RELATIONSHIP OF KISUMU'S INDUSTRIAL SECTOR TO THE RESOURCE HINTERLAND: A CASE STUDY OF KISUMU COTTON MILLS:

BY: AWUOR, R.O. BSc. (Hons) GEOG.

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DECLARATION:

This thesis is my original work and has not been presented for a degree in any other University.

Rosemary O. Awuor.
(Candidate)

This thesis has been submitted for examination with my approval as University Supervisor.

Zachariah Maleche.
(Supervisor).

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This thesis is dedicated to my mother Mrs. Julia Odhiambo and in memory of my father, Mr. Zablon Odhiambo.

ABSTRACT.

This study examines the relationship of Kisumu's Industrial Sector to the resource hinterland with the view of identifying critical linkage levels which if improved are likely to promote the development of its hinterland. The study further analyses those factors which have limited the town from functioning effectively as a growth centre in the region. In addition the various development policies are examined in order to determine their effectiveness in bringing about effective rural development in the region.

Kicomi an agro-based industry in the town is selected for a detailed examination of the relationships which it has with the resource hinterland and whether such linkages have led to the development or underdevelopment of the region.

The study has revealed that Kisumu's industrial sector is to a large extent parasitic to the hinterland because of the predominance of service industries which are exploitative of both human and capital resources from the region. The economy of the country is open and externally oriented such that it frustrates the industrial and growth centre strategies adopted. Some of the industrial policies such as maintaining a mixed economy with a very strong private sector often conflict with the dispersion of industries to the rural areas. Effective development of the rural areas in Kenya will depend to a large extent on the review of the existing development policies and the nature of industrial activities that either

lead to under-development or development of the given region. In particular, the growth centre strategy as the major means of effecting regional development must be re-evaluated if it is to bring about the desired development. The study has also shown that the use of industrial linkage systems is significant in guiding decisions for location of industries in the country. It is therefore recommended that industrial linkage analysis should form a necessary prerequisite to future industrial location policy.

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CHAPTER ONE: INTRODUCTION

1.1 STATEMENT OF THE PROBLEM

The major problem which most developing countries are facing is how to promote integrated regional development in an economy which is externally oriented. This is because the spatio-structure inherited from the colonial time has persisted to post independence days. In practice what exists is a parasitic relationship between the core (principally urban) and periphery (principally hinterland) which is contrary to the national objectives. In recognition of these conditions most countries have adopted several policies and programmes in a bid to reduce the dominance of the primate cities and to minimise the backwash effects of the urban growth centres. These have included the creation of industrial centres in peripheral areas, decentralization of urban growth, adoption of the growth centre strategy or a combination of industrial and urban decentralization strategies.

All these programmes assume that industrial activities located at a given centre will stimulate development of the adjoining hinterland through spread effects. The backwash effects however, appear to have been stronger as experiences in other countries have illustrated. This is mainly due to the fact that the adopted programmes have not led to the envisaged equitable development. What has emerged on the other hand is the lag of development in rural hinterlands which has not kept pace with urban industrial activities. The failure of these programmes to achieve the desired policy objectives is attributable to the lack of understanding of the full implications and requirements for facilitating such spread effects.

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Moreover, there is no clear framework on how to monitor these programmes to ensure that they lead to development of their rural areas. Nonetheless overemphasis on the failure of these programmes is unwarranted given the short period of their existence. Despite the identified weaknesses of these regional development policies, they are invaluable in guiding the emerging human settlement pattern.

The Kenya Government like other developing countries has adopted the policy of concentrated decentralization of various economic activities throughout the country in pursuance of national objectives of reducing regional inequalities and stimulating growth of the rural economy. This is to be achieved through the application of the growth centre policy which is used in the selection of urban centres which are to act as focal points of development with associated spread effects. In this respect spatial planning in Kenya takes cognizance of the inter-dependence of polarized centres of development and the regions around them. It is assumed that as this interdependence is strengthened in the process of development, the envisaged interaction will lead to cumulative self sustaining growth. Thus one finds that an heirachical system of growth centres has been outlined covering the whole country into which industrial investment of varying scales is to be directed bearing in mind the above basic assumption.

Kisumu is one such growth centre in the Lake Victoria basin ranking amongst the four largest industrial centres in the country but the leading centre in Western Kenya.

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To achieve the maximum benefits of this growth centre it must be seen to function efficiently through emphasis not only of infrastructural services but must incorporate growth stimulating economic activities such as industries which necessitates that the town should actas a point for industrial location. The subsequent investment in the centre is therefore expected to lead to the development of resources within the town and its sphere of influence in terms of stimulation of production processes, industrial and related commercial activities.

Most industries located in Kisumu are service industries which are usually parasitic to the hinterland. However, within the town there are a few significant agro-based industries whose raw material inputs could be supplied in the region. Whether these industries have achieved any significant impact on the development of Kisumu region is yet to be demonstrated. Kisumu Cotton Mill (KICOMI) one of the largest agro-based industries in the town has been selected as the best example for an examination of the possible relationship of Kisumu's industrial sector to the resource hinterland.

Kisumu town is situated in a region characterised by high out-migration as is clearly demonstrated by the fact that between 1948-1962 approximately 100,000 able-bodied persons left the area (Waller,1968). The process of outmigration has continued to the present time, Oucho (1979)[2]. This demographic phenomenon has led to the under-development of the region and stagnation of the rural economy since the remaining labour force consists of women and conservative oldmen whose adjustment to

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modern production methods in agriculture is minimal. This perhaps explains why most scholars (Waller, 1968; Ominde 1972; Oucho, 1979) have categorized Kisumu region as a downward transitional zone. In this respect, this process of out-migration which has been explained as a response to the attraction of tradition goal areas of labour migration and increasing inability of an area of declining productivity to support the increasing population, becomes a very significant factor in the formulation of regional development policies for the area. It points out the need for policy emphasis on rural development, urban growth decentralization and industrial dispersal such that the inherited spatio-structure with its associated regional imbalances is eradicated as a legitimate case to internally orientate and intergrate Kenya's economy. Thus the pull factors to the core areas of Nairobi, Mombasa and farms in the Rift Valley Province / not lead to the "permanent" back- /should wardness and under-development of Kisumu region. The role of Kisumu as an industrial growth centre should be to counteract these negative aspects which have perhaps contributed to its low growth rate.

It is however, recognized that in a regional context Kisumu town is experiencing an influx of in-migrants with consequent problems of over-crowding, under-employment and high un-employment rate among others. The town accounts for 48% of urban population in the Lake Victoria Basin alone and 3.0% on a national context (Oucho, 1979).

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The I.L.O. Report (1972) on unemployment in Kenya notes that "an inflow of job seekers at roughly three times the rate of growth of job opportunities in the formal sector has inevitably made it very difficult to absorb the migrants into productive employment" 3. Thus the intergration of this redundant population into Kisumu's urban economy perhaps depends on the expansion of the industrial sector employment or in the establishment of strong industrial - raw material linkages between Kisumu and its resource hinterland so that a reasonable proportion of this population can find it profitable to stay in their places of origin and engage in primary production processes. Hence the justification for linkage studies in the region.

The significance of linkage studies in spatial development has clearly been demonstrated by the failure of some of the industrial development policies and programmes which are often drawn without the consideration of the nature of linkages which exist between points of industrial investment (growth centre) and the surrounding hinterland. A linkage analysis such as that which this study endevours to examine should serve as an opportunity to investigate the realities of the adopted growth centre strategy as a basis for rural development in Kenya. Moreover, it could also yield useful information to be used as inputs into the advocated industrial linkage systems approach to planning which is seen as crucial in the designing of various industrial policies in the country.

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1:2 OBJECTIVES:

The main objectives of this study are to:-

1. Examine Kisumu's industrial sector and its relationship to the resource hinterland.
2. Establish the extent to which Kicomi has influenced the economy of the resource hinterland in terms of creation of employment opportunities and raising the general standards of living of the rural population.
3. Establish the nature and problems of current cotton production trend, the marketing system and their significance to the rural economy.
4. Suggest future policy requirements for strengthening linkages between Kicomi and its resource hinterland.
5. Identify limitations in current growth centre policy with respect to rural development and therefore suggest measures for making it more effective in future planning.

ASSUMPTIONS:

1. There exists a weak relationship between the industrial centre of Kisumu and its resource hinterland thus creating a gap between the growth rate of the town and the surrounding rural areas of Nyanza and Western Provinces.
2. The development of the rural economy significantly depends on the strengthening of linkages which exist between the industrial centre of Kisumu and its resource hinterland.

1:3 SCOPE AND LIMITATION OF THE STUDY:

Taken in the broad perspective, linkage analysis studies should be carried out between all urban and resource hinterland activities in order to determine whether such relationships are stimulating

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development within the rural economy. Thus it would enable one to state whether the urban activities have "spread" or "backwash" effects in the hinterland. However, given limited financial resources and time, it is not possible to study all the linkages between Kisumu's industrial sector and its resource hinterland. Generally, these industries in the town appear to have parasitic relationships with their immediate hinterland in terms of draining the area of its most active human resources. In this respect, Kicomi Textile Mills which is one of the largest industries in the town has been chosen for detailed analysis in order to illustrate the nature of linkages, their efficiency and significance in rural development. Furthermore, it is an industry which has direct linkage with the resource hinterland in terms of cotton produced by the rural farmers which is one of the main raw material inputs in the textile manufacturing of the industry.

This study is taken at four major levels within the recognized linkage structure. Firstly is the analysis of cotton production at the farm level in the major cotton producing districts of Siaya, South Nyanza, Kisumu, Busia, Bungoma and parts of Kakamega District. At this level, the contribution of cotton production is solving unemployment and in generating of income is investigated. The competition between cotton and other cash crops found within the region is also examined.

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The second level of analysis is at the ginnery stage which links the activities of the farmers to those of the textile industry in Kisumu. The employment opportunities created at this point of the linkage structure is noted including factors such as the wages, the nature of manpower availability and other requirements by the ginnery.

The third level of analysis is at the factory (Kicomi) level whose employment capacity, production and man-power requirements is examined. The linkage of the factory to the hinterland is also recongnized through establishing the origins of those who are employed in the factory. The incomes and expenditure patterns of these employees is also analysed.

Fourthly, the marketing of the finished products constitutes another important aspect of the linkage structure. This is accompanied by a further analysis to determine the extent to which Kicomi industry has stimulated the development of other commercial and industrial activities within the town and in the surrounding rural areas.

ORGANIZATION OF CHAPTERS:

The thesis is organized as follows: Chapter one introduces the problem and includes literature review and methodology employed in data collection and analysis. Chapter two is an overview of the existing industrial situation within Kisumu town and the relationship of these industries to the resource hinterland. The chapter also discusses the role of Kisumu as an industrial growth centre and the problems which hinders its development.

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Chapter three deals with data analysis at each of the identified levels within the linkage structure spelling out the nature of relationships which exist at each level and its resource hinterland. In chapter four, the significance of the identified linkages to rural development are discussed noting the role of Kicomi in development of the resource hinterland. Any problems identified within the linkage process are examined and future policy requirements are also considered. Chapter five includes a summary of the findings, recommendations for further research and conclusions.

Summarising this sub-section one can state that one of the major limitations in this study is data inavailability at various stages of the analysis structure as will become more explicit in the discussion under methodology and literature review.

1:4 THE STUDY AREA:

The study area comprises Western and Nyanza provinces which geographically are located along the equator flanking it on either sides (see map I). This region is polarised around Kisumu centre which is a port town situated on Lake Victoria. Although this region constitutes a greater proportion of the Lake Victoria Basin, it is hereafter referred to as Western Kenya since the term lake basin also incorporates parts of Rift Valley province which was outside the study area zone. This study area constitutes a suitable regional entity whose delimitation could be based on several parameters such as population density, distribution pattern and migration characteristics;

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physical and ecological factors; ethnic homogeneity or even cultural values.

In a national context Western Kenya constitutes the highest and most extensive population cluster in the coutry. It has nearly 40% of Kenya's total population within less than two-fifths of the total area of the country[4]. The present population is about 4 million while the projected high and low population by 1989 are 9.2 and 8.8 million respectively[5]. The high rate of population growth (above national average of 3.5% per annum) will ultimately "stretch" the available resources and hence the need for their orderly exploitation. Furthermore it has led to the high outmigration of persons from the region as had been discussed earlier (Ominde 1972; Oucho, 1979 and Waller et al,1968).

Western Kenya which is synonymous with Kisumu region has suitable eco-climatic conditions which has led to its being referred to as the granary of Kenya by several authors (Obara 1979). Nyanza province has total land area of 12,000km^2 of which 24% (2,850km^2) is very high potential land with well drained soils, more than 1,015mm of rainfall while the remaining 76% is climatically well favoured although agricultural potential is limited over fairly wide areas by impeded drainage[6]. Similarly Western province has total land area of 8,200 square kilometers of which 89% (7,300km^2) is available for agricultural production with high to medium potentials.

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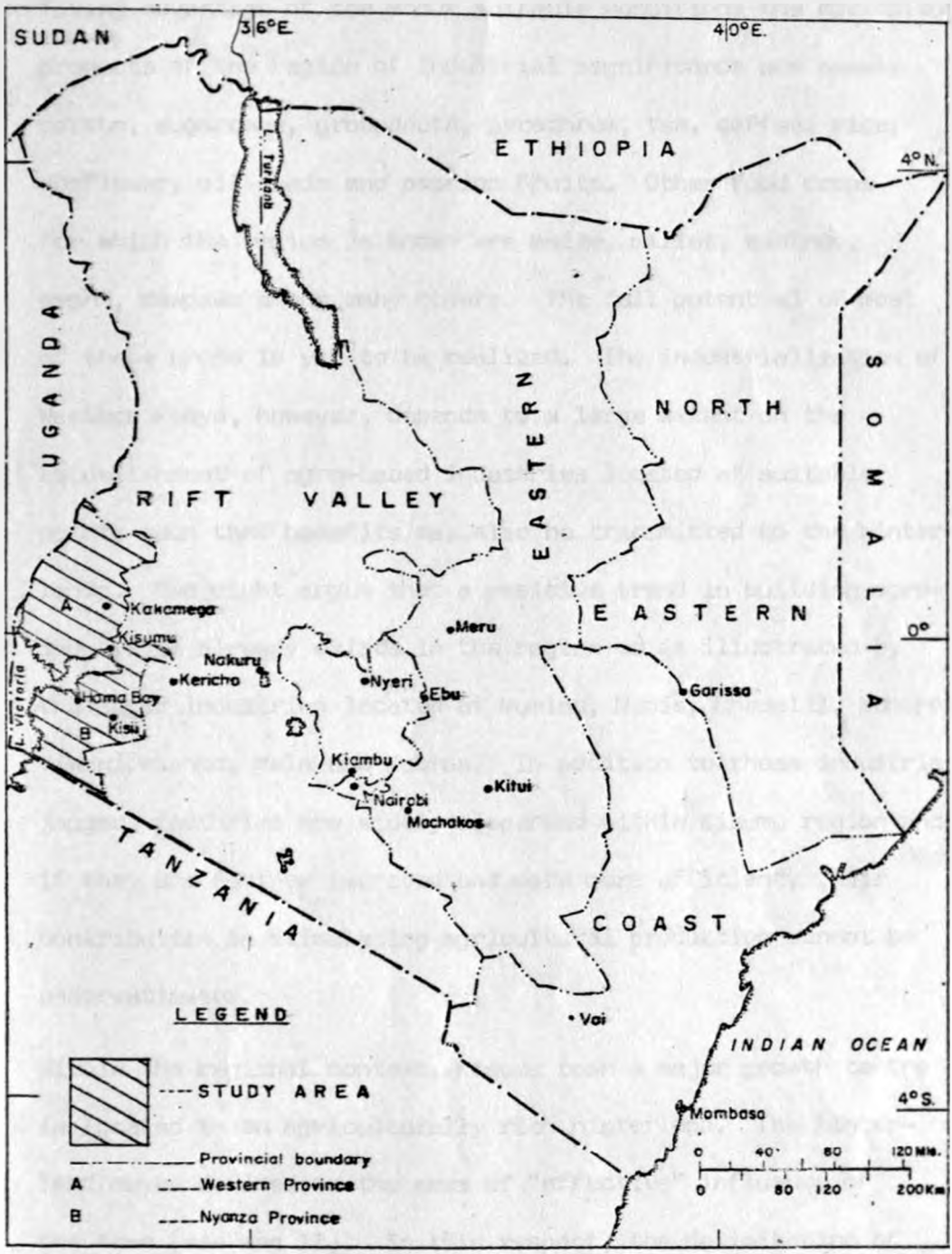

MAP I LOCATION OF KISUMU REGION IN THE NATIONAL CONTEXT

Taking advantage of the above suitable conditions the agricultural products of the region of industrial significance are namely cotton, sugarcane, groundnuts, pyrethrum, tea, coffee, rice, sunflower, oil seeds and passion fruits. Other food crops for which the region is known are maize, millet, bananas, beans, pawpaws among many others. The full potential of most of these crops is yet to be realized. The industrialization of Western Kenya, however, depends to a large extent on the establishment of agro-based industries located at suitable points such that benefits may also be transmitted to the hinterlands. One might argue that a positive trend in building agro-industries already exists in the region as is illustrated by the sugar industries located at Mumias, Nzoia, Chemelil, Muhoroni, Miwani, Awendo, Yala and Kabras. In addition to these industries jaggery factories are widely dispersed within Kisumu region and if they are further improved and made more efficient, their contribution in stimulating agricultural production cannot be underestimated.

