participants in the industry. For example, who was to represent the majority of the participants--the laborers?
5. If the industry was really so highly organized why could the TSGA itself not achieve an agreement with its own members?
6. The benefits of restriction in Tanganyika would not emerge unless production in other foreign countries was also restricted.

---

[1] These views were recorded by different officials in the Secretariat and other administrative offices. See TNA, File No. 28376, op. cit., pp. 1-9.

7. The production of tea and sugar were already restricted and restricting sisal would be detrimental to attracting private capital to develop the country.

8. The sisal industry had enough machinery and authority through the TSGA and the Sisal Board to ensure that measures likely to be against the interest of the industry were not instituted.

Secondly, apart from all these arguments, there was also the fact that the colonial administration could not delegate legislative power. Thirdly, the far-sighted among the sisal growers would soon realize that to influence official decisions was a more effective way of control than being actually involved in legislation.

The problem of control and restriction of the industry continued for some time. At a meeting of the Sisal Board in December 1942, it was resolved that an ordinance should be passed stipulating that:

> 1. After the date of the coming operation of this Ordinance no person shall plant sisal on any land in the Territory which has not been planted with sisal prior to such date unless he is in possession of a licence issued to him in that behalf by the Chairman on the authority of the Sisal Board.
>
> 2. Every such licence shall specify the acreage of such land on which sisal may be planted by virtue of such licence and no licencee under this Ordinance shall plant sisal on any such land in excess of the acreage so specified.
>
> 3. Every applicant for a licence must specify to the Sisal Board that he is in a position to produce sisal in accordance with his application having regard to:-

(i) suitable land
(ii) suitable arrangements for a factory equipped with machinery approved by the Board
(iii) adequate finance
(iv) such other conditions as the Board may from time to time require.[1]

Despite repeated requests by the Director of Agriculture as chairman of the Sisal Board, the government took no action for nearly 6 months.[2] By this time the whole problem of restriction had taken a new turn and the industry had adopted the attitude that any control even if executed through the TSGA must have the backing of the government through legislation.[3] Established plantation owners, in fact, had entrenched themselves and, because of a number of circumstances, no longer needed to fear competition from potential sisal growers.

There were a number of reasons which accounted for the change in attitude. War time conditions had practically nullified the prospects for competition and given those plantations that were already established an overwhelming advantage. For instance, as the war progressed, equipment and machinery became scarce and were generally not available. In

---

[1]Letter from the Director of Agriculture to the Chief Secretary, dated 28th Dec., 1942, requesting that the resolutions carried out during the Sisal Board meeting of 15th December, 1942, be acted upon. TNA, File No. 28376, op. cit.

[2]Telegram from the Director of Agriculture to the Chief Secretary as well as letter dated 25th March, 1943, in TNA, File No. 28376, op. cit., Fol. 24.

[3]TNA, File No. 28376, op. cit., Fol. 24.

fact, looking ahead in time, it took some three years after the end of the war before import controls were lifted. Opening new areas on a scale large enough to pose a threat to established owners was, therefore, out of the question. Then, too, although the Ministry of Supply in Britain had placed a quota on sisal with the fall of France, with the Japanese takeover of the Philippines and Java the quota system had been dropped and the price offered for sisal had been raised. The problem of shipping space and cost of freight was no longer the responsibility of growers but that of the British government.

Efforts could now be directed more towards meeting production requirements than fearing over-production. Increasing production on established plantations was a relatively easier task than initiating a new plantation. These advantages sprang from two aspects: German property which had come into existence at the onset of World War II and the extension of planting areas in plantations which had not been confiscated. But perhaps the most effective control of potential growers was related to the shortage of labor.[1]

---

[1]Since labor forms an important part of the plantation system, this aspect will be dealt with in a separate section of this chapter.

German Sisal Estates

At the commencement of hostilities German and Italian nationals, now considered as enemies, were quickly arrested, and their property, including sisal estates, was put under the Custodian of Enemy Property. The government had two alternatives for settling the confiscated sisal estates. First, it could seek the assistance of the sisal industry because these estates formed part of the industry. In this context, the government even had a ready channel for negotiation through the Sisal Board. The second alternative would be to ignore the existence of the sisal industry with which the confiscated estates had already established links and permit the Custodian of Enemy Property to independently manage these sisal plantations. The latter course would have been a retrograde step, would have made the government a direct participant in the sisal industry and would have opened a pandora's box in agricultural development in the colonies.

It was therefore not surprising that Sir William Lead, as Chairman of the TSGA and a member of the Sisal Board, was asked to provide assistance. A week later it was resolved at a meeting between the Registrar General as the Custodian of Enemy Property and the TSGA that in order to safeguard the interests of the sisal industry it would be preferable for the industry rather than the Custodian of Enemy Property to assume responsibility under the conditions agreed upon at the meeting. The government concurred with

the resolution. The TSGA, in fact, advised the government on leases[1] and a special sub-committee was formed for this purpose by the Association. The choice of lessees was governed by the following considerations:[2]

1. The proximity of the lessee's own estate to the leased estate.
2. The lessee's reputation in the industry.
3. Whether the lessee had adequate staff, labor and capital.

The estates were first leased for a period of one year and royalties were payable to the Custodian of Enemy Property. The terms and conditions were altered from time to time and in 1943 leases were granted for five years.[3] The views of the government and those of the Association as expressed by the Lessee Sub-committee at times differed markedly.[4] However, the fact remains that the leased estates

---

[1]Minute from the Financial Secretary, in TNA, File No. 28376, op. cit., p. 8. Also: File No. 29514, Minutes of The Tanga Branch of the TSGA and of the Committee of That Branch, Vol. I, Fol. 3, Minutes of the Tanga Branch Committee held on 6th March, 1941. See statement by Mr. Carson.

[2]Tanganyika. Dept. of Lands and Mines, Catalogue Relating to the Disposal of Ex-Enemy Estates in Tanganyika Territory, (Dar es Salaam: 1950), p. 1. Also, TNA, File No. 27789, Method of Disposal of Enemy Estates, Vol. III, Fol. 208, Memo. submitted by Hitchcock, "Ex-Enemy Estates and the Position of the Lessees."

[3]Tanganyika. Dept. of Lands and Mines, op. cit.

[4]Hitchcock's memo, "Ex-Enemy Sisal," in TNA, File No. 27789, op. cit., Fol. 208.

gave the whole industry a great deal of flexibility.

The German estates were on the whole large, well-equipped and well organized. On the eve of World War II, the 19 German estates (13 in Tanga alone) produced some 20,000 tons of sisal or nearly 1/5 of the annual quantity exported during this period. When the Ministry of Supply in Britain imposed a quota approximately equal to a 10% reduction in East African sisal exports, alien estates could be used to accomplish the reduction. [See Table XVII, col. 4] The total production from German estates as shown in Table XVII reflects this trend. Ultimately, reductions would depend on the comparative profitability of the lessees' own estates and those he had leased.

Similarly, as material became scarce, the leased estates represented a reservoir of equipment. When restrictions were removed the estates could be expanded because most of the German estates had ample reserve land (compare columns 2 and 3 of Table XVII). By permitting lessees to operate on a royalty basis, the government also eased some of the plantation owners' wartime scarcity of funds. The Germans and the few other aliens lost all their investment in Tanganyika but this loss was to the advantage of some of the large sisal plantations.

The eventual disposal of German sisal estates on long term leasehold bases took place in 1950 under a high level selection committee independent of sisal

TABLE XVII

CHARACTERISTICS OF FORMER GERMAN SISAL PLANTATIONS IN THE TANGA AREA

Plantation	Acres	Acres under Sisal, 1949	Production Diff. '40-41	Sales Price in £'s	Purchaser
Kwamdulu	10,000	4,274	-423tons	85,800	Amboni/Tungi
Sakura	4,574	2,786	-345	49,000	Amboni/Tungi
Hale	9,124	2,940	-844	67,900	Bird & Co.
Mlingote	3,372	2,033	-574	41,400	Bird & Co.
Mjesani	6,706	3,322	-672*	104,300	Ralli
Lanzoni	20,039	2,455	-733*	70,300	Ralli
Kisangara/ Lembeni	5,356	4,408	-136	?	Karimjee
Mandara	6,170	3,413	-713	59,400	N.V.J.
Kwamkembe	3,819	2,097	-199	61,000	Korogwe Sisal Estates
Kwamdoro	2,108	1,270	+ 33	21,700	Moshi Trading Co.
Kilulu	5,697	3,322	-1,186*	49,900	Kilulu Plantations
Makinyumbi	9,386	3,976	-565	59,200	Pangani Fibres

*Difference over an 18-month period.

Source: Tanganyika Dept. of Lands and Mines, op. cit. TNA, File No. 41686, Purchase of Ex-Enemy Estates. TSGA, "List of Registered Sisal Estates With Names of Owners or Lessees and Addresses" Mimeographed, June, 1965

interests.[1] The estates were advertised for sale in the United Kingdom and in East Africa. The TSGA attempted to get preferential treatment for the lessees.[2] In response to their request for preferential treatment the TSGA was informed that while no assurance could be given for such treatment the selection committee would undoubtedly give due consideration to the claims of the lessees, as well as to those of the other applicants.[3]

The well established sisal planters hardly need have worried about competition. There were many countries competing for investment and Tanganyika was just one of them. Thus, in the Tanga area the established sisal companies, such as Ralli (R), Bird & Co. (B), the Amboni/Tungi (A/T) complex and Karimjee Jivanjee & Company (K/J), acquired all but 4 of

---

[1]The team consisted of: Sir Claud Seton (Chairman), the Member for Agriculture and Natural Resources in the Legislative Council; Hon. J.F.R. Hill (Acting Member of Development and Welfare); Hon. I.C. Chopra; and J.H. Wallace, Esq. (Composition of the Committee obtained from the Debates of the Tanganyika Legislative Council, Sept., 1950, and Government Notice, 1251: Committee to Dispose Ex-Enemy Sisal Estates, (Dar-es Salaam, 1950).

[2]Two major files pertaining to the disposal of ex-enemy sisal estates, viz., LS/3040/3 and LS/3040/8 were not available for consultation. Hitchcock's memo., Enemy Sisal Estates and the Position of the Lessees, presents the views of the sisal growers and this contrasts strongly with the official stand reflected by the minute of the Custodian of Enemy Property to the Chief Secretary, TNA, File No. 27789, op. cit., Fol. 208.

[3]Ibid., Fol. 213.

the plantations offered for sale [See Table XVII].

The German sisal plantations which were confiscated offered plantation owners the flexibility and opportunity to close ranks and expand without getting involved in the whole question of new alienation of land.[1] There were other controls too which prevented indiscriminate expansion of sisal estates. In 1923 the British Administration, like the previous German one, declared that, apart from exceptional circumstances, certain districts were closed to further alienation.[2] These included districts in the Central, Northern, Tanga and Mahenge Provinces. In 1930 restrictions to alienation were also imposed on Lindi, Tabora, Mwanza and Bukoba Provinces[3] Expansion of sisal plantations could and did take place only if prospective growers had possession of alienated land previously used for other crops, e.g., rubber. The last of the new estates were established on such lands by the late 1940's when new plantations were established mainly in the

---

[1]Prospective sisal growers thinking in terms of plantations larger than 5,000 acres had to contend with the fact that alienation of land in this range required the approval not only of the Administration but also of the Secretary of State in Great Britain. TNA, File No. 30549, Enquiries re Enemy Estates. More precisely, there were 169,059 acres of German sisal estates out of a total of 495,238 acres. TSGA, Annual Report, 1950 (Dar es Salaam, 1950).

[2]Charlotte Leubuscher, Tanganyika Territory, A Study of Economic Policy Under Mandate (London: Oxford University Press, 1944), p. 22.

[3]By the 1930's, therefore, all the sisal growing districts were included in the restricted areas, i.e., Tanga, Arusha/Moshi, Morogoro, Kilosa, Lindi and Dar es Salaam.

Lwengera Valley in Tanga.[1] A few other sisal growers in Tanga could expand by contending that their estates were not economic units.[2] The granting of these extensions was helped in many cases by the low population density in the area where estates were located. In contrast, attempts to use these tactics in the relatively densely populated cotton growing areas around Lake Victoria were blocked.[3]

Exclusive Research For Sisal Growers

Because of the great degree of specialization in monocultured agriculture, research becomes vital. The Germans, who had realized the significance of agricultural research centers, had built several of them in the country. Among these centers the Institute at Amani became one of the most outstanding research centers in the tropics.[4] The numerous activities at the center included the introduction and trial of new plants in German East Africa.[5] After the war the

---

[1] These estates included Kulasi and Mulemo.

[2] TNA, File No. 41081, Sisal: Economic Units--Question of (in Relation to Areas Closed for Future Alienation.)

[3] Memo from Chief Secretary's Office, Dar es Salaam, 13th May, 1950, TNA, File No. 41081, op. cit.

[4] Harlow et al., op. cit., p. 144.

[5] Dr. K. Braun seems to have directed most of his research efforts towards sisal. See numerous references to him in the previous chapter.

station was run down and eventually closed. The far-sighted among the planters, including Sir William Lead, realized that research on sisal was crucial and in 1924 petitioned the East African Commission to re-open the Amani Institute. When it was reopened, a slender budget and wide commitments spread its efforts too thinly to be of much use to sisal growers.

By the late 1920's, the impetus for a separate research center was gaining ground among plantation owners and the topic was once again taken up in earnest. This pressure for a center was largely brought about when banks, at the first sign of economic depression, began to demand increased output of sisal before granting any financial advances to the sisal growers. A special TSGA deputation went to Amani to discuss the whole matter of research with a group consisting of high ranking officials from the Department of Agriculture and from the Research Center itself.[2]

Major von Brandis, a prominent sisal grower in Tanga, suggested that research should be directed towards developing plants with higher yields. When the director at Amani replied that this was being done, Major Lead wanted the assurance that the station would be adequately equipped and that the staff would be engaged exclusively on research on sisal.

---

[1]TSGA, First Annual Report, op. cit., p. 1.

[2]TNA, File No. 11475, op. cit., Vol. I, Fol. 118.

As it turned out, this was not the case. It was reported that the plant breeder and the physiologist were being used both for coffee and sisal research.[1] Without additional funds there was little hope for improvements.

Another member of the deputation, Stockdale, commented that in Kenya it was being proposed that sisal research be subsidized by funds from the Department of Agriculture. It was his view that the sisal industry itself should carry out the research after the Department of Agriculture had laid down priorities for investigation. Two other crucial questions were raised by Major Lead. First, he maintained that sisal planters should not be called upon to provide finances since sisal research was a matter which affected the whole British Empire and that the government had done little about it. Secondly, a sisal experimental station was urgently required, but improved methods of cultivation could only be studied along the Tanga Railway Line or along the Coast (i. e., where most of the plantations were located).

Meanwhile, the price of sisal continued to fall and the question of research was now enlarged to include marketing. An impetus to government involvement was given when the Deputy Director of Agriculture was transferred from Tanganyika Territory to Kenya. With the support he could now get from Kenya he suggested that there should be a meeting between producers and exporters and that the question of marketing

---

[1] Ibid.

and research should be taken up by the two governments.[1] The Tanganyika governments response was consistent with its previous position. It stated that marketing was primarily a matter for the sisal growers but agreed that the two department of agriculture should discuss agricultural and technical matters.[2] The Tanganyika government, however, had no objections to growers in Tanga and Kenya making their own marketing arrangements.[3]

A new turn of events broke the stalemate regarding finances and research. As the depression became more serious and the planters reactivated their Association, they not only tried to obtain recognition of their corporate status but even voluntarily accepted the principle of taxation of sisal exports by the government.[4] The important proviso

---

[1]Letter from the Chief Secretary of Kenya to the Chief Secretary of Tanganyika, dated 22nd April, 1931, in TNA, File No. 11475, op. cit., Fol. 154.

[2]Letter from Chief Secretary, Tanganyika, to Chief Secretary, Kenya, dated 9th June, 1931, in TNA, File No. 11475, Vol. I, op. cit.

[3]The proposed meeting was held in Tanga and sisal growers from Kenya and Tanganyika discussed several matters of mutual interest including the question of marketing, research, and the mechanical drying of sisal for improved quality. TNA, File No. 11475, Vol. I, op. cit., Fol. 188-195.

[4]The Sisal Hemp (Export Tax) Bill, to impose this tax was enacted on 14th November, 1933 and charged the growers a cess of 50 cts. for every ton of sisal exported. By General Notice No. 404 published in the Official Gazette, (Dar es SAlaam, 20th April, 1934) the cess was raised to 1/-.

of the sisal growers, however, was that the cess (tax) was to be used for research. In addition, the government seems to have agreed to provide supplementary funds equal to the cess collected.[1] When the government tried to insist that money from the cess would be used for a research station in Tanganyika but not for maintaining research and statistics in England, the growers retaliated by opposing the sisal cess.[2] To complicate the issue, the British government refused to allocate funds from the Guaranteed Loan and the Tanganyika Government was embarassed that it did not have funds to match the sum collected by the cess. Since the majority of growers were not British, there was also the danger that research work might be done in other countries. The difficulties were resolved when the Colonial Development Advisory Committee agreed to grant half the recurrent expenditure on a local research station (£5,500 for 5 years).[3] Since the sisal growers had already gone ahead and voted a sum of £900 for overseas research, it was expected that the

---

[1]TNA, File No. 22192, Sisal Tax, Vol I, letter from the Governor of Tanganyika to the Colonial Secretary, 2nd. March, 1934.

[2]Through an administrative oversight, while a dispatch was sent to the Colonial Secretary regarding the cess, no mention was made about the important proviso of the growers that money from the cess would be used for both local and overseas research. Letter from the Governor to the Colonial Secretary, 2nd March, 1934, TNA, File No. 22192, op. cit.

[3]Ibid.

Colonial Development funds could be used there too. With funds now assured and the government of Tanganyika formally linked with the sisal growers through the Sisal Board, the last objection to the creation of a research center was removed.

In 1934 the research center opened at Milingano on the grounds of one of the sisal plantations. In many ways, the site of the station was an improvement in that it was more typical of sisal land than had been the hilly locality at Amani. Even in the 1935's the sisal cess was in excess of £3,600 (on 72,000 tons) per annum so that it could afford to meet the recurrent expenditure, while the cess from the government could be used for capital costs. By 1947-48 the industry was affluent enough to voluntarily subscribe a research fund of £230,000 to repay the government for its loan and to assume full responsibility for the station.[1]

The significance of a research center exclusively devoted to sisal cannot be overstressed. First, prior to the establishment of Mlingano, planters had followed rules of thumb in growing sisal. The fundamental research work done at Mlingano produced outstanding and lasting effects. Secondly, the center permitted plantation owners, through the Sisal Board, to prescribe experiments. Thirdly, the

---

[1]Lock, op. cit., p. 14.

center gave continuity to research personnel and activities. For instance, Mr. George Lock, its first director, performed services which spanned a period of over a quarter of a century. Mr. Lock and his staff turned Mlingano into the world's most outstanding sisal experimental research center.[1] As a result, sisal cultivation in Tanganyika was mostly based on scientific principles.[2] This is illustrated by the way in which planting densities have been increased from 1,600 to an average of 4,000 to 6,000 plants per hectare. The climax of the botanical research was the prolific hybrid No. 11648 which bears over 600 leaves.[3] Most plantation owners were not slow to take advantage of the services of the research

---

[1] "Tanganyika Sisal," reprinted from a series of special articles by courtesy of the Tanganyika Standard, May 11 to 14, 1949, p. 2.

[2] Lock's book, Sisal, op. cit., is a standard reference on the crop. It is based mainly on the first twenty-five years at Mlingano. In 1965 a compilation based on Lock's book and other findings of the Mlingano Research Center was published as A Handbook for Sisal Planters, op. cit. Notable features of this compilation are its copious illustrations, loose-leaf binding and pagination which permits additions to be included as they come.

[3] An ordinary sisal plant bears 200-250 leaves. Field trials with the hybrid were started in 1956. Because it is not as hardy as the ordinary sisal plant and its environmental tolerance is limited, the hybrid was not diffused widely. Experimentally, it is possible to obtain 62 tons of fiber per hectare from hybrid compared to 22 tons from ordinary sisal. J.F. Osborne, The Prospects for and Limitations of Long-Fibre Agave Hybrids (Tanga, Mlingano Research Station, Bulletin No. 45 of 1967).

center.[1] Various other research work has been commissioned by the growers to assist in cutting down production costs.[2]

Administrators And The Sisal Growers

The responses of the British administration to the sisal plantation owners varied from ones that could be called compromises to others where it seemed to surrender to the demands of the sisal growers. There are several reasons why the administration could not be consistent.

According to Lugard, the mandate was "the latest expression of the conscience of Europe in regard to peoples not yet able to stand by themselves,"[3] and under Article 3 the mandatory power had to agree to "undertake to promote to the

---

[1] P.R. Lawrence, The Adoption of Innovations and Research Recommendations in the Sisal Industry of Tanzania, (Dar es Salaam, Economic Research Bureau, University College, ERB Paper 69.22, 1969). According to the author, 80% in his sample of estates used the Research Center but were selective in using the innovations.

[2] The major works in this category are: Guillebaud's An Economic Survey of the Sisal Industry of Tanganyika, op. cit. and International Land development Consultants N.V. (ILACO), Determination of Tasks and a Study into the Improvement of Methods in the Production of Sisal (Arnhem: 1966). The TSGA, however, has avoided any sociological surveys so that despite the organization of the industry and the great effect it had on the people of Tanganyika, there are no studies comparable to other plantation studies, e.g., Edwin and Shirley Ardener and W.A. Warmington, Plantation and Village In the Cameroons (London: Oxford University Press, 1960).

[3] Quoted in Leubuscher, op. cit., p. 9.

utmost the material and moral well being and the social progress of the inhabitants."[1] Material development could be brought about by stressing peasant agriculture through the infusion of administrative manpower, or by encouraging non-African development. The Mandatory power in Tanganyika chose both possibilities and tried to achieve an equitable balance between the two. Non-African interest, on the other hand, while paying lip service to dual development, was constantly on the back of the administration to give in to its pressures.

The affairs of the mandated territory as much as of any colonial dependency were open to the influence of both the official as well as the unofficial members of the legislative council of the dependent territory. The majority of the unofficial members of the Legislative Council in Tanganyika were British and sympathetic to the British cause. In difficult situations the unofficial members made it a point to show that they were loyal British settlers.[2] They could also be assured of support from British settlers in Kenya whose position was relatively entrenched. The administration,

---

[1] Chidzero, op. cit., p. 259.

[2] Tanganyika Legislative Council, Proceedings (Dar es Salaam, 1931) pp. 84-85. According to the Hon. Brig.-Gen. Boyd-Moss, "...I do not think anywhere in the world you would be able to find men more loyal to their King and to the Empire than the British settlers in East Africa. It is our intense patriotism and our faith in our fellow-countrymen that makes us resent so bitterly. . . ."

too, made it a point not to depart too radically from policies followed in Kenya and Uganda. The unofficial members also formed part of the social clique with the elite of the administration. Therefore, the members preferred to solve their issues at the top level. As a result of this contact it is not surprising that unofficial members were not pleased with Governor Symes for abolishing the Labour Department and bestowing many of its functions on the Provincial and District Administration.[1] At the top level, the colonial administration, on its part, had to be careful not to antagonize and lose the support of the unofficial members. Sir William Lead, as leader of the unofficial members, knew the weaknesses and the strengths of the whole system. The major gains of the sisal growers occurred under the leadership of Sir William Lead and stem from the manner in which the TSGA maneuvered to operate within the structure of the government, e.g., the Sisal Board.