Within the regional context, Kisumu town a major growth centre is located in an agriculturally rich hinterland. The hinterland maybe defined as the area of "effective" influence of the town (see map II). In this respect, the delimitation of Kisumu's hinterland by Waller et al (1968) has been adopted. According to their study, Kisumu already constitutes a dominant core for the whole of Western Kenya with trade connections reaching every part of the region.

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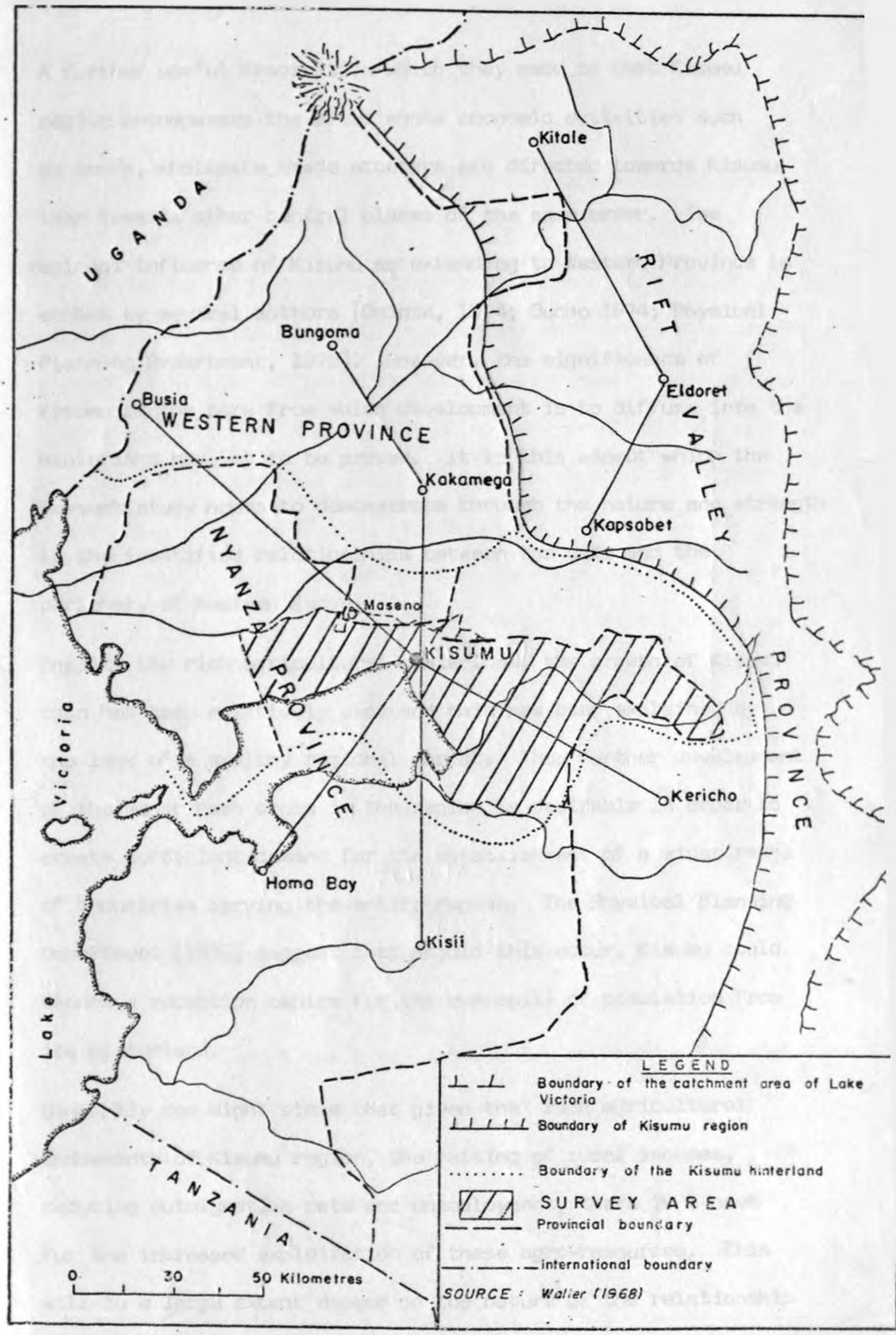

MAP II EXTERNAL DEMARCATION KISUMU REGION

A further useful observation which they made is that Kisumu region encompasses the areas whose economic activities such as banks, wholesale trade etcetera are directed towards Kisumu than towards other central places of the same order. The regional influence of Kisumu as extending to Western Province is echoed by several authors (Ominde, 1974; Oucho 1974; Physical Planning Department, 1978). However, the significance of Kisumu as the core from which development is to diffuse into the hinterland has yet to be proved. It is this aspect which the present study hopes to demonstrate through the nature and strength of the identified relationships between the core and the periphery of Western Kenya.

Despite the rich agricultural hinterland, the growth of Kisumu town has been relatively slow and this has been explained by the lack of a wealthy regional market. Thus further development of the major cash crops in the region is desirable in order to create sufficient demand for the establishment of a wider range of industries serving the entire region. The Physical Planning Department (1978) suggest that should this occur, Kisumu could become a reception centre for the overspill of population from its hinterland.

Generally one might state that given that rich agricultural endowments of Kisumu region, the raising of rural incomes, reducing outmigration rate and unemployment, there is a need for the increased exploitation of these agro-resources. This will to a large extent depend on the nature of the relationship of the designated growth centres and the rural hinterland

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when other factors are held constant.

1:5 LITERATURE REVIEW:

1:5:1 Growth Centre Policy in Relation to Rural and Industrial Development:

Hardly any research has been conducted in Kenya with specific regard to the investigation of the nature of linkages of economic activities located in the urban centres with their resource hinterland. Most of the studies which have been carried out have concentrated mostly on population characteristics such as migration, density and distribution patterns; economic or social activities per se with minimal reference to the nature of the linkages that exist. However, these studies serve as a useful input in this study. For instance, researches in Western Kenya (Waller 1968; Oucho,1974; Obudho,1972) have confirmed the dualistic nature of the economy of the region with two major components, the rural and urban sectors. This has often led to the establishment of a parasitic relationship whereby the rural economy stagnates and/or declines. This phenomenon is not unique to the region but is a common feature even at the national level. In response to the need of rectifying the situation, the growth centre concept has been incorporated in national spatial planning. In this respect, it is imperative that the concept should be clearly defined and its functions and role in bringing about the desired development outlined.

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It is not easy to define a "growth centre" as has been observed by the varied approaches adopted by the growth pole protagonists[7]. Perroux applied the concept to abstract economic space while others have applied it to geographical space, supplemented it with central place theory or used it to describe geographical social, economic and political aspects of developing urban systems. In this respect the concept has to be defined in order to avoid semantic confusions. Similar views have been expressed by Darwent F(1969)[8] who states that unless the concept is defined more rigidly, it may prove of little use for analytical, explanatory or planning purposes.

Hansen (1972) says that "by a growth centre or centres is meant a complex consisting of one or more communities or places which, taken together, provide or are likely to provide, a range of cultural, social, employment, trade and service functions for itself and its associated rural hinterland"[9]. This is a very practical and useful definition and is echoed by Satosh Gosh's (1978) simplistic and positive approach to the concept when he states that a growth centre is an urban base with a rural hinterland capable of growing"[10]. Boudeville (1966) on the other hand is more specific in his definition when he states that a regional growth pole (which is synomymous to a growth centre)"[11] is a set of expanding industries located in an area and inducing further development of economic activity throughout its zone of influence"[12]

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Nichols (1969) however makes his definition more general though with specific reference to economic aspects generally. He states that a regional growth pole is "an urban centre of economic activity which can achieve self-sustaining growth to the point that growth is diffussed outward into the pole region and eventually beyond into the less developed regions of the nation. One important factor emerging from these definitions is the emphasis on various economic activities which are concentrated at a specific geographical location in space (e.g. urban or growth centre) and from which development impulses are expected to disseminate into the hinterland areas. The inter-dependence or linkage efficiency in this kind of relationship which the study investigates necessitates that the functions of a growth centre must be considered before one can fully appreciate why the growth centre policy has been so attractive to regional planners. Moreover, it is through an analysis of these functions tha the growth centre backward effects to its hinterland. The major functions of a growth centre are:-

i) Provision of marketing facilities of agricultural commodities as well as marketing and distribution facilities of consumer goods and industrial products needed for agricultural development;

ii) Development of small commercial and industrial activities (agro-industries) for diversified employment opportunities. This is tertiary oriented to (i) above.

iii) Development of infrastructure such as roads, water supply, sewerage and power supplies; and social services such as education, health, recreation, housing, etc both to improve the environment and living conditions for movement of goods and people to sustain and improve the economy.

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iv. To initiate information and communication system for new science and technology[13].

CRITICISMS OF THE GROWTH CENTRE:

The basic assumption inherent in the functions outlined above is that growth centres do benefit much wider areas. However, the extent to which this initiated economic development at the centre spreads to their less urbanised hinterlands is actually not known in any quantitative terms. It is postulated that this could be to some extent explained through analysis of linkages that exist in such a system. It is the central theme of this thesis to demonstrate how the nature of the prevailing linkages can enhance or retard development in the study region.

Several authors have argued for and against the functions which the growth centre in a given area can perform. Hirschman(1957) holds the view that despite the exaggerated space preferences of economic operations development occuring in geographical growth points will set in motion forces which will induce development in the backward hinterland[14]. These trickling down forces, he argues, work particularly through interregional trade and transfer of capital to the backward regions and this depends largely on the existence of complimentaries between the industries in growth centres and the hinterland-polarization effects may all result with the migration of the labour force including a significant share of whatever savings there maybe. Thus, though Hirschman held the view that in the long run external economics of growth centres with complimentaries will assure a spontaneous spread of development, the backwash effect may be stronger.

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The resultant effect would be the creation of a lasting dual society in which industrial and geographical backwardness coincide and yet it is these aspects that the growth centre is supposed to eliminate or minimise.

Infact Myrdal (1957) came to the conclusion that polarization forces may be stronger than the trickling down effects. He maintains that the movements of labour, capital and goods are the media through which the cummulative process evolves"upwards" in the lucky regions and downwards in the unlucky ones. Thus the elements or factors which cause spread effects are the ones which also result in backwash effects.

As Hermansen (1972)[15] has pointed out both Hirschman and Myrdal agree that development makes for more efficient spread effects. Hirschman on the one hand argues for initial geographical imbalance through the establishment of developments centres while Myrdal on the other hand takes the opposite stand and insists that mechanisms for spread effects should be strengthened on the outset. Probably the best strategy under these circumstances is to compromise the two aspects such that they take place simultaneously since spread effects from experience has been shown to lag behind the backwash effects. The latter can be strong such that the region to be developed suffers from draining of resources (both in terms of human and material) with resultant chronic underdevelopment. Whether this is what has taken place in the Kisumu region can probably be illustrated by this study.

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1:5:2 GROWTH CENTRE AND DEVELOPING NATIONS:

Though the growth centre concept is very attractive to those dealing with planning of spatial development its importation into the developing countries has been criticised. Horton and McNulty (1973)[16] writing on problems of the application of planning methodologies in developing countries note that though the growth centre approach hold considerable promise for the regional planner their further refinement is necessary. They argue that the "primary drawbacks to the indiscriminate use of this concept is that the deliberate development of a regional growth pole may infact engender a sequence of growth which leads to the decline of surrounding regions as the growth pole attracts resources to itself", Thus the polarisation effects which Myrdal also recognized seems to dominate. In fact one might state that Kisumu's relationship to its hinterland has been parasitic as cited by Ominde et al (1971), Waller (1968), Oucho (1979). They all refer to Kisumu region as a downward transitional zone. Perhaps there is an alternative explanation which this study might reveal though located in Kisumu town. The study is therefore to act as an indicator of the nature of linkages that exist in an urban centre and its zone of influence.

Kongstad Per (1972)[17] writing on growth poles and urbanisation in East Africa points out that the application of the growth pole model in France in order to offset the dominance of Paris by deliberately locating growth poles in stagnant areas has not been successful. He argues that though the model can describe and illuminate features of an existing industrial complex, it could not easily be transplanted to depressed regions in France.

Therefore the transplantation of the model to more foreign soils as has been done by Friedmann (1966) to development in Latin American where he dilutes the concept to that of urbanization involving a concentration of production, population and consumption needs to be critically examined before adoption. Actually the basic question arising under these circumstances is how the regional planner in a developing country can develop strategies for intergrating disintergrated colonial economics. Moreover, it would be useful to gather knowledge on how the transition from pre-colonial to industrial independent nations can be achieved with a minimum of polarization resulting in centres-peripheral system. This is an important point to note since developing countries (Kenya, India etc.) tend to have adopted the growth centre approach without consideration of how they can minimise polarization effects. However, Kongstad's major criticism centres heavily on Friedman's assumption that growth poles serve as centres for innovation diffusion to their rural peripheries hence the successful growth centre strategy is to locate the urban growth pole centres at different points throughout the underdeveloped country so as to provide a form of total coverage. This assumption presupposes that innovation can be diffused over and through barriers of class hence, as a policy instrument, this strategy of development tends to legitimize existing patterns of growth and the intensification of underdevelopment. If such an argue-ment is acceptable then it would appear as if application of the

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growth centre policy in countries like Kenya is a futile effort.

However, it is recognized that the third world countries with their limited financial resources are faced with an investment problem not only the determination of the fraction of the national income that should be invested but also the question of where investments should be located to maximise employment and to hasten and widen spatially the transformation process. Johnson E.A.(1971)[18] suggests that the task is to launch a transforming process not only in a few cities but in thousands of small cities, towns and rural growth centres and thereby bringing the great mass of the country people into functional economic areas that can be germinating places for genuine economic progress. The inherent usefulness of the growth centre policy is clearly illustrated by this observation.

In Kenya the growth centre policy has been adopted which aims at inducing growth functions in a few strategically selected larger centres which have potential for one or more specialised growth function and which can achieve major redistribution of population.[19] The promotion of regional growth centre will provide alternatives to the absorption of the migrant population. Secondly the growth centre policy is expected to counteract the present dualistic nature of the economy by tapping hitherto neglected resource areas. This is only possible when one takes a positive approach towards the growth centre policy (which however is contradictory to Kongstad's postulations as discussed earlier.)

In these growth centres therefore industrialisation is to be effectuated. This would incorporate utilization of the paradigm for regional development policy where one takes advantage of coincidence of urbanisation and industrialisation in space as a tool for achieving a high national growth rate and an areal spread of development (Logan 1972)[20].

At another level, growth centre policy in Kenya is seen as a tool for urbanisation and a regional development strategy (Obwa,1973)[21]. Therefore the strategy is seen to a large extent as rural oriented in the country yet as Kimani and Taylor (1973)[22] have observed, if it is to be effective in rural areas, the service element should not be allowed to dominate as it is easier to add a service centre to a growth centre than the reverse. The physical planning development however holds the view that growth inducing elements such as industries are easily attractable to a given centre once infrastructural facilities are available[23]. Generally, the growth centre policy can only be effective in Kenya if the present economy of the country is regionally intergrated and internally oriented. This view corresponds with Darkoh's (1975) who says that "it is the underlying thesis that any under-developed country seeking an alternative industrial allocation pattern capable of raising productivity as well as stimulating rural development must begin to effect critical changes in inherited spatial-structural patterns."[24]

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In light of the above discussion one might argue that the adoption of the growth centre strategy in Kenya is a positive indication of the government's desire to reduce regional imbalances and to stimulate rural development. However, the extent to which growth centres (such as Kisumu) have achieved these objectives remains to be seen since it can be argued that the industrial city-hinterland relationship in the country is very similar to a colonial situation in that structural weaknesses are generated which may keep the hinterland in a permanent state of backwardness. If on the other hand the growth centre policy works out positively one expects structural changes to occur in the hinterland. These have been summarised by Logan (1972) as "improved farming technology, increased agricultural production especially food crops, out migration of farmers and raising of rural incomes". These changes aim at reducing differences in living standards between urban and rural areas. All in all, it is difficult to assess the strength of the deviation reducing processes relative to the deviation amplifying processes that also exist between a city and its hinterland. In recognition of this difficulty this study focuses only on one industry which hopefully will act as a representative sample to a study which however needed the consideration of several other parameters. Nonetheless it is assumed that the kind of relationships identified will be useful inputs both in regional and national planning in the country.

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and the uneven geographical distribution.[37] He defines industrial linkages on the basis of the sizes of input-output coefficients. This approach is very different from the one applied in this study on Kicomi. Moreover Richter's study involved 51 manufacturing sectors in each of the 57 metropolitan regions. However, his conclusion that industrial linkages induce clustering and are agglomerative forces is useful in the sense that it explains the tendency of industries to concentrate at a particular area. Similar conclusions were made by Keelde (1969) in his study of local industrial linkages and manufacturing growth in outer London. He notes the importance of local and industrial linkages and resultant external economies in accounting for the growth and persistence of distinctive concentration of firms in a particular industry.[38] The fact that local linkages are most strongly developed where there concentration of small plants each specializing in one aspect of end-product manufacture is a useful factor input in the formulation of industrial location policies.

Hoare A.G.(1978) states that industrial linkage analysis in his surveys revealed how firms consider the access to forward (market) and backward (supply) linkages as paramount to locational advantage of a modern industrial complex or conversely, major drawbacks in peripheral areas.[39] Such information is very informative since most developing countries have often adopted the policy of industrial dispersal or decentralization to lagging regions without knowing the full implications of such an action

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or how this policy can be aided by industrial linkage studies. His conclusions are that linkage develop preferentially with closer rather than more distant firms. In addition the perceived importance of access to linked firms will vary directly with the degree of spatial concentration. Thus, these conclusions will help in explanation of internal spatial cohesiveness of modern industrial complexes and differential abilities of firms to decentralize. On the other hand they may also justify industrial strategies designed to generate self sustaining growth in peripheral problem areas which focus directly on creating new complexes of inter-linked firms and industries.

Beyers (1974) explains how the growth centre model can play a significant role in spatial structural changes. In a regional context the identified important impacts of economic structure and output could occur due to rapid demand expansion in any sector which has significant interregional economy. A tripartite classification for industrial systems which induce structural changes are namely propulsive lateral and capital goods system which are inter-related and interdependent components within the larger system of induced growth as described by the growth pole theory.[40] It is postulated that expansionary changes in the lead sector may lead to economies of scales which could result in the lowering of prices of its goods to the other forward linked industries whose growth may be stimulated. Similarly, the backward linked industries supplying lead sector with

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inputs would expand. Given this framework it is assumed that changes in interindustry structure, and changing levels of demand for regional products and mix of industrial output will also change and it can be anticipated that employment and incomes will occur. In view of this framework, one might argue that an industry such as Kicomi would probably have a similar impact in its related sectors. However, the approach adopted in the study focuses more on the nature of the linkages rather than on how the growth of Kicomi has quantitatively affected the other industries. The points however are useful in indicating how changes within a given linkage structure can bring about a chain of changes.

Darkoh (1975) writing on planned industrial reallocation pattern in Ghana echoes some of the above factors discussed by Beyer. However his study is more real than abstract since he used empirical data, hence of more direct applicability to our case. He notes that planners should ensure that each project using local raw materials contribute significantly to the rest of the growing industrial and rural hinterland. This therefore requires careful physical planning of proposed linkages based on a detailed analysis of resources available, labour, skills markets and investments. In this respect identified locational strategies should ensure that inter-sectoral and intra-regional linkages are intensified in the economy. There are three ways in which and industry spreads out from its initial point of growth namely:-

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i. Horizontal expansion through straight forward duplication of existing units;

ii) Exogenous growth. Exogenous industries are new industries that neither duplicate or stand in close technical relationship with those existing. When these exogenous projects are well chosen they eventually set in motion further expansion based on the principles of horizontal and vertical growth which correspond to the usual forward and backward linkages[41].

iii) Vertical expansion through gradual addition of new types of existing units.

Bearing in mind these ideas as presented by Darkoh with regard to how an industry spreads out, identification of such aspects with regard to Kicomi textile industry would serve as useful indicators in testing of the hypothesis that the development of the rural areas can be achieved through location of industries in selected growth centres.

1:5:5 - METHODOLOGY:

Data Collection:

Three major methods of data collection namely questionnaire, personal interviewing and secondary sources were employed in this study.

Questionnaires were administered in gathering information on cotton production at the farm level, the ginneries, co-operative societies, cotton lint seed and marketing board, Kicomi textile mills,

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marketing of textile products and tailoring activities. The approach at each of the various levels differed slightly depending on the techniques employed.

For instance, with regard to cotton production at the farm level interviews were conducted in only two divisions namely Maseno and Winam in Kisumu District (see map III). This was necessitated by the fact that the study area is so large that a complete coverage was impossible. These divisions were selected on the assumption that cotton production problems within these divisions are similar to those in the adjascent districts. Even at the divisional level interviews were conducted in only one location. For example, in Winam Division West Kano location was selected and only three sub-locations chosen using stratified random sampling were visited. These were Kadhiambo, Kochieng' and Nyamwara. Within these sublocation the selection of farmers to be interviewed employed systematic random sampling where every fifth household was visited. In the absence of the head of the household, the next household was taken as an alternative chance. In addition, some selected progressive farmers in the given sub-location were also interviewed in order to give a more balanced picture. The same sampling methods were used in choosing farmers and sublocat visited which were Kombewa, Kit-Mikaye and Kaila, all in the East Seme Location. In total fifty farmers were interviewed in each location.

At ginnery level, the focus was on Kibos industry where about 10% of the factory employees were interviewed. These were chosen using stratified random sampling technique according to the nature of work they perform within the ginnery. The major

categories were weighing, opener, ginning and bailing stages.

At the co-operative level, Kano/Kajulu and Seme/Kisumu farmers co-operatives societies were visited (all located within Kisumu District). However, there are about sixteen such co-operative societies in Nyanza Province alone with three district co-operative unions that co-ordinate the functions of these societies. Among the three, Kisumu district co-operative union was visited.

At Kicomi factory level employees interviewed were also selected using stratified randomn sampling basis depending on the kind of job performed at the factory. At this juncture it should be pointed out that most of those interviewed were from the low to medium income earners in the factory. Data for the high income group was unavailable.

With regard to marketing and tailoring activities the centres visited were namely Rabuor, Nyang'ande, Nyamware, Kombewa and Kisumu all within Kisumu district. Questionnaires were administered in all the above centres except Kisumu town where informal discussions (on randomn basis) were held with various tailors in the town. At the other centres, where tailors numbered more than five, systematic random sampling was used in selecting those to be interviewed. The retail traders in textile fabrics were also chosen using similar methods employed in choosing the tailors.

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Personal interviews were held with various government parastatal bodies and private sector officers. Within the government sector the following officers in Kisumu district were interviewed:-

i. Ministry of Agriculture - District Agricultural officers
Assistant Agricultural "
Field Extention Officers

ii. Ministry of Economic Planning - Provincial Planning Officer
District Development Officer.

iii. Ministry of Commerce and Industry
Provincial Trades Officer
Chairman, District Chamber of Commerce and Industry
District REvenue Officer

iv. Office of the President - District Officer (Kisumu)
-District Officer (for cotton)
-District Officer (Winam Division)
-District Officer(Maseno Division)

v. Ministry of Lands & Settlement:
Provincial Physical Planning Officer

vi. Cotton Lint Seed and Marketing Board - Manager,Nyanza Province
-Ginnery Manager at Kibos
-Cotton Classifier
Cotton Instructors.

Other officers interviewed included industrial development officer for Kenya in the Ministry of Commerce and Industry.

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Secondary sources of data were mainly provincial and district annual reports of the following ministries; Agrictulture; Commerce and Industry; and Cotton Lint Seed and Marketing Board annual reports. Statistical abstracts and other data from Central Bureau of Statistics.

DATA ANALYSIS:

There are several methods which can be used in such a study. These are location quontient, input-output analysis, regional multipliers, value added by manufacturing etc. Most of these techniques however require detailed data which are in most cases unavailable. Methods such as input-output analysis have already been discussed and because of its inherent disadvatages has not been chosen in analysis of data.

The basic method which is adopted in analysing industrial structure in the region with respect to the textile industry is the location quontient (L.Q.). L.Q. is a technique which involves a comparison of the extent to which selected economic activities are found at the regional and national levels relative to other activities to which they are linked. This method has the advantage of using rapidly available indices such as employment which is the usual index as compared to methods such as commodity and income flow analysis.

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The latter case is a very useful and better approach to the interrelationship between regions but suffers from data unavailability (Isard 1973, Bendavid 1972, Richardson 1973).[42] The L.Q. method however has a weakness in assuming that what is found in the nation should and could be found in the region as well. Despite its weakness the L.Q. method serves as useful indication of areas where more detailed linkage investigations are narrated. In this context if the computed regional ratio is lower than that for the nation, the possibility of unexploited linkage potentials maybe hinted. The method is outlined below and is calculated in two stages

i) $\frac{B}{A} \times 100$ where A = All industrial employment in Kenya

B = All industrial operatives in Western Kenya

ii) $\frac{C}{D} \times 100$ Where C = Western Kenya's industrial operatives in cotton industry.

D = Kenya's industrial operatives in cotton industry.

$$L.Q. = \frac{C/D \times 100}{A/B \times 100}$$

If L.Q. is greater than 1, then the region has more than its share of this industry.

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However, if it is less than one then the region has less than its share of that industry.

RESEARCH LIMITATIONS:

The major problems faced in the field relate to the inavailability of data. This was observed on two accounts, either the persons concerned refuse to give the information or they deliberately try to mislead you. The first case was observed with regard to co-operative societies and unions who were not willing to state the incomes earned over a given period. The second case was noticeable at the local market centres where the various entreprenuers were not willing to give information relating to the incomes derived from retail activity associated with sale of textile fabrics and the amount of money earned in clothing fabrication industry. This was noticed in inconsistencies in the responses to various questions in the questionnaire. Therefore this kind of data should be used with a certain amount of reservation. They are therefore mere approximations of the real situation but despite this they are useful indicators of potential aspects which can be exploited.

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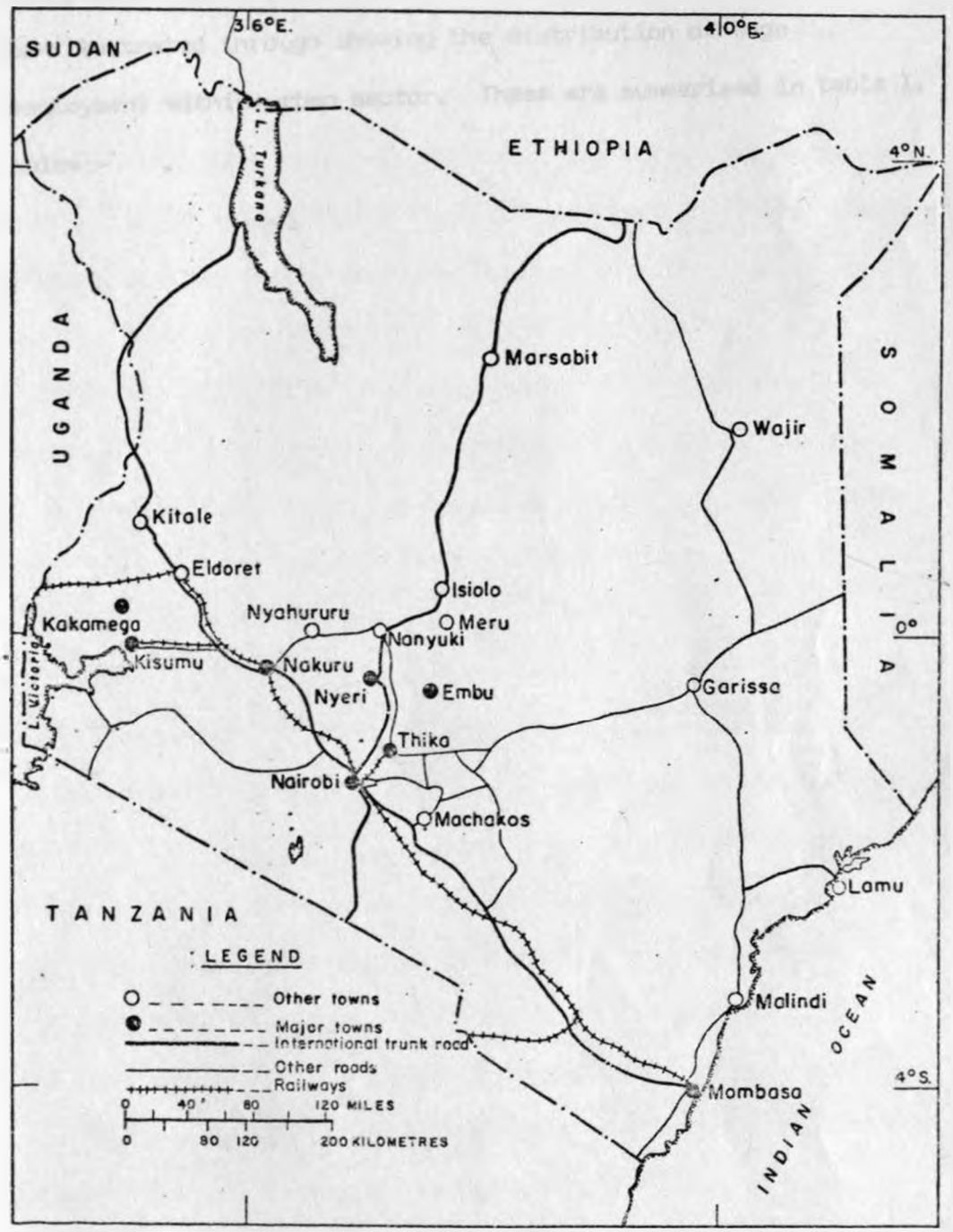
CHAPTER TWO

RELATIONSHIP OF KISUMU'S INDUSTRIAL SECTOR TO THE RESOURCE HINTERLAND.

2:1 KISUMU AS AN INDUSTRIAL CENTRE:

A comparison of industrial activities in Kisumu town with other major industrial towns in the coutnry will give a clear picture of its contribution to both the regional and national economy. Moreover, it acts as a background to the study which endevours to show the nature of linkages which exist between Kisumu's industrial sector and the resource hinterland.

Kisumu town is one of the major industrial towns act of twenty two (see mapt III) which have been identified in the country. Its significance is further demonstrated by the fact that it is among the first thirteen main industrial towns which are listed below in their order of significance namely:- Nairobi, Mombasa, Kisumu, Thika, Nakuru, Eldoret, Kitale, Athi River, Machakos, Nanyuki, Nyeri, Malindi and Naivasha.[2] The order of the significance of these towns might have changed since industrial activities have declined in some centres and intensified in others. For instance the 1970's have seen an intensification of industrial activities and concentration within Thika and the major towns of Nairobi and Mombasa. According to Ogendo (1975)[3]. the industrial activities in Nairobi for instance had trebled within the past ten years such that it has the highest industrial concentration in the country accounting for one third of Kenya's industrial operatives. He notes that towns like Nanyuki, Nakuru, Malindi, Eldoret and Nyeri have had a considerable growth while Machakos, Athi River and Kitale have had a relatively low annual growth rates.



MAP III MAJOR INDUSTRIAL CENTRES IN KENYA

The comparative significance of these towns may further be illustrated through showing the distribution of wage employment within urban sector. These are summarised in table 1. below:-

This table clearly shows the dominance of Nairobi and Mombasa and the emergence of Thika as a fast growing industrial town. Kisumu, However, still remains an important industrial centre despite its declining contribution in terms of total employment within the manufacturing sector amongst the main towns in Kenya. Wescott (1976) analysing the regional distribution of employment within the urban sector in Kenya observed that the increasing concentration of employment opportunities in Nairobi and the neighbouring district of Kiambu is explained both by the nature of industrial location decision making process and by the nature of the relationship between the private sector in Kenya. Similar views have been expressed by Obwa (1977) in his paper on the effectiveness of growth and service centres' policy as an instrument for rural development in Kenya[5]. This particular point is important in regional development given the fact that the government is pursuing a policy of dispersal of industries into other towns so as to distribute the benefits of modernization to these growth centres from which these may disseminate into the rural areas. However, the performance (of manufacturing sector) in these towns has been discouraging as is illustrated by the fact that between 1971 and 1974 proportionate urban total employment declined by 25% in Nakuru; 35% in Kisumu and 63% in Eldoret. Similarly proportionate urban manufacturing employment declined by 15% in Nakuru; 59% in Kisumu and 69% in Eldoret.[6]

These examples are not meant to show negative aspects of industrial development of these towns, but rather to point out the fact that the major assumption that location of industries in growth centres with anticipated consequent development in their hinterland should

Therefore there is a need for a conscious effort to allocate funds for industrial development in the given growth centres if the adopted industrial strategy in the country is to be effective in the rural areas. Thus the decline of manufacturing sector in these towns (and urban wage employment in general) and increasing industrial concentration in Nairobi and Mombasa should serve as indication that there is a need to review the various industrial policies that have been adopted in the country.

Despite the decline in manufacturing sector within Kisumu town, it has been recognised as an important growth centre and industrial town in Western Kenya (Regional context) and in the Nation. Such a conclusion has been based on some of the characteristics of the town which we shall proceed to discuss briefly.

According to the physical planning department (1978) Kisumu has been "designated as a growth centre because of its administrative and industrial development potential". Some of the factors that have contributed to the suitability of Kisumu as a growth centre are its locational advantages. It is the hub of the road network in Western Kenya, a major port on Lake Victoria and a transhipment point for rail traffic from Mombasa and Nairobi. The availability of other infrastructural facilities such as grid electricity, large volumes of water for industrial cooling and processing as well as for domestic supply all make the town a suitable centre for large scale industrial and commercial developments.

The industrial potential for the town has therefore been recognized and these should be exploited to stimulate the development of the hinterland which has been recognized as stagnating and declining by several scholars (Obudho 1972; Waller 1968; Aseto 1979).

Other growth centres which have been identified such as Eldoret and Kitale in Western Kenya also have the broad infrastructural base needed to attract major industrial development including rail and communication; water supply, grid electricity and sewage system also be developed in such a manner that there is complementarity between them and Kisumu. This would be in aid of creating an intergrated regional spatial system. Other towns such as Kakamega only have moderate industrial potential and therefore large scale industrial development might be of lesser importance.[8] However the potential which exists should be exploited given its location in a highly densely populated and rich agricultural zone.

The emergence of agro-based industrial centres such as Mumias, Webuye, Muhoroni and Chemelil are significant indicators towards a changing pattern in the region. These centres may be seen as potential growth centres which must be included in spatial planning for the whole region. Other urban centres in Western Kenya of significance are Kisii, Homa Bay and Kericho which could also develop into important growth centres given the incentive and the capital resources to invest into productive industrial projects.

In addition they are located in areas of high population density and rich agricultural areas whose full potential has not been realized. So far, however, the locational and favourable advantages of Kisumu has minimised their development and hence the effective contribution which they can make to their hinterlands.