The administrative structure was often too flimsy to implement decisions and this was aggravated by the lack of adequate data. Until the administrators knew more about labor, housing, health and dietary habits it was difficult to recommend changes. The administration also had to be careful that in drawing up recommendations and legislation it

---

[1] Ibid., p. 95. Governor's address to the Legislative Council, 20th October, 1931.

did not then become responsible for implementing them.[1]

Despite legislation, the administration also had at time to bow down in the face of practicalities. Nowhere is this more clearly demonstrated than in the case of the Kipande system of labor contracts.[2] After vigorous attempts to abolish the system the government was forced to legalize

---

[1]In order to improve the rations given to the laborers, the government recommended that the diet of laborers should contain meat. The attitude of a number of estates and the sisal regional bodies was that if the government wanted laborers to be fed properly, it was the responsibility of the government to see that rations were available at economic prices. TNA, File No. 23535, Meat Supplies to Sisal Areas, Vol. I and II, Fol. 4, (Vol. I), Letter from Provincial Commissioner, Tanga, to Chief Secretary, 14th April, 1938; Fol. 1 (Vol. II), Comments by Labour Commissioner, 23rd May, 1947; Letter, Ref. No. 73/471 from the Provincial Veterinary Officer, to the Director of Veterinary Services, Mpwapwa, 22nd, December, 1946, complaining that on the principle that it was the government's duty to see that laborers were fed a proper diet, the TSGA refused to appoint agents to purchase meat from the Northern Province.

[2]In the Kipande (ticket) system, the laborer agrees to perform x days of task in (x + y) days. Payment, however, is only for x days. Thus, laborers hired for a kipande of 30 days work were permitted to complete this task within 42 days. This system was advantageous to the casual laborers who ostensibly would use their leisure time to complete the x days of work. If anything, the system encouraged absenteeism. The employers in most cases had the benefit of a large floating labor force. Although the Kipande system was modified through the regulation clause providing that payment had to be made monthly, this was generally ignored by the laborers and employers alike and it was not until March 1960 that the Kipande system was officially abolished in the sisal industry.

it.[1]

Finally, as long as the administration looked to the industry for advice, it was inevitable that changes would be guided by the interests of plantations. To effectively achieve their interests, the sisal growers had to stave off non-plantation competition. The focus of the next chapter will be on the attempts by the non-plantation growers to encroach on the monopoly of the sisal planters. The success of this encroachment depended as much on the political and economic conditions arising with the independence of the country as the plantation system had depended on conditions inherent in a colonial administration.

---

[1]Gt. Britain, Report On the Administration of Tanganyika Territory, 1926 (London: H.M.S.O. 1927), p. 21. According to the administration, "The 'Kipande' system, however, is so firmly established and so widely accepted both by employers and employed, that it was thought desirable to give it legal recognition . . . ."

CHAPTER FIVE

PEASANT COMPETITION AND THE PLANTERS[1]

Towards the end of German rule in East Africa, definitive statements that sisal could best be grown on a plantation scale were made and they went unchallenged. Eventually, these statements were interpreted to imply that sisal should only be grown on plantations and to justify exclusive non-African cultivation.

The notion that plantations were an ideal organizational form for sisal cultivation was supposedly based on economic grounds. The origin of this line of thought was the inadvertent result of a comprehensive survey on sisal which Braun published between 1906 and 1909 in several issues of Der Pflanzer.[2] Braun's training seems to have been more in

---

[1]Unrestricted peasant participation in the sisal industry was permitted only after the independence of the country in 1961. The two episodes described in this chapter are dealt with in some detail to clear a misleading impression given by published sources that Africans showed no inclination to grow sisal during the colonial period. Because the question of African grown sisal was a sensitive issue with the colonial government and the TSGA, documentary sources pertaining to this subject are hard to come by. The letters in the two files in the National Archives were therefore invaluable in reconstructing the reactions and attitudes towards African participation in the sisal industry.

[2]K.Braun wrote a series of articles entitled "Die Agaven ihre Kultur und Verwendung," which were published in Der Pflanzer between 1906 and 1909. The articles cited in this work were published in the following numbers: 1906, Nos. 18 and 19; 1908, Nos. 4, 6, and 7.

agricultural science than in economics. However, since an important function of Der Pflanzer was to keep German settlers informed about agricultural matters and the potentialities of new crops, Braun's survey attempted to cover production costs, labor requirements, and the general organization of plantations. Braun himself cautioned his readers that since plantation owners were reluctant to release precise information on yields, costs, and other related matters, his figures and calculations were essentially estimates.[1] Braun's model calculations were kept alive by a generation of German writers.[2] Shortly before World War I, Professor W.F. Bruck categorically stated at the Third International Congress of Tropical Agriculture that:

> The cultivation (of sisal) has proved most successful where worked on a large scale. Therefore, it can only be carried out in a profitable manner by sufficiently well-founded companies. In point of fact, the bulk of this material exported from our colony is produced by a limited number of plantations only . . . . The machine which is most commonly used in East Africa, Krupp's 'Corona' machine, decorticates 100,000 to 120,000 leaves daily. The labour question alone absolutely demands the use of such large machines. Since a single plant produces about 250 leaves during the term of its life, it is

---

[1]K. Braun, "Die Agaven, ihre Kultur und Verwendung" Der Pflanzer, Vol. IV, 1908, No. 6, pp. 9203.

[2]Franz Stuhlmann, Beitrage zur Kulturgeschichte von Ostafrika (Berlin: Reimer, 1909); Hindorf, op cit.

easy to estimate that for a profitable cultivation of sisal the area available must be very large.[1]

These statements were persuasive and accepted though there is no record of any scheme being tried which demonstrated that peasants would find the cultivation of sisal unprofitable. Despite the lack of empirical evidence, the former arguments were accepted because in an age of colonialism they fitted with the general view of education, technology and development in the tropics. The strength of these arguments lay in the fact that they helped to divert attention away from more crucial questions. For instance, could the cultivation function not be divorced from the processing?[2]

Sisal plantation owners in Tanganyika have always considered peasant grown sisal as a threat to their own continuity. Therefore, it is not surprising that they have maintained, but with changing reasons, that sisal could only be grown on a large scale. Policies to keep the status quo were undertaken by the administration and continued with its help.

Concrete proposals for peasant participation in the

---

[1]W.F. Brück, "The Present Position of Fibre Cultivation in the German Colonies," Proceedings of the Third International Congress of Tropical Agriculture (London: Bale, 1914), pp. 309-310.

[2]Sisal is not the only crop in which the processing equipment is beyond the financial means of peasants or small farmers. Cotton and sugar processing also require expensive equipment. The processing function in most of these cases is separated from cultivation which is undertaken by peasants.

sisal industry were suddenly sprung on the British administration in 1937. A certain Major L.A. Notcutt asked the government about the practicalities of a commercial smallholder sisal scheme for African based on the following proposals:

> 1. . . .a public-private company, i.e., one in which the Government grants certain facilities in return for control and share interest, whilst the finance and management is commercial.
>
> 2. . . .each native applicant would be granted up to say 20 acres of which 1/2 is to be planted with sisal and 1/2 with food crops in rotation. He would receive a periodic cash advance against his future sisal crop, the loan being repayable over a number of years.
>
> 3. When sisal is mature, there would be communal ox-carts to enable the small holders to convey their leaves to the numerous buying points which would be connected by permanent light railway to the factory.
>
> 4. At the buying point he would receive a ticket for the number of square metres of leaves he brings in and he could cash the tickets for a fixed price adjusted to the current value of sisal, the price being one which gave the company a reasonable profit.
>
> 5. [The] idea would be to undertake such a scheme in the Moshi area (a) because of the high degree of agricultural skill and business intelligence of the Wachagga, and (b) because of it might be popular there on account of the shortage, so I am informed, of land for coffee.[1]

He justified his scheme on the grounds that:

> . . .an acre of good sisal nowadays yields something like £15 per annum and there are not many native crops which will do that.[2]

---

[1]TNA, File No. 25019, Growing of Sisal by Natives, Vol. I, Letter from Major L. Notcutt to G.F. Sayers, dated 24th April, 1937.

[2]Ibid.

The reaction of the Director of Agriculture, to whom the letter was re-directed by the Executive, reflected the thinking of and the pressures on, the administration. He disapproved of the idea of a public/private company and the government's role in it. He questioned whether the government should participate in the sisal business and enter into partnership in a scheme in which Africans would be made to grow sisal. There was no reason under the law why plantation growers could not divide their estates into small units to be maintained by smallholders. Then too, the government was not convinced that the sisal industry was incapable of expanding itself without the option offered by Major Notcutt. Above all, he asked what the industry would have to say about over-production and the danger of the old bogey of natives invading the planters' sphere not only advised by the government but also financially assisted by it. His despatch concluded by stating that the scheme would not be popular with the Chagga who would have to live in the flats and perhaps contact malaria. Also since the proposals had previously been rejected, the government still did not want to be a partner in it.[1]

This reaction of the Director of Agriculture was a mixture of facts, gross assumptions and a misconstruction of

---

[1]Letter from the Director of Agriculture to the Chief Secretary, dated 11th May, 1937, in TNA File No. 25019, op. cit.

statements. For instance, Major Notcutt made no implication that Africans should be made to grow sisal by the government. Similarly too, if there was no reason under the law why plantation owners should not assist peasants, there was also nothing in the laws forbidding the government from assisting African peasants. If the government was so certain about the attitude of mountain people moving into the plains because of malaria, how could it explain the movement of labor from the Southern Highlands to the sisal growing areas? Basically then, the real reason for government opposition to the scheme was probably the fear of the growers reaction. The Chief Secretary curtly informed the Major that his proposals were unnecessary as the sisal industry was able to develop on its own.[1]

The matter might have ended there if Major Notcutt had not had the impression that his scheme had not been clearly put to the government. He therefore started elaborating his proposal to administrators at the provincial level. In a letter to the Senior Agricultural Officer, Moshi, he effectively argued that since sisal was regarded as a non-native crop because of the capital involved, it might be possible to draw up a scheme in which investors could be attracted to provide the capital and Africans could be assured of a fair and profitable deal by selling

---

[1] Letter from the Chief Secretary to Major Notcutt, dated 28th May, 1937, in TNA File No. 25019, op. cit.

leaf. As a potential investor himself he directed attention to the fact that the overhead capital for peasants would be minimal compared to that required for a similar undertaking on a plantation organization.[1] Provisions would have to be made, however, to safeguard African interests. Similar letters were sent to Kenya and to the Senior Agricultural Officer, Mwanza. It must be added here that both the Mwanza and Kilimanjaro areas had heavy population densities and farmers apparently were prepared to accept a profitable economic proposition. The response of the lower echelons of the administration contrasted sharply with that of the Executive.

The Senior Agricultural Officer at Moshi promptely replied that the possibilities of sisal production by Africans on small holdings had been in his mind for several years. He thought that the northern part of Tanganyika (his area) with its progressive African peasants was a good place to initiate such development. However, since the proposals were outside simple agriculture, the views of the government would have to be sought, but he was willing to tentatively discuss the problem and come up with some concrete proposals.[2]

---

[1]Notcutt to Senior Agricultural Officer, Moshi, letter dated 7th June, 1937, TNA File No. 25019, Vol. I, op. cit.

[2]Senior Agricultural Officer to Notcutt, letter dated 14th June, 1937, TNA, File No. 25019, Vol. I, op. cit.

Following standard civil servants' procedure, the Senior Agricultural Officer at Moshi sent the relevant information to his superior, the Director of Agriculture. The response was quick--a telegram of disapproval. The letter which followed stated that Notcutt had already submitted his proposal to the government and had recieved an adverse reply.[1] The Director reprimanded the Agricultural Officer for not consulting him before enthusiastically responding to Notcutt's proposal. His concern was that the Senior Agricultural Officer's response might be construed to mean the approval of the Department of Agriculture. With this implied consent, Notcutt could possibly have attracted investors and the plantation owners would then be aroused by the possibility of Africans encroaching into their sphere. The Department would then be regarded with resentment and suspicion.

According to the Director, the scheme was undesirable for three reasons. First, the Africans in Tanga and the Northern Provinces had several other opportunities for employment and advancement. Secondly, the government had no intention of participating in a public-private company. Thirdly, the Chagga had shown no inclination to move to the plains and neither was the population pressure forcing them to move into the plains. In addition, since the people in the area had not responded to the Administration's plan to-

---

[1]Director of Agriculture to Senior Agricultural Officer, Moshi, 22nd June, 1937, TNA, File No. 25019, op. cit.

move into the plains and cultivate maize, it was unlikely that they would move to cultivate sisal.[1] The Agricultural Officer at Moshi had no course but to submit to his superior. In a subsequent communication to the Major the Agricultural Officer withdrew his support and stated that no useful purpose would be served in pursuing the matter further since Notcutt had already put his proposals to the government and had received a reply.

Suspecting that there was a misunderstanding, Notcutt, once again, approached the Secretariat.[2] He clarified his position that in initiating the proposals he was not asking the government to give him money but was merely inquiring as to whether there were any snags to his proposals. The Chief Secretary's reply had not informed him of any inherent impossibilities in his scheme. The Major understood the government's objections to a private-public company but he had favored it only because it would have protected African interests. Before going to Moshi and consulting the Agricultural Officer he wanted to know whether there were any snags in his proposals as this would save his time and that of the officials. Official consternation was reflected in the urgency with which the Chief Secretary responded to Notcutt's

---

[1]As time was to show; the Wachagga responded by retaining their homesteads in the highlands while cultivating maize in the lowlands.

[2]Notcutt to Chief Secretary, 20th July, 1937, TNA, File No. 25019, Vol. I, op. cit.

inquiries. A telegram was despatched coldly informing Notcutt that no useful purpose would be served by discussion with local agricultural officers.[1] In a lengthy letter sent on the following day, the government's objections were stated along the lines proposed by the Director of Agriculture and ended with the view that there was no point in pursuing the discussion further.[2]

Undaunted, and still believing that government objections were essentially financial, Major Notcutt presented his proposal to the Provincial Commissioner in Tanga.[3] He took great pains to state that he was not asking for government money, but was merely trying to obtain support for his plans. He gave more advantages than before as to why sisal was an ideal crop for African cultivation, viz., it was comparatively free of disease, its cultivation was simple, it could be harvested throughout the year, and it was not seriously affected by the climatic vagaries of East Africa. He also considered it far more satisfactory that Africans be smallholders rather than laborers. Plantation owners themselves might realize the advantages of his scheme and solve the

---

[1]Chief Secretary to Notcutt, letter dated 23rd July, 1937, TNA, File No. 25019, op. cit.

[2]Chief Secretary to Notcutt, correspondence dated 24th July, 1937, TNA, File No. 25019, op. cit.

[3]Letter from Notcutt to the Provincial Commissioner, Tanga, dated 15th September, 1937, TNA, File No. 25019, op. cit.

labor problem by leasing their estates to Africans. The danger of over-production was not so real because if this danger did arise, capital would not be available for the scheme. If labor shortages were in fact going to curtail the East African sisal industry, it would be advantageous to encourage Africans to grow sisal. He maintained that as long as vested interests were not unfairly affected, there would be great advantages in Africans growing sisal. Almost prophetically Notcutt drew attention to the possibility of sisal being used in resettlement schemes. Finally, he stated that if the government informed him that his ideas could not be entertained he would consider the subject closed.

The Provincial Commissioner, while not committing himself to Major Notcutt, was quite explicit to the Chief Secretary about his own personal views.[1] He favored the whole scheme as he had entertained similar views but was prevented from implementing them because of the lack of finances. Specifically, the proposal outlined by Notcutt would be beneficial in the Usukuma country where sisal would provide a fourth (in addition to cotton, groundnuts and cattle) and very safe enterprise. It would also help in tying down a mobile population and in preventing them from moving into the tsetse areas. He was, however, aware of the political and economic implications of Notcutt's proposals.

---

[1]Letter from the Provincial Commissioner of Tanga to Chief Secretary, TNA, File No. 25019, op. cit.

Government's response was once again firm. New reasons, even less convincing than those on previous occasions, were presented. For instance, it was stated that sisal prices were unstable,[1] but this was equally true of other agricultural produce. If there was danger of overproduction, there was no evidence of government attempts to curb sisal plantations from expansion during that time. The excuse that Africans would grow sisal at the expense of food crops was equally lame, as was the view that the cultivation of sisal would lead to land shortage. Since the possibility that vested interests would voluntarily embark on proposals on the lines recommended by Notcutt was remote, the Executive could afford to be firm on this score. Major Notcutt himself had realized that without government assistance there was no possibility of starting the scheme. Thus, efficiently and effectively, the Executive stifled the prospect of African grown sisal. The visionary Major Notcutt, perhaps far ahead of times in his idea, fades from the sisal scene as quietly as he had appeared.

The Second Encounter

The next possibility of a challenge from sisal grown by African peasants was real and appeared dramatically in 1950 and 1951. Wasukuma and Wanyamwezi laborers who had

---

[1]Communication by Chief Secretary, TNA, File No. 25019, op. cit., Fol. 23.

frequently worked in large numbers in sisal areas until the 1930's apparently took sisal plantlets back to their home areas. In the cattle/cotton/food crop agricultural complex of the Lake area, the sisal plant became popular because of its effectiveness as a hedge fence. Some quantities of leaves were processed on homesteads for individual use. Agricultural Officers in the Lake Region even encouraged the spread of the plant in anti-erosional programs. In addition, there wer also five or six small sisal estates established by non-Africans. These were so inconsequential that the TSGA records lumped them together with the Central Line Estates, the majority of which were 300 miles away. [See Map 1]

The incidental 'cultivation' of sisal by African peasants would have gone unnoticed but for the occurrence of two unrelated events in the 1949/50 agricultural season. First, a severe drought not only affected food crops but also cattle which normally acted as a ready reserve of cash. Secondly, the steep rise in sisal prices made the peasants, who were hard pressed for money, realize the potentialities of sisal. In the sisal fever that gripped the area, sisal hedges were exploited by all, including children. Leaves were crudely and laboriously hand processed so that there was only a remote possibility of obtaining good quality fiber. However, the local demand for sisal was so great that the quality of fiber made little difference. Non-African entrepreneurs, keen on increasing the amount of

fibers offered for sale, even introduced raspadors for processing leaf. These two occurrences sharply focused attention on the incidental cultivation of sisal by African peasants, a fact that had hitherto gone unnoticed for nearly four decades.

Even at the height of its demand, hedge sisal accounted for less than 6% of the sisal exported from Tanganyika. But the significance of this development is the response it brought from several quarters, thereby showing the controls that were possible in the 1950;s to prevent change in the industry. In July 1950 the Provincial Commissioner in the Lake Province solicited a response from the Acting Member for Agriculture and Natural Resources (M.A.N.R.) to his communication stating that urgent steps were necessary to control African sale and processing of sisal.[1] Ostensibly, in the rush to exploit sisal, Africans in the Lake Province neglected the harvesting of both food crops and cotton.[2] Although the administrator had several ways to prevent or

---

[1]TNA, File No. 41593, Native Production of Hedge Sisal, Fol. 1. Provincial Commissioner, Mwanza to the Acting Member for Agriculture and Natural Resources (Executive Member of the Legislative Council), 10th July, 1950.

[2]It is difficult to determine how much of an inroad the exploitation of sisal had made into the cultivation of food crops and how much of the problem was really administrative over-reaction. The spectre of food shortages always disturbed administrators in Tanganyika. Indeed, in some parts of the country, though not in the Lake Province, serious food shortages were recurrent.

minimize food shortages caused by agricultural neglect, sisal posed a special problem. It was not on the list of Native Produce and therefore there were no by-laws proscribing its sale during certain periods. Similarly, no stand-still order prohibiting sale during a certain period could be imposed through the Native Authority Ordinance. The administrator was seeking the Governor's sanctions to include sisal in the ordinance.[1]

As was to be expected, the M.A.N.R. had no objection to the inclusion of sisal in control measures provided the Member for Local Government did not himself object to this. The response of the M.A.N.R. also had the effect of directly bringing in other parties into the problem. It would seem that the problem was passed over to the Sisal Board thus introducing the TSGA into the picture. The reaction of the Sisal Board was that it did not wish to discriminate against the African industry as long as adequate grading and quality were assured. The TSGA proposed to send an inspector to examine the African sisal industry.

The Director of Africulture responded differently to the situation. In a communication to the M.A.N.R. he stated that according to the Regional Assistant Director of Agriculture [hereafter referred to as R.A.D.A.] stationed at Mwanza, there was room for a small African sisal industry of about

---

[1]Letter from the Provincial Commissioner, Mwanza to Acting M.A.N.R., dated 10th July, 1950, TNA, File No. 41593, op. cit.

1,000 tons with fibers derived from hedges and cattle enclosures. It was estimated that if unrestricted cutting was permitted, 1,000 tons could be produced within 2 years and sold in about 4 months.[1] The Director also stated that Africans themselves had inherent control over expansion in the sense that tribal chiefs would not be willing to allow the cultivation of sisal (a semi-permanent crop) on individually controlled plots as this would introduce private, instead of tribal rights, over land. The Director, as a member of the Sisal Board, therefore planned to state at the next meeting of the Sisal Board that government was not opposed to African sisal production but would not unduly encourage it as there was already a cash crop (cotton) in the area. Where sisal had already been established by Africans, it would be necessary to have some controls to regulate production.

A government notice was drawn up controlling, and at certain times, even prohibiting the sale of "African owned sisal" in the Geita, Kwimba, Maswa, Musoma, Mwanza, Shinyanga and Ukerewe districts. The Chief Secretary objected to the phrase "African owned sisal" and instead substituted the statement that the control affected all sisal except

---

[1] Director of Agriculture's letter to the M.A.N.R., 22nd August, 1950, TNA, File No. 41593, op. cit. It is difficult to isolate the Department's views from the stand taken by the R.A.D.A. The substance of a letter from the Director written 4 days earlier tells the R.A.D.A. the acceptable stand to take on the matter.

that emanating from sisal plantations whose owners or managers were required to submit plantation returns.[1] The practical effect of this revised wording was the same as the original intention.

With the publicity given to the fact that there was sisal sold by African peasants, the TSGA assumed watch-dog responsibilities. For instance, in September 1950, a note to the M.A.N.R. stated that African grown sisal was being exported through Kilindini in Kenya. This was followed by the query as to whether export tax and levy were being collected on sisal exported through Kenya.[2] It was assumed that the Custom Authorities were responsible for collecting tax.[3] The next month, the TSGA protested from yet another angle. It alleged that sisal was being exported through Kenya and Uganda without following conditions of processing, grading and pressure baling from an approved factory and that marketing was not being carried out through the normal channels. Moreover, it had been brought to its attention that a number

---

[1]Letter from the Chief Secretary to the Provincial Commissioner, Lake Province, 8th September, 1950, TNA, File No. 41593, op. cit.

[2]Letter from the TSGA to the M.A.N.R., EX 887/50 of September 1950, TNA, File No. 41593, op. cit.

[3]Because of the better price for sisal in Kenya, African grown sisal in the Lake Province was shipped across Lake Victoria to Kenya. The Customs Authorities collected tax only from sisal exported from Tanganyika via one of the main ocean ports. Collection of cess which previously was made by the government was now the responsibility of the TSGA (General Notice 297 of 1949).

of raspadors were being sent to the Mwanza area. It asked the government that the recommendations of the TSGA and the Sisal Board be implemented to control the processing and marketing of African grown sisal. Ironically, the letter concluded by remarking that the TSGA had no wish to discourage African grown sisal.[1]

When asked by the M.A.N.R. to comment on the letter, the Director of Agriculture who was a member of the Sisal Board was both surprised and unable to find any recommendations in the minutes of the Sisal Board regarding the controls which the TSGA wanted the government to implement.[2] The Director of Agriculture, however, shared the broadminded view of the Chairman of the Sisal Board that the time to be unduly concerned with African grown sisal had not yet arrived. After receiving several replies from the M.A.N.R. which did not satisfy the TSGA, a committee was formed to discuss control measures in the sisal industry.

The Provincial administration seemed to be as concerned and dissatisfied with the development of an African sisal industry as was the TSGA. In consultation with the R.A.D.A. the administration was thinking of bringing in more controls that would have directed the African sisal industry along the

---

[1]Letter from the TSGA to the M.A.N.R. dated 27th October, 1950, TNA, File No. 41593, op. cit.