2:2 INDUSTRIAL STRUCTURE OF KISUMU:

Consideration of industrial structure of any given geographical unit is merely a proportionate listing of all manufacturing and service industries rated according to the number of the manufacturing operatives engaged in each industry. Table II gives a summary of the major types of industries which are located in the town.

Accroding to Ogendo (1972) Kisumu lacks such agricultural processing and fabricating industries such as fruit and vegetable canning, meat processing, sugar, tea and coffee processing, alcoholic bevarage manufacture and paper products fabrication.[9] Of the industries located in Kisumu, the agricultural food processing industries are less important in comparison with the non-agricultural manufacturing industries and service industries both in terms of operatives and value added.[10] The miscellaneous food processing industries in the town comprised of rice milling, spice grinding, non-soap associated edible oils processing, animal feed preparation and processing of miscellaneous foodstuffs.

Much as it was desirable, it was not possible to establish the nature of industrial inter-relationships within the town in the input-output fashion. However, some generalizations based on the activities which the various industries are engaged in, deductions on the nature of their relationships can be made. For instance one would expect that the garment factories in the town such as Impala, Neceled and even Kisumu garment, to purchase some of their raw material inputs from Kisumu textile mills. Similarly, one would expect the industries manufacturing water boiler cylinders to be linked to the building and construction industry. These cited examples are only possible inter-industrial qualitative linkages which need further investigations. Generally one might state that there are no apparent direct linkages between Kisumu industries. This is a hypothesis, however, which needs to be verified.

2:3: RELATIONSHIP OF KISUMU'S INDUSTRIAL SECTOR TO THE RESOURCE HINTERLAND:

The industries which are located in Kisumu apoear to have a parasitic relationship to its hinterland which in this context only includes Nyanza and Western provinces as had been discussed in chapter one. Appendix table one summarises the major establishments found within the town together with their final products from this table deductions on possible relationships to the hinterland are made which are supposed to indicate whether these industries could or are stimulating and enhancing development of the hinterland.

One common feature of industries in Kisumu is their strong consumer oriented nature in that they are mostly service which could be said to drain resources of the hinterland in terms of attracting both human and capital resources from the hinterland. This view is not universally held since one might argue that the provision of these services are important to the general development of the hinterland and that without them rural development could be grossly retarded. We shall proceed to discuss these contradictory views.

If one takes into account the engineering industries in the town such as Kadur Burkush Co., Plough and Allied Products, Shaker Brothers, Sheet Metal, Kisumu Engineering and Reliance Engineering Works (Appendix I) all obtain their major raw material inputs from an Italian firm based in Mombasa which produces most of the steel that is consumed in the country. These industries on analysis reveal that they have very strong linkages with Mombasa in terms of the amount of savings transfered from the town to this industry as compared to the hinterland from which they attract human resources. One could also argue that the industrial hinterland relationship is equally strong and ought to be beneficial to the latter as well. However, one finds that most of these industries tend to employ only a few people as casual labourers with very low salaries which cannot be expected to have any significant effect on the hinterland even if there was repartriation of some of the money earned to the latter. Moreover, in most of these firms employees are mostly employed on contract basis. Thus these industries are exploitative and merely use the hinterland as an outlet or market

of their produce.

Another approach would state that the services which these industries render to the hinterland are important in enhancing growth and improvement of living conditions in the hinterland. For instance the goods produced such as ox-ploughs and plough parts; panga wheel barrows, jembes, tractor spares, water storage tanks and farm instruments are all significant to the activities of the hinterland farmer. These products if utilised could greatly promote agriculture and lead to increase in productivity in this sector within the rural economy. Furthermore the use of goods such as water tanks will necessarily release manpower to be used in other more productive fields rather than in fetching water from the rivers and streams if other factors are held constant.

The link between those industries producing gear box rollers for cotton ginneries, sugarcane crushers, posho mill boiling pans, jaggery packets and posho mill cyclone also offer vital services to the hinterland business entreprenuers. Thus when these services are readily available they are likely to contribute to the efficiency of these various enterprises by reduction in long delays as they wait for spare parts and other necessary equipments. The increased efficiency of these enterprises in return is likely to lead to an increased demand for the agricultural products that are major inputs in these agro-based enterprises.

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It is also assumed that when firms are operating efficiently their production costs would be cheaper and hence the consumers should spend less on the service, therefore any savings they make could be used in improving their quality of life and investment in other enterprises in the given area. From the above discussion however, the engineering industries though helps in lessening unemployment in the hinterland, their relationship to the latter seems to be highly parasitic.

Similar arguments could apply to other industries in the town such as the bakeries who obtain their wheat from Rift Valley Province; Equator Bottlers and the garment factories who purchase their raw material inputs either from Kicomi or overseas. These industries, however, also offer essential services but the consumptive linkage aspect seem to benefit these industries rather than the hinterland.

One should not overemphasize the fact that because these firms do not purchase their raw material from the hinterland they cannot lead to the development of the rural areas. The measures which should be taken to make them development inducing such as increasing their capacity to generate employment are what should be investigated before they are condemned as none contributory to rural development.

In fact it can be pointed out that an industry purchasing its raw materials directly from the hinterland might even be more exploitative than one which does not. However, this is a hypothesis which is to be tested in this study. For instance when one analyses the agro-industries in the town such as Kicomi Cotton Mills, tubular furniture workshops and foot wear industries they also appear to be service oriented. This will therefore tend to minimise their contribution to rural areas. However, the underlying thesis is that strengthening the backward linkage of (these) agro-industries to their resource hinterland will lead to a significant positive contribution in improving rural economy and the living standards of the people. Before proceeding to the analysis of Kicomi's linkages to the hinterland it is important that some of the problems Kisumu is facing as an industrial centre should be discussed as these may help in explaining why its industries do not seem to have had any major impact on the hinterland.

2:4 - PROBLEMS KISUMU FACES AS A REGIONAL GROWTH AND INDUSTRIAL CENTRE

Generally the major problems Kisumu faces are not unique to the town as such since they are experienced in other major growth centres in the country. However, in Kisumu these problems have combined to create an environment which has not been conducive to rapid growth in the town itself, and its hinterland.

The problem of high population growth rate is crucial to the development of the town.

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For instance between 1962 and 1969, the town's growth rate was 5.1% per annum whereas between 1974 and 1978 it was 4.41% per annum[11]. The projected population for the town is even more alarming as is explicit in table III below where the growth rates for the period 1978/80 and 1980/83 are computed on the basis of growth rates of 6.4% and 8.04% per annum respectively.

TABLE III

PROJECTED POPULATION FOR KISUMU MUNICIPALITY*[12]

1978	1979	1980	1981	1982
183,900	195,700	207,500	224,100	262,000

This high population growth rate has combined with high and increasing unemployment rates to paint a very gloomy picture. On to this is added the fact that most of these migrants into the town have low education levels and lack relevant skills given the fact that the better educated persons often by pass Kisumu and head for either Nairobi or Mombasa where there are more opportunities for finding employment.

These factors have direct impact on the infrastructural facilities within the town which can not support such a high population. Thus there is pressure on sewarage systems, health facilities, housing, schools, water among many others. To cite one example the inavailability or shortage of water in the town which appears to be a common phenomenon in the last two years is ridiculous given the fact that the town is a port on a fresh water lake with

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several rivers flowing adjascent to the town. Since water is one of the most significant factors in development(industrial) the water potential in the region should be developed as a matter of urgency.

The low incomes inherent in the town below the national average has been pointed out by several authors (Waller 1968,District Development Plan 1979/83)[13]. The low incomes are remarkable as shown by the fact that 45% of the total urban population earns less than 400 shillings per month while 75% earn less than 800 shillings per month (1976)[14] have led to the low level and deterioration of infrastructural facilities.

The two factors of low incomes, low level of infrastructural development and inadequecy of these facilities coupled with low purchasing power might have contributed to the very slow growth of industrial sector observed in the town within the past fifteen years. These conditions most likely made the town unattractive to the investors. However, this low growth rate of the industrial sector may also be explained in terms of the industrial policies in the country where the combined factors of a strong private sector and lack of definite industrial location policy in an open economy have led to the concentration of industries in Nairobi and Mombasa. Therefore for Kisumu to benefit from the industrial dispersal policy, the public sector (in the country) should be strengthened; a definite industrial location policy adopted and

adequate incentives to investors to induce them locate in some of the rural towns made available.

In summary one might state that the industrial potential of Kisumu town has not been exploited which has led to its being ineffective as a regional growth centre. The promotion of industries in the town is likely to lead to an increase in employment opportunities (so long as they are labour intensive) and improved infrastructural facilities. These elements are then expected to set in motion a chain of reactions both in the agricultural sector in the hinterland and increased diversification of industries in the town so that the service sector which is exploitative is not overempnasised.

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CHAPTER THREE:

KICOMI'S INDUSTRIAL LINKAGES:

KICOMI FACTORY:

Taking Kicomi as an exogenous industry located in Kisumu it would be interesting to study whether it has developed any significant forward and backward linkages with its resource hinterland and within the town itself. This would help in establishing the extent to which the industry influences the rural economy.

One starts with the assumption that linkages between Kicomi and surrounding area exists in terms of employment it offers directly to the people and through the purchase of cotton. At the forward linkage level, it supplies the region with consumer goods and leads to the generation of other activities. However before analysis of these linkages it is necessary that the activities at the factory level are analysed into details to permit the full appreciation of its present and potential role in the region.

Kicomi Textile industry was established in 1965 with an initial capital of about 5.6 million Kenya shillings. The project was established as a joint venture by Khatau's group in India, the Development Finance Company of Kenya and the Commonwealth Development Corporation. The Industry is located in Kisumu the principal town of the cotton / area of Western Kenya. This /gr it is centred near its major raw material input to take advantage of the cotton being grown in the area with associated savings on transportation cost given the huge volumes of cotton bales that are utilised in the manufacture of textiles.

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Furthermore a textile industry requires plenty of water which is easily available given the fact that Kisumu is a port town within a region of high rainfall evenly distributed throughout the year. This means that apart from the lake water resources the high stream (permanent) density within the area are easily exploitable within reasonable costs. The availability of other infrastructural facilities such as grid electricity, sewerage system etcetera including cheap labour were definitely an added advantage in the selection of where to locate the industry.

EMPLOYMENT STRUCTURE:

Organizational activities at the firm may be broadly categorised into technical and managerial aspect. The technical category is the largest sector within the factory accounting for about 90% (1575 operatives) of those employed at the firm. Of this only 4% (64 operatives) are skilled and have been trained at various institutions within the country such as Nairobi University College, Kisumu Industrial Training Centre, while others have been sponsored for diploma and degree courses in textile technology in India. The remaining 70% and 26% (on job training) of the technical industrial operatives are semi-skilled and unskilled respectively. The contribution of Kicomi in catering for this category of the urban dwellers is quite significant given the fact that they - usually constitute the highest proportion of any given urban population.

The main technical operations in the manufacture of textiles are namely spinning, weaving, bleaching and mercerising, dyeing, printing and finishing. Each of the stages of the processing

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FIGURE I

of textiles has definite linkages with industries either within Kisumu region or outside. For instance at the spinning and weaving stages cotton lint purchased locally or imported is certainly significant. Bleaching and mercerising are definitely linked to various chemical industries (e.g. manufacturing dyes, bleaching materials) which are mostly located in Nairobi.

The non-technical personnel account for 10% of the firms industrial operatives of which 68% are subordinate staff. This still emphasize the fact that the firm, to a large extent, caters for some of the least educated members of the migrant labour force who generally have difficulties in finding employment. The remaining 32% comprises the managerial staff.

Kicomi is one of the largest single (establishments) employer in Kisumu and is likely to retain the position for long time to come if the past trend of industrial development in the town continues. The industry currently employs a total number of 1775 operatives (1979) as compared to 448 operatives twelve years ago. This is equivalent to an annual growth rate of about 24% (see appendix II). Employment within the factory is not expected to increase at such a high rate given the fact that the planned employment capacity of the industry is 2000. Figure I shows graphically how employment has been growing within the industry since 1967 to the present time. In fact 1979 one expects that in there will be 10% increase in total employment at the firm in accordance with the presidential directives last year. Thus the factory will be employing a total number of 1932 operatives

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by the end of this year, a figure which is quite close to the maximum employment capacity. However, with the 80 million (Kenya)shillings expansion of the factory (started in 1978 and and is nearing completion) one would expect an increase in the future employment capacity of the factory if other factors are held constant.

EMPLOYMENT LINKAGES:

Employment at the factory is of significance to the rural hinterland. There are two ways in which one could view this relationship with the hinterland. One is a negative approach which would argue that Kicomi is enhancing hinterland underdevelopment, through the drawing of its most active human resources. For instance, according to the survey data 62% of the operatives interviewed were aged between 15 and 34 years while in a broader context 92% of the industrial operatives interviewed were aged between 15 and 44 years. This age category is universally recognised as the most active sector of a given population. Therefore one can argue that their mass departure from the region to the towns could have serious repercussions and lead to the underdevelopment and stagnation of the rural economy especially the agricultural sector.

Adopting a positive approach to employment at the factory, one can state that Kicomi plays an important role in absorbing surplus farm population.into more productive employment given the fact that some regions in the hinterland are facing problems of high land pressure due to the rapid natural population increase while in others ecological factors in some of the drier parts of the lake basin necessitates that non-agricultural farm employment be provided.

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The role of Kicomi in helping to alleviate unemployment is not confined to its immediate hinterland (Nyanza province) from where 81% of the employees originate, but is quite significant even at the national level. For instance 16% of those employed at the factory come from the remaining provinces (excluding North Eastern province) while 3.1% come from India and 0.2% from Britain. Map 4 will show the influence of Kicomi in terms of origin of the employees at the national level.

Within the western Kenya context most of the industrial operatives come from Nyanza province which accounts for 86% of the industrial operatives as compared to 14% from Western province. In the Nyanzian context Kisumu district appears to have benefited most in terms of employment since it accounts for 38% of the industrial operatives as compared to 29%, 22% and 11% from Siaya, Homa Bay, and Kisii districts respectively. Map 5 clearly illustrates the regional flow of migrants to the factory.

INCOME DITRIBUTION:

The benefits of employment in Kicomi to resource hinterland maybe seen in the anticipated repartriation of money to the hinterland. This is a controversial issue which is easily assumed but difficult to prove. However, one expects that those who have not migrated to the town with their families definitely send some money "home". According to my survey data 31% of those in Kicomi left their families at home. This is quite significant proportion although one can argue that the amount of money sent is rather small given

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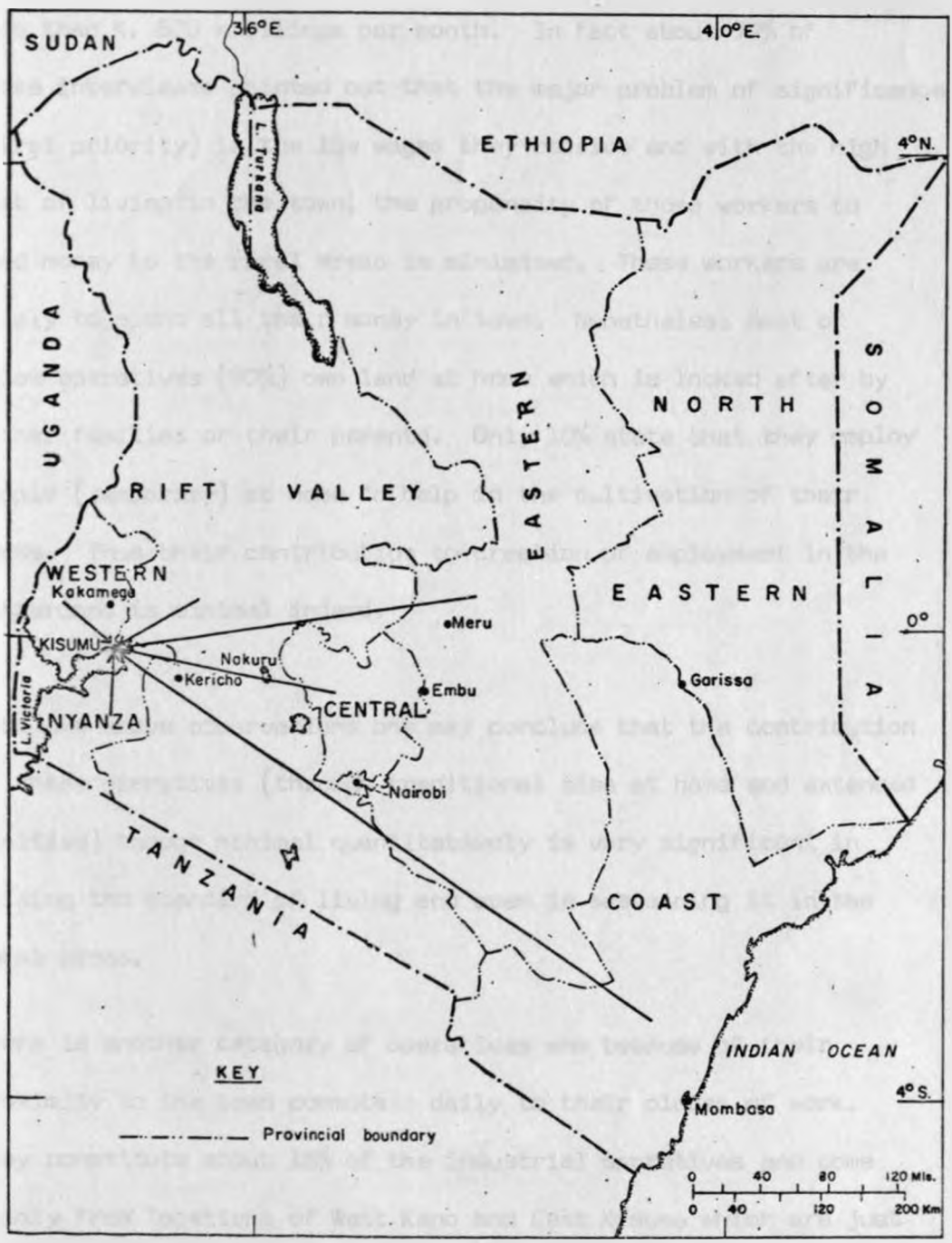

MAP IV MIGRATION OF EMPLOYEES TO KICOMI (NATIONAL CONTEXT)

the fact that most of these workers are mostly semi-skilled or unskilled with consequent low salaries. For instance 38% of those interviewed earn less than Kshs. 600/= per month while 72% earn less than K. 800 shillings per month. In fact about 70% of those interviewed pointed out that the major problem of significance (first priority) is the low wages they receive and with the high cost of living in the town, the propensity of those workers to send money to the rural areas is minimised. These workers are likely to spend all their money in town. Nonetheless most of those operatives (90%) own land at home which is looked after by either families or their parents. Only 10% state that they employ people (temporary) at home to help in the cultivation of their farms. Thus their contribution to creation of employment in the hinterland is minimal indeed.