[2]Letter from the Director of Agriculture to the M.A.N.R. dated 3rd November, 1950, TNA, File No. 41593, op. cit.

lines suggested by the TSGA.[1] Ostensibly, some of the measures restricting sisal were aimed at avoiding the contamination of the cotton crop.[2] The Provincial Administration, which had already acquired some form of control through the Native Authority Ordinance by prohibiting the sale of sisal during certain months, wanted even more control because the ordinance did not apply to the majority of buyers who were non-Africans. It was, therefore, considering the bringing in of further controls through the Trade Licensing Ordinance. (Cap. 208).[3]

At this juncture mention must be made of Messrs. Dalgety & Co. which was yet another party involved in the issue of African grown sisal.[4] As African producers started to offer sisal for sale, the firm quickly began to handle a large percentage of this sisal. This was done by advancing a

---

[1]It is not known whether the Provincial Administration was influenced by the TSGA.

[2]It is difficult to believe that with the price of sisal being nearly twice that paid for cotton that any right-minded African would have mixed sisal with cotton. It is conceivable that some cotton may have been mixed with sisal.

[3]The existing sisal control, under Native Authority Ordinance, Cap. 72, prohibited the cutting and sale of sisal between October and April. Under the Trade Licensing Ordinance conditons were stamped on licences at the time of issue.

[4]Dalgety & Co. is a large British firm with multiple interests (agents for shipping, agricultural equipment, import and exports), operating all over East Africa. Although the firm did not directly possess any sisal estates, it helped to finance some plantations and was an important and reputable sisal buyer.

preliminary sum of nearly £150,000 to Asian traders and it was anticipated that an additional £100,000 would be paid at the end of the harvest.[1] The profit margin for traders was so great that the Company hoped that regulations would be introduced so that African farmers could deliver sisal directly to their local native councils or cooperatives who would in turn sell directly to Dalgety or its agents. By eliminating the middle-men, the African organizations would have capital to start consumer cooperatives. Dalgety's would sell consumer goods to the these cooperatives at discount prices. These plans of Dalgety's seem to fit into the scheme which the new governor had in mind in 1949.[2]

After several months of vacillation, the M.A.N.R. now swung round to the views of the TSGA and the Provincial Administration.[3] He began to seek sanctions which would control the processing and quality of African grown sisal through the Trade Licensing Ordinance.[4] There are several

---

[1]TNA, File No. 41593/1, Native Production of Hedge Sisal--Cooperative Development," Fol. 1A. Copy of the letter from Dalgety & Co., Dar es Salaam, 4th December, 1950.

[2]Ibid. It is alleged that the new governor, Sir Edward Twining, had indicated that one service which a private firm could undertake in the development of that on which the African could spend the proceeds of his produce and his labor.

[3]Letter from the M.A.N.R. to the TSGA and also letter from the M.A.N.R. to the Secretariat, TNA, File No. 41593, op. cit., Fol. 72 and 79.

[4]The M.A.N.R. to the Chief Secretary, TNA, File No. 41593, op cit., Fol. 79.

probable explanations why a committed stand was being taken by the M.A.N.R. First, the M.A.N.R. did not want to isolate himself from influencing decisions. There were definite signs that this would soon be the case. For instance, the TSGA had formed a committee to discuss sisal control. The M.A.N.R. was forced to ask the TSGA that the government be represented in the committee in the person of the Director of Agriculture.[1] Secondly, Tanganyika seemed to be influenced by the Kenya administration which was definitely taking measures to control African grown sisal.[2] Thirdly, the Tanganyika administration was still stunned by the fiasco of the officially sanctioned groundnut scheme and wanted to avoid future failures.

The sisal industry of Tanganyika in contrast to the ill-fated groundnut business was going through a magnificent phase and its share in the economy was attaining unprecedented heights. From a contribution of 37% of total exports in 1945 the sisal industry had increased its value to an average of 52% of exports in 1948-50. Therefore, there was an undue concern to safeguard the goose that had laid the golden egg. The stage was cleared for the amendment of the Trade

---

[1]Letter from the M.A.N.R. to TSGA, 9th January, 1951, TNA, File No. 41593, op. cit.

[2]Letter from the Director of Agriculture to the M.A.N.R. dated 19th December, 1950, in which he reports the contents of a letter from the Director of Agriculture, Kenya, about legislation on African grown sisal. TNA, File No. 41593, op. cit.

Licensing Ordinance during the next session of the Legislative Council which was due to meet a few months later. During this interim period, there was time to reconsider the whole issue, and this completely altered the course of events.

The various parties with conflicting interests were brought together at a meeting held in Mwanza in February 1951, at the request of the Provincial Commissioner of the Lake Province.[1] African interests were represented by the African Traders Cooperative Society and two chiefs (who mainly represented the cotton industry). Other representatives included various District and agricultural officers, financial and commercial interests including the cotton industry and a representative from Dalgety. The sisal industry was represented by the Secretary of the TSGA[2] while an Asian represented the sisal interests in the Lake Province. The meeting was chaired by the Regional Assistant Director of Agriculture (R.A.D.A.).

The meeting provided a direct confrontation between

---

[1]The proceedings of the meeting are to be found in TNA, File No. 41593, op. cit., Fol. 118A, Minutes of An 'Ad Hoc' Committee on Hedge Sisal in the Lake Province, pp. 1-21.

[2]The Director of Agriculture requested the Provincial Commissioner to include the TSGA in the meeting because they (TSGA) were also forming their own sub-committee to discuss the sisal industry. The request of the TSGA to send two representatives was turned down and representation was limited to one.

the main parties. Since all sides were forced to reflect their views, there was enough conflict of interests to enable the parties to come to grips with the major issues. For the first time it was possible to get a more realistic picture of the emerging hedge sisal industry.[1] It was estimated that instead of the expected 1,000-2,000 tons, the real figure for African sisal exported annually was closer to 7,000 tons. Between 400 and 500 traders were involved in the sale and transportation of the crop. Both leaves as well as fibers were sold. Leaf was sold at 2/- a metre.[2] Manual processing of fiber was an arduous task but the returns of 95 cents per pound were considerably greater than those obtained by selling leaf. Since heart leaves were softer, there was a tendency to cut and process these, with the result that the plant would eventually be killed.

The major observations of the TSGA representative were:

1. Owing to the absence of a price differential, little attention was paid in the factory to the question of quality and grading of sisal. Some of the factories were

---

[1]Besides the hedge sisal, there were 8 registered non-African sisal estates in the Lake region. These small estates were generally excluded from the discussions which were taking place.

[2]From a metre of 1,200 leaves it was possible to obtain 36 lb. of sisal fiber. It is obvious, therefore, that selling processed sisal was more profitable to the peasants. By February 1951, there were 30 factories with 27 raspadors and 26 baling presses.

full of dust and had no safety precautions.

2. The production of good quality fiber would benefit the African most, and every grade should be of good quality.

3. There would be little point in discussing control without a survey of the potentialities for sisal.

4. Since cattle were not being sold from the Lake Province, there was probably no shortage of cash income, the implication that the sale of sisal was affecting the cattle industry.

5. In Kenya sisal leaf was being stolen at night and it was feared this practice would spread to Tanganyika!

6. Sisal should be bought only by those in a position to process it properly as had been recommended by the TSGA right from the beginning. The factories should be limited to the 8 registered sisal estates where processing was properly understood. All sisal should, therefore, be sold to them. It was preferable for leaf rather than fiber to be sold. The object of control measures should be to prevent Africans from cutting sisal during the planting and harvesting seasons for cotton and food crops. The responsibility for enforcing control should be on the Native Authorities. The above control on cutting should not be imposed on factoreis.

7. Sisal inspectors should go around to all factories and offer advice but these inspectors should not be given statutory powers.

The policies of the TSGA seemed to put impediments directly in the way of the development of the emerging African sisal industry. The policies were aimed at spreading fears, (that sisal would be stolen), at showing that development would not take place (cattle were not being brought to the market), and at discrediting unregistered sisal factories (they were declared to be unsafe and dusty). The TSGA was also keen to see that effective controls were established but did not want to be associated with them in any way. Fearing that some controls would backfire on them, it had to be careful that enforcing the controls was the responsibility of the local authorities (Lake Province) and therefore would not affect the TSGA interests in Tanga and its three other branches. People at the meeting who were genuinely interested in the African industry were able to challenge some of the observations and suggestions. For instance, since the price differential between good and low grade sisal was small, there seemed no point in insisting that Africans had to produce good grade fiber.[1]

The preference expressed by the TSGA representative for leaves to be sold directly to the registered sisal estates was unanimously and vigorously opposed by all others present at the meeting. The African members noted that the

---

[1] Dalgety's had asked its agents not to encourage quality fiber. The insistence on quality would have the effect of drastically reducing the amount of fibers offered for sale.

registered sisal factories were badly distributed and sited. Transportation to the estates was both impracticable and uneconomic. Questions were also raised about the ability of the 8 estates to handle the 6,000 tons of sisal being produced by Africans. It was recommended that the factories not situated on registered sisal estates should be licensed and limited in number, but the representative of the TSGA would not agree to this. The representative from Dalgety, in the context of quality, noted that the 'poor quality' of sisal was grossly exaggerated and, in fact, sisal from the Lake area had been inspected and there had been for numerous samples only two complaints about the quality of fiber.

From the point of view of the African peasants in the Lake Province, sisal had begun to play an important part in their economy. In 1950 the cotton crop was worth £589,000 to the producer (at 27cts per lb). On the other hand, sisal, which had spontaneously developed, as a cash crop was worth £500,000 (at about 1 shilling per lb). Ironically, the important position occupied by cotton represented nearly 30 years of government encouragement. Although there were a few examples of sisal grown in fields, the majority of it was still being derived from hedges which were being replanted. Contrary to the expectations in some quarters (including the TSGA) sisal fitted well in the local economy, and was therefore there to stay. However, unlike cotton, sisal was not 'cultivated' and neither was it widespread.

Therefore Africans at the meeting (strongly represented by cotton interests and the chiefs) as well as the administration were agreed on the necessity of protecting cotton.

The 'ad hoc' committee meeting at Mwanza made 8 non-binding recommendations to the government. These were:[1]

1. That the Department of Agriculture undertake a random survey of the sisal area at issue;

2. That the government prescribe the conditions of purchase endorsed on Trading Licences;

3. That a sisal buying season be prescribed on either side of the cotton marketing and crop harvesting season which extended from June to August;

4. That price control was not considered feasible;

5. That special legislation should be sought to be included in the Sisal Industry Ordinance. This legislation would limit the number of factories according to the needs of the area; and these specially licensed factories would have to keep a monthly record of the districts which supplied them with sisal leaves;

6. That while amendments were being made to the Sisal Industry Ordinance, permission to erect new 'factories' should be withheld;

7. That a firm recommendation should be made for the collection of a Native Authority Cess;

---

[1]Minutes of an 'Ad Hoc' Committee, TNA, File No. 41593, op. cit., Fol. 118A p. 21.

8. That the creation of an African cooperative for selling sisal was considered unnecessary.

Shortly after, a bill attempting control of the African hedge sisal through the Trade Licence Ordinance was presented to the 25th session of the Legislative Council. The bill was severely criticized by Mr. I.C. Chopra on the grounds that it was restrictive towards African enterprise.[1] The sample survey which was so essential for a proper prespective of the production of sisal from hedges was not undertaken. The Department of Agriculture considered that the sample survey would yield little information and estimated that during 1951, 8,000 tons of hedge sisal would be produced. However, by the following year there would be a reduction of 50% in production.[2]

The TSGA also came around to the position that to make an issue about what was essentially a storm in a tea cup would, in the long run, probably be detrimental to its own independent position. For instance, there were already implications at the Mwanza meeting that the Sisal Industry Ordinance should be amended. On the 10th of July, 1951, a letter was addressed to the Acting Member for Agriculture and Natural Resources requesting a status quo in the matter. The

---

[1] Tanganyika, Legislative Council, 25th Session, Proceedings (Dar es Salaam, Government Printer, 1951), pp. 153-157.

[2] Director of Agriculture to M.A.N.R., telegram dated 16th June, 1951, TNA, File No. 41593, op. cit.

letter simply stated that since only a small quantity of sisal was involved, it would not be justifiable to amend the Sisal Industry Ordinance. Fearing that the changes to the legislation would be interpreted as being discriminatory against Africans, they preferred not to press for restriction. However, as a token gesture of strength, the letter concluded by saying that while no action should be taken against African grown sisal, cess and similar stipulations should be enforced.[1]

True to the predictions of the provincial authorities, sisal continued to be produced incidentally by Africans. No encouragement, however, was given. The tonnage of fibers produced fluctuated from year to year and at the best represented less than 6% of the annual exports of sisal. In the Tanga area, however, there was hardly a ripple of activity among African cultivators about the issue. There sisal still remained the exclusive domain of plantations.

---

[1] TSGA to Acting M.A.N.R., letter dated in TNA, File No. 41593, op. cit.

CHAPTER SIX

PLANTATIONS AND LABOR

The plantation system is so dependent on cheap labor that it is not surprising that problems pertaining to labor and its control figure strongly in the development of the sisal industry. Under the German administration conditions relating to labor had been generally harsh. Granted that for the purpose of propaganda the harshness of German rule was widely exaggerated by some British authorities, the picture, in reality, had been grim. Therefore, the British administration in Tanganyika found themselves under a spotlight and every effort was made to keep a careful watch over labor and to avoid becoming involved in any unfavorable publicity which would draw the attention of the League of Nations. At the same time, economic development of the country was necessary. Therefore, government checks and other factors (especially those pertaining to sisal prices) limited the authority and control of the sisal plantation owners over labor. The basic problem of labor was that the sisal plantations wanted an ample supply of labor to be available at all times and at the lowest price possible.

Soon after the cessation of hostilities in the Tanga area in 1916, some of the German sisal estates were re-opened. However, because of the general disruption in the country, there were few other agricultural enterprises competing with

sisal for laborers. The good prices for sisal then prevailing also meant that wages were comparatively liberal so that labor supply within the district was adequate. Laborers, however, were apt to combine working on the estates with their own agricultural pursuits.[1] From the planters' point of view this duality was regarded as a sign of laziness whereas the laborers regarded wage labor as an extra source of income, while cultivation at his homestead offered him security. By 1923, with the permanent disposal of estates and the expansion of acreages under sisal, labor from outside the district became more and more imperative.[2] The growers also made the first move to render the government responsible for providing labor.[3]

Recruitment during the early 1920's was still under the terms of German labor laws. A prominent feature of the labor contracts was the agreement to be available to work for six months, but payment was made only for the period

---

[1]TNA, File No. 1733:32, Annual Report on the Pangani District for the Year 1923, p. iii.

[2]By 1924, 3,000 recruited laborers worked on sisal estates in the Pangani District. TNA, File No. 1733/16, Annual Report on the Pangani District 1925, p. 11. The number of recruited labor during this period in the Tanga District was estimated to be 20,000. TNA, File No. 1733/24 Annual Report on the Tanga District for the Year 1923, p. 11.

[3]TNA, File No. 1733/16 Annual Report...Handeni District, p. iii. Among matters put forward by the sisal growers to the East African Commission was the request that the Tanganyika government form a labour bureau for the recruitment of labour, TSGA, First Annual Report, op. cit., p. 1.

actually worked.[1] The whole system was open to abuse. If there was a breakdown of machinery the laborers reporting for work would not have their time cards stamped. Thus they were penalized for not being able to work. Excess labor could, under the terms of the contract, be turned away. Recruited laborers were also paid lower wages (24/- instead of 30/-) per month so as to meet recruiters' fees and the cost of rations.[2] Criticism about alien laborers was directed from several quarters. District Officers in the sisal growing areas complained about the large numbers of laborers in their districts who were no longer under the local tribal jurisdiction and were therefore a problem.[3] Local Native Authorities also complained about the presence of large numbers of single aliens and their effects on the local traditional way of life.[4] Administrative Officers of the non-sisal producing districts which supplied labor (migratory or recruited) were wary of the effect on local agriculture and family life when able-bodied men were away for prolonged periods. There was also the issue of the loss of local taxes from such labor.

While these various issues were coming to a head, the government came up with two measures in an attempt to control labor. First, it passed the Masters and Servants

---

[1]TNA, File No. 1733:32, op. cit., p. iii.

[2]TNA, File No. 1733/16, Annual Report, Pangani District, p. 11.

[3]TNA, File No. 1733/24, op. cit., p. 16.

[4]Ibid., p. 22.

Ordinance. This abrogated the German labor laws and while it was designed to safeguard the interests of laborers, it also tried to ensure that workmen carried out the services which they had agreed to perform.[1] The safeguards in the legislation made the employer responsible for the welfare of laborers (Sections 16-24), stipulated that wages were to be paid monthly (Section 6d) and that contracts which had to be written were attested before a magistrate or administrative officer at the district of the laborer. Government control was also established over labor agents and recruiters.

The Masters and Servants Ordinance merely stipulated conditions and terms of contracts without providing the proper background and the machinery to implement the Ordinance. Towards the end of 1924 it soon became apparent to the Senior Administrators and the Executive that an active labor policy was required. Increased planting enterprises made control and supervision very desirable, but the administrators lacked statistics and information. They therefore urged the government to appoint a person to investigate and report on the problems of labor.[2] A senior officer, Major Orde Brown, was seconded from the administration to the post of Commissioner

---

[1]Great Britain, Report on the Administration of Tanganyika Territory, 1923, op. cit., p. 19. Henceforth these annual reports will be referred to as R.A.T.T.

[2]TNA, File No. 1733/23, Annual Report of the Labour Department, 1925, p. 1. Also: R.A.T.T. 1924, p. 14.

for Labour Investigation and began work at the beginning of 1925.[1] The outcome of Major Orde Brown's investigation led to the establishment of the Labour Department and consequently to the more direct control of labor by the government.[2] Apart from implementing government legislation, the principal function of the Labour Department was to advise the government and employers on labor matters.[3] It therefore had to be sensitive to and informed about, the sisal industry and labor. As a reflection that the 'interests of the employer and his employees were mutual,' the Masters and Servants Ordinance was invoked and charges for contravening the Ordinance were-

---

[1]Major Brown's findings and recommendations were reported to the Colonial Office and published as Report by Major G.St.J. Orde Browne upon Labour in Tanganyika Territory (London: H.M.S.O. 1926), Colonial No. 19. The report was subsequently presented to the League of Nations.

[2]Tanganyika was the first of the few British dependent territories to have a labor department separated from the administrative sector. The government was concerned enough to act on Major Orde Brown's findings even before his investigations were published. Thus, finances were budgeted to cover the creation of the Labour Department, labor camps were established along migratory corridors, etc. TNA, File 1433/23, op. cit., pp. 1-2.

[3]The Masters and Servants Ordinance of 1923 was amended in 1926. The major changes were the legalization of the Kipande system (labor was contracted to perform a certain number of days' work within a specified time, e.g., 30 days work within 60 days), compulsory payment of wages in cash, and reporting of serious injuries to the Labour Department.

made against employers and employees alike.[1] Meanwhile the size of the labor force grew rapidly as was reflected by the increase in sisal exports which rose from 18,276 tons in 1925 to 25,022 tons in 1926 and by the eve of the depression had climbed to 45,728 tons. Since force was not employed to obtain laborers, it is necessary to examine how they were induced to work for the sisal estates.

The gradient for labor to move to sisal plantations was established by a series of push-pull factors which have varied in time. Major factors which pushed labor into the sisal economy were the necessity for monetary income and the varying other opportunities for obtaining such income. Plantations could be assured of labor if they could make working conditions attractive enough to draw labor naturally into the sisal industry.

The spread of the monetary system in Tanganyika was brought about by aspirations for new material things, and the necessity to pay for taxes and services. The monetary income for these needs could be obtained by growing cash crops or entering employment. The sisal industry, being the largest single employer, was always the first to feel the effects of any large scale extension of cash crops or new opportunities for employment. The most serious intrusion in

[1] In 1926 it was reported that 320 laborers were charged under Section 33/e (desertion), 45 under Section 37 (desertion while owing advances), and 107 employers were charged under Section 39e (withholding wages). In 1938, 140 employers were charged for the same offence. R.A.T.T., 1926, p. 22 and R.A.T.T., 1927, p. 82.

this respect took place early during the British period when Africans in the Lake Victoria region were provided with cotton seed by the government in order to encourage the growing of cash crops.[1] The Tanganyika Planters Association appealed to the East African Commission to request the Tanganyika government that it "should not favour the growing of cotton by natives in competition with other producing industries."[2] Although the free distribution of cotton seed by the government was stopped, no attempt was made to discourage Africans in the Lake Region from growing the crop. Similarly, in the adjacent Kilimajaro area a potential source of labor did not materialize because the Chagga took to the cultivation of coffee on a large scale. Sisal growers were saved from a desperate position because famines in Pangani and Handeni induced local labor to turn out in large numbers.[3] In addition, increasing motor transportation reduced the dependence on

---

[1]A few years later in 1926 work began on the extension of the railway line north from Tabora to Mwanza. While the railway line was being constructed there were ample opportunities for local employment. The completion of the railway not only firmly established cotton cultivation but also increased the base for the cultivation of bulkier cash crops, e.g., groundnuts.

[2]TSGA, First Annual Report, op. cit., p. 1.

[3]TNA, File No. 1733/16, Annual Report, Pangani District, 1925, p. 11. Also: TNA, File No. 1733/16, Annual Report, Handeni District, p. iv. Outbreak of famines is a recurrent theme. Major famines took place in the early 1920's, early 1930's and early 1940's. For more details of these famines, see A. Mascarenhas, Aspects of Food Shortages in Tanganyika, 1925-45 (Kampala: East African Institute of Social Research, Makerere University College, 1967).

head porterage and released more labor in the market.

Two other important trends evolved during this period. First, several plantations began to mechanize, especially for cultivation, and tractors and other equipment became common.[1] Secondly, plantations began to look for new sources of labor, mostly in the periphery of the country.[2] Competition among the growers themselves led to crimping but others responded by improving amenities so that while some estates turned away laborers, others seemed to suffer from a shortage.[3]

The effect of the depression of the 1930's was a major setback for labor in sisal and it gave the industry the opportunity once again to take the initiative it had lost by the intrusion of governmental control in matters connected with labor. This task was made easier by the government's decision to shut down the Labour Department in 1931. Thus,

---

[1]TNA, File No. 1733/10, Annual Report of the Tanga District, 1926, p. 13. Also: TNA, File No. 1733/16, Annual Report, Pagani District, 1925, pp. 1 and 8.

[2]For instance, the District Officer at Tukuyu notes that a recruiting agent for Bird & Co. (one of the large plantation owners) enrolled 2,123 men. The contract was for 6 months from arrival at the plantation and included one outfit of clothes and food for the journey to and from employment. The commencing wages was 18/- for 30 working days. About 3,000 others also left for work, but this was discouraged. TNA, File No. 1733/9, Annual Report for Tukuyu District, 1923, pp. 7-8.

[3]TNA, File No. 1733/16, Annual Report, Pangani District, 1925, p. 11. Also: TNA, File No. 1733/23, op. cit., p. 4.

until 1938 the government's direct check on labor was severely handicapped. To cut competition from within its own ranks it was agreed by the sisal growers that wages should be standardized.[1] In addition, wages were drastically reduced. [See Table XVIII] Labor was used mainly for production rather than for extension or maintenance. The length of the contracts was increased from 6 months to 9 months.[2] Contract labor almost ceased.

TABLE XVIII

CHANGE IN THE SISAL LABOR WAGE STRUCTURE DUE TO THE ECONOMIC DEPRESSION OF THE 1930'S

District	Unskilled	Semi-skilled	Artisans*
Tanga	22 to 30**	30 to 50	40 to 100
Pangani	18 to 24	24 to 35	52 to 104
Usambara	15 to 30	25 to 40	52 to 78
All Three Districts c. 1933	10 to 12 no bonus paid	12 to 15 bonus of 3 shs if work completed in 6 wks.	Not specified

* c. 1927 in pre-depression years
** in shillings per month.

Source: TNA, File No. 23544, Report on Labour Matters in Sisal Areas, No. 1 (Tanga), by F. Longland.

At the same time, the government stressed African

[1] TSGA, First Annual Report, op. cit., p. 2.