From the above observations one may conclude that the contribution of these operatives (through traditional ties at home and extended families) though minimal quantitatively is very significant in raising the standard of living and even in sustaining it in the rural areas.

There is another category of operatives who because of their proximity to the town commutes daily to their places of work. They constitute about 15% of the industrial operatives and come mainly from locations of West Kano and East Kisumu which are just adjascent to the town. Most of them use either bicycles or public transport means to travel to work. In the case of the

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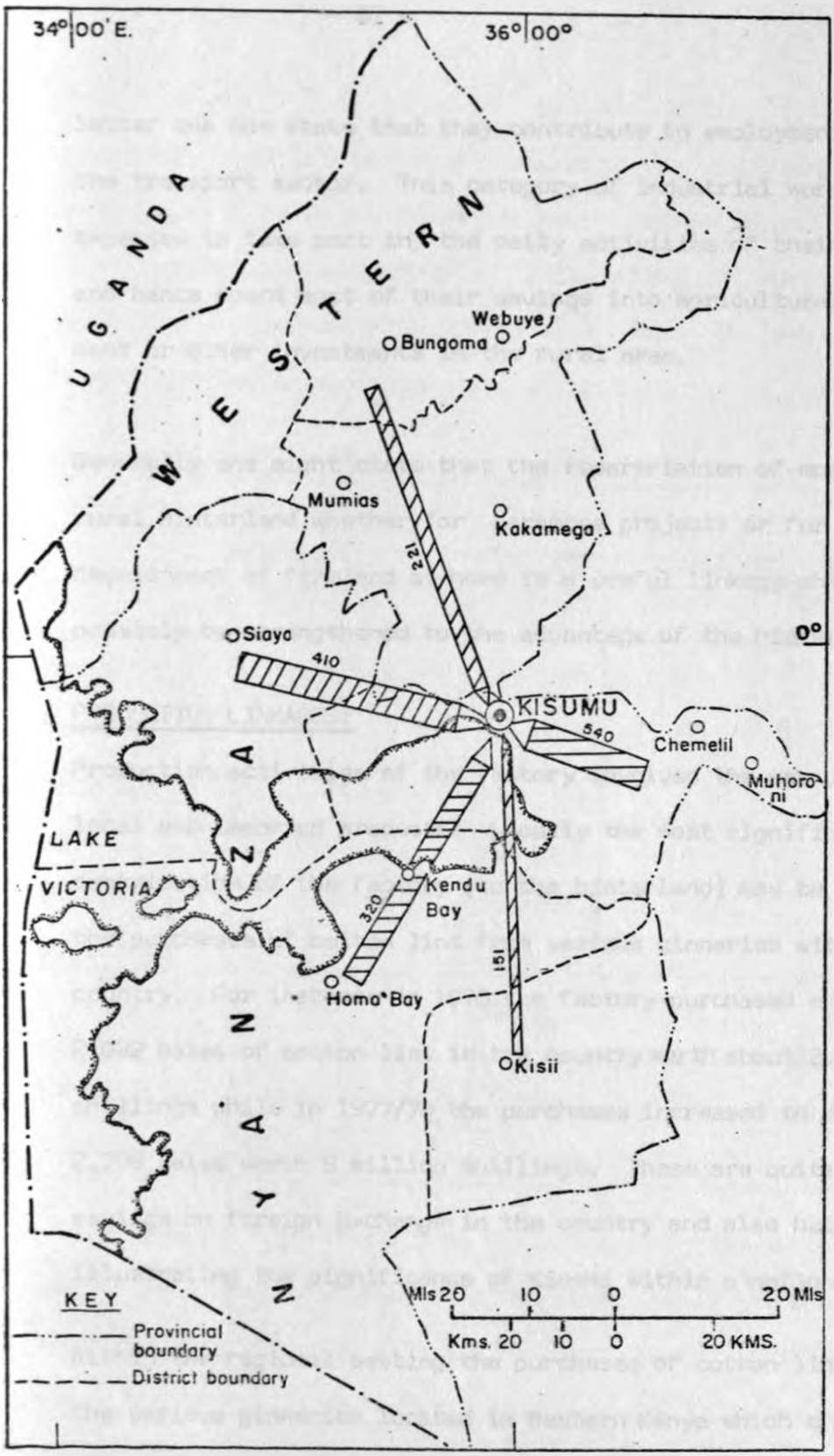

MAP V REGIONAL FLOW OF MIGRANTS TO KICOMI

latter one can state that they contribute to employment within the transport sector. This category of industrial workers are expected to take part in the daily activities of their villages and hence spend most of their savings into agricultural development or other investments in the rural area.

Generally one might state that the repartriation of money to rural hinterland whether for harambee projects or for the development of farmland at home is a useful linkage which could possibly be strengthened to the advantage of the hinterland.

PRODUCTION LINKAGES:

Production activities of the factory involves the use of both local and imported products. Locally the most significant contribution of the factory (to the hinterland) may be seen in the purchases of cotton lint from various ginneries within the country. For instance in 1976 the factory purchased a total of 2,022 tales of cotton lint in the country worth about 2.8 million shillings while in 1977/78 the purchases increased to about 2,793 bales worth 8 million shillings. These are quite sizeable savings on foreign exchange in the country and also helps in illustrating the significance of Kicomi within a national context.

Within the regional setting the purchases of cotton lint from the various ginneries located in Western Kenya which are about seven in number may also be seen as significant to the rural hinterland. In 1975/76 the total purchases from these ginneries was worth about 800,000 shillings while in 1977/78 the purchases amounted to 6.4 million shillings , see table IV for breakdown

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on ginnery level. This money accruing to the hinterland if invested in the area could lead to major changes within the rural economy such as increasing the efficiency of ginneries which might lead to increased demand for seed cotton and hence the intensification of the production of cotton in the hinterland.

TABLE IV:* COTTON LINT PURCHASES IN WESTERN KENYA BY KICOMI:

GINNERY	1975/76		1977/78	
	Quantity Bales of 185kg.	Value (K.shs.)	Quantity Bales of 185kg.	Value (K.shs.)
Ndere	150	278,900	450	1,426,300
Kendu Bay	Nil	Nil	Nil	Nil
Homa Bay	Nil	Nil	993	1,477,700
Kibos	Nil	Nil	Nil	Nil
Nambare	64	76,400	169	535,200
Malakisi	410	483,400	636	1,996,700
Total	624	840,700	2248	6,435,900

Samia: Figures were combined with those of Malindi and are excluded from the above totals. (Source Kicomi 1979)

One constraint however, is that most of the profits go to the ginneries which are in most cases privately owned and there is no guarantee that these people will re-invest in the area. In cases where the farmers co-operative societies (e.g. Siaya) own the ginneries one would expect that re-investment would be effected. Even if this does not happen, one would expect more farmers to benefit directly from the income earned by the ginnery if it is collectively owned.

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The local supplies of raw materials can not meet the demands of Kicomi such that several industrial inputs are imported. For instance in 1976 local purchases of cotton lint by the factory only accounted for 21% of the lint consumed while 79% was imported from Tanzania, Uganda, Argentina, Brazil and USSR. Similarly in 1978 local lint purchases accounted for 31% of that consumed while the remaining 69% was imported from Turkey, Israel, USSR and Tchad. The total lint imported (1978) was worth about 17.9 million shillings which is quite a significant proportion of loss of foreign exchange by the country. One might argue that the importation of cotton is not justifiable since the Cotton Lint and Seed Marketing Board has been increasingly exporting raw cotton to other countries (such as United Kingdom, West German, China etc) while at the same time making it difficult for mills in the country to import cotton.[1] It is postulated that the cotton producers in the country would benefit more if we exported less raw cotton. This is in view of the observation made by the International Institute of Cotton who have indicated that the "added value" gained by exporting textiles instead of raw cotton varies from about 1.5 times in the case of yarn and three to four times in the case of cloth and many more times in the case of clothing. In this respect there is a need for a change in the cotton production and marketing policies so that greater emphasis should put on the exportation of textile and textile products rather than raw cotton such that maximum benefits are derived from the production of cotton.

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Apart from the importation of cotton lint other inputs which have to be imported by Kicomi are polyester and polynosic fibres all of which are obtained from Japan. Table V below summarizes the consumption of these products in the last three years. One factor which emerges from this table is large amount of foreign exchange which leaves the country.

TABLE V: CONSUMPTION OF IMPORTED FIBRES:

YEAR	POLYNOSIC FIBRE		POLYESTER FIBRE	
	QUANTITY(TONS)	VALUE(MILLION) (K.shs.)	QUANTITY(TONS)	VAL
1976	108	1.25	[illegible]	
1976	133.2	1.79		
1978	360	3.15		

Source: Ministry of Commer and Industry (1979)
Figures have been rounded up.

Moreover, it has been shown that polynosic fibre can be substituted by cotton therefore one would argue that its importation in large amounts is not justifiable. What is required is further research into the textile industry in the country such that only what cannot be produced or substituted locally should be imported. This advocates for the re-orientation of Kenya's economy internally if our industries are to benefit the country.

Other inputs important in the processing of textiles are stores, spare parts, colours and all involves large amounts of money which are transfered from Kicomi to other industries in Nairobi and outside the country. The establishment of some of the chemical industries in Kisumu could probably lead to savings which could

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be invested in the town. Moreover, employment generation in other industries linked to Kicomi would definitely benefit both the town and hinterland if other factors are constant. Table VI below shows the value of these products for the past four years.

TABLE VI: CONSUMPTION OF OTHER RAW MATERIALS:

PRODUCT	VALUE IN MILLION KENYA SHILLINGS 1975	1976	1977	197
Stores(ecuipment)	2.4	2.9	3.0	
Spares	1.0	1.2	1.0	6.8
Colours &Chemicals	3.0	4.5	5.2	6.9
Other store & repairs	0.04	0.2	0.2	0.5
T o t a l	6.44	8.8	9.4	14.2

Source: Kicomi (1979) - Figures have been rounded

One might conclude that even though Kicomi has strong linkages with other industries outside Kisumu region, its linkages with the hinterland could be greatly strengthened if importation of inputs that can be obtained locally is minimised. Its contribution to the economy of the rural hinterland cannot be under-estimated even though there is room for improvement.

On the output side, Kicomi's production of running metres has been increasing steadily since the factory was established (see figure 2). The growth rate in production of clothrunning metres has been at 17% per annum within the past eleven years. Production of running metres is expected to increase given the high demand for the produce.

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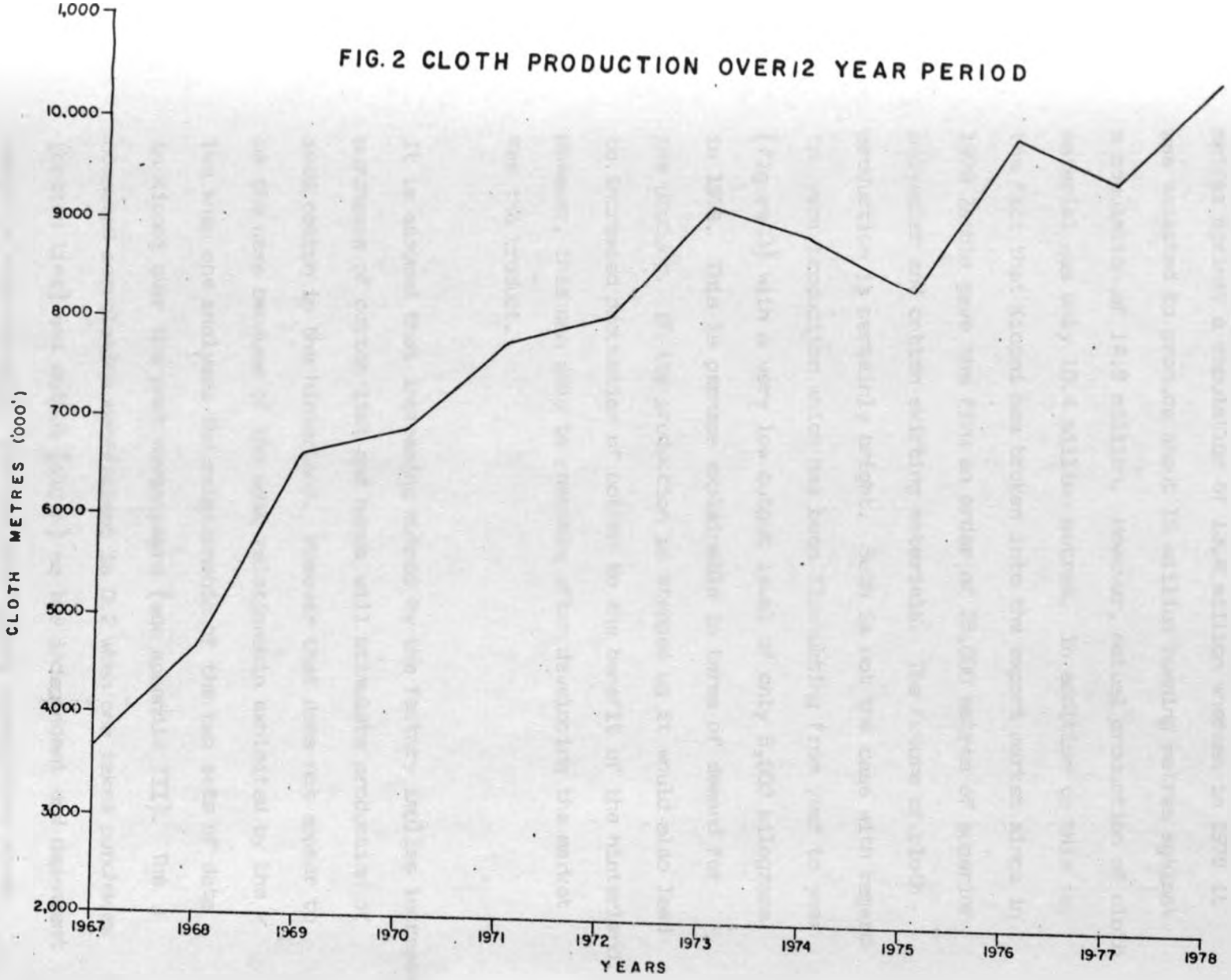
FIG. 2 CLOTH PRODUCTION OVER 12 YEAR PERIOD



For instance in 1975 the factory produced 8.4 million running metres against a population of 13.4 million whereas in 1978 it was expected to produce about 15 million running metres against a population of 14.9 million. However, actual production of cloth material was only 10.4 million metres. In addition to this is the fact that Kicomi has broken into the export market since in 1978 Zambia gave the firm an order of 25,000 metres of superior polyester and cotton skirting materials. The future of cloth production is certainly bright. Such is not the case with regard to yarn production which has been fluctuating from year to year (figure 3) with a very low output level of only 5,000 kilograms in 1978. This is perhaps explainable in terms of demand for the product. If its production is stepped up it would also lead to increased production of cotton to the benefit of the hinterland. However, this can only be possible after developing the market for the product.