[2] TSGA, First Annual Report, op. cit., p. 2.

cultivation and this trend was maintained even after the economic situation improved. The non-African enterprises, especially the sisal growers, also wanted to expand production after the depression, but finding labor generally unwilling to work for them, they began to protest about the shortage of labor and asked the administration to investigate.[1]

Since the shortage of labor now affected all non-African planters, a Committee with a preponderance of unofficial members of the Legislative Council was appointed. Fortunately for the settler group, it was possible to divert attention away from themselves. The mining community in the Southern Highlands and the cotton ginneries in the Lake Region provided ready material for attack. The freedom of the laborer to choose work was also championed and the Committee was openly critical of some administrators for interfering with the freedom of choice by ordering Africans to grow economic crops. However, not wishing to unduly antagonize the government, it considered that labor was entitled to look to the government officials for advice.[2] At the more general level, criticism was directed at the poor housing, inadequate food supplies and the lack of discipline among employers and

---

[1]TNA, File No. 23544, op. cit., p. 1

[2]Tanganyika, Report of the Committee Appointed to Consider and Advise on Questions Relating to the Supply and Welfare of Native Labour in Tanganyika Territory (Dar es Salaam: 1938), p. 13.

employees.[1]

To counteract the labor shortage, the sisal planters began to stress inter-territorial labor. The flow of laborers from the densely populated areas of Ruanda-Urundi and Mozambique gradually increased.[2] One great advantage of foreign laborers was that they were prepared to do any work including the unpopular but vital task of cutting sisal leaves. This increased the divisive tendencies among laborers and lessened the immediate possibilities of a confrontation between the growers and the laborers.[3] By 1938 "there was a growing feeling that the Association should take over complete control of the recruitment and form a proper recruiting organization."[4] The outbreak of World War II and the need for conscription brought the government in as a competitor for labor and the TSGA was not in a position to undertake this. However, the appointment of Major Sir William Lead as Director of Manpower assured the growers the maximum support on labor matters.

When sisal became an item of strategic importance,

---

[1] Ibid., pp. 30-31.

[2] The Secretary of the TSGA even visited Northern Rhodesia in 1936 and set up a recruiting organization there.

[3] Contracts with Ruanda/Urundi laborers were for periods of as long as 3 years. Similarly, labor from Mozambique could be signed on for 1 or more years.

[4] TSGA, First Annual Report, op. cit., p. 6.

there was a convergence of interest between the metropolitan power and the colonial administration on one hand and the sisal producers on the other. In this situation it was just a matter of time before the TSGA controlled the supply of labor. The climax took place in 1944 when the TSGA was given the carte blanche to establish and operate its own labor bureau, the Sisal Labour Bureau (Silabu).

Silabu was affiliated to the TSGA and its main function was to facilitate and encourage the recruitment of labor for the sisal estates.[1] For the next 21 years of its existence, Silabu had almost the total monopoly of recruiting and inducing labor from distant areas to join the sisal industry. The bureau shifted the problem of obtaining labor from individual plantations to a collective responsibility of the industry. As an organization complete with its own financial resources (contributed by the industry), its own staff for recruiting labor, and its own transportation and camps, it was able to effectively supply labor cheaply. As a result, after 1944, the supply of labor ceased to be a major issue.

The main problem with labor in subsequent years was less one of supply and more one of competition with other sources of employment in matters pertaining to wages, trade unions, and conditions of work. With the evolution of these trends it became increasingly apparent that Silabu had out-

---

[1] Guillebaud (1958), op. cit., p. 85.

lived its usefulness and in March 1965, it was shut down. By this date, 463,500 male adults and 198,000 dependents had been drawn into the industry.[1]

Although it is not possible to talk in absolute terms, it is apparent from the description given so far that the sisal plantations were able to obtain labor largely on their own terms. The question then arises as to why labor and the administration did not assert as much influence as they should have done.

The influence of labor on the industry was weak during most of the existence of the sisal plantation system. This weakness was brought about and complicated by several divisive categories of labor which were employed by the industry. The three sources of African labor provided one such divisive force. Thus, at one extreme was local labor derived from peasants who were residents within the districts where sisal was grown. Such labor looked to the plantations as a source of extra income but their security was not affected by the plantations. Casual labor needed to maintain fields was largely derived from this group. At the other extreme were laborers on contract, especially recruited to work in the sisal industry. Their security and monetary income depended almost entirely on the sisal industry and this group was prepared to tolerate severe conditions. Almost all foreign

---

[1]TSGA, Annual Report for the Year 1967-68 (Tanga: 1969), p. 19.

African labor fell into this category. The sisal industry paid the price for its hold over this group of laborers. For instance, they had to be transported, fed and housed, and administrators took an interest in them. Between these two extremes there was the group of migrant labor that came independently to the sisal growing areas to seek employment. Although the industry did not have much leverage over this group, such labor did not have the security of immediately falling back on their own agricultural resources.

Cutting across this segmentation of labor based on its derivation was yet another division based on the type of occupation within the industry itself. At the lowest status rung of sisal employment are the laborers who cut sisal leaves (cutters). Since this is a task that has not been mechanized, the cutters probably represent one of the most vital groups on an estate. Some of the other agricultural activities, such as maintenance and cultivation, can be dispensed with for protracted periods, but without the concerted assistance of cutters any estate quickly comes to a grinding halt. Cutters have generally been workers just entering the sisal industry for the first time. Since the 1940's, they have been composed predominantly of foreign African labor, i.e., from Mozambique and Ruanda-Urundi.

Along with the cutters there are other field workers who help with hoeing and planting. These tasks require very little skill and hence casual labor is frequently employed.

Unlike leaf cutting, there is no social stigma attached to such jobs. In addition, there is a considerable range of skilled and unskilled factory jobs. Skill can be gained by experience and therefore length of service is an important factor. Supervisors in the brushing room, repairmen, and artisans fall into this category. There is far more prestige working at the factory than in the field. Truck-drivers, clerks, medical assistants and storekeepers fall into a group of their own and seem to be more akin to workers in the urban areas.

To the conflict of interest between groups based on their origin and occupation, there were other crucial snags in the way of unity. Plantations were run as individual units so that there was little communication between the working forces of various estates. This was aggravated even more because the majority of workers were really transient.

In most cases the work on plantations was difficult, not really popular, and during several periods returns were minimal. Yet, the fact remains that thousands of men from within Tanganyika and others from the neighboring countries undertook work in the sisal industry. The explanation is not difficult to find. The plantation workers reflected the realities of the social and economic upheaval and the price that had to be paid for a better life. Thus, many of the first generation workers may have found work on the plantations better than slavery and in turn, conditions during the

early British period were an improvement over those prevailing during the German period. In the 1930's, Longland was astonished at the acceptance of difficult conditions by sisal labor and interpreted the phenomenon as "loyalty."[1] More pragmatically, Gulliver, 20 years later, noted that the movement of labor to the estates was conditioned by the harsh fact of rural poverty.[2]

To perpetuate the divisive tendencies within the labor force, the TSGA made no effort to recognize any collective organization of labor in the sisal industry. Instead, several estates had a Council of Wazees (Elders).[3] It would seem that these committees, in most instances, served as a medium by which estates could announce decisions taken by the TSGA and the Management. The composition of the Councils of Wazees was based on a tribal structure. They exercised some social restraint and traditional control over the sisal labor, thus relieving the management of this responsibility.

---

[1]See Report by Longlands in TNA, File No. 23544, op. cit.

[2]P.H. Gulliver, Labour Migration in a Rural Economy, (Kampala: East African Institute of Social Research, 1955) East African Studies, No. 6, p. 1.

[3]Jack, op. cit., p. 3.

Confrontation With Emerging Union Activities

During most of the early 1950's, the TSGA was lulled into believing that the major problems were settled, but this complacency was unfounded and major confrontations generally took place over the questions of wages, tasks, and conditions of work. Despite the lucrative price for sisal in the post-war period, the wages for unskilled labor had barely rised above the wages prevailing before the 1930's.[1] The cost of living, in contrast, had shot up at a fantastic rate between the pre-war and the post-war periods.[2]

The compulsory provision of rations and housing, in some instances, shielded labor from the full impact of harsh conditions. The situation varied from plantation to plantation, but to keep sisal employers from bidding against each other, the TSGA recommended a normative wage increase in 1951. Unlike the situation in the 1930's, the mood of labor

---

[1]The f.o.b. price per ton of sisal in 1920-29 was about £33; between 1949-52 the average f.o.b. price was £122. The wages for unskilled workers in Tanga before the depression varied from 22-30 shillings per month. When the major increase took place in 1952, cutters (the highest paid among the unskilled) could expect 27 shillings with an additional bonus of 12 shillings if the work was completed in 42 days.

[2]The index for the cost of clothing had increased from 100(1939) to 259(1947) and 418(1948). Between 1939 and 1947, the price for tea, meat, and soap had increased by 56,25 and 130 respectively. Tanganyika, Labour Department, Annual Report, 1947-48 (Dar es Salaam: 1951), Appendix G, p. 113.

in the 1950's was less submissive, and discontented laborers, drawing their cues from other workers, began to assert themselves. Even before trade unions began to be formed in the country, the first strikes on sisal estates began to occur.[1] Despite the increasing number of workers employed in the sisal industry, their effectiveness was limited because of the divisive trends within their ranks and lack of leadership. Therefore, until trade unions began to take an interest in the sisal workers, the TSGA was able to contain the problem of labour.

The first trade union was officially registered in 1950. By 1956, the number of unions had increased to 26 but none of these unions involved labor from agricultural enterprises.[2] However, in 1957 there were 4 unions representing agricultural labor. Although these unions represented plantation workers, they were not, "recognized by the sisal producers and officials of the unions were not allowed to visit the estates for the purpose of recruiting members."[3] In 1958 the 4 unions were amalgamated to form the National Plantation Workers Union.[4] Despite local and international pressures,

---

[1]The laborers from the Northern Line Branch estates had more contact with workers from other industries and these therefore led the way for strikes. Ibid., pp. 83-4.

[2]William H. Friedland, Vuta Kamba, The Development of Trade Unions in Tanganyika (Stanford: Hoover Institution Press, 1969), p. 157.

[3]Jack, op. cit., p. 3.

[4]Tanganyika, Labour Dept., Annual Report 1958 (Dar es Salaam) 1959, p. 14.

the TSGA still refused to recognize the Union.[1] It is, therefore, difficult to accept Jack's view that,

> Among the members of the TSGA the predominating attitude was not one of hostility to trade unions provided the union with which the employers had to deal was truly representative of the employees in the industry. There was also a strong preference for a union which would be limited in its scope and interests to the industry.[2]

Friedland's explanation that:

> [D]espite the autonomy enjoyed by individual growers, the TSGA and the industry generally were significantly influenced by a small elite of employers, and for a long time TSGA was dominated by Sir Eldred-Hitchcock, the resident manager of a large British-owned firm, who sought to minimize the influence of the developing Plantation Workers Union on the industry,[3]

is more plausible. Except for certain liberal plantation owners, the sisal producers, as represented by the TSGA, were prepared to tolerate only a union which was essentially under the control of the employers.

The causes of discontent which in the past were stoically accepted, were now increasingly challenged and disputed. A measure of the unrest was the increasing number of

---

[1]Pressures on the TSGA to recognize the Union came from the World Federation of Trade Unions, the International Confederation of Free Trade Unions, the British Trades Union Council, the American Confederation of Industrial Organizations and the American Federation of Labor. Jack, op. cit., p. 4.

[2]Ibid.

[3]Friedland, op. cit., p. 216.

strikes [see Table XIX], initially of a spontaneous nature but later assisted by the unions. The frequency of stoppages reached such a serious level towards the end of the 1950's that the TSGA was concerned enough to take formal measures to meet the demands of labor. In 1957, on the advice of Professor Guillebaud, the TSGA agreed to create joint consultation between workers and management. The ponderous four-tiered structure[1] was an attempt to circumbent the unions. The functions of the various Councils and Committees were ambiguous. The hierarchy of representation and the channels for top decision making were so far removed from the real source of the workers' problems that, in fact, little had changed to ameliorate the situation and provide an avenue for workers to express their grievances.

The stoppages did not abate. Eventually, in June 1958 limited recognition was granted to the National Plantation Workers Union (N.P.W.U.) on condition that:

1. The N.P.W.U. would have to change its name to Tanganyika Sisal and Plantation Workers Union (T.S.P.W.U.).

---

[1]The consultative organization was four-tiered. At the lowest level were the individual estate committees consisting of all grades and types of workers. The representatives at this level were generally not elected. Groups of estate representatives elected employees and employers for the Area Consultative Committees which in turn elected representatives from both sides for the four Regional Consultative Councils. At the apex of the organizational pyramid was the Central Joint Council elected from the four Regional Councils and consisting of 21 members each from the employees and employers secions. Jack, op. cit., p. 3.

TABLE XIX

INDUSTRIAL DISPUTES

	Sisal Industry			Other Industries		
	No.*	Workers Involved	Man Days Lost	No.*	Workers Involved	Man Days Lost
1951	35	3,692	6,613	38	4,159	6,162
1952	34	5,964	8,790	48	4,583	7,133
1953	33	4,820	3,952	28	2,311	2,860
1954	22	3,389	5,813	21	1,234	2,029
1955	21	3,927	5,205	21	4,950	7,257
1956	22	3,596	9,101	32	14,099	48,965
1957	48	29,470	125,459	66	10,316	29,869
1958	76	51,314	228,908	77	16,116	67,838
1959	88	56,082	258,279	117	26,796	144,414
1960	82	59,970	552,863	121	29,525	940,910
1961	25	9,955	45,646	76	10,204	67,608
1962	59	27,486	186,975	93	20,948	230,499
1963	69	26,401	76,401	16	806	1,138

*Of strikes.

Source: Tanganyika Labour Department, Annual Reports 1951-1963 (Dar es Salaam, 1952-64).

2. The headquarters of the Union would have to be in Tanga.
3. Officials of the Union appointed to negotiate with the sisal employers would have to come from the sisal industry.
4. Ninety percent of the executive body of the Union

would come from the sisal industry.[1]

These concessions by the Union were considerable and expensive. They were intended to weaken the union but they inadvertently back-fired on the TSGA. For instance, the insistence by the TSGA that Union negotiating officials be drawn from the industry frequently meant that inexperienced and incompetent union officials often aggravated rather than alleviated the disputes.

Apart from recognizing the Union, the TSGA agreed to recommend to its members that union officials be granted access to estates. The Union was also allocated 3 seats among the employee representation at the Central Joint Council (hereafter to be referred to as CJC).[2] Between June 1958 and March 1960, there were 6 meetings of the CJC. During the second meeting, the employees demanded a wage increase. An unfavorable offer was promptly rejected both by the employees and the Union. In the following meeting a new offer was made but, although it was accepted by the employees, it was rejected by the Union.

The outcome of the third meeting of the CJC in November 1958, reflected that the employees section of the Council was necessarily subservient and thus raised the suspicion of

---

[1]Friedland, op. cit., p. 218.

[2]To counter-balance the 3 additional members in the employees section, the management added another 3 to its own side so that the CJC now consisted of 48 members.

the Union about the whole question of representatives at the estate level. The argument put forward to the Union that most of the employees were also members of the Union did not placate the Union officials. As they rightly argued, the 21 employee representatives held office as individuals selected by the estates and not as Union members. As if to strengthen this argument, some plantation owners began to refuse permission for Union officials to operate on their estates. As the Union tried to press for its rights, disorder and even violence marred activities on plantations. To keep matters within control, the General Secretary of the Tanganyika Federation of Labour (TFL), Mr. Kawawa, in December 1958, asked all strikers in the sisal plantations to return to work. However, the the trial of strength between the Union and the sisal management continued to take place at the Mazinde group of estates.

The strike at Mazinde in 1958 was important not only because it affected a large number of workers (over 2,500) and was one of the longest strikes in sisal industries, lasting 68 days, but also because it symbolized the struggle of the old plantation order to maintain the status quo. The Mazinde group of estates was managed by Mr. David Lead, son of the late Major Sir William Lead, founder of the TSGA. Mr. David Lead had figured prominently in the forumulation of the new consultative arrangements. He was also a leading supporter of the United Tanganyika Party which had been created

to counteract the activities of the Tanganyika African National Union (TANU), the nationalist organization which was striving for the independence of the country. On his own estate he was unable to form an estate committee, allegedly because of union opposition (which the Union denied).[1] David Lead therefore appointed a hospital dresser to represent the employee side. This appointee was eventually elected to the Regional Committee.

At this stage, in December 1953, the management of the Mazinde estates was informed that a strike would take place. The management high-handedly dismissed the ring-leaders and threatened to dismiss 100 workers for every day the strike continued. The challenge was taken up by the Union even to the extent of helping to withdraw the laborers from the estates, while the TFL called for a three year boycott of the Mazinde estates. Mr. Julius Nyerere, president of TANU, supported the boycott and asked Africans to support the strikers, at the same time stressing that it was not a strug gle between all plantation workers and their employers. Union attempts to obtain the assistance of the TSGA were rebuffed by the Secretary of the Organization on the grounds that the TSGA had no mandate to interfere in the operation of the estates and that it was not an employer of

---

[1]Jack, op. cit., p. 13.

labor.[1] Eventually settlement was reached. As Jack was careful to point out, agreement was reached largely with the cooperation of the Union and individuals in the executive of the TSGA.

By the end of 1958, it was apparent to all, including the Government, that relations between management and labor had deteriorated. In March 1959, the Governor of Tanganyika took the opportunity of Professor Jack's presence in Tanganyika to appoint him on a Commission of inquiry to investigate:

> . . . the state of industrial relations in the sisal industry, with particular reference to the nature and suitability of the existing arrangements for joint consultation within the industry.[2]

The general findings of Professor Jack's commission were couched in terms that would be acceptable to both the unions and the sisal producers. The main items were:

(i) The labor trouble in the sisal industry was not peculiar to it but was part of a wider labor unrest in Tanganyika naturally caused by the activities of an emerging trade unionism.

---

[1] Ibid., pp. 14-15. Jack took the TSGA to task on this measure. While the TSGA was legally correct, it might have saved a lot of trouble had it intervened. The response of the organization was not constitutionally consistent. During 1958, for instance, it banned the meeting of unions on estates while a circular sent in July 1958 lifted the ban. One of Jack's recommendations was that the TSGA change its articles of association and become an employers' association.

[2] Jack, op. cit., p. 1.

(ii) New trade unions lacking experienced leadership frequently acted irresponsibly and made statements that were aggravating. Resistance by employers against union recognition encouraged still more violent reaction.

(iii) Once this normal state of affairs had passed, the stage would be set to establish more satisfactory relationships between management and labor.

(iv) The formation of the CJC and its affiliated bodies was not always understood by representatives from either the management or the employees.

Professor Jack's recommendations included the advice that employee representatives at the estate level should be elected. Secondly, the functions and powers of the four committees/councils were to be more closely defined. The Union should be allowed one seat on each of the Area Consultative Committees and Regional Consultative Councils. Thirdly, should the CJC fail to agree on a dispute, then its Chairman could be requested to settle the issue if 2/3 of the members requested the Chairman to do so. In the event of the Chairman being unable to decide on the issue, the matter could be referred to an arbitrator. Finally, as long as the recommended procedure was in operation, no attempt should be made to strike. In the event of failure and a resulting strike, both sides should work toward ending it promptly.

The major significance of Jack's report was that it

TABLE XX

WAGE INCREASES IN THE SISAL INDUSTRY, 1950 - 1960

	1950[1]	1959[1]	1960[2]
Group I	30tasks for 27shs bonus[3] 12shs rations @ 15shs Total[4] 54shs	30tasks for 39shs bonus 6shs rations @ 15shs 47shs	per mo. 111shs -- --
Group II	30tasks for 21shs bonus 10shs rations @ 15shs Total 46shs	30tasks for 29shs bonus 3shs rations @ 15shs 47shs	
Group III	30tasks for 18shs bonus 5shs rations @ 15shs Total 38shs	30tasks for 23shs bonus 2shs rations @ 15shs 40shs	84shs per task to be completed in 42 days.
Group IV	30tasks for 18shs bonus 10shs rations @ 15shs Total 43shs	26tasks for 30shs bonus 5shs rations @ 15shs 46shs	--

Source: Guillebaud (1958), op. cit., pp. 99-100, (1966) pp. 84-85.

[1]Rations were optional. The laborer had the choice of accepting food or cash.

[2]Rations were included in the wages. The value of rations was then calculated at 21shs. Tasks were increased by 30%.

[3]All bonuses were applicable only if the tasks were completed in 42 days.

[4]All totals assume that rations were accepted in cash.

Group I: cutters, rail-layers, workers on trolleys, on decorticators and brushes.
Group II: factory assistants. Group III: agricultural labor; and Group IV: agricultural labor (heavy tasks).

exposed the nature of the struggle between the Union and the TSGA. It also paved the way for further concessions to be made in the subsequent meeting of the CJC. During the fourth meeting in May, 1959, Victor Mkello, Secretary of the Tanganyika Sisal and Plantation Workers Union, was elected Chairman of the employees' side, thus bringing it under Union control. The report also recommended improved housing and terms of service for workers. These improvements were crowned with an increase of wages in March, 1960 [see Table XX].

With all these changes, plantations were forced to rationalize the use of labor. The labor/ton rate was drastically reduced [see Table XXI]. Perhaps more important was the fact that the changes in the late 1950's reduced the gap in working conditions between workers on benevolent estates where terms of service, housing and related facilities were comparatively good and those on the more traditional plantations which at best had just barely complied with the law.

TABLE XXI

SISAL PRODUCTION, LABOR AND LABOR PER TON

1954-1968

	Sisal tonnage From estates	Total labor force	labor per ton	Decrease
1954	178,250	137,589	.77	--
1956	184,700	127,400	.69	-.08
1958	196,200	125,000	.63	-.06
1960	195,400	121,900	.62	-.01
1962	208,400	109,700	.51	-.11
1964	222,600	83,000	.37	-.14
1966	219,200	50,772	.23	-.14
1968	212,600	41,776	.19	-.04

Source: Tanganyika Sisal Growers Association, Annual Reports, 1954-68 (Dar es Salaam: 1955-1969).

CHAPTER VII

DECOLONIZING SISAL

By the early 1950's the very success of the sisal plantation also displayed signs of weakness. The East Africa Royal Commission sounded the first note of caution when it reported that:

> Tea, sisal and sugar have, until recently been regarded as European and Asian plantation crops, and understandably so because they are technically associated with expensive capital equipment and their economic production requires a strict time-table. There are, however, a number of areas which are particularly suited ecologically to these crops and there is, moreover, a need to get away from the association of particular crops with racial differences.[1]

While observing that progressive steps were being taken to break this unnatural development in tea, tobacco and wattle estates, it noted that:

> European sisal growers have been among the most sceptical of such a possibility and have feared damage to the reputation of East African sisal by indigenous sisal of poor quality, a fault which might be cured by better grading and marketing. A surprising indication of what can be achieved from peasant-produced sisal has been afforded, however, by the African District Council at Machakos in Kenya, which, under the inspiration of a determined district commissioner, is producing an excellent quality of sisal marketed under its own trade symbol.[2]

As has been noted in a previous chapter, the only

---

[1] East Africa Royal Commission, 1953-55, Report, (London, H.M.S.O., 1961), Cmd. 9475, p. 320.

[2] Ibid., p. 321.

concession which the TSGA was prepared to make in the 1950's was to tolerate sisal originating from peasants. However, without the assistance of the administration to organize and encourage sisal among peasants, there was little likelihood of increasing production from peasants, which therefore remained at a low level and fluctuated from year to year.

Thus, when Tanganyika became independent in 1961, the plantations were still preserves of the colonial heritage. The plantations were still foreign owned and the inhavitants of the country, after nearly 3/4ths of a century of intensive sisal cultivation, could expect to hold no more than at the most, junior positions. The marketing was still manipulated from London and it was doubtful whether the country was fully benefiting from its major industry. These negative aspects of the plantations had to be balanced with the national government's committment to improve the social and economic standing of the people. However, there were several reasons why the plantation system was not unduly disrupted after independence.

Political instability in other parts of Africa and the fear that this would result in a shortage of raw materials brought a favorable outlook for the future of sisal. The price of sisal consequently rose from £70 in 1961 to £72, £102, and £105 during 1962, 1963 and 1964, respectively. Exports from Tanganyika rose from 195,200 tons in 1961 to 213,900 in 1962 and reached an all time high of 219,300 tons

in 1963. The optimistic predition was that the country would be expected to produce 270,000 tons by 1970. The target of 270,000 tons of sisal by 1970 was based on the assumption that, apart from the good prices of sisal and an expansion in consumption in traditional markets, more sisal could be exported to the untapped markets of East Asia and Eastern Europe. In addition, it was expected that large quantities of sisal would be utilized for paper production in the country.[1]

Thus, as late as 1965, the President of Tanzania was only re-affirming to the TSGA what had been practised since independence when he stated that:

> The Republic now has a government which is committed to economic expansion at a rapid rate. And so it is a government which believes that such expansion demands the active participation of all sectors of our community, encouraging and facilitating the activities of the producers . . . .[2]

After cautioning against despondency and asking for an aggressive and realistic marketing policy, he added:

> . . . [O]f course it is true that the government wished to break the present monopoly of non-African ownership and control of Tanzanian sisal production. . . . We have no time to risk upsetting the present organisation of sisal production, but a 32% increase in output in the coming five years gives us ample room to effect African

---

[1] Tanganyika, Five-Year Plan for Economic and Social Development, 1st July, 1964-30th June, 1969 (Dar es Salaam: Government Printer, 1964), p. 23.

[2] President Julius K. Nyerere, Freedom and Unity (Dar es Salaam: Oxford University Press, 1966), p. 320.

participation in the industry before our Development Plan comes to an end . . . . .[1]

African participation in the sisal industry fitted well into the plans for national development and were incorporated in Tanganyika's Five-Year Plan for Social and Economic Development,[2] there being several methods for African participation. Firstly, there was government infiltration into the structure of the plantation system. In 1962, the National Development Corporation, a parastatal organization, purchased shares from the British owned company of Sir Isaac Wolfson. This normal commercial transaction gave the Tanganyika Government 50% interest in the Ralli Estates Ltd. Two years later, the Ralli Estates which normally produced 8,000 tons of sisal per annum, acquired the Mazinde group of estates. This purchase increased the annual production of sisal from National Development Corporation plantations to 14,500 tons. Although the plantations continued to be operated like other plantations, whey were managed by a board of directors. The National Development Corporation appointed four of the directors including the chairman.

Secondly, even while the Ministry of Agriculture was still in the process of rationalizing how best to encourage peasants to cultivate sisal, spontaneous development took place. This was the result of the enthusiasm of politicians

---

[1]Ibid., p. 322.

[2]Tanganyika, Five-Year Plan, op. cit.

and a very nationalistic administration. By 1963 in the Tanga Region alone there were over 82 primary societies and individuals growing sisal.[1]

Thirdly, it was planned that the haphazard hedge sisal production from the Lake Region would be developed and improved. It was hoped to increase tonnage from hedge sisal to 15,000 tons by 1969 with the assistance of credit facilities and fiber processing equipment.

Fourthly, it was also planned to establish sisal estates modelled on the normal plantations with each estate having a Corona and some 3,750 acres of sisal. Towards this end, it was hoped to extend sisal production southwards along the railway line connecting the Central Line to the Tanga Line.[2]

Lastly, it was planned to start 5 settlements based on sisal. Each of these settlements would produce some 2,000 tons of sisal. The 5 settlements were part of the transformational approach to accelerate the economic and

---

[1]Regional Agricultural Officer, Tanga: Approaches to Small-Holder Sisal Schemes, mimeo., 1967.

[2]Tanzania. Ministry of Agriculture, Working Files.

social development of the people.[1]

The plans inevitably raised the question as to whether the existing institutions and machinery of the sisal industry were adequate. Clearly they were not. The instruments controlling the sisal industry were the Sisal Ordinances. Changes in the Sisal Ordinance were introduced only on the initiative of the TSGA which assumed the role of representing all interests in the sisal industry. The institution linking the government with TSGA and related interests was the Tanganyika Sisal Board. By the late 1950's even the formalities of the independence of the Tanganyika Sisal Board had been quietly forgotten and many of its functions had been taken over by the TSGA. Therefore, in February 1963, the National Assembly introduced a bill intended to amend the Sisal Industry Ordinance.[2]

In presenting the bill, the Minister of Agriculture drew attention to the limitation imposed by the existing Sisal Ordinance in which the Board could not make,

---

[1]Briefly, in the Five Year Development Plan the Government envisaged major changes in the productivity and standard of living in the rural areas in two ways. The improvement approach was designed to bring changes through extension services and with the minimum injection of capital. The transformation approach was capital intensive and designed to bring change through re-settlement and the concentration of facilities and modernizing services.

[2]Tanganyika, National Assembly, Parliamentary Debates, (Hansard), 5th Session, 1962-63 (Dar es Salaam: Government Printer, 1963), p. 382.

rules regulating and controlling the cultivation treatment, storage, grading, baling, marketing and exporting of sisal unless a resolution recommending the same had been passed by the TSGA.[1]

The intended bill made several radical changes designed to embrace the interests of the whole sisal industry rather than only those of the plantation owners. Specifically, it was resolved that:

1. The Tanganyika Sisal Board should be revived and removed from the control of the TSGA. The latter would, however, be fully represented on the new Board.
2. The revised Board should, for the first time, represent the interests of non-estate participants and of workers.
3. The former provision incorporating 2 members of the Kenya Sisal Board on the Tanganyika Sisal Board should be deleted from the Sisal Ordinance. This was justified on the grounds that it was not in accordance with the independent status of Tanganyika for the Kenya Sisal Board to appoint 2 representatives on the Tanganyika Board.
4. The reconstituted Board should have all the powers to regulate all matters pertaining to sisal. The scope of its powers should be widened to include the manufacturing, sale or purchase of sisal products. (The

---

[1] Ibid.

previous bill tended to emphasize the agricultural aspects of the industry).

The passage of the bill marked the first institutional change in the power structure of the sisal plantation system. The next changes were an indirect result of changes in the marketing of sisal.

One of the serious flaws of the sisal industry under the plantation system was the method of marketing. In 1963 the Minister of Finance announced that the government was not satisfied with the existing method of marketing[1] and that it therefore intended to establish a unified marketing system.[2] This would make it possible to control and centralize marketing policy in Tanganyika.[3] A working party was

---

[1]Finance houses mainly in London acted as agents between the sisal growers in Tanganyika and the spinners, creditors and even buyers for stores and equipment. In most cases the finance houses did not have sufficient capital resources. Naturally, payment for these services was in interests and commissions. Guillebaud notes that under pre-World War II conditions, it was doubtful "whether the function they exercised was advantageous on the balance to the growers" [Guillebaud, (1966), op. cit., p. 103]. In the post-war period some 70% of the growers representing about 50% of the sisal produced in Tanganyika co-operated to form the Tanganyika Sisal Marketing Association (TASMA) to act as an Agency House, based in Tanganyika but selling in London. This helped somewhat in reducing pressure to sell sisal at low prices when the market was weak.

[2]Paul Bomani, Minister of Finance, Budget Speech, before the Tanganyika National Assembly, April 1963.

[3]Ibid.

constituted which recommended in 1964 that a Sisal Marketing Board be created.[1]

The Sisal Marketing Board would not itself buy sisal. It was proposed that its main functions were to be related to regulations, determining policy for sisal marketing, licensing agents to sell sisal, supervising export services, and controlling the commission and marketing services of the agents. The two other functions of the Sisal Marketing Board were even more significant. These aimed at:

1. encouraging the efficient development of the industry, particularly the African participation in it, and the development of processing industries in Tanganyika;
2. and taking over any of the functions of the existing sisal board as may be deemed necessary for the exercise of the new Board's powers.[2]

In March 1965, the Sisal Ordinance of 1963 was repealed and the new Sisal Industry Act was introduced. It generally followed the proposals outlined by the Ministry of Finance in 1964. The composition of the Tanganyika Sisal Marketing Board (T.S.M.B.) reflected the changing power structure in the sisal industry. The Board consisted of the Chairman appointed by the government, four other government

---

[1]"The Marketing of Tanganyika Sisal," Tanganyika Sisal Growers Association, Annual Report, 1963-1964, p. 18.

[2]Ibid.

members representing ministries[1] relevant to the sisal industry, four members nominated by the TSGA, one of whom represented the Sisal Cooperative Society, and finally, two representatives of the Sisal Agents. Although the unofficial members were still in the majority, the plantations were represented by only 3 members. A striking absence on the new Board was labor representation, but this was compensated for by major changes instigated independently.

The confrontation between the Tanganyika Sisal and Plantation Workers Union (T.S.P.W.U.) and the TSGA continued in the early post-independence years. Despite the recommendation of Professor Jack and other advisers, the TSGA was adamant about not wishing to change its articles of association. This change would have empowered it to negotiate about wages and conditions of service on behalf of the plantations. There were several anomalies in the stubborn position of the TSGA. It seemed to be refusing to stand by the very interests it was supposed to represent. Secondly, it had been negotiating with the Union and the fact that it did not have a mandate to do so did not seem to have bothered it all those years. The reluctance to be formally involved was even

---

[1]The four ministries represented on the new Board were: Agriculture, Food and Cooperatives, Economic Affairs and Development Planning, Commerce and Industries, and the Treasury.

In 1968 the membership was further expanded to a total of 15 members.

stranger when it is recalled that the TSCA had not shied away from labor matters before and had, in fact, operated a labour bureau (Silabu) on behalf of the plantations since 1944.

The union itself was in the process of making structural changes. The trade unions and the nationalists who had made common cause before independence were diverging in their outlook. The struggle of the nationalists had changed from Uhuru (Freedom) to Uhuru na Jamhuri (Freedom and the Republic). When republic status was attained in 1962, the new slogan of the country was changed to Uhuru na Kazi (Freedom and Work). The new position of the government was made explicit by President Julius Nyerere when he stated that:

> It is one of the purposes of Trade Unions to ensure for the workers a fair share of the profits of their labour. But a 'fair' share must be fair in relation to the whole society. If it is greater than the country can afford without having to penalize some other section of society, then it is not a fair share. Trade Union leaders and their followers, as long as they are true socialists, will not need to be coerced by the government into keeping their demands within the limits imposed by the needs of society as a whole.[1]

Even by June 1961, fearing that the above privileges would be jeopardized and the hard earned stability of the country would be affected, the government banned strikes by passing the Trades Disputes (Settlement) Act.[2] This

---

[1]Nyerere, op. cit., p. 169.

[2]Tanganyika, Revised Laws, Cap. 480: Trades Disputes (Settlement) Act, Supp. 63 (Dar es Salaam: 1963).

development led the government to legislate and "to confer rights and privileges which were considered by the government to be justified and long overdue."[1] These privileges included paid public holidays, severance allowance, increased minimum wage rates, a weekly rest day and increased periods of notice for the termination of oral contracts. Special mention must be made here about the Employment Ordinance[2] which abolished the Kipande system of payment. It provided that payment for all agricultural workers (and other laborers) was to be based on a month of 26 working days.

In 1962 the T.S.P.W.U. claimed that there was no machinery in the sisal industry (i.e., the TSGA) through which meaningful negotiations could be carried out, and threatened an industry wide strike. The government, through the Ministry of Labour, then put pressure on the TSGA to change its articles of association, and the TSGA was forced

---

[1]Tanganyika, Ministry of Labour, Annual Report, 1962, (Dar es Salaam: 1964), p. 8.

[2]Tanganyika, Revised Laws, Cap. 366:Employment Ordinance (Revised); Act 1962 No. 82 (Supplement 62) and Act 1963, No. 55 (Supplement 63), (Dar es Salaam: 1963).

to comply.[1] Negotiations with the Union once again commenced and a new Council was constituted to replace the CJC. The new National Joint Council consisted of a chairman and 7 representatives each from the TSGA and the Union.[2]

Prolonged negotiations in the National Joint Council culminated in the 1964 Agreement on Wages and Productivity.[3] The main provisions of the Agreement were:

1. A wage increase was granted, to be attained by an by an annual increment spread over a five-year period. [See Table XXII] The bottom wage was then

---

[1]TSGA, Memorandum and Articles of Association, (October 1963), (Der es Salaam, 1963). Article 23 declared:

'The executive committee or its authorised representatives shall have power:

(i) to negotiate an agreement with the recognised Trade Union or any other body as representing the employees of the Industry on the procedure to be adopted by the sisal industry for reaching agreements on wages and conditions of service;

(ii) to negotiate on behalf of the Association wages and conditions of employment with the recognised Trade Union or any other body as representing the employees of the sisal industry.'

The article had a proviso that the Executive Committee or its representative should not act as arbitrators in case of disputes between the sisal producers and their employees.

[2]Following the Army Mutiny of 1964 in which a number of trade unions were involved, the government passed an act amalgamating all unions into a single organization--the National Union of Tanganyika Workers (NUTA). NUTA, in turn, was linked with TANU, the only political party in the country.

[3]Tanzania, National Joint Council for the Sisal Industry, Handbook for the Advice of Estate Managements, Workers' Committees and Employees (Arusha: April 1969), pp. 6-13.

to be deleted.

2. Cutters were to be put in special categories of workers. Payment would be based on four categories of productivity. [See Table XXII]. Cutters had the discretion of choosing the category to which they wished to belong.
3. Both parties were to meet within a year to agree on the implementation of a progressive increase in productivity. A special committee representing both sides and assisted by experts would standardize tasks to be attained in a 45 hour working week. (This excluded the cutters' tasks which were already standardized.)
4. There was to be a provision for review at the request of either side. (This was to allow for such factors as a drastic fall in the price of sisal, a rise in the cost of living or an increase in standards of productivity.)
5. The TSGA would call on its members to replace unsuitable housing on each estate. Provisions were to be made for both married and single workers.
6. Both parties agreed to cooperate in improving the standards for health measures and medical care.

Specific agreements applying to the TSGA and social and economic benefits applying generally to all labor brought startling changes to the sisal industry. For instance, it

TABLE XXII

CHANGES IN THE WAGE STRUCTURE OF THE SISAL INDUSTRY[1]

Category	1964/65	65/66	66/67	67/68	68/69
Cutters Group IV	155sh	170sh	185sh	200sh	215sh
No. of bundles to be cut per day	90	95	100	106	111
Cutters Group III	172sh	188sh	205sh	221sh	238sh
No. of bundles to be cut per day	100	105	110	116	122
Cutters Group II	192sh	210sh	228sh	246sh	264sh
No. of bundles to be cut per day	110	116	122	128	134
Cutters Group I	217sh	237sh	257sh	277sh	297sh
No. of bundles to be cut per day	120	126	132	139	146
OTHERS--those earning 100sh per mo., 1964	125sh	135sh	145sh	155sh	165sh
OTHERS--those earning 127sh per mo., 1964 (except cutters)	155sh	170sh	185sh	200sh	215sh

[1]Based on the Agreement on Wages and Productivity between the TSGA and the National Union of Tanganyika Workers, 20th October, 1964.

Source: Tanzania, National Joint Council for the Sisal Industry, op. cit., p. 6.

negated the theory of a backward sloping supply curve conveniently used by the industry to support their premise that an increase in money earnings was more likely to lead to a decrease in the amount of work done rather than to an increase.[1] Between 1954-1960, there was a decrease of .15 in labor per ton of fiber but this had accelerated to a decrease of .39 in the period 1960-1966. [See Table XXI, p. 199] With improved conditions of work and security in tenure, the labour force has become more and more stabilized. Existing plantations have been forced to rationalize on the use of labor. Training schemes for management and field officers at the Milingano Research Centre belatedly started by the TSGA have helped to eliminate discrimination along racial lines in job opportunities.[2] However, the increasing cost of labor was a contributing, though not the only, cause of the closure of several estates.

The period following the independence of the country has also been eventful in the changed demand and prices for sisal, and this too has affected the plantations. The f.o.b. price of sisal has deteriorated from a peak of £105 in 1964

---

[1]Even Guillebaud subscribes to this view. See Guillebaud (1966), op. cit., p. 82.

[2]The Kwaraguru Estates which has been established by the Amboni Group of estates is entirely Africanized. The Manager, Bwana Mwinyihamisi Abdala, is a former employee and was important in Union affairs. The African engineer was trained in Switzerland.

to a low of £42 in 1968 [see Table XXIII]. Several factors account for the decline in prices. These include the emergence of synthetic fibers,[1] the reduction of large quantities of stockpiles of hard fibers particularly in the United States, the phasing out of some uses[2] the limited emergence of new uses[3] and also the existence of over-production.

Under the aegis of the Food and Agriculture Organization of the United Nations a study group on hard fibers representing 23 interested countries was convened. It has met periodically, beginning in 1966.[4] During one of the early sessions it was recommended by the participants that measures should be designed:

> to bring about greater stability in the hard fibers market in the short-term with particular regard to the correction of any imbalance between supply and demand and to the question of indicative price levels.[5]

---

[1]Synthetic fibers are based on polypropylene as raw material. Polypropylene is a by-produce of the cracking of natural gas which in the past was disposed of as waste.

[2]Synthetics have made great inroads in the marine cordage and fishing net industries.

[3]It has been technically proved that paper can be made from sisal. However, the practicality and economic viability of the scheme is open to doubt. The cost of erecting a plant to manufacture paper from sisal is estimated to be 10 million shillings. For the last few years several announcements have been made about the erection of a mill in the Tanga Region. In the eventuality of a mill being erected it will absorb about 10% of Tanzania's sisal.

[4]FAO, Hard Fibres, op. cit., p. 1.

[5]FAO, Report, op. cit., p. 1.

TABLE XXIII

PRODUCTION, EXPORTS AND VALUE OF TANZANIAN SISAL FIBER

1	2 Production (tons)	3 Exports (tons)	4 Average Value F.O.B. in £'s	5 Total Value F.O.B.[1] in £'s
1959	205,273	206,545	63	12,893,494
1960	204,868	200,672	75	15,027,215
1961	197,698	195,243	70	13,704,021
1962	214,032	213,852	72	15,334,751
1963	214,274	219,268	102	22,443,987
1964	229,852	203,582	105	21,455,956
1965	214,152	202,360	68	13,792,364
1966	221,529	200,155	60	11,997,773
1967	216,618	202,131	50	10,173,779
1968	193,783	184,302	42	7,813,269

[1]The multiplication of figures in column 3 by 4 will give an answer only approximating column 5 because of the rounding and averaging of F.O.B. prices.

Source: Figures for 1959-63 from: TSGA, Annual Report 1963-64 (Arusha, 1965), p. 69.

Figures for 1964-68 from: Tanganyika Sisal Marketing Board (T.S.M.B.), Annual Report, 1968-69 (Dar es Salaam, 1969), p. 54 and p. 56.

The Working Party, consisting of the 6 major consuming and 6 producing countries, came to the conclusion that there would be a rapid shrinkage in the demand for hard fibers. The decline in the world demand for sisal by 1975 was estimated to be of a magnitude of 15%--30% of the 1966 figures.[1] Producing countries agreed on self-imposed quotas and indicative price arrangements. The world quota was set at 640,000 tons, of which Tanzania was allocated 205,700 tons.[2] The indicative price recommended for East African sisal was £73-10sh, plus or minus £5 depending on market conditions. Informal international agreements have the inherent limitation of self-imposition, and there is also the added weakness that consuming countries are least likely to practice self-restraint in a glutted market.[3]

The national allocation of a quota of 205,000 metric tons imposed in 1967 was reduced to 185,000 tons in 1969.[4] Production of sisal in Tanzania, which in 1964 was already above 229,000 tons had, therefore, to be trimmed down. Some leeway was provided by the low prices which put a natural

---

[1] Ibid., p. 3.

[2] Ibid., p. 12, Table 3.

[3] Consumer countries, for instance, were insistent that the indicative price should be £68- 5 instead of the recommended £73-10sh. ± £5.

[4] Tanganyika Sisal Marketing Board, op. cit., p. 5. The world quota set at 640,000 tons in 1967 was reduced to 581,000 metric tons in 1969.

end to the very marginal plantations. On the suggestion of the TSGA, the T.S.M.B. recommended that quotas for each plantation should be based on one-third of the production for the 1963-64 period and two-thirds of the potential anticipated for 1968. The result of their calculations showed that the potential was 236,000 tons.[1] Some parity was achieved by a further reduction of 12% in the output. The decline in exports and the fall in prices altered the pattern of the sisal plantations [See Table XXIV).

TABLE XXIV

RECENT CHANGES IN THE SIZE OF PLANTATIONS

Size of Plantation	1964 Number of Plantations	1964 % of output	1968 Number of Plantations	1968 % of output
3,000 tons	12	20.98	13	26.86
2000/2999 tons	24	24.92	21	25.72
1500/1999 tons	23	17.24	20	17.65
1000/1499 tons	34	18.52	20	12.95
500/999 tons	35	11.23	25	10.21
250/499 tons	17	2.69	25	4.84
Less than 250 tons	36	1.26	23	1.50
TOTAL	181	96.84	147	99.73

Source: Figures for 1964 from TSGA, Annual Report, 1964-65 (Dar es Salaam: 1965), p. 70.

Figures for 1968 from T.S.M.B., op. cit., p. 58.

As has already been described, the power structure of

[1] TSGA, Annual Report, 1967-68, op. cit., p. 11.

the plantations, in matters pertaining to labor and the Sisal Board had been rapidly changing since independence. After 1966 the changes in the sisal industry were further accelerated by the new national ethic embodied in the Arusha Declaration.[1]

The aspects of the Arusha Declaration which directly affected the sisal industry were those which aimed at:

1. Eliminating the exploitation of one class of people by another.
2. Putting all major means of production and exchange under the control of the nation and this included "large plantations, and especially those which provide raw material essential to important industries."[2]
3. Re-emphasizing agricultural rather than industry as the basis for development.

With the Arusha Declaration, the government settled the question of where public ownership and control were required and the areas where private enterprise was

---

[1]The Arusha Declaration marks a turning point in the social, political and economic life of Tanzania. It approved and defined the goals of socialism. These major goals were presented by President Julius Nyerere to the National Executive Council of TANU meeting in Arusha in January 1967. They were discussed at the meeting and then published on February 5, 1967.

[2]Nyerere, op. cit., p. 234.

welcome.[1] The implementation of the public ownership resulted in the nationalization of banks, export and import firms and large food processing firms. A list of all firms affected by this decision was made public but sisal was exempted with the statement:

> There is only one industry in which the Government intends to take a controlling interest and in relation to which action has not yet been completed. We have informed the Sisal Growers Association of our intention to secure a controlling share in the Sisal Industry, but the individual firms with whom discussions will take place have not yet been notified. The names of these firms will be announced within the coming week.

[1] President Julius K. Nyerere, "Public Ownership in Tanzania," in The Arusha Declaration and TANU's Policy on Socialism and Self-Reliance," (Dar es Salaam: Publicity Section, TANU, 1967), p. 21.

CHAPTER VIII

THE DECLINE OF PLANTATIONS AND THE EMERGENCE OF NEW STRUCTURES OF PRODUCTION

Institutional and economic changes which have been described in the previous chapter had a profound effect on the plantation system. The changes paved the way for the emergence of a group of small-holder sisal growers[1] and in the Tanga Region this broke the monopoly which had been enjoyed by the plantations for nearly three fourths of a century.