It is assumed that increasing output by the factory implies increased purchases of cotton lint and hence will stimulate production of seed cotton in the hinterland. However that does not appear to be the case because of the weak relationship exhibited by the two when one analyses the relationship of the two sets of data in Kicomi over the past seven years (see appendix III). The computed correlation coefficient is 0.2 when one takes purchases (cotton lint) and output (cloth) as the independent and dependent variable respectively. The low coefficient correlation shows that there is a weak positive relationship between the two while the coefficient of determination (r^2) of 0.04 illustrates that only 4% of the changes in output can be explained by increased purchases. This is perhaps explainable by the fact that the factory

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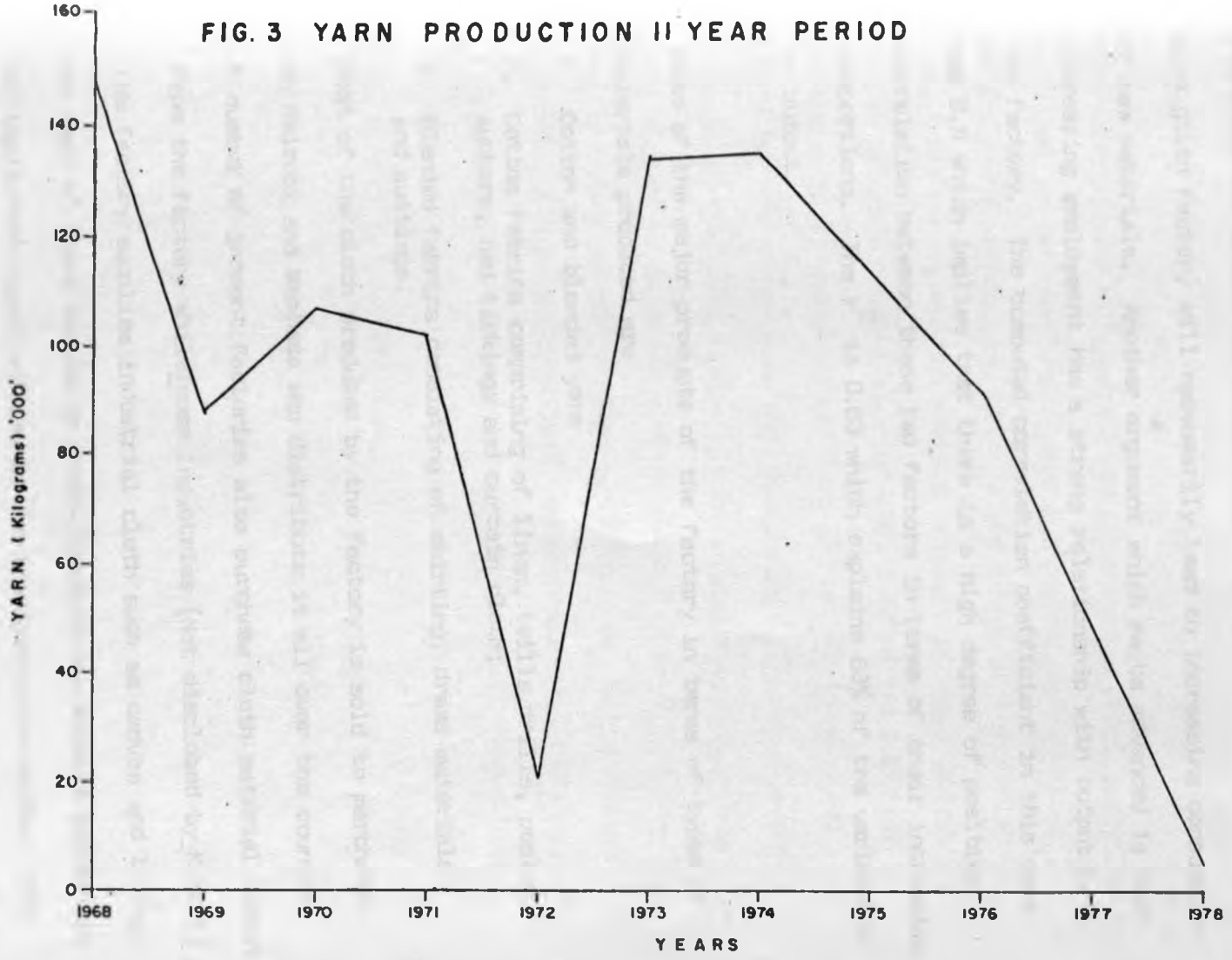
FIG. 3 YARN PRODUCTION II YEAR PERIOD



has improved its efficiency in the processing of cotton lint. Therefore one should not always assume that increased output by a given factory will necessarily lead to increasing consumption of raw materials. Another argument which maybe advanced is that increasing employment has a strong relationship with output by the factory. The computed correlation coefficient in this case was 0.8 which implies that there is a high degree of positive correlation between these two factors in terms of their increasing proportions. The r^2 is 0.63 which explains 63% of the variations in output.

Some of the major products of the factory in terms of types of materials produced are

1. Cotton and blended yarn
2. Cotton fabrics comprising of linen, twills drills, poplin, suckers, bed tickings and curtain cloth;
3. Blended fabrics consisting of shirting, dress materials and suitings.

Most of the cloth produced by the factory is sold to merchants in Nairobi and Mombasa who distribute it all over the country. A number of garment factories also purchase cloth material direct from the factory while/some industries (Not disclosed by Kicomi) /to the factory supplies industrial cloth such as canvas and lining. At each of these levels or inter-linkages one expects generation of employment opportunities in the transportation sector. One would further suggest that with the varied uses of textile products, industries using some of the products from Kicomi could be established (and existing ones expanded) such as those manufacturing blankets, carpets, rugs, drapery, garments, bedspreads, cordage, and twine etc. Similarly the use of yarn which is currently sold to weaving factories as well as hosiery units should be

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intensified and less yarn exported since the value of yarn products after fabrication is about 1.5 times as had been mentioned earlier.

The establishment of forward linked industries to Kicomi will definitely lead to the creation of more employment opportunities in the region if they were located in Kisumu in both the industrial and commercial sectors. Impact of these industries on the hinterland could also possibly lead to the increase in agricultural production of seed cotton and ~~either~~ food crops for the urban industrial population. Thus with increased incomes in the rural hinterland standards of living are expected to rise with affordability of services that were once inaccessible to the people. The chain of reaction outlined above can only be possible if Kicomi works efficiently. Therefore it is necessary that some of the problems which the factory faces are considered in order to evaluate how their solution can lead to greater efficiency.

The factory is not working at full capacity for instance spinning and weaving departments are working at approximately 90% capacity while processing department operates below capacity mainly because of water shortage. The scarcity of water to the factory is a significant constraint to the expansion and efficient functioning of the factory. For instance, if the processing department is working well below capacity, the spinning and weaving departments will correspondingly be affected given the closely linked structure in the processing of cotton lint. These deficiencies definitely determines the amount of cotton lint which can be purchased at any given time. Thus if these weaknesses in the linkage structure were strengthened

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one would expect that the factory could buy more cotton lint to the benefit of the cotton producers. This matter of water shortage, the inadequacy and irregularity of power supply to the factory should be given priority in the town given the fact that the potential for their development exists.

A third problem of significance to the factory is the shortage of skilled labour which stresses the need for training facilities given the fact that unskilled labour is abundant in the town. This could probably be undertaken by the government as a legitimate case in trying to train local man-power in order to lessen dependence on expatriates. The fourth problem is that related to labour absenteesm which is difficult to solve. However, one might suggest that incentives should be given to the workers whether in terms of higher wages, better housing and so on. This seems to a problem which the factory can possibly solve internally.

The fifth problem is related to the over-dependence on imports for stores and machinery spares while the sixth one relates to the expensive rates of man-made fibres which have risen considerably. The solution to these two problems is not easy and perhaps depends on further research in the textile industry in the country to determine the feasibility of manufacturing these goods locally.

The final problem is related to the marketing of the factory's cloth materials due to unwarranted competition from other cheap cotton fabrics in the Kenyan market. These cheap fabrics and second-hand clothes were a result of depressed state of the textile industry in 1978 which encouraged the dumping of textiles and substantial quantities of such cheap fabrics which found

their way into the country during the first half of 1978 through legal and illegal means. In the words of the Chairman of Kicomi (Khatau, 1978) "the result of the stockpile of legally imported textiles together with smuggled goods in the distributors hands has been a price war at the produce level with all manufacturers reducing prices in an attept to attract wholesalers to buy.[2]" This situation has been slightly remedied through restrictions and imposition of high tariff on all imported textiles. Thus one hopes that as the stockpile of the cheap fabrics is reduced, there will be increased consumption of local textiles which might induce the factories to produce more and purchase more cotton lint.

Having pointed out generally some of the direct linkages of Kicomi to the hinterland and other industries we recognize that there are bout seven levels at which these linkages could be studied. We shall proceed to discuss each in the forthcoming paragraphs.

3:2 WHOLESALE AND RETAIL TRADE:

Wholesale and retail trade are seen as significant forward linkages of Kicomi which ensures that the goods produced reach the consumers. In Kisumu District there are about 120 establishments engaged in wholesale and retail trade. 33% of these distribute textiles as compared to 39% and 27% in produce provision and hardwares. These figures are a clear indication of the role in wholesale and retail trade in textiles in the district.

Most of the wholesale activities are concentrated in Kisumu where more than 80% of the wholesale establishments are located. It should be noted that most wholesalers are also retail traders which necessitates that they are considered together.

3:2:1 - DISTRIBUTION OF TEXTILE GOODS:

The distribution of textile fabrics from Kicomi is in part undertaken by Kenya National Trading Corporation.(K.N.T.C.). K.N.T.C. is responsible for wholesaling, warehousing, importation and distribution of locally manufactured goods throughout the country. The Corporation is further charged with the responsibility of assisting the transfer of commerce from non-Kenyans to citizens in compliance with the Trade Licence Act of 1967.

Despite the efforts of the K.N.T.C. branch in Kisumu to Kenyanise the wholesale and retail trade sector in general (and more specifically in textile goods) in Kisumu region, it has not achieved the desired objectives, an opinion shared by most people interviewed in the town.

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This is clearly illustrated by the fact that the wholesale and retail trade is mostly in the hands of Asians and non-Kenyans which tend to minimise the benefits accruing to the local people in terms of increased employment and income opportunities.

The major reason for the failure of African wholesalers has been attributed to the lack of capital resources to invest in the business. For instance the textile manufactures in the district prefer to make contracts with those who purchase 5,000 to 6,000 bales of textile fabrics within a period of six months (preferably less.). This means that the African entreprenuer with limited capital is automatically eliminated from such an enterprise. However,one can argue that sometimes the failure of the business is due to poor management and accounting systems employed when funds are made available to the African businessman by K.N.T.C. as has been observed by various officials in the Provincial Trades office and in the District Chamber of Commerce and Industry. In this respect there is a need for training aspiring traders in business management in order to minimise these irregularities and increase the profits which accrues to the sector.

Another fact which has frustrated the efforts of K.N.T.C. in Kisumu is that some of the appointed African textile distributors often let Asians or non-Kenyans to act on their behalf. This is because the African agent who cannot manage the business would rather receive a commission from these people rather than surrender his licence to the K.N.T.C. who can then appoint another Kenyan to take over the business. Thus, if the K.N.T.C. is to achieve its objectives, they will need to supervise or monitor the activities of the appointed agents from time to time.

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However, one cannot blame the African agents who are often phased out of the wholesale trade due to some irregularities which force them to abandon or give up the business. This is because of unfair competition in the marketing of the textile goods. For instance the African agents purchase one bale of cloth at about 260 Kenya shillings while his Asian counterparts will sell the same quantity, quality and type of material at only 210 shillings. In other cases instead of selling at the retail prices, the latter group usually sells at wholesale prices given the fact that they often combine both wholesale and retail activities. This has tended to give the Asians a monopoly of the market since the various retail traders and tailors are likely to purchase their cloth materials where the price is lowest. In this respect the African agents are often forced to lower the prices of their goods in order to capture a proportion of this market. Such actions result into net losses and has contributed to the lack of local interest in the wholesale trade.

Therefore if africanisation of the wholesale sector is to be effectuated, the government has to take the necessary measures to ensure that its efforts are not frustrated by unscrupulous businessmen. In summary one might state that the wholesale trade can only benefit both town and the hinterland if it becomes locally owned since the"non-locals" tend not to re-invest their savings in the area but transfer it outside the region.

3:2:2 EMPLOYMENT AND INCOME:

The employment capacity per given wholesale and retail establishment is limited. They employ on average less than five operatives at any given time.

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This figure decreases to two operatives or less where an establishment is dealing exclusively in retail trade (in textiles and other goods). However, it is recognized that the contribution of this sector to both urban and rural economy (in terms of employment created and income earned) is quite significant when the total number of all operatives working within the sector is considered. Other employment (and income) opportunities are also created as a result of the distribution of textile products to other centres in the region.

It should also be noted that most of the operatives employed within the wholesale and retail sector earn very low incomes as compared to the profits which accrue to the proprietors of the business who are"non-locals". Therefore, there is potential for increasing the benefits to be derived from the Kenyanisation of this sector which will make the business locally owned with associated re-investment opportunities. This should lead to the creation of more jobs.

3:2:3 HINTERLAND RETAIL TRADE ACTIVITIES:

The major link between the wholesale (textile) trade in the town and the hinterland is through the activities of the retail traders in the rural areas. For instance all the traders interviewed at various centres (Nyang'ande, Rabuor, Kombewa) all purchase their textile fabrics from wholesalers in Kisumu. This flow of goods and people to the town creates employment opportunities in transportation as has already been indicated. Other related commercial activities offering essectial services such as hotels also benefit from these activities.

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In the rural areas, however, due to small scale nature of the retail trade, very few employment opportunities are created. In most cases it is a family affair and only one person is usually employed when necessary. Thus one might argue that the potential for employment creation exists and can contribute more to the hinterland if the scale of operations of the sector is expanded. This can be achieved through co-operation or partnership between the various entreprenuers so that they "pool" their resources together and are able to take advantage of economies of scale. Thus more profits may accrue to the businessmen who are likely to expand their activites due to increased demand and efficiency which may lead to the creation of more income earning opportunities in the rural areas.

3:2:4 INFORMAL SECTOR RETAIL ACTIVITIES:

Within the various market centres there are several people who are engaged in the selling of various textile products. They purchase small quantities of cloth materials and 'sukas' which they sell at the open air markets (see plate I). The business appears to be quite lucrative given the fact that they thrive in all 'open air' markets in both the town (e.g. Kibuye) and the hinterland.

If these 'entreprenuers' could be organized into groups to form co-operative societies they would probably capture a wider market. Such an action would necessitate that these informal traders be educated on management and accounting of business affairs. If this is adopted it would create employment in the institutions training these people who would in turn (after training) obtain higher incomes due to the increased efficiency in their activities. With increased incomes one would expect a rise in the standard of living

PLATE I: Kibuye Market. Informal sector retail traders display their textile fabrics and sukas.

PLATE I: Kibuye Market. Informal sector retail traders display their textile fabrics and

and stimulation of activities in related services due to both increased demand and affordability. The traders who were interviewed, however, prefer to continue operating on individual basis. It is recognized that unlike formal retail trade, the informal retail trading activities are locally owned therefore activities are likely to benefit more people despite the small income which they earn. Informal sector retail activities should therefore be encouraged and given greater attention in recognition of its future potential.

3:2:5 THE PROBLEMS REGISTERED WHOLESALE AND RETAIL TRADERS ARE FACING:

Apart from those problems related to the Kenyanization and malpractises within the wholesale and retail levels, competition from "second hand"clothing and activities of informal retail traders has had a significant impact on the sales of textile goods by the registered traders.

Some of the registered retail dealers in textiles have complained that they are facing unwarranted competition from the informal sector retail traders who are regarded by the municipality as hawkers and only pay 50 cents per day to the council as compared to the shop retailers who have to pay for trade licences, land rents, water, electricity and yet lack customers. This makes the selling of textile unattractive to the registered retailers and may lead to a chain of reactions such as decreased purchases from Kicomi which in turn may lead to reduction of cotton lint purchases from the hinterland given that some of the textile fabrics sold by the informal sector are from neighbouring countries. Similar arguments also apply to second hand clothing activities. (see plates 1, 2, 3).

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PLATE II: A Market Centre:
Thriving second hand clothing business.

PLATE III: Another view showing the second hand clothes dominating the market.

On the other hand one might argue that the formal retail traders should not be allowed to have a complete monopoly of the market since they are owned by a few individuals. In this case, therefore informal sector activities which benefit more people should be encouraged in preference to the retail activities.

In this respect the competition between the various sectors should be rationalised through application of policies that ensures fair competition and that the observed irregularities are eliminated. The policy adopted then should encourage informal retail activity in so far as it does not 'kill' the formal retail sector which the K.N.T.C. is trying to develop in compliance with national objectives.

3:3: CLOTHING FABRICATION:

Clothing fabrication is one of the most significant industrial activities that is directly linked to the output of various textile products by the factory (Kicomi). It involves further processing of textile fabrics into wearing apparels namely the making of shirts, trousers, dresses etc. The activity is considered at two levels, formal and informal sector.

3:3:1 INFORMAL SECTOR:

Informal sector tailoring activities are not registered and hence fall within the same category as hawkers in the market places, selling most of their output (shirts, pairs of short-trousers, dresses ets) in the open air markets (see plate 4). The business is often carried out by one person due to the small scale of operation which in part is explained by the lack of capital to invest in the activity.

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PLATE IV: Informal Sector Trader displaying his 'products': Note how people crowd at the second hand clothes area.

The scale of operation can however be increased through the formation of co-operative societies or by two or more people agreeing to work together. This would enable the group to have access to credit facilities from various financial institutions in the country (such as Kenya Industrial Estates that is supposed to promote small scale activities). One basic assumption in the above proposal is that through joint ventures more jobs will be created and that the increased profits would accrue to the various societies or groups. This is only possible if the co-operatives are properly managed.

The sales of these tailors output is currently greatly minimised by the competition from "seond hand" clothing which should however be regarded only as a temporary constraint since the government has already banned the importation of these textile goods. Despite the present problems which the activity is experiencing it is an area with potential which can be developed to produce higher quality goods. This would enable these tailors to command a bigger income and earn higher incomes.

3:3:2 FORMAL SECTOR:

Formal sector clothing fabrication offers more employment opportunities and higher incomes than the informal sector. This sector can be divided into two categories depending on the number of operatives working per given establishment. Those activities employing less than five operatives will be regarded as middle scale while those employing five operatives or more are classified as large scale activities.

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The middle scale operations or establishments are predominantly owned by local people and are better organized than their rural counterparts. In kisumu, one finds about four or five tailors working on a co-operative system or employed by a group of persons. These tailors are currently serving a very small market considering the potential which exists. For instance instead of making clothes on order from individuals, they should venture into other fields such as contracting with institutions and with retailers so that they have a bigger market to serve. This would result in stimulation of several activities that are directly related to the industry. Thus more operators would be employed to cope with the increased demand; more textile fabrics would be consumed and income accruing to the operators would also increase given the bigger scale operations are more efficient than small ones and hence generate higher profits. This sector has a high potential which if exploited can bring greater benefits to the local population in future.