In the wake of independence it was only reasonable and expected that the inhabitants of the country should be urged to participate in an industry in which substantial profits had been made and were being made. The most vocal group to encourage participation in the sisal industry were politicians who found it both prudent and necessary to clamor for change. In 1962, even while the Ministry of Agriculture

[1] In 1964, at an early stage of sisal small-holder development in Tanzania, Herman Pössinger carried out an investigation of small-holder sisal cultivation in East Africa. His calculations were based on the production cost of three medium sized sisal plantations. His findings have been published in: Herman Pössinger, The Possibilities and Limitations of Smallholding Sisal in East Africa, mimeo, (Munich: IFO Institut für Wirtschaftsforschung, 1965); Sisal in Ostafrika, (Berlin: Springer Verlag, 1967), Afrika Studien, No. 13; "Smallholder Sisal, Possibilities and Limitations of the Smallholder Farming and Smallholder Development in Tanzania (Munich: Weltforum Verlag, 1968), Afrika Studien, No. 24, pp. 307-355.

was still working on the form in which this participation could best take place, there was already sisal being grown by African peasants. As early as October 1962, extension officers were caught in the cross fire between politicians who had already succeeded in mobilizing African participation in sisal cultivation and peasants who found extension officers were not able to offer the expected advice. Thus, African participation in sisal production which became synonmous with small-holder cultivation was already gaining momentum in 1962 while the Ministry of Agriculture was still debating whether to introduce sisal or cocoa as a small-holder crop in the Tanga area.

Types And Size Of Non-Plantation Holdings

The term 'small-holder' in sisal production implies cultivation other than that practised on plantations. The degree to which the holdings varied in dimension, organization and serious commitment to sisal production reveal that the abstraction, small-holder, is a misnomer for non-plantation sisal. The distinction is not pedantic but one of practical significance.

a. Individually owned sisal holdings. Individually owned sisal holdings ranged from 3/4 of an acre to 225 acres. Family labor inputs could obviously tackle the former without unduly affecting the labor inputs of the peasant

farming system incorporating both cash and food crops. In an African peasant farming system the production of food is of primary importance and this naturally limits the amount of cash crops which can be grown. In practical terms, the assumption made in the Tanga Region was that 3 acres of cultivated land was sufficient to supply both food and income to maintain the prevailing standard of living. Therefore, even if 3 acres of sisal were to be cultivated per annum, serious inroads would be made in the normal agriculture of the peasants. Over a four-year period then, the assumption was that not more than 12 acres could be managed by individual peasants. However, in the calculations it was assumed that farmers would use their leisure and off-season months to cultivate sisal and there was no question of competition between sisal and crops normally grown. Even so, the individual with 225 acres, though termed a small-holder, clearly has to use labor on a large scale and cannot be called a peasant sisal producer.

b. Group owned sisal holdings. A second major category of small-holders involved the co-operative cultivation of sisal. Here too, a number of sub-groups could be discerned. These included cooperatives:

1. where all the members of the association worked on the scheme themselves,
2. where some of the members worked outside and provided money monthly in lieu of their working on

the scheme,

3. where all members worked elsewhere and employed labor supervised by a manager.

The acreage cultivated by these associations varied as much as that cultivated by individual small-holders. Size ranged from a case where 80 members cultivated 1/4 acre to one where 208 members cultivated 185 acres.

Expansion In The Number Of Holdings

By 1966, scarcely 4 years after Africans were first positively encouraged to grow sisal, the number of individual and co-operative small-holdings had increased to 1,042 with a total of 10,289 acres. Optimistically, one might say that in 4 shourt years more had been done to promote African participation than in the preceding seven decades. The extent to which this encouragement had succeeded is summarized in Table XXV below.

TABLE XXV

AFRICAN OWNED SISAL HOLDINGS

	1963	1964	1965	1966	1967
No. of Schemes	82	298	548	463	327
No. of Individual Holdings		378	568	579	516
Acres of Land cleared		3,120	7,949	8,005	-
Acres of Nurseries	48	247	443	460	-
Acres of Immature Sisal		4,713	8,957	9,431	8,566
Acres of Mature Sisal		278	382	858	1,600
Production in tons			145.6	490	525

Source: Tanzania, Regional Agricultural Office, Tanga, Approaches to Small-Holder Sisal Schemes, mimeographed, (Tanga: July 1967), p. 2.

It is not difficult to account for the growth of non-plantation holdings. The psychological impact for a major introduction of the crop could not have occurred at a more opportune moment economically and politically. Neither could there have been an area more receptive to these changes than the Tanga Region. In the first case, the restrictions which had prevented Africans from fully sharing in the benefits of sisal growing had been removed. It was a practical demonstration of independence for the inhabitants to enjoy the wealth of the country. Economically, the high prices of sisal in 1964 at £144 per ton (c.i.f.) which were then prevailing made the undertaking appear profitably sound. Extension was comparatively easy because many of the small-holders

were familiar with the plant and indeed many had actually worked on estates. In fact, great increases in acreages in Tanga took place with the aid of not more than 4 extension officers at any one time. Ownership of sisal contributed to individual status, which plays an important part in the coastal area. Along with this was the fact that sisal was not supposed to be substituted for any other major cash or food crop but was intended to be an addition. Finally, the various wage increases in the sisal industry had resulted in the reduction of labor on the sisal plantations so that there was a considerable number of unemployed sisal laborers and these were keen to participate in the emerging small-holders sisal development.

Several problems began to manifest themselves at an early stage so that the amount of sisal produced by small-holders was not anywhere near the figure calculated by the Ministry of Agriculture. In 1967, instead of the 900-1,000 tons expected in the Tanga area, the actual production was only 525 tons.[1]

Problems Of Small-Holder Sisal

The problems associated with non-plantation sisal are many and, because they are inter-related, it is necessary to deal with them systematically. Briefly, the problems can be

---

[1]Tanzania, Ministry of Agriculture and Co-operatives, Annual Report on Sisal, 1967, mimeo., (Tanga:1967), p. 4.

discussed under the following main headings: (1) agronomic, (2) technical, (3) social, and (4) economic.

Agronomic problems. The cultivation of sisal is deceptively simple. Land has to be cleared. Burning only partly solves the problem and uprooting can be time consuming and laborious. Once the bulbil or sucker has been planted and begins to grow, weeding and hoeing are necessary, although the plant will not perish if these are neglected. Therefore, there is a wide margin of tolerance before the peasant suffers loss from weed- choked sisal.[1] Unkempt holdings can catch on fire and be destroyed. But after making allowances for these possibilities, the production of sisal was within the means of any person who cared to grow it, [See Plate IVA]. At the present stage of development of most agriculture in Tanzania, it is the presence of the crop or animal that seems to matter, not the quality or standard. Since this view had often applied to coffee, cotton, coconuts and cattle, there was no reason to assume that the situation would be any different with sisal. The fact that with good maintenance (regular weeding, etc.), production could be increased was considered almost immaterial. In all probability, most growers felt that the theoretically possible extra earnings would not be commensurate with the

[1]Sisal leaves less than 30 incles long are normally not processed by estates.

very real cost and effort necessary for tidy and careful maintenance.

Technical problems. One of the most serious problems which confronted the small-holder was the absence of a cheap, reliable and acceptable sisal processing machine. It will be recalled that since the 1950's hedge sisal grown in the Lake Region had been processed with the aid of raspadors and that a considerable amount was simply processed manually. The effectiveness of the use of simple devices was illustrated in 1960 when 12,460 tons of hedge-grown sisal were sold.[1] Because of the plantation system and its use of large decorticators, there was little experience in the operation of small, mobile raspadors.

Belatedly, in 1964, experiments were carried out on four variants of raspadors for peasant use. Although experimentally at least one model offered some promise, most of these machines were virtually abandoned in 1964/65 in the Tanga Region thus complicating the whole issue of non-plantation sisal. By 1967, there were no small-holders operating machines and some were even prepared to forfeit payment rather than take delivery of them. Essentially, the five reasons given below for the abandonment of machines point to barriers in adaptation, the problem of management

[1] In Mexico and Brazil, a substantial part of the sisal is derived from hand-operated raspadors not too dissimilar from those introduced into Tanzania.

in rural areas, the influence of plantations and the availability of an easier alternative. According to a study by the Ministry of Agriculture, the unpopularity of the machines stemmed from the following complaints:

a. Small-holders considered working 8 hours a day on the machines for 225 days too laborious.

b. They had been misinformed about the performance of the raspadors and were therefore reluctant to use them.

c. They were unable to maintain the machines in a satisfactory running condition.

d. They were discouraged by physical injuries and the subsequent irritation caused by juices from the leaves being processed.

e. No assessment had been made as to which of the three commercial varieties of machines was the most suitable.[1]

At the stage when machines were being abandoned the Government opened negotiations with the TSGA to persuade its members to purchase leaf from the non-plantation holdings. The price agreed upon was 15 shillings to 18 shillings per metre depending on the number of metres required to produce a ton of fiber. This method was regarded as only a temporary solution until such time as a clearer picture could be

---

[1]Tanzania, Regional Agricultural Office, Tanga, op. cit., p. 2.

obtained about raspadors. Peasants could obtain more income from the sale of fiber rather than leaf but the latter method was an easier alternative than becoming involved in the cumbersome and time consuming processing of leaves to obtain fiber. Technical education and advisory services would have eliminated the problem of satisfactorily maintaining the machines. Similarly, by wearing gloves and water repellent clothing, the irritation from leaf cuts and juices could be avoided.

Water supply was another technical problem. In their enthuiasm to start cultivating sisal, small-holders did not pay attention to the availability of water for processing sisal. In 1966, in a sample study[1] of 29 holdings in the Tanga area it was found that:

13 were without water on the holding

9 depended on nearby wells

4 had wells or streams on the site of the holdings

3 depended on the supply of water from riverine sources located within two miles of the holdings.

Because of a lack of water, nearly half of the above holdings will have to continue selling leaf to plantations without any economic possibility of processing their own fiber. Fortunately, all the holdings were located within six miles

[1]Interview with Mr. Francis Mwaiseje, Field Officer, in charge of sisal small-holder schemes in the Tanga Region, September 1967.

of established plantations. The effect of this reliance on plantations to process the fiber became a major obstacle in small-holder sisal development and will be discussed later.

Social problems: labor, management, and co-operatives. One common theme running through the various proposals for sisal to be produced on a small-holder basis was that wage labor was not to be used. Expressed in a more positive way, the various proposals recommended family labor or some sort of co-operative organization to cultivate sisal. Implicit too, was the assumption that the production of food would be incorporated with sisal growing. In the Tanga Region all the available evidence points to a divergence from the ideal of self-employed labor, plus strains in, and even complete breakdown of, the co-operative effort.

Since sisal is not a seasonal plant, it was assumed that a family undertaking to grow sisal would capitalize on slack periods for other crops during the agricultural cycle and cultivate sisal during such periods. The assumption that 3 acres of sisal could be cultivated per annum by an average peasant without making inroads into the standards of living and leisure was overly optimistic. Therefore, although many peasants took to the cultivation of sisal, it was only the few who were comparatively rich, the entrepreneurs, and those with outside income who could afford to undertake the risk of growing sisal. This group, too, could afford to hire labor. A large floating population no

longer needed on plantations, was prepared to accept payments per task rather than per day. A petty capitalist group that considered entering the sisal enterprise as just another commercial venture was also emerging. The two brief case histories of individual "small-holders" in the Tangata area illustrate the major features of this evolving group [see Appendix I].

Some important observations can be made from the case histories. The people of the Tanga area are noted for their restrictive land tenure policies. Substantial land holdings were therefore within the means of the indigenous people, but alien groups, however enterprising, came off second best. Secondly, the coastal people have a reputation for shunning manual labor if they can afford hired labor. The momentum of individual holdings faltered because traditional land tenure practices worked against a genuine peasant class. Sisal production had come to a standstill even in the case where land tenure favored a group because they were traditionally inclined to dislike labor.

Management and organization among individuals and co-operative small-holders also left much to be desired. In 1962 out of the 27 co-operative schemes only one seems to have had an economic or work progress. The first task of the extension officer appointed to put African participation on a sound footing was to start a working program embracing such features as the proper time for planting, the control

of weeds, and the allocation of tasks per day. By September 1963 there were 58 projects in all, varying in size from 6 hectares to 90 hectares. Apart from the extension officers appointed by the Government and the use of a government vehicle for planting material, there was no government money involved.

The co-operative efforts were an attempt to gain even more advantages than those of individually operated holding. Specificially, co-operatives could have larger holdings and there was also the possibility for a division of labor to ensure improved efficiency. Since most of the co-operatives were casually operated, maintaining control over members for a period of two years became very difficult and resulted in the desertion of most of the members. The participation of some members in the associations were only nominal.[1] In an extreme example, most of the members of one association were the unemployed from Tanga town. At its inception there were 240 members in this association; in September 1967, only 54 remained.[2] The highly motivated groups were exceptions and here the Segera TANU Youth League group and the Mbambara Youth League stand out as good examples. A consistent working party in the field was important if an

---

[1]The numbers in each association were so disputed that the Tanga Regional Agriculture Office had to conduct a new survey in 1967.

[2]Information based on a field trip and interviews, Tanga, September 1967.

association was to derive any benefits from its corporate labor. This is specially true because at the present level of miniaturation of raspadors, at least 74 acres of sisal are needed to make the machines operate economically.

Economic problems. Apart from the technical deficiencies in social organization, outside factors pertaining to the whole economy of the sisal industry added to the difficulties already existing. In 1962, when African participation in the industry was initiated, the average price for sisal was £72 per ton and this rapidly rose to £105 in 1964 when the promotion of small-holders was at its height. After 1964, however, prices began to decline rapidly [See Table XXIII, p. 217], so that by 1967 prices had dropped to £50 per ton. Some of the plantations which had agreed to process leaf for small-holders began to cancel their former obligations as soon as they began to feel the wind of change. Others imposed new conditions prior to processing the leaf. Extension officers in the Regional Agriculture Office found themselves getting more and more involved in the actual canvassing of estates to help non-estate enterprises. True, some estates continued to co-operate, but the overall record of the sisal planters who had dominated the industry for so long was obviously not without blemish.[1]

[1]For instance, the excuse by some estates that they could not buy leaf because their machinery was built for a specific tonnage is not entirely true. Part of the success story of many sisal estates has been the ability to process additional leaves when required.

The imposition of a sisal quota in 1968 meant that there was a surplus in sisal production even without including sisal from small-holders. Plantations were therefore reluctant to accept sisal leaves from small-holders. A special directive from the Tanganyika Sisal Marketing Board assured the plantations that any sisal processed for African small holders would not be deducted from their normal quotas. There were other factors in relations with plantations which also hindered the development of small-holder sisal.

Relation Between Plantations And Small-Holders

The relationship between plantations and small-holders varied considerably. The more helpful plantations provided seedlings and bulbils, and processing and marketing facilities, even before the government recommended this. Some small-holders made this task easier by having a relationship that was commercially sound. They arranged to cut their own leaves, provided their own transportation and kept to agreed time tables. Others, however, expected sisal plantations to cut, transport and process their sisal. Often this was not done and for good reasons, too, such as impassable roads, and uneconomic load of cut leaves, and limited or unavailable plantation transportation,[1] or too great a distance for

[1] Some of the older estates still relied on internal rail systems to transport their leaves.

economic transportation of sisal leaves. In relation to the price paid per metre of leaves (15 - 18shs), the most practical and economic ranges for transporting leaves were within 10 miles of a factory.

Even after the nationalization of the majority of plantations in 1967, small-holders had to face these realities: the lack of a reliable and cheap mobile decorticator; the site of their own holdings in relation to water supply; the degree of co-operation among associations members and the situation of their sisal in relation to factories willing to process leaves for them. Both the Ministry of Agriculture and the Tanganyika Sisal Marketing Board considered it best not to positively encourage any further extension of sisal. It is not known how many individual peasants were able to overcome their problems, but among the co-operatives and associations the mortality rate has been high [See Table XXVI].

TABLE XXVI

THE DECLINE OF SMALL-HOLDER SISAL SCHEMES IN THE TANGA REGION IN 1969

District	Total No. of Schemes	Schemes Said to be worth saving[1]	Total acreage of Schemes Saved
Tanga	144	25	1,596
Pangani	10	4	187
Korogwe	59	9	1,002
Handeni	10	3	583
Lushoto	6	2	111
Total	229	43	3,452

Source: Compiled from data supplied at the Tanga Regional Agriculture Office, August, 1969.

[1]Based on the state of the scheme, organization and sale of leaf program. For total number of schemes in the early 1960's, see above Table XXV.

Most of the difficulties and problems associated with the individual peasants and co-operatives could have been overcome with more comprehensive planning and organization as envisaged in the five settlement schemes proposed in the Five-Year Development Plan. Only one of the proposed five schemes was implemented. This was the one at Kabuku.

The Kabuku Settlement

The establishment of the Kwaraguru Nucleus Estate/ Kabuku Settlement Scheme for the cultivation of sisal represents one of the most comprehensive and technically sound schemes to incorporate direct African participation in the sisal industry.[1] In the planning and initial stages of the scheme there were three main bodies concerned with the development, thus reflecting that the goals of the scheme went beyond merely cultivating sisal. The three agencies responsible for the scheme were the Government of Tanzania, the Rural Settlement Commission and the Amboni Group of Estates.

Government interest in the scheme was a result of its aim to encourage African participation in sisal and, as set out in the Development Plan, it was envisaged that five sisal settlement schemes would be established. The actual implementation of the villagization program (of which the settlement schemes formed a part) became the function of the Rural Settlement Commission. The Amboni Group of Estates which were involved in the project represented one of the

---

[1]The material in this section has been obtained largely through the co-operation of Mr.A.R. Mbelwa, Acting Commissioner of the Village Settlement Scheme; Mr. Rugaihurura, Manager of Kabuku and, above all, through the assistance of the villagers at Kabuku. Economic and statistical data were obtained from company records generously made available by Mr. P. Amman, General Manager of the Amboni Group, Mr. A. Torriani, Manager of the Amboni Sisal Estate, and Mr. A. Mwinyihamisi, Manager of the Kwaraguru Nucleus Estate.

largest and most experienced sisal growing concerns in the country. Unofficially, what became known as the Amboni Plan fused the best in the plantation system with the major policies of the government for rural development and African participation in the industry.

In 1964, a tripartite agreement was signed by the three Agencies and the plan was launched.[1] Briefly, the Amboni side of the project agreed to:

1. Provide all technical advice and help in cultivating sisal.
2. Provide credit up to a sum of £250,000 towards the developmental cost of the Kabuku Settlement Scheme.
3. Establish the Kwaraguru Estate.

The area selected for the project was a reserved forest in the Handeni District. Although the main road from Dar es Salaam to Tanga passed through the area, there was little development in this district which lay outside the main sisal zone of the Tanga Region. Altogether 4,000 hectares were set aside for the project; half of the southern section was reserved for the Kabuku Settlement Scheme. [See Map 5] The Kwaraguru Sisal Estate located to the north has all three components of the plantation, its own sisal, labor,

---

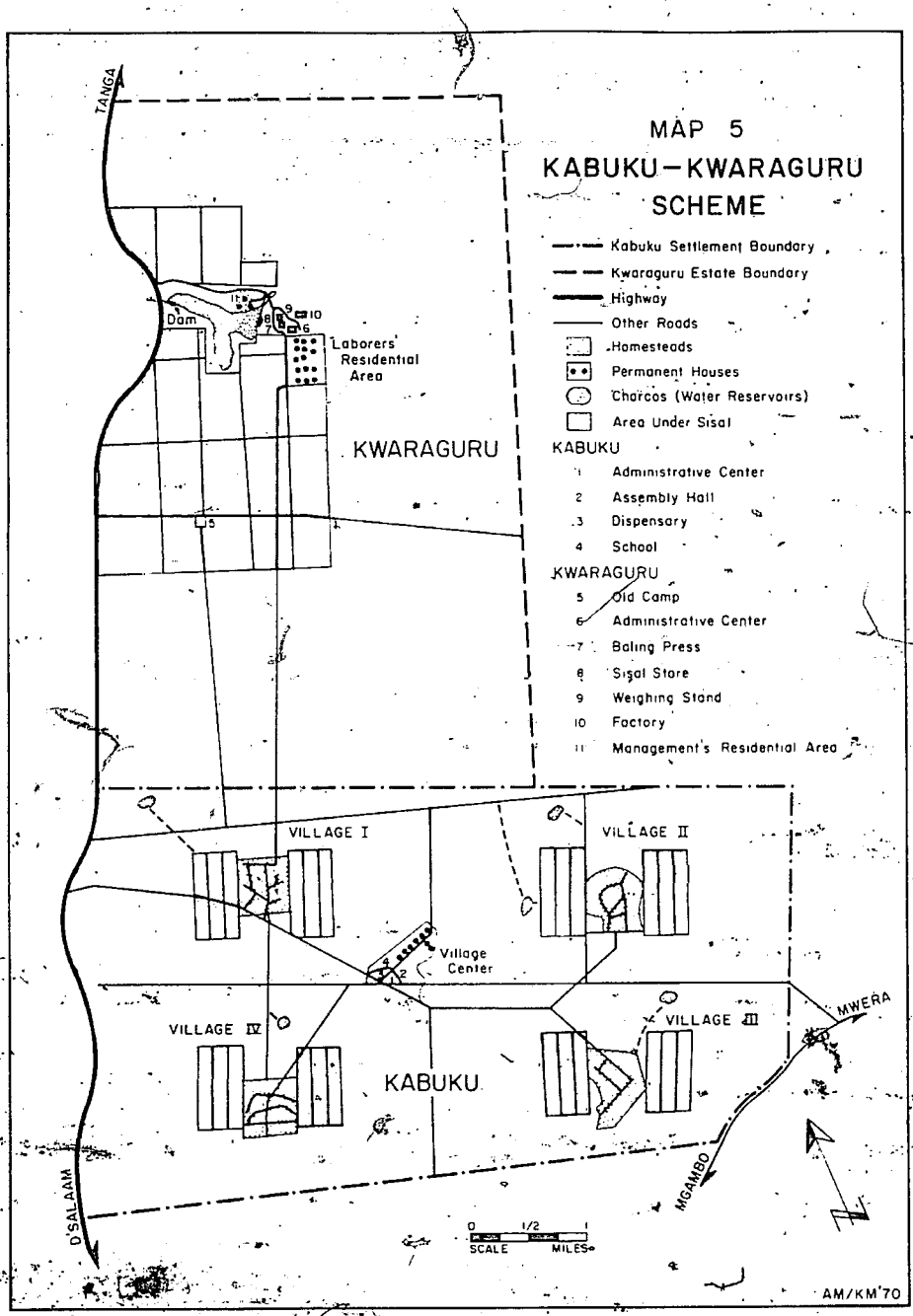
[1] Tanzania, Ministry of Lands, Settlement and Water Development, The Rural Settlement Commission, a Report on the Village Settlement Programme from the Inception of the Rural Settlement Commission to 31st Dec., 1965 (Dar es Salaam: Government Printer, 1966).

and processing facilities. The laborers are responsible for cultivation, maintenance and processing and are paid the normal fixed wages for plantations' labor. The developments and organizations at Kabuku were different.

The Selection Of Settlers

With the finalizing of the agreement, the government gave publicity to the Kabuku Scheme and invited prospective settlers to submit applications, and initially, selection was heavily in favor of those who looked good on paper. Out of over 1,000 applicants only 65 were found suitable. Subsequently, the selection process was modified so that the application was supplemented with an interview.[1] Most of the settlers were selected from the over-crowded highland areas of the Kilimanjaro, Pare and Usambara regions where shortage of land was being experienced. Thus, the majority of the people incorporated into the scheme had the reputation and tradition of not being willing to live on the plains and of avoiding work on sisal estates. However, the promise of 10 hectares of land and a better way of living was a strong

[1]The manager, Mr. A.K. Rugahururа, who was on the selection committee, felt that personal appearance provided a better guide than an application form to sort out potential farmers from those seeking to enrich themselves quickly. The urban dandy was obviously the first to be eliminated in this scrutiny. Despite the care in selection, 20% of those selected have deserted but it would seem that this rate is not excessively high for a settlement scheme. Information from an Interview with the Manager, October, 1966.


MAP 5
KABUKU–KWARAGURU
SCHEME
Kabuku Settlement Boundary
Kwaraguru Estate Boundary
Highway
Other Roads
Homesteads
Permanent Houses
Charcos (Water Reservoirs)
Area Under Sisal
KABUKU
1 Administrative Center
2 Assembly Hall
3 Dispensary
4 School
KWARAGURU
5 Old Camp
6 Administrative Center
7 Baling Press
8 Sisal Store
9 Weighing Stand
10 Factory
11 Management's Residential Area
TANGA
Dam
Laborers' Residential Area
KWARAGURU
VILLAGE I
VILLAGE II
Village Center
VILLAGE IV
VILLAGE III
KABUKU
MWERA
MGAMBO
D'SALAAM
SCALE
MILES
AM/KM'70

motivation to join the scheme. Potential settlers had to be married and medically fit, and had to show a willingness to work towards the communal and individual good.

The group from the mountains (Usambara, Pare and Kilimanjaro) comprised over three-quarters of the settlers, and of these the majority were the Wachagga. Settlers from the plains in the immediate vicinity of the scheme accounted for only 12% and the remainder came from the rest of the country [see Table XXVII].

The settlers had a wide background of experience. In a sample survey of 43 settlers it was found that the number of farmers and farm laborers was roughly equal, and that together they accounted for 27% of the settlers. There were only two settlers who claimed to have had experience with sisal. Urban and rural craftsmen and professionals made up the rest of the community [see Table XXVIII].

While the selection process was going on, a corps of National Service Youths helped to build the first temporary service and administrative structures as well as the homes to receive the first intake of 65 settlers who arrived in March 1965. Each new group of settlers helped to build a village for the next intake until all four villages were completed. By June 1966 the full complement of 250 settlers was reached. In the initial stages food was provided from donations from national and international relief organizations. The settlers were exempted from taxation for 3 years

TABLE XXVII

MAIN GROUPINGS OF SETTLERS AT KABUKU

		Number	Percentage	
Mountain People	Wachagga	76	30.6	
	Wasambaa	59	23.6	76.4%
	Wapare	56	22.4	
Coastal People	Wazigua	27	10.8	
	Wadigo	2	0.8	
	Wabondei	1	0.4	12.4%
	Wazaramo	1	0.4	
Inland People	Wagoni	3	1.2	
	Wasukuma	3	1.2	
	Wanyamwezi	2	0.8	
	Wambena	2	0.8	5.8%
	Wakonde	2	0.8	
	Wabembe	2	0.8	
Unclassified		14	5.4	5.4%
	Total	250	100.0	

Source: These statistics are based on a village survey carried out in December 1968. The data were collected with the assistance of Messrs. P.S. Maro, K. Mshigeni, A. Mwereke, J. Nyika and A. Changoma, undergraduate students at University College, Dar es Salaam.

TABLE XXVIII

OCCUPATION OF SETTLERS PRIOR TO JOINING THE KABUKU SCHEME

	Number	%		Number	%
Farmers	7	16.28	Sisal cutters	2	4.65
Laborers	6	13.95	Bus conductors	2	4.65
Drivers	3	6.98	Cobblers	1	2.33
Tailors	3	6.98	Soldiers	1	2.33
Carpenters	3	6.98	Cooks	1	2.33
Mechanics	2	4.65	Shop-keeper	1	2.33
Clerks	2	4.65	Messenger	1	2.33
Teachers	2	4.65	Laundrymen	1	2.33
Masons	2	4.65	Unemployed	1	2.33

Source: This sample village survey is based on 43 interviews out of a total population of 250 families, carried out in December, 1968.

and in addition were given a monthly allowance of 30 shillings. These concessions were no longer necessary once cash was obtained from the sale of sisal.

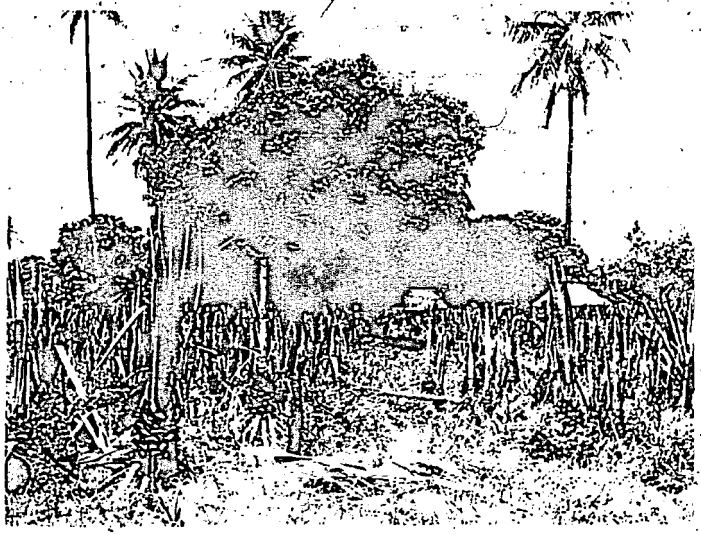
Each settler was allocated 12 hectares of land. One hectare of this land was reserved for the homestead and the production of food. The remaining 11 hectares were to be used for sisal cultivation. At the start each family was supposed to cultivate one hectare of sisal per annum so that after 10 years the settler family would have 8 hectares of mature sisal, 2 hectares of immature sisal and 1 hectare of fallow for rotation. During the first two years of the scheme's existence, the annual quota of sisal was planted, but this was reduced to 1/2 a hectare due to restriction in production after the reduction of the national quota in 1968.

Sisal was cultivated in continuous blocks in the villages. In 1969 each of the four villages had 125 hectares under sisal. The overall arrangement of cultivation in blocks was similar to that existing on plantations. Peasants at Kabuku, therefore, have all the advantages of plantations in that large blocks of sisal are ready for cutting around the same period and can benefit from an economy of scale. [See Plate IVB]

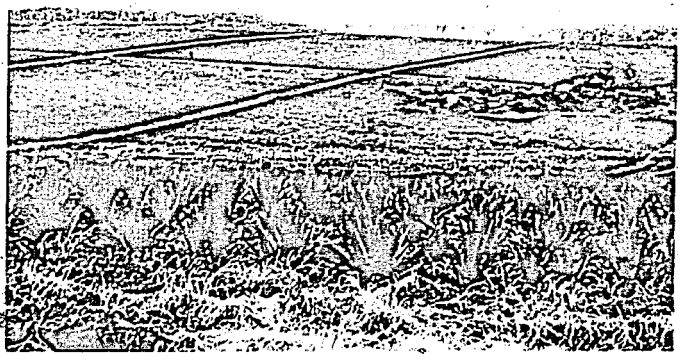
During the early phase of the settlement scheme the affairs of the four villages were run by a manager who was a civil servant appointed by the government. A core of other government employees assisted him in the office and in technical matters. The villagers had their own council but negotiations between the government/Amboni complex and the villagers was through the manager. Many of the villagers, accustomed to their previous freedom, considered the work pattern and standards demanded at the settlement too restrictive. In an attempt to promote self-reliance, the bureaucratic management was withdrawn from the villages in 1968. Village committees now perform many of the tasks of job allocation and inspection of fields previously carried out by the management. Briefly, each group of 10 settlers has a representative. The representatives from the four villages then constitute a committee of 24 which is responsible for the affairs of the settlement.

To fully benefit from the scheme, there are several

PLATE [illegible]



A. Sisal interspersed with coconuts, mangoes, oranges and bananas on a peasant family plot. Sisal has been over cut and abandoned.



B. Kabuku/Kwaraguru Settlement Scheme. In the center right is the temporary Kwaraguru camp. The sisal blocks in the background were planted in 1966. In the foreground is newly planted sisal.

responsibilities and divisions of work. The Amboni group is responsible for the heavy clearing of land and other mechanical aspects of cultivation, the transportation of sisal leaves, and the processing and marketing of sisal fiber. Amboni gets paid for these services through its credit arrangements with the government. The core of civil servants are responsible for agricultural and extension administrative and medical services, but the driving force is the effort of the villagers themselves.

The organization of life at the settlement is subtly balanced between working for the good of one's individual family and working for the good of the community. After the preliminary clearing of land is done by the Amboni group, the burning of the vegetation and the finer preparation of the fields is undertaken communally. Communal effort is also utilized in the care of the nurseries and in transplanting. Collective labor was also used in road maintenance, construction work at the administrative centers and in the cultivation of basic staples during the first three years.

Once the sisal has been transplanted and the hectare allocated to the individual, it becomes the responsibility of the individual to maintain the sisal. Periodic inspection of the fields is undertaken by an elected committee from the village. Blatant neglect in maintaining one's individual field can lead to the individual's expulsion from the scheme. Individual responsibility also extends to the care of the

food plot in the vicinity of the homestead.

Sisal leaves which are communally cut and bundled are taken to the adjacent Kwaraguru Sisal Estate for processing. Prior to being decorticated the weight of the leaves is recorded and an immediate payment at the rate of 1.5 cts per kilogram is made. An equal amount of leaves from the Kwaraguru Estate is processed at the same time as that from the settlement. The processed fiber is then marketed by Amboni. In addition to the factory charges, a further 10% is deducted from the c.i.f. price as repayment of the £250,000 credit from the government. The balance is accumulated in favor of the producers. In the 9 months between October 1968 and June 1969, over 163 tons of sisal were exported from Kabuku.[1]

Although all the villagers have had equal opportunity for advancement, variations in the care of the fields, possibly micro-climatic and edaphic factors, and the size of individual families have been responsible for quite startling variations in the returns from sisal. The first leaves were cut in October, 1968 and every three months thereafter. By July, 1969 there was one villager who had sold 119,956 kg. of sisal leaves and earned 1,683 shillings. There were

---

[1] Data obtained from Amboni Sisal Estates. Form 6, Kwaraguru Estates, Monthly Proceeds Statement from Kabuku, from Accounts Dept. to the Chief Accountant, Settlement Division, mimeo (Tanga: July 1969).

several others who had earned in excess of 1,000 shillings. The lowest returns, in contrast, was less than half of the highest. [See Table XXIX]

The Kabuku Scheme has had a multiplier effect judging from the growth of the settlements on the fringe of the scheme. Basic services such as a school, a dispensary and agricultural extension services have appeared fro the first time in an area long neglected. The advantages are obviously appreciated even if not altogether properly understood, both by the farmers in the scheme and the people on the outside fringe. There is already talk of diversification into other crops. The future success of the scheme depends on the price of sisal and the extent to which cohesiveness is maintained in working through the local Voluntary Agency of TANU (the only political party of the country). Although many of the original proposals for development at Kabuku have had to be altered, the scheme represents one of the most successful attempts at peasant participation in the sisal industry.

Nationalization

The ultimate change in most of the sisal plantations took place in October 1967 with the nationalization of the sisal industry.[1] Nationalization created the Tanzania Sisal

[1] A proposal to establish a Tanzania Sisal Corporation was submitted to the National Assembly on 27th October, 1967, received the assent of the President and became the Tanzania Sisal Corporation (Establishment and Vesting of Interest) Act, 1967.

TABLE XXIX

PRODUCTION AND VALUE OF SISAL LEAF AT THE KABUKU SETTLEMENT

	Total Production* (in tons)	Average Production* of leaves per settler	Total Value of sisal leaves sold**	Average** Returns per settler	Highest** Return to a settler	Lowest** Return to a settler
Village 1	4,126	63.48	62,441	960	1,173	712
Village 2	4,848	74.59	72,306	1,112	1,647	886
Village 3	4,248	70.80	62,485	1,041	1,357	826
Village 4	3,998	66.64	59,579	993	1,421	609
Scheme	17,222	68.88	256,813	1,027	1,647	609

*In tons, and totals have been rounded off
**In shillings

Source: Calculations from Daily Returns made available at Amboni Estate, Tanga. The assistance of Mr. O.R. Mwanasenge is greatly appreciated.

Corporation whose main functions are: "to conduct the business of sisal growers, processors, exporters, manufacturers of sisal products and to carry on any business or activity conducive or incidental thereto."[1]

The breaking up of the plantation system was a selective process. Six companies registered outside the country were totally nationalized.[2] Thirty-three other plantations registered in Tanzania were 60% nationalized. The nationalized plantations were fully compensated. In all, about 53 plantations were directly affected by nationalization. The estates of the 6 totally nationalized companies formed the core of the Tanzania Sisal Corporation (TSC). In addition, the TSC had a controlling interest in 42 other plantations.[3] It was therefore in control of a total of 130,000 tons of sisal in 1967, equivalent to about 60% of Tanzania's sisal production.[4] The remaining 108 plantations, including

---

[1]Tanzania Sisal Corporation...Act, Bill Supplement, No. 5, to the Gazette of the United Republic of Tanzania, 27th October, 1967, p. 244.

[2]The largest of these was the British owned Bird and Co., which had 12 estates. The others included the Dutch owned N.V. Cultur Maatschappij (4 plantations), the Kulasi Plantations (1), the Central Line Estates (1), the Kilimanjaro Sisal Plantations (1), and the Niko Plantations (1).

[3]Through Nationalization the government obtained a 60% interest in 33 plantations. In addition, the government already had a 50% interest in the 9 plantations of the Ralli Group.

[4]In 1967, the national production was 220,000 tons. 14 plantations were subsequently de-invested but with this reduction the government still controls the majority interest in the sisal industry.

three large companies, the Amboni Group (Swiss owned), the Lugongo Group (Dutch owned), and the Karimjee Group were excluded from nationalization.[1] Apart from these three large companies, the majority of the plantations outside the TSC are small, generally producing less than 1,000 tons of sisal.

The government gave the TSC a working capital of £25,000 and an additional interest free loan of £250,000. The formation of the Corporation has made it possible for the government to rationalize the industry to an extent which would have been difficult had the industry retained its previous structure. As the Minister of Economic Affairs noted during the debate before nationalization: ". . .the sisal industry was deteriorating in the country and it was difficult to depend on the owners of the sisal estates to help rectify this. They had one foot in Tanzania and the other in London."[2]

The TSC, managed by a Board of Directors, had to be practical about the sisal industry. In all probability, it alleviated the major difficulties of the industry. In this respect, high-cost low producing estates have been shut down.

---

[1]Due consideration was given to the special contribution of the Amboni Group of Estates to the sisal industry (see Kabuku Settlement Scheme). Similarly, the Lugongo Plantations have been responsible for vertical integration in the industry through the establishment of a cordage factory. The Karimjee group have participated in many sectors of national development.

[2]Tanzania Standard, 20th October, 1967, p. 6.

Where feasible, consolidation of estates into larger units has been arranged. Above all, the main aim of the TSC is to produce sisal as cheaply as possible and, to a certain extent, this has been achieved.[1]

One of the last symbols of the old sisal plantation system, the TSGA existed for a short time after nationalization. At a special meeting of the Association held on 25th April, 1968, a special resolution was unanimously adopted liquidating the TSGA. Its functions were taken over by the T.S.M.B.

Conclusion

The sisal plantation system in Tanganyika was essentially a colonial structure. The establishment of sisal plantations by large German firms in the 1890's followed a classical course. In part, this was influenced by the botanical characteristics of the plant and the processing equipment then introduced.

During the British period which followed, the plantations had to be modified somewhat, partly because of the mandate status of the territory. Thus, ownership in this period was no longer the monopoly of nationals from the

---

[1] Mr. P. Lawrence, The Sisal Industry in Tanzania, A Report to the Ministry of Agriculture, Food and Cooperatives, MSS, p. 10. Mr. Lawrence has calculated that "costs were reduced by between 7 and 17% in the period directly following nationalization and further reduced on an average by 7-10%."

governing country; it cut across national and racial lines. Similarly too, blatant exploitation of labor had to be tempered by a degree of administrative control. However, through the formation of the TSGA, plantation owners were able to influence the administration and operate within the framework of the British colonial regime, thus retaining many of the characteristics of a plantation system. The effectiveness of this arrangement can best be measured by the success with which the TSGA excluded Africans from fully participating in the industry, exploited labor, and generally determined the pattern of development of the sisal industry.

The rise of nationalism finally broke the monopoly of the plantations and opened the way for diverse forms of productive organizations. These now include:

I. The Tanganyika Sisal Corporation with
   (i) 100% controlling interest in six former foreign plantations, and
   (ii) 60% controlling interest in certain other former plantations.

II. Plantations
   (i) large plantations mostly foreign owned, and
   (ii) smaller plantations individually owned and operated.

III. Small-holder Sisal Growers
   (i) co-operatives
   (ii) individuals

(iii) peasants producing hedge sisal in the Lake Victoria Region.

IV. Village Settlement Scheme--Kabuku Village.

Although former plantations are still major producers of sisal, their character has very much changed because of state control. Production is now rationalized, and geared more towards national development. In the long run economics will dictate the viability of cultivating sisal in Tanzania. However, the elimination of the institutions of exploitation, the removal of quasi-legal restrictive laws, and the creation of new structures of production will ensure that the benefits accruing from sisal cultivation in Tanzania will be felt by all those concerned in the sisal industry and by the country as a whole.

BIBLIOGRAPHY

PUBLISHED MATERIALS: BOOKS, PAMPHLETS AND ANNUAL REPORTS

Ardener, Edwin, Shirley Ardener and W.A. Warmington. Plantation and Village in the Cameroons. London: Oxford University Press, 1960. 435 pp.

Arning, W. Deutsch-Ostafrika. Berlin: Reimer, 1936, 388 pp.

The Arusha Declaration and TANU's Policy on Socialism and Self Reliance. Dar es Salaam: Publicity Section, TANU, 1967, 29pp.

Austen, Ralph. Northwest Tanzania Under German and British Rule. New Haven: Yale University Press, 1968, 307 pp.

Baumann, Oscar. Usambara und Seine Nachbargebiete. Berlin: Reimer, 1891. Translated version: Baumann, Oscar. Usambara and Its Neighbouring Regions. Mimeo, Dar es Salaam: 1968, 201 pp.

Bowman, Isaiah. The Pioneer Fringe. New York: American Geographical Society, 1931, 361 pp.

Brode, H. British and German East Africa. London: Arnold, 1911, 175 pp.

Chidzero, B.T.G. Tanganyika and the International Trusteeship. London: Oxford University Press, 1961, 286 pp.

Courtenay, P.P. Plantation Agriculture. London: Bell, 1965, 208 pp.

De Wilde, John C. Experiences With Agricultural Development in Tropical Africa. Vol. I, The Synthesis. Baltimore: Johns Hopkins Press, 1967, 254 pp.

Dumont, René. Tanzanian Agriculture After the Arusha Declaration. Dar es Salaam: Ministry of Economic Affairs and Development Planning, 1969, 62 pp.

East Africa Royal Commission, 1953-1955. Report. London: H.M.S.O., 1961, 482 pp.

East African Meteorological Department. Collected Climatological Statistics for East African Stations. Nairobi: n.d., 44 pp.

East African Statistical Department. Tanganyika Unit. Agricultural Census, 1958. Dar es Salaam: Government Printer, 1959, 29 pp.

Empire Marketing Board. Empire Grown Sisal. London: H.M. S.O., 1928, Pamphlet.

Food and Agriculture Organization of the United Nations. Study Group on Hard Fibres. Brazilian Sisal. Rome: May 1967, Doc. No. CCP:HF 67/5, 34 pp.

_____. Hard Fibres: Current Situation. Rome: September, 1967, Doc. No. CCP:HF 67/3, 8 pp.

_____. Report to the Committee on Commodity Problems. Rome: September 1967, Doc. No. CCP:HF 67/14, 17 pp.

_____. Tanzanian Sisal. Rome: January 1969, Doc. No. CCP: HF 69/9, 26 pp.

Friedland, William H. Vuta Kamba, the Development of Trade Unions in Tanganyika. Stanford: Hoover Institution, 1969, 280 pp.

Furnival, J.S. Netherlands India. Cambridge (Eng.): The University Press, 1944, 502 pp.

Geertz, Clifford. Agricultural Involution. Berkeley and Los Angeles: University of California, 1970, 176 pp.

Gifford, P. and W.R. Louis (eds.) Britain and Germany in Africa. New Haven: Yale University Press, 1967, 825 pp.

Great Britain. Admiralty War Staff. Intelligence Division. Handbook of German East Africa. London: 1916, 440 pp.

Great Britain. Colonial Office. Report on the Administration of Tanganyika Territory, 1918-20, 1921, 1923, 1927. London: H.M.S.O.

Great Britain. Dept. of Overseas Trade. Economic Conditions in East Africa, 1929-34. London: H.M.S.O., 1931-34.

Great Britain. Foreign Office. German African Possessions, Tanganyika. London: H.M.S.O., 1920, 115 pp.

Guerra y Sanchez, Ramiro. Sugar and Society in the Caribbean. New Haven: Yale University Press, 1964, 218 pp.

Guillebaud, C.W. Economic Survey of the Sisal Industry of Tanganyika. Tanga: Tanganyika Sisal Growers Association, 1958, 135 pp.

Guillebaud, C.W. An Economic Survey of the Sisal Industry in Tanganyika. Welwyn, England: James Nisbet, 1966, 146 pp.

Gulliver, P.H. Labour Migration in a Rural Economy. Kampala: East African Institute of Social Research, 1955, East African Studies, No. 6, 48 pp.

Hancock, W.K. Survey of the British Commonwealth Affairs. Vol. II, Parts I and II. London: Oxford University Press, 1940, 1942, 324 and 355 pp.

A Handbook for Sisal Planters. Mlingano, Tanga: Tanganyika Sisal Growers Assiciation, 1965.

Harlow, Vincent and E.M. Chilvers, (eds.) History of East Africa. Vol. II. London: Oxfored University Press, 1965, 766 pp.

Henderson, W.O. The Industrial Revolution on the Continent. London: Cass, 1967, 291 pp.

____. Studies in German Colonial History. London: Cass, 1962, 150 pp.

Herskowitz, Irwin H. Genetics. Boston: Little, Brown, 1962, 466 pp.

Hertslet, E. The Map of Africa by Treaty. London: Harrison and Sons, 1894, reprinted by Cass, 1967. 3 Vols.

Hill, J.F.R. and J.P. Moffet (eds.) Tanganyika: A Review of its Resources and Their Development. Dar es Salaam: Government Printer, 1955, 924 pp.

Hindorf, Richard J. Der Sisalbau in Deutsch Ostafrika. Berlin: Reimer, 1925, 192 pp.

Hitchcock, Eldred. Notes on the Sisal Industry, No. 2. Tanga: Northern Province Press, 1946, 18 pp.

____. The Sisal Industry of East Africa. Tanga: 1957, 22 pp.

Hla Myint, U. The Economics of the Developing Countries. London: Hutchinson, 1964, 192 pp.

Iliffe, John. Tanganyika Under German Rule, 1905-12. Nairobi: East African Publishing House, 1968, 236 pp.

International Land Development Consultants, ILACO. Determination of Tasks and a Study into the Improvement of Methods in the Production of Sisal. Arnhem, 1966, 49pp.

Jack, J.T. Report on the State of Industrial Relations in the Sisal Industry. Dar es Salaam: Government Printer, 1959, 23 pp.

Kool, Rudolf. Tropical Agriculture and Economic Development. Wageningen: H.Veenan and N.V. Zonen, 1960, 151 pp.

Kurtze, Bruno. Die Deutsch-Ostafrikanische Gesellschaft. Jena: Verlag von Gustav Fisher, 1913, 198 pp.

Leubuscher, Charlotte. Tanganyika Territory, A Study of Economic Policy Under Mandate. London: Oxford University Press, 1944, 217 pp.

List, Friedrich. National System of Political Economy. Translated by Sampson Lloyd. London: 1916, 366 pp.

Little, Arthur D. Inc. Tanganyika Industrial Development. 1961, 124 pp.

Lock, G.W. Sisal. London: Longmans, 1962, 355 pp.

Man of Importance. Tanga: Tanganyika Sisal Growers Association. n.d., no pagination.

Memorandum of Association of the Tanganyika Sisal Growers Association. Tanga: TSGA, 1931, 12 pp. Revised, 1963, 16 pp.

Meyer, Hans. Das Deutsche Kolonialreich. Leipzig: Verlag des Bibliographischen Institute, 1909, 650 pp.

Myrdal, Gunnar. Asian Drama. New York: Pantheon, 1968, 3 Volumns.

_____. Economic Theory and Underdeveloped Regions. London: Methuen, 1957, 168 pp.

Notcutt, L.A. Sisal Techniques. London: John Bale, 1923, 35 pp.

Nyerere, President Julius K. Freedom and Unity. Dar es Salaam: Oxford University Press, 1966, 366 pp.