The large scale clothing fabrication activities are undertaken in well organized establishments such as Mchalal Tailors,Nimmi Fancy, Kisumu Expert Tailors and Neceld garments all which employ more than five operatives. Neceld garments is one of the largest garment factories manufacturing shirts and dresses. The establishment employs more than 25 operatives. It serves as a good indicator of how the clothing fabrication industry can contribute to the town and hinterland in terms of employment creation and source of income. The limiting factor however, is the fact that these garment factories are not locally owned which minimises their contribution to development in the region since most of the savings are transferred out from the area.

3:3:3 TAILORING ACTIVITIES IN THE HINTERLAND:

Tailoring in the rural centres is very significant in terms of the services offered to the people and income accruing to the hinterland. The geographical concentration of these activities coincides with the identified heirarchical urban system in the country. For instance one finds more tailors in higher level centres such as Ahero (urban centre) with more than ten tailors as compared to six tailors found at Rabuor (market centre).

In the centres visited (Nyang'ande, Kombewa; Rabuor) most of the tailors (60%) were also shopkeepers with Kicomi textile materials as one of their retail goods. The employment opportunities created by this sector is limited at the moment as only one person performs the job. However, potential exists since increase in the demand for the output of the tailors will lead to increased activity that in turn will necessitate the employment of more operatives.

INPUTS:

All the inputs used in tailoring such as machine oil, thread and cloth materials are purchased from wholesalers in Kisumu.
The consumption of running metres of material varies from one tailor to the next. For instance at one of the market centres a tailor in 1978 consumed 21,600 metres of material at a cost of 70,000 Kenya shillings. His grossincome in the year was about 200,00 shillings. This was rather a high income by rural standards and was attributable to the contract which he had with neighbouring schools (to make their uniforms) which accounted for 76% of the total income. This successful tailor employed two other operatives.

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The above activities may be contrasted to those of another tailor in a different market who consumed 1,000 metres of material and earned only 6,500 Kenya shillings in 1978. His major complaint was lack of a market to sell his products which greatly limited the quantity of output in the given year.

The above figures related to income and consumption of cloth materials should serve as an indication of the extent to which properly organized tailoring can contribute to the hinterland. However, these values must be 'treated' with caution since the tailors have either over or under-stated their incomes.

3:3:4 RELATED INDUSTRIAL ACTIVITIES (INFORMAL)

Other industries using various by-products of the textile industry such as the manufacture of mattresses, cushions, pillows and furniture (table chairs) also thrive in Kisumu town (see plates 6,7). It offers employment opportunities to some of the people within the town and even in the hinterland. If the quality and quantity of output by these industries could be improved and increased they would command a larger market with greater profits accruing to the entreprenuers. This is also likely to lead to increased consumption of cotton and textile products from Kicomi. These activities could thus lead to increased cotton production in the hinterland if other factors are constant.

Summarising this section one would state that wholesale and retail trading activities could contribute significantly to the development of the town and hinterland in terms of creation of employment opportunities and increased income if they are properly managed and locally owned. Similarly, the various informal sector activities considered above would generate greater profits to

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PLATE VI: Products of the small scale furniture making industry.
Cotton utilised in making table chair seats.

PLATE VII:

Small Scale Retail traders selling mattresses and pillows using cotton.

the hinterland if the quality of products could be improved and the market of products well developed.

3:4: KICOMI'S RELATIONSHIP TO HINTERLAND:

This section considers the activities of the various hinterland industries that are directly or indirectly linked to Kicomi. They constitute the backward linkages of Kicomi to the rural hinterland. These are namely; farm level cotton production, co-operative societies, ginneries and the Cotton Lint Seed Marketing Board. We shall proceed to discuss each of these linkage levels in turn.

3:3:1 COTTON PRODUCTION:

3:4:1:1: SCALE OF PRODUCTION:

Unlike other cash crops in Kenya (e.g. tea, coffee, sugarcane) cotton is not grown on large scale farms or estates. It is basically a 'peasant crop' grown on very small scale farms. For instance in the survey area 68% and 6% of the farmers interviewed planted cotton on farm sizes of 0.4 to 1 hectare and more than 2.5 hectares respectively. The largest cotton farms in the survey area were about 3 hectares in size (mostly found in West Kano location). Table VII shows the percentage number of farmers planting cotton on given farm-size categories by sub-location and locations.

The small farm sizes may be seen as one of the constraints to cotton production in the area if one were to apply modern farming machinery economically. In response to this, the Ministry of Agriculture introduced the cotton block system (to take advantage of economies of scale) on an experimental basis in the Lake Victoria Basin.

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TABLE VII : PERCENTAGE NUMBER OF FARMERS PER GIVEN COTTON FARM SIZE CATEGORY:

FARM SIZE HECTARES	SUB-LOCATION			LOCATION	SUB - LOCATION			LOCATION
	Kodhiambo	Kochieng	Nyamware	PERCENTAGE	Kit-Mikaye	Kaila	Kombewa	PERCENTAGE
0.4			6	1	7		9	7
0.4 - 1	82	60	47	63	64	90	73	73
1.1 - 1.4	6	20	26	18	7	10	9	9
1.5 - 2.4	6	7	11	8	15		8	9
2.5	6	13	11	10	7			2

Source: Survey Data (1979)

The project has not been successful. For example in 1968 (Annual Report) the farmers opposed the block system for three main reasons:-[3]

i) Blocks were located far from their homes;

ii) Absentee landlords gave land for blocks but did not perform their share of the work;

iii) The government tractors did not arrive on time.

The idea of cotton block system is very good, however its failure to achieve the desired objectives is attributable to the weakness in its organization, and in the inavailability of agricultural inputs. This is confirmed by the fact that in 1975 the block system had to be abandoned because of lack of tractors which are major agricultural inputs in this case[4].

Despite the small farm sizes (which are not necessarily uneconomical if managed properly as the above statement might imply) the total land under cotton in the six cotton districts of Kisumu region illustrates the significance of the crop in Western Kenya. The total land under seed cotton in 1977 and 1976 was 59,200 and 651,000 hectares respectively. Busia district alone accounted for 58% of all land under cotton in 1976 followed by South Nyanza which accounted for 30%. These proportions altered significantly in 1977 when Busia District reduced the acreage under cotton and accounted for 40% of the total cotton land in the region. South Nyanza on the other hand increased the acreage and accounted for 30% of the land area in the same year. Table VIII shows the provincial and district percentage of land under cotton in the two years under consideration. One significant factor emerging from the table is the overall reduction of cotton land by about 9% which is in response to changing conditions mainly in Busia district which has been explained in terms of scarce transportation ; poor system of payment to farmers;

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TABLE VIII: KISUMU:REGION PERCENTAGE LAND UNDER COTTON:

YEAR	ACTUAL AREA (ha) '000'	SOUTH NYANZA	SIAYA	KISUMU	KAKA-MEGA	BUNGOMA	BUSIA	NYANZA PROVI-NCE	WESTER PROVIN
1977	59.2	31	9	9	2	10	40	49.8	50.
1976	65.1	23	6	4	1	8	58	33	67

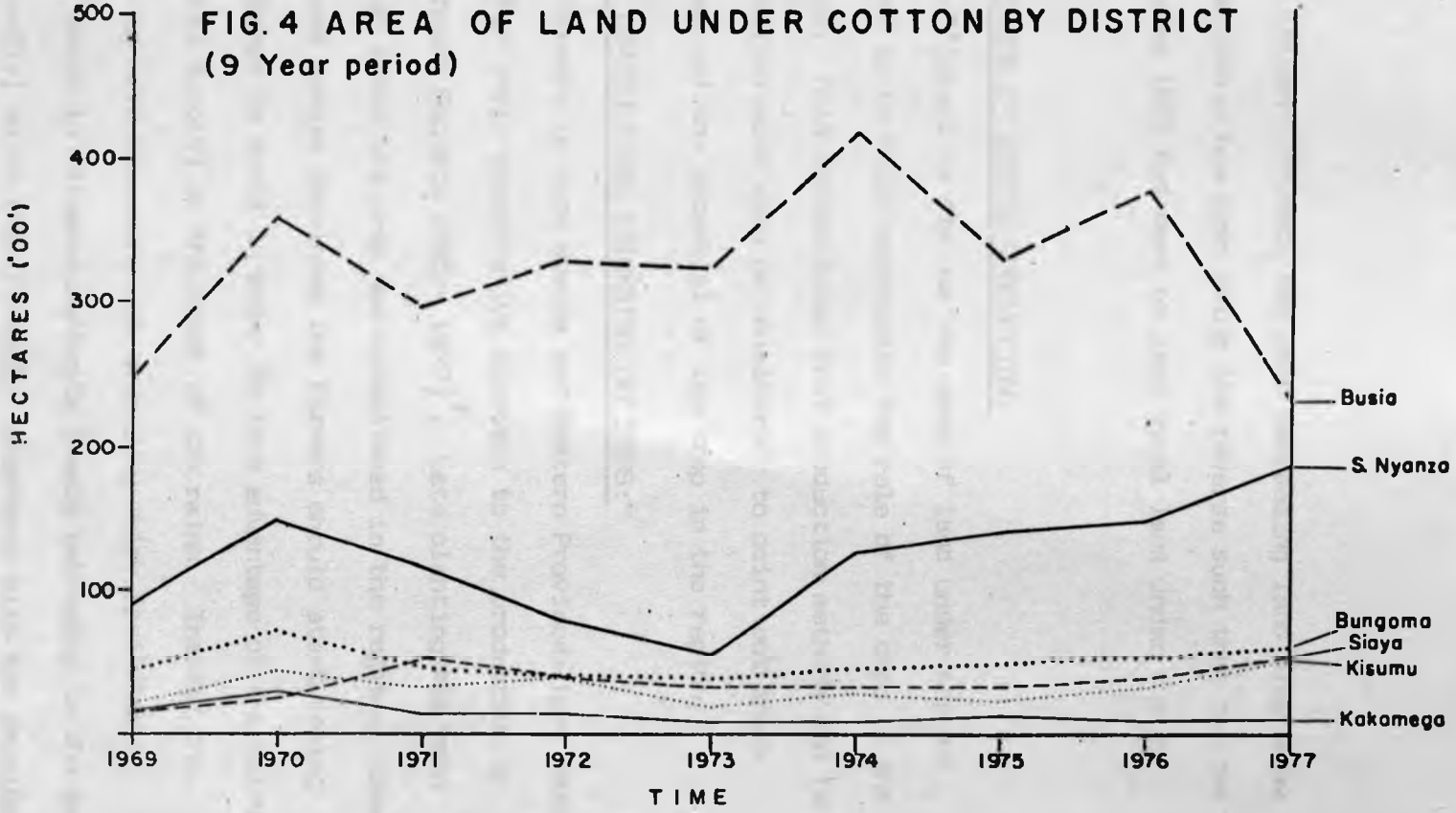
Source: District and Provincial Annual Reports 1976: 1977

failure of the cooperative unions to provide farmers with loans and by the farmers switching to planting more lucrative crops such as sugar cane (Annual Report 1975)[5].

It is necessary that one should know how the total land under cotton has been changing in the past years in order to establish the trend and hence the significance of the crop in the rural economy. Figures 4 and 5 show the trend during the past nine years. Fluctuations from year to year is observable in all the eight graphs.

In South Nyanza district the period between 1970 to 1973 was marked by declining acreage of cotton land while 1974 to 1977 period has been that of constant increase with the highest acreage of 18,560 hectares recorded in the district in 1977. Siaya and Kisumu districts show slight fluctuations with the former maintaining a constant area of 34,100 hectares from 1973 to 1975 followed by a period small but constant increase in total acreage.

In Western Province only Bungoma District has been increasing cotton land area while Kakamega has been decreasing area since 1971. In the latter district cotton is being replaced by sugar cane especially in Mumias Division which used to be most important cotton producing area in the district[6]. The fluctuations are however more pronounced in Busia which has less land under cotton when compared to that of 1969 (Fig.4).



SOURCE : C.L.S.M.B. Annual and Monthly report
: Provincial and District annual report

In general, Western Province has been decreasing land area under cotton while Nyanza has been doing the reverse such that the two provinces as at 1977 had more or less equal land under cotton (Fig. 5).

3:4:::2: METHODS OF COTTON PRODUCTION:

It is not sufficient to discuss the area of land under cotton per se if one is to fully appreciate the role of the crop in the rural economy. This necessitates that production methods and farm output quantities must also be considered to point out areas of weaknesses and the potential of the crop in the region.

FARMERS AND AGRICULTURAL EXTENSION OFFICERS:

The cotton farmers in both Nyanza and Western Provinces have been criticised for their conservative approach to the production of the crop (Annual Reports 1965 - 1977)[7]. Late planting has been an issue ever since the crop was established in the region. Ideally in Western and Nyanza provinces the farmers should start sowing from early March to April in order to take advantage of the Nitrogen flash (natural supply) at the onset of the rains. Instead the farmers sow in late May, June and even July which facilitates build up of pests in alternative hosts (weeds belonging to the same Malvaceae family) which significantly interferes with the development and growth of the late crop. This is well illustrated by the Busia case in 1972 (District Annual Report) when late planting resulted in average yields of about 30% potential average yield.

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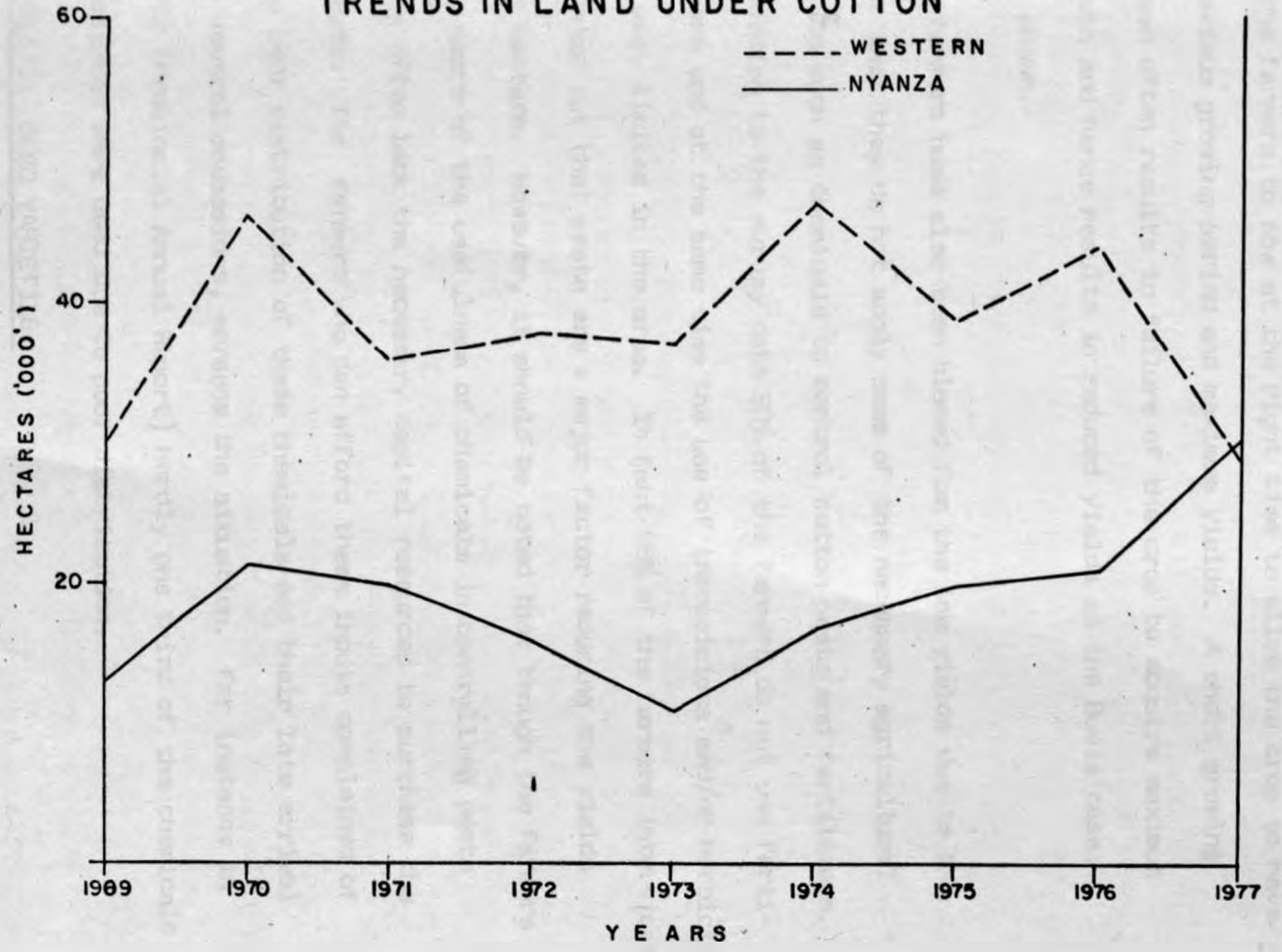
FIG. 5 WESTERN AND NYANZA PROVINCES:
TRENDS IN LAND UNDER COTTON



The reason for late planting is that the farmers give the first priority to food crops given the fact that labour inavailability is a problem in these areas.

However, the agricultural officers should continue to impress on the farmers to sow at the right time to allow the crop to have a maximum growing period and maximum yields. A short growing season often results in failure of the crop to acquire maximum growth and hence results in reduced yields as the Busia case has shown.