_____. Freedom and Socialism. Dar es Salaam: Oxford University Press, 1968, 422 pp.

Nyerere, President Julius K. Socialism and Rural Development. Dar es Salaam: Government Printer, 1967, 31 pp.

Oliver, Roland and Gervase Mathew. History of East Africa. Vol. I. London: Oxford University Press, 1963, 500 pp.

Orde Brown, G. St. John. Report Upon Labour in Tanganyika. London: H.M.S.O., 1926, 105 pp.

Pan American Union. Plantation Systems in the New World. Washington, D.C.: 1959. 212 pp.

Peters, Karl. Das Deutsch-Ostafrikanische Schutzgebiet. Munich & Leipzig: R. Oldenbourg, 1895, 467 pp.

Pim, Sir Alan. Colonial Agricultural Production. London: Oxford University Press, 1946, 190 pp.

Pössinger, Herman. Sisal in Ostafrika. Berlin: Springer Verlag, 1967. Afrika Studien No. 13, pp. 172.

Roberts, Andrew. Tanzania Before 1800. Nairobi: East African Publishing House, 1968, 162 pp.

Royal Institute of International Affairs, London. World Agriculture. London: Oxford University Press, 1932, 314 pp.

Ruthenberg, Hans. Smallholder Farming and Smallholder Development in Tanzania. Munich: Weltforum Verlag, 1968, 360 pp.

Sayers, Gerald F. The Handbook of Tanganyika. London: Macmillan, 1930, 636 pp.

Schnee, Heinrich. German Colonization, Past and Future, New York: A.A. Knopf, 1926, 176 pp.

Smith, Hamel H. Sisal, Production and Preparation. London: John Bale, 1929.

Spencer, Joseph E. Land and People in the Philippines. Berkeley and Los Angeles: University of California, 1952, 282 pp.

Stuhlmann, Franz. Beitrage zur Kulturgeschichte von Ostafrika. Berlin: Reimer, 1909, 907 pp.

Symons, Leslie. Agricultural Geography. London: Bell, 1967, 283 pp.

Tanganyika. Blue Book, 1945. Dar es Salaam: Government Printer, 1946, 439 pp.

____. Dept of Land and Mines. Catalogue Relating to the Disposal of Ex-Enemy Estates in Tanganyika Territory. Dar es Salaam: Government Printer, 1950, 29 pp.

____. Five-Year Plan for Economic and Social Development, 1st July, 1964 - 30th June, 1969. Dar es Salaam: Government Printer, 1964, 114 pp.

____. Labour Department. Notes on Labour in Tanganyika. Dar es Salaam, Government Printer, 1933, 39pp.

____. Enemy Property Department. Report on the Liquidation, 1917-1933. Dar es Salaam: Government Printer, 1933, 13pp.

____. Labour Department. Annual Report, 1947-48, 1951-1963. Dar es Salaam.

____. Laws, etc. Revised Laws, Cap. 366:Employment Ordinances (Revised); Acts 1962, No. 82 (Supplement 62) and Acts 1963, No. 55, (Supplement 63), Dar es Salaam, 1963.

____. Laws, etc. Cap. 480: Trades Disputes (Settlement) Act, Supp. 63, Dar es Salaam, 1963.

____. Legislative Council. Proceedings, 5th Session, 1931. Dar es Salaam: Government Printer, 1931.

____. National Assembly. Parliamentary Debates (Hansard), 5th Session, 1962-63. Dar es Salaam: Government Printer, 1963.

____. Ordinances. Land Ordinance, 1923. Dar es Salaam: Government Printer, 1923.

____. Sisal Industry Ordinance, No. 22, of 1938. Dar es Salaam, 1938.

Tanganyika Sisal Growers Association. Annual Report, 1944-1967/68. Dar es Salaam: 1945-1968.

____. First Annual Report. 1937. Tanga: 1938, 12 pp.

Tanganyika Sisal Marketing Board. Annual Report, 1968-69. Dar es Salaam, 1969.

Tanzania. Laws, etc. Tanzania Sisal Corporation (Establishment and Vesting of Interest), Act, 1967. Dar es Salaam, 1967.

Tanzania. Ministry of Lands, Settlement, and Water Development. The Rural Settlement Commission; A Report on the Village Programme. Dar es Salaam: Government Printer, 1966, 27 pp.

_____. National Joint Council for the Sisal Industry. Handbook for the Advice of Estate Managements, Workers' Committees and Employees. Arusha: April 1969, 47 pp.

Tanzania Today. Nairobi: University Press of Africa, 1968, 316 pp.

Townsend, Mary. Origins of Modern German Colonization, 1871-1875. New York: Columbia University Press, 1921, 205 pp.

_____. The Rise and Fall of Germany's Colonial Empire. New York: Macmillan, 1930, 424 pp.

Van den Berghe, Pierre L. Caneville. Middletown: Wesleyan University, 1964, 276 pp.

Waibel, Leo. Die Rohstoffgebiete des Tropischen Afrika. Leipzig: Bibliographisches Institut, 1937, 424 pp.

Weight, Ernst. Europäer in Ostafrika. Köln: Universität Köln, 1955, 385 pp.

Woolf, Leonard. Empire and Commerce in Africa. London: Allen and Unwin, Ltd., n.d., 374 pp.

Yudelman, Montagu. Africans on the Land. Cambridge, Mass.: Harvard University Press, 1964, 288 pp.

Zimmerman, A. Geschichte der Deutschen Kolonial Politik, Berlin: Mittler und Sohn, 1914, 336 pp.

PUBLISHED MATERIAL: PERIODICALS

Best, L.A. "A Model of Pure Plantation Economy," Social and Economic Studies, Vol. 17 (1968), No. 3, pp. 283-326.

Bomani, Paul. "Budget Speech Before the National Assembly," Dar es Salaam, 1963.

Braun, K. "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. II (1906), No. 18, pp. 273-288.

_____. "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. II (1906), No. 19, pp. 289-304.

Braun, K. "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. IV (1908), No. 4, pp. 49-63.

_____. "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. LV (1908), No. 6., pp. 81-95.

_____. "Die Agaven, ihre Kultur und Verwendung," Der Pflanzer, Vol. IV (1908), No. 7, pp. 97-112a.

Burton, R.F. and J.H. Speke. "A Coasting Voyage from Mombasa to the Pangani River," Journal of the Royal Geographical Society, Vol. XXVIII (1858), pp. 188-226.

Cook, H.J. "The Cave System of the Tanga Limestone," Tanzania Notes and Records, No. 67 (1967), pp. 1-14.

Davis, Horace B. "The Decolonization of Sugar in Guyana," Caribbean Studies, Vol. 7 (1967), No. 2, pp. 35-57.

Eisman, G. "Kautschuk-Kultur in Deutsch Ostafrika," Der Pflanzer, Vol. II (1906), No. 2, pp. 22-29.

"Empire Fibres for Marine Cordage, (Sisal Hemp and New Zealand Hemp)," reprinted from the Bulletin of the Imperial Institute, Vol. XXV (1932), No. 2, 8 pp.

Farler, J.P. "The Usambara Country in East Africa," Proceedings of the Royal Geographical Society, New Series, Vol. I (1879), No. 2, pp. 81-97.

Gillman, C.C. "White Colonization in East Africa," Geographical Review, Vol. 32 (1942), pp. 585-597.

Glover, J. "The Root System of Agave Sisalana in Certain East African Soils," Empire Journal of Experimental Agriculture, Vol. 7 (1939), No. 25, pp. 11-20.

Hard Fibres. London: Economic Intelligence Unit.

Helmut, E. "Types of Agricultural Regions and Land Tenure in the West Indies," Revista Geografia, No. 67 (1967), pp. 1 - 20.

"History of the Corona Decorticator," Sisal Review, Vol. 2, (1937), No. 2, pp. 57-60.

Hitchcock, Eldred. "The Sisal Industry in East Africa," Tanganyika Notes and Records, No. 52 (1959), pp. 4-17.

_____. "The Sisal Industry of Tanganyika," reprinted from Tanganyika Trade Bulletin, No. 1 (1955), pp. 3-11.

Hitchcock, Eldred. "The White Gold of Africa," reprinted from New Commonwealth, 3pp.

Kenya Sisal Bulletin, Nairobi: Kenya Sisal Board.

Leutenegger, F. "Provisional Reports of Soils of Sisal Estates in Tanganyika," Sisal Research Station, Mlingano, Tanga: Research Bulletins, Nos. 12-19.

Lock, G.W. "Some Aspects and Problems of Sisal Growing in East Africa," Tropical Agriculture, Vol. 34 (1957), pp. 190-198.

"The Marketing of Tanganyika Sisal," TSGA, Annual Report, 1963-1964, pp. 18-19.

Sheridan, Richard B. "Temperate and Tropical: Aspects of European Penetration into Tropical Regions," Caribbean Studies, Vol. 3 (1963), No. 2, pp. 3-21.

"Sisal Hemp," Kew Bulletin, V (1887), pp. 3-8.

"Sisal Hemp," Kew Bulletin, CCXXVII, (1892), pp. 21-40.

Spencer, J.E. and R.J. Horvath. "How Does an Agricultural Region Originate?" Annals of the Association of American Geographers, Vol. 53 (1963), pp. 74-92.

Stuart, Jerome E. "Report on the Fibre Industry of Yucatan Addressed to Sir Ambrose Shea, Governor of the Bahamas," Kew Bulletin, CCLXXVIII (1892), pp. 272-277.

Stuhlman, F. "Notizen über Sisal-Agaven und deren Fasern," Der Pflanzer, Vol. III (1907), Nos. 15-16, pp. 229-243.

"Tanganyika Sisal," reprinted from articles in the Tanganyika Standard, 12 pp.

Tanner, R.E.S. "Small Holdings on the Tanga Coast," East African Agricultural Journal, Vol. XXIV (1958), No. 1, pp. 37-40.

_____. "Subsistence Agriculture on the Tanganyika Coast," East African Agricultural Journal, Vol. XXIV (1958), No. 1, pp. 70-75.

Thompson, Edgar. "The Climatic Theory of Plantation," Agricultural History, Vol. 15 (1941), No. 1, pp. 49-60.

_____. "Population Expansion and the Plantation System," American Journal of Sociology, Vol. 41 (1935), pp. 314-26.

Waibel, Leo. "The Tropical Plantation System," Scientific Monthly, LII (1941), pp. 156-160.

____. "The Climatic Theory of the Plantations: A Critique," The Geographical Review, Vol. XXXII (1942), pp. 307-310.

Watters, R.F. "Sugar Production and Culture Change in Fiji," Pacific Viewpoint, Vol. 4 (1963), No. 1, pp. 25-52.

Wickizer, V.D. "The Plantation System in the Development of Tropical economies," Journal of Farm Economics, Vol. 40, (1958), No. 1, pp. 63-77.

Young, Ruth C. "The Plantation Economy and Industrial Development in Latin America," Economic Development and Cultural Change, Vol. 18, (1970), pp. 342-361.

Zimmerman, A. "Statistiches über die Kautschukpflanzen in Deutsch-Ostafrika," Der Pflanzer, Vol. III (1907), Nos. 21-22, pp. 321-331.

UNPUBLISHED MATERIAL

Amboni Sisal Estates. Daily Returns (sisal leaves harvested from Kabuku). Amboni Headquarters, Amboni, Tanga District.

____. Kwaraguru Estate: Monthly Proceeds Statement from Kabuku, from Accounts Dept. to the Chief Accountant, Settlement Division.

____. Production Data.

____. Survey of Labour: Statistics (Amboni Group of Estates).

Black, I.A. "Report on a Preliminary Survey of Sisal Diseases in Tanganyika Territory," Mlingano, Sisal Research Station, Research Report, No. 4, 1958.

Gulliver, P.H. Alien Africans in the Tanga Region. MSS, Cory Collection, University Library, Dar es Salaam, Tanzania.

Kigombe Sisal Estate. Kigombe, Tanga District. Cultivation Records.

____. Rainfall Data.

Landberg, Leif. We Are All Ndugu: Social Composition of Ngalawa Fishing Crews in a Swahili Village of Mrima Coast. Social Sciences Conference of the University of

East Africa, held at Makerere University College, Kampala, in December 1968.

Lawrence, P.R. The Adoption of Innovations and Research Recommendations in the Sisal Industry of Tanzania. Dar es Salaam, Economic Research Bureau, University College, ERB Paper 69.22, 1969.

_____. The Sisal Industry in Tanzania, a Report to the Ministry of Agriculture, Food and Co-operatives, Mimeo, 1970.

Leutenegger, F. "Provisional Reports of Soils of Sisal Estates in Tanganyika," Sisal Research Station, Mlingano, Research Bulletins, Nos. 12-19 (1955-56).

Mbilinyi, Simon M.M. An Examination of Comparative Economic Prospects of Sisal and Cotton in Tanzania, Mimeo, May 1965.

Mihalyi, Louis. The Usambara Highland: A Geographical Study of the Changes During the German Period, 1885-1914, Ph.d Dissertation, University of California, Los Angeles, 1968.

Osborne, J.F. "The Prospects for and Limitations of Long Fibre Agave Hybrids," Sisal Research Station, Mlingano, Research Bulletin, No. 45 (1967).

Pössinger, H. The Possibilities and Limitations of Small-holding Sisal in East Africa, Mimeo, Munich, IFO-Institut fur Wirtschaftsforchung, 1965.

Tanganyika. Report of the Committee Appointed to Consider and Advise on Questions Relating to the Supply and Welfare of Native Labour in Tanganyika Territory. Dar es Salaam, 1938.

Tanganyika Sisal Growers Association. List of Registered Sisal Estates with Names of Owners or Lessees and Addresses, Mimeo, June 1965.

Tanzania. Central Statistical Bureau. Employment and Earnings, Mimeo, Dar es Salaam, 1967.

_____. Ministry of Agriculture and Co-operatives. Annual Report for Sisal, 1967, Mimeo, Tanga, 1967.

_____. Regional Agricultural Office, Tanga. Approaches to Small-Holder Sisal Schemes, Mimeo, Tanga, 1967.

_____. Regional Agricultural Office, Tanga. Working Files on Small-holder Sisal.

Waller, C.M. A Case Study of a Sisal Estate. Masters thesis, University of East Africa, Dar es Salaam, 1966.

MATERIAL FROM TANZANIA NATIONAL ARCHIVES

File No.

172/5 Vol.1: Commissions, Royal Commission to East Africa.

1733 A/11: Annual Report, Custodian of Enemy Property, 1923 and 1924.

1733/9: Annual Report for the Tukuyu District, 1923.

1733/10: Annual Report . . . Tanga District, 1926.

1733/16: Annual Report . . . Pangani District, 1925.

1733/16: Annual Report . . . Handeni Sub-District, 1925.

1733/23: Annual Report of the Labour Department, 1925.

1733/24: Annual Report . . . Tanga District, 1923.

1733/28: Annual Report . . . Usambara District, 1924.

1733/32: Annual Report . . . Pangani District, 1923.

11475: Sisal in Tanganyika Territory, 3 Vols.

19417: Tanganyika Sisal Growers Association, Vol. I and IV.

22192: Sisal Tax, Vol. I and IV.

22344: Importation into the United Kingdom of Sisal Goods Manufactured in East Africa.

22798: Notes on Camp Hygiene for Employers of Labour.

23535: Meat Supplies to Sisal Areas, Vol. I and II.

23544: Report on Labour Matters in Sisal Areas, No. 1 (Tanga), by F. Longland.

25019: Growing of Sisal by Natives, Vol. I and II.

25527: Labour Lines--Building and Layout, Vol. 1.

26376: Sisal Industry Ordinance, Vol. I, II, and III.

File No.

26765: Authorization to Generate Electricity.

27678: Manpower Requirements of Sisal Industry.

27789: Method of Disposal of Ex-Enemy Sisal Estates, Vol. III.

29514: Minutes of the Tanga Branch of the TSGA and of the Committee of that Branch, Vol. I.

30549: Enquiries Re Enemy Estates, Vol. I and II.

36463: Economic Crisis: Machinery and Equipment for Sisal Industry.

40985/4: Medical Facilities Afforded to the Public by Private Enterprise.

41081: Sisal: Economic Units--Questions of (in Relation to Areas Closed for Future Alienation).

41237: Manufacture of Orange Pockets from Sisal.

41593: Native Production of Hedge Sisal.

41593/1: Native Production of Hedge Sisal--Co-Operative Development.

41686: Purchase of Ex-Enemy Estates.

NEWSPAPERS

Amboni Yetu, Amboni: Amboni Head Office.

Dar es Salaam Times, Dar es Salaam, Tanganyika.

Mfanyakazi wa Mkonge, Tanga: Tanganyika Sisal Growers Association.

Nationalist, Dar es Salaam: Tanganyika African National Union.

Official Gazette, Dar es Salaam: Government Printer.

Tanganyika Standard, Dar es Salaam, Tanganyika.

Tanzania Standard, Dar es Salaam, Tanzania.

PERSONAL COMMUNICATIONS AND INTERVIEWS

Mr. P. Amman. General Manager, Amboni Group of Estates; Chairman of the TSGA, 1967-68; and member of the Tanganyika Sisal Marketing Board, 1968-69. Personal communication and several interviews.

Mr. A. Brunner. Manager, Kiogombe Sisal Estate. Interviewed in September, 1967, and in August, 1969.

Mr. A.A. Karimjee. Director of Karimjee Jivanjee Estates, Ltd.; Member of the Executive of the TSGA, 1966-67. Interviewed in October, 1966.

Mr. W.S. Massesa. Officer in Charge, Mlingano Sisal Training Centre. Interviewed in September, 1969.

Mr. A.R. Mbelwa. Acting Commissioner of the Village Settlement Agency, Tanzania. Several interviews in 1966 through 1968.

Mr. A. Mwinyihamisi. Manager, Kwaraguru Nucleus Estate. Several interviews.

Mr. R. Naburi. Regional Agricultural Officer, Tanga Region, Director of Tanzania Sisal Corporation; and member of the Tanganyika Sisal Marketing Board. Personal communication and several interviews.

Mr. H.A. Noorani. Manager of Noorani Plantations; and member of the Tanga Line Branch Committee; and member of the Board of Directors of the Tanzania Sisal Corporation. Interviewed, September 1968.

Mr. M.C. Othman. Chairman, Sisal Agents Committee. Interview in May, 1968 and in August, 1969.

Mr. A.K. Rugahurura. Manager, Kabuku Settlement Scheme, 1966-68. Several interviews.

Mr. A. Torriani. Manager, Amboni Sisal Estate. Several interviews.

APPENDIX I

PEASANT SISAL GROWERS

Accounts based on a field trip to Tanga, September, 1967

Case Study 1

Mr. Asthmani is 53 years old and indigenous to the area. He has been self-employed except for 3 years, 1935-38, when he worked on a sisal estate. He has a holding of 100 acres. Most of the land is covered by the 1,432 coconut trees which he acquired by inheritance and purchase. Other crops cultivated include 3 acres of cashews, 8 acres of maize, 10 acres of simsim, 1 1/2 acres of cassava, 3 acres of cotton, 1 1/2 acres of rice, 25 kapok trees, and 50 fruit trees.

He started cultivating sisal in 1964 when he heard that the President of Tanzania wanted the people to plant 10 acres of sisal each. He has inter-cropped sisal with coconuts on 60 acres of land. Free bulbils were given by the Kigombe Sisal Estate. He uses family labor to assist him but when it comes to cutting leaf he will definitely use hired labor. As a practical business man he claims he will not grow any more sisal, but he thinks that the present fall in price is only temporary. He is also one of the 40 members of the Shauri ya Moyo Sisal Farmers Association as well as a member of another association growing sisal at Kirare Village. His other responsibilities include: TANU branch chairman and chairman of the Cooperative Society at Geza.

Case Study 2

Mr. Saleh claimed that he was 66 years old and was indigenous to the area but that his mother was a Shirazi. Therefore, it was not surprising that he had a sizeable family holding of 112 acres. The family holding had been planted with a wide range of subsistence crops which had helped to maintain his family even while he was employed at Amboni. Seven of his fourteen children were alive in 1961, but for at least a couple of years none had lived with him so that Mr. Saleh had to use hired labor. Unlike many other peasants, he had capital. This was derived from his retirement benefit of 22 years service with the Amboni Sisal Estates.

In 1964, after hearing President Julius Nyerere's appeal for the people to grow sisal, and being encouraged by the government to do so, he decided to cultivate sisal. He was also prompted to grow sisal by the simple calculation that while he was working on the estate the fiber from 1 acre of sisal used to provide as much as 3,000 shillings, yet his maize, for a similar acreage, gave him only 360 shillings. Therefore, he took his total retirement savings of 6,200 shillings and invested it in sisal. In September 1964 he planted 20 acres using suckers. Thereafter, the increase was as follows: 30 acres added in 1965, 20 acres in 1966, and 30 acres in 1967, giving him a total of 100 acres of sisal.

Since the acreage of sisal was too large to be

managed by one person, Mr. Saleh used casual labor. Thus, 4 annual weedings cost him 10 shillings per acre. In August and December 1966 he sold 200 metres and 180 metres, respectively, of sisal leaf to a plantation 4 miles away from his farm. He was paid 15 shillings per metre, but after transport and labor costs were deducted he was left with only 5 shillings per metre. During the visit to the farm, Mr. Saleh was working on the pineapple patch of 3 acres. The other subsistence crops included 21 coconut trees, 60 banana stands, 3 acres of maize, 3 acres of cashews, 18 mango trees, and 1/4 acre of cassava. Sisal was inter-cropped among these subsistence crops. His holding was overgrown with grass and weeds and he complained of sisal weevil. His 6,200 shillings had run out and he was negotiating to sell his sisal again. He was determined to continue with sisal until the government told him to stop. He is a 10-cell leader and chairman of the nearby copra co-operative.

Conclusion

A common theme running through the two case histories is that both individuals had a fair amount of land as well as capital, made use of employed labor, were relatively important in their communities, and could afford to take up the challenge of growing sisal.

APPENDIX II

Notes on the Maps

Map 1. The compilation was done by A.C. Mascarenhas. The first edition of Tanzania, 1:2 million, published by the Survey Division, Dar es Salaam, in 1965 was used as a base map. Limits of the sisal regions and of the individual estates were obtained from Sisal Estates in Tanganyika Territory, a map published by the TSGA, Tanga, c. 1965. The information on labor has been very much simplified from documentary sources which have been cited in the text. A refined map showing the number of laborers, their place of origin and destination, etc. would be a major project in itself.

Map 2. This map is a modification of a base map generously provided by Mr. P. Amman, General Manager of the Amboni Group of Estates. The status of the field was good for 1969.

Map 3. The map was designed and compliled by A.C. Mascarenhas. The data on land alienation are based on a sketch map entitled Skizze des Pflanzungsgebietes von Usambara, 1:600,000, 1898, drawn by Dr. F. Stuhlmann to accompany his article, "Die Wirtschaftliche Entwickelung Deutsch-Ost-Afrikas," in Die Abteilung Berlin-Charlottenburg der deutschen Kolonialgesellschaft, Vol. IV (1898), pp. 102-157. I would like to acknowledge the help of Dr. Louis Mihalyi who provided me with a copy of the rare sketch map. The form lines found in the original were substituted by contour lines from the World Aeronautical Charts: Zanzibar Island (1031), 1952, and Kilimanjaro (931), 1958, published by the Aeronautical Charts and Information Center, Air Photographs and Charting Services (MATS), U.S.A.F., St. Louis, Mo.

The inset is a sketch map based on historical description in works cited in the text of Chapter III.

Map 4 The map was compiled by A.C. Mascarenhas. The location of the estates is based on a map, Sisal Estates in Tanganyika Territory, 1: 2 million, already cited. Data on the production of sisal on estates were obtained from figures supplied by the Tanganyika Sisal Marketing Board.

Map 5 Several drawings and sketches at the Kabuku Settlement Scheme and the Kwaraguru Nucleus Estate as well

as the author's own field observations have been used to compile this map.

All the rough drafts were made by the author and the final maps were drawn by Mrs. Kathy Marcus.