The farmers have also been blamed for the low yields due to the fact that they do not apply some of the necessary agricultural inputs such as chemicals to control cotton pests and fertilizers. According to the survey data 90% of the farmers do not use fertilizers and at the same time the use of insecticides and/or herbicides is very limited in the area. In fact 95% of the farmers interviewed pointed out that pests are a major factor reducing the yields per hectare. However, it should be noted that though the farmers are aware of the usefulness of chemicals in controlling pests they often lack the necessary capital resources to purchase the inputs. The farmers who can afford these inputs complained of the poor distribution of these chemicals and their late arrival on several occassions, worsens the situation. For instance in 1972 (Provincial Annual Report) hardly one third of the chemicals available were used due to poor distribution.

3:4;1:3: SEED VARIETIES:

It is necessary to consider the varieties of cotton grown in the region since this should be correlated to the needs of the local textile mills in the country if the production of cotton is to be

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internally oriented. Most of the cotton grown in Kenya fall within the medium long staple category ranging between 25-28mm.[8] The species of cotton planted in Western Kenya is the Gossypium hirsutum (American Upland type). The two varieties of cotton seed commonly grown in Kisumu region are UKA 59/240 and BPA 52. UKA 59/240 was developed in Tanzania and is mainly grown in South Nyanza district. It is a good seed due to its resistance to jassids and bacterial wilt. BPA 52 is an equally important seed (developed in Uganda) that is resistant to bacterial blight and is grown mainly in Western Province and Kisumu and Siaya Districts of Nyanza. These seed varieties produce high quality strong lint which has been in high demand in the world market as indicated by the exports to the European and Asian countries.

3:4:1:4: SOWING:

The cotton seed used for planting is sold by the Cotton Lint and Seed Marketing Board (CLSMB) through the co-operative societies to the farmers. This is basically good ginned cotton seed dressed with a coppercide as protection against fungi to ensure that the farmers obtain the best possible seeds. However, the major constraint is the distribution of the cotton seed which is poor since the seeds often arrive late. This therefore leads to late planting which causes a chain of actions such as subjecting the crop to increasing pest attack; picking in a wet period all which influence the quality and yield per hectare. It should also be pointed out that the nature of the soils within these areas especially in Nyanza coupled with the climatic conditions often dictate that the farmers sow late.

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This is because the black cotton soils have a poor structure which leads to water-logging when there is too much rain (see plate 8). Therefore it should not always be assumed that the farmers do not respond to the advice given by the agricultural extension officers.

3:4:1:5: WEEDING:

Weeding is very important in cotton growing. It is a slow grower at the beginning of its growth cyicle and can easily be smothered by weeds The crop requires about three to four times weeding which is very demanding on the family labour. This perhaps explains why the farm sizes are so small.

The major problem at this stage in the production of cotton as pointed out by all the farmers interviewed is that related to labour shortage. At the same time most of the farmers lack the capital resource to employ labour which is rather expensive when it is available. There is therefore a need to provide these farmers with loans to facilitate the weeding of the crop in time.

3:4:1:6: HARVESTING:

Harvest techniques and timing depends on the varieties grown. Cotton picking is done during the dry season since wet conditions induces development of moulds. Hand-picking is the cleanest way of picking cotton and is practiced all over the world. Similar practices prevail in the Lake Basin where all the farmers hand-pick their cotton using mainly family labour (see plates 9 & 10). Only 38% of the farmers interviewed employ casual labour. The picking of cotton like the weeding stage coincides with labour shortages which makes it costly.

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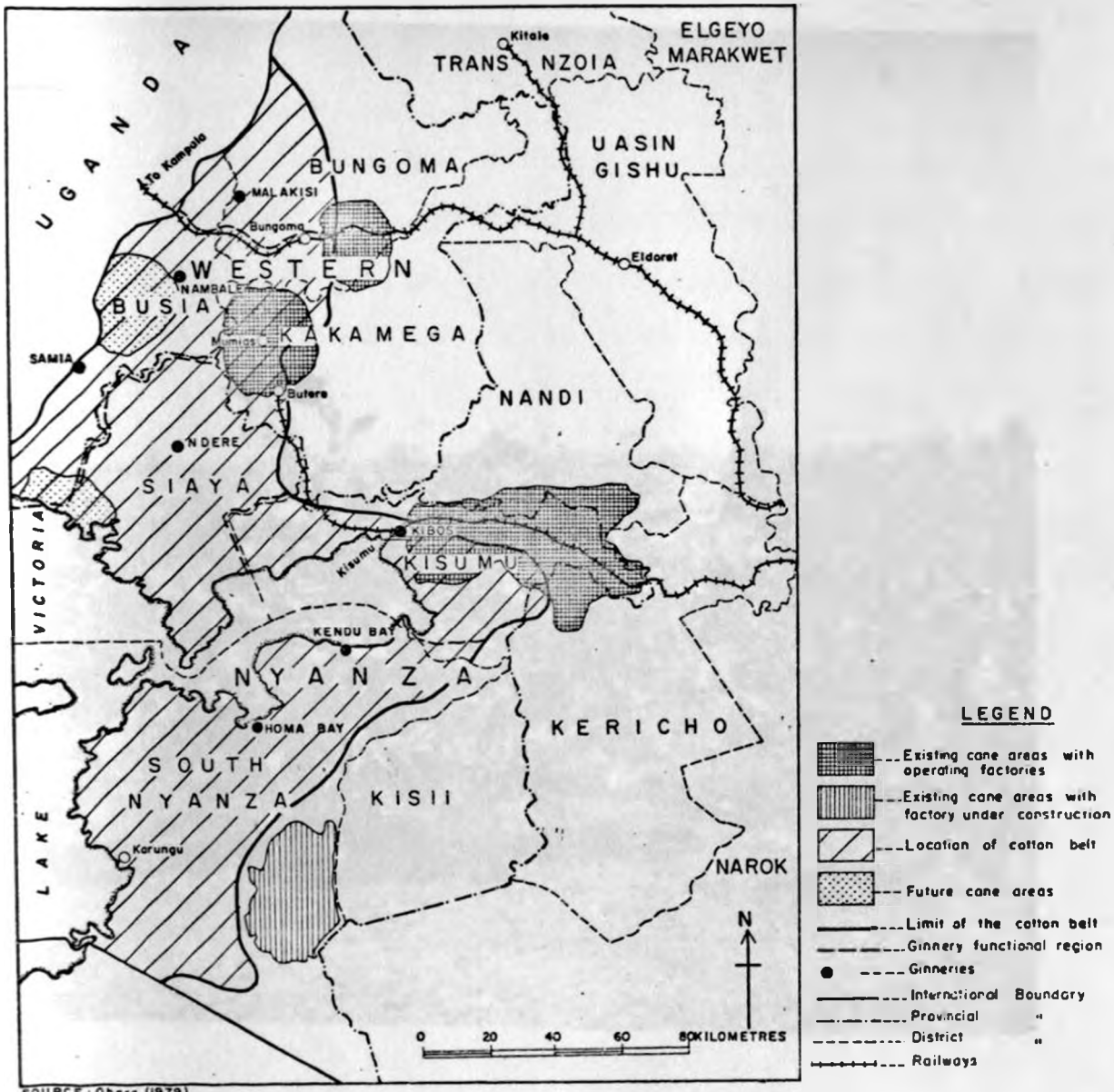

SOURCE: Obara (1979)

MAP VI KISUMU REGION COTTON BELT

PLATE VIII: A Cotton Farm in the Kano Plains.
Note the black cotton soil in the foreground.

After picking the cotton, farmers usually grade the cotton according to cleanliness and remove any trash and sepals which might affect the quality of the lint (see plate 12). The farmers often dry the seed cotton especially if they are picked under damp conditions (see plate 11).

3:4:2: LAND PRODUCTIVITY:

The soil type which prevails in cotton belt in Western Province are hitosols. They are well drained, rich textile soils that are expected to give high yields per hectare. Map VI shows the extent of the cotton belt. In South Nyanza and Kisumu-Siaya Cotton belt, the heavy black cotton soils (vertisols) predominate. These heavy soils are often more naturally productive for cotton (Prentice 1972). The only problem is waterlogging which makes it difficult to work as had been mentioned earlier. This problem however arises because of the structure of the soils which can be improved through the application of gypsum(calcium sulphate),manures and deep ploughing. Therefore one might argue that the current low yields are attributable to the agronomic practices of the farmers and not on the natural environmental conditions which can be controlled.

Low yields per hectare seems to be a common phenomenon throughout Kisumu region. In Western Province average yields of 300kg./ha from the various farms is widespread while a yield over 600kg/ha are very rarely received despite the rich soils. Similarly in Nyanza the yields per hectare are also very low. In the survey area 59% of the farmers obtained yields of less than 250kg./ha in 1978 while 77% of the farmers received less than 750kg./ha (Appendix IV).

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PLATE IX: Cotton Picking:
A Family affair.

PLATE X: Another Cotton Farm:
With children picking cotton.

PLATE XI: Drying of seed cotton after picking.

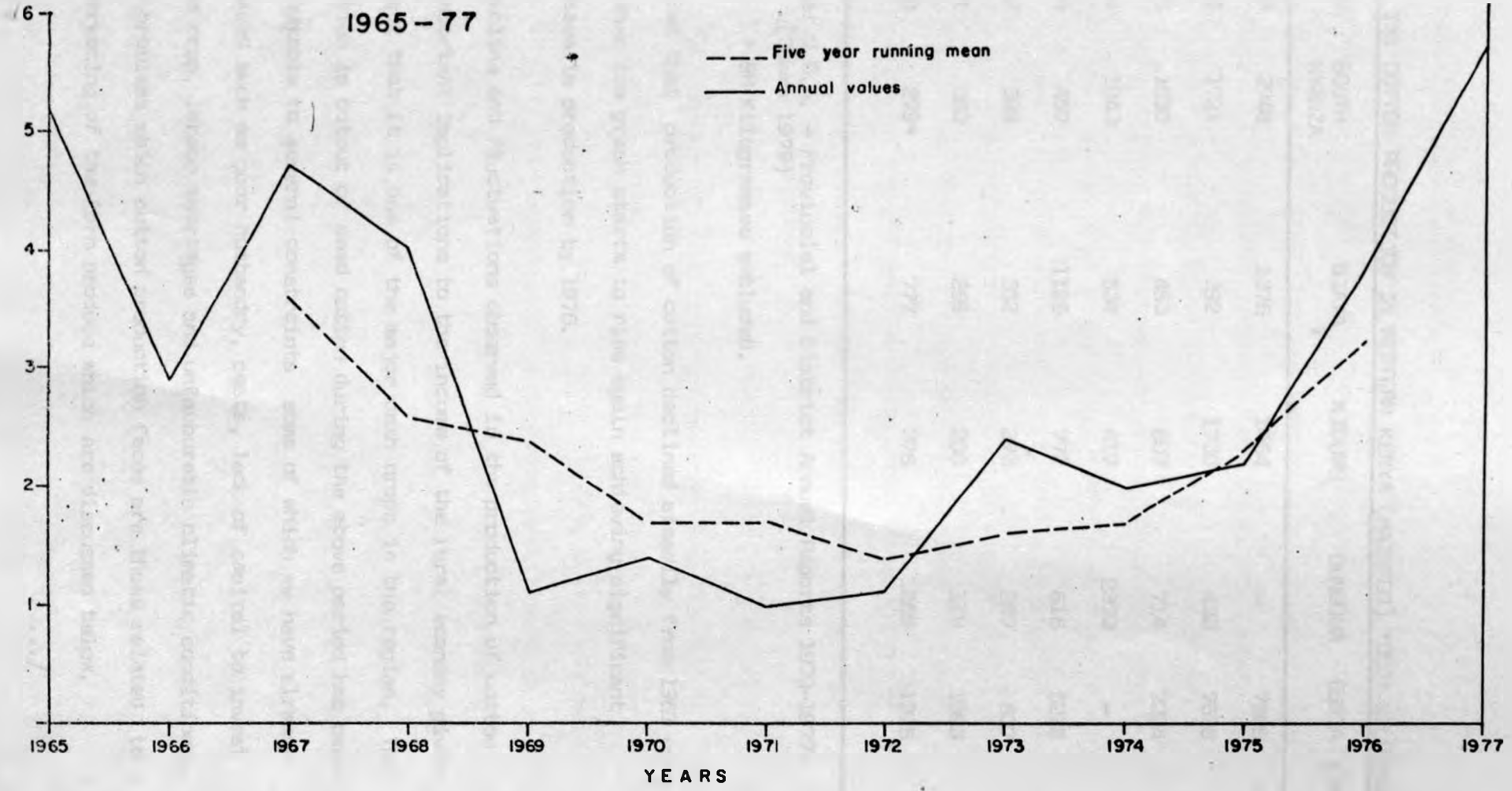
PLATE XII: A Farmer grading seed cotton.

These are very poor yields as compared to what demonstration plots have been able to harvest. For instance in Siaya and Homa Bay yields of 2016kg./ha and 910kg./ha have been attained respectively Even within the survey area a few farmers have been able to achieve very high yields which points to the fact that the full potential of the various farms has not been realised. For example in Nyamware and Kombewa sub-locations there are farmers who harvested more than 2000kg./ha. Therefore what is needed is improvement in the crop husbandry and encouraging the use of fertilizers and chemicals where possible. Inter-cropping of cotton and other food crops (e.g. maize, beans, etc.) should be discouraged. It has been found that maize lowers the cotton yields appreciably but a row of beans does not significantly affect the cotton yield. However, beans is an alternative host to the American bollworm. Furthermore, intercropping hampers spraying.[10] One can conclude that the potential for increasing cotton production in the region is high if proper agronomic practices are adopted. Irrigation of the cotton could also greatly increase yields per hectare (Obara.1979).

3:4:3: VOLUME OF PRODUCTION:

Nyanza and Western provinces produce more than 60% of the country's seed cotton[11]. Table IX summarizes the production of seed cotton in the two provinces since 1970. Figure 6 illustrates graphically the cotton production trend for the past thirteen years in Nyanza province. The annual graph clearly shows the marked fluctuation in the production of cotton from year to year with the lowest yields of about 1 million kilograms recorded in 1971. The five year running means graph is superimposed on the annual production graph and helps to smoothen the irregularities caused by individual values within the production trend.

FIG. 6 COTTON PRODUCTION IN NYANZA PROVINCE 1965 – 77



SOURCE: C.L.S.M.B. Annual Report 1965 – 72
: Provincial and District Annual Report 1965 – 77

TABLE IX: COTTON PRODUCTION IN WESTERN KENYA (RAINFED) '000' KILOGRAMMES

YEAR	SOUTH NYANZA	SIAYA	KISUMU	BUNGOMA	BUSIA	KAKAMEGA
1977	2748	1376	1464	-	7528	-
1976	1721	392	1730	433	7528	82
1975	1090	453	607	714	7204	-
1974	1043	534	417	2373	-	-
1973	457	1125	772	616	5212	-
1972	508	302	273	287	637	85
1971	563	269	200	119	1093	79
1970	279*	777	376	269	1375	48

Source: M.O.A. - Provincial and District Annual Reports 1970-1977: (Obara 1979)

* BR Kilogrammes excluded.

It shows that production of cotton declined steadily from 1967 upto 1972 when the graph starts to rise again achieving significant increases in production by 1976.

The decline and fluctuations observed in the production of cotton has important implications to the income of the rural economy given the fact that it is one of the major cash crops in the region. The reduction in output of seed cotton during the above period has been attributable to several constraints some of which we have already discussed such as poor husbandry, pests, lack of capital to invest in the crop, labour shortages and unfavourable climatic conditions. Other problems which cotton production faces are those related to the marketing of the farm produce which are discussed below.

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3:4:4:0: MARKETING OF SEED COTTON:

The case of marketing farm output is seen as a significant factor in determining how much a given farmer will produce or the hectarage he will devote to cotton from one year to year when other factors are constant. It has been observed that the cotton farmers in Western Kenya encounter grave difficulties in trying to market their seed cotton. For instance the Western Provincial Annual Report (1975) states that in Busia where cotton is grown on a larger scale the hectarage dropped tremendously because transport was scarce, the poor system of payment to the farmers and lack of loans to the farmers. The Nyanza provincial annual report (1975) echoes the above mentioned problems. These views are confirmed by the research findings as it is to be seen in the forth coming paragraphs.

3:4:4:1: TRANSPORTATION OF SEED COTTON:

According to my survey data results 59% and 39% of the farmers interviewed transport their seed cotton to the various stores on foot and bicycles respectively. This forces the farmers to spend a lot of time and make many trips which renders cotton unattractive to farmers since a 'big' harvest means more trips to the stores (with other factors constant). This problem may be seen in terms of the location of the stores in relation to the farms as observed in parts of Kaila and Kimikaye sublocations. However,looking at the distribution of these stores (Map VII) one can state that they are evenly distributed. The problem in this case can be seen either as a function of the inavailability of vehicles to transport the seed cotton or the costly nature of these vehicles when available.

The transportation of seed cotton is further made more difficult and expensive due to the poorly maintained roads which makes some of them inaccessible during the rainy season which sometimes coincides with the selling period. This is a common problem in the Kano plains especially in Nyamware and Kochieng' sub-locations. Apart from the poor roads in East Seme, the inadequacy of access is very prominent in Kaila and Kit-Mikaye sublocations which were visited by the author. All these problems tend to influence the attitude of the farmers towards cotton hence is seen as an indirect influence in the final seed cotton output within a given region.

3:4:4:2: SELLING THE SEED COTTON:

The selling of seed cotton at the stores is usually slow and congested. Furthermore malpractices such as under-weighing of farmers produce have often been noted. However, the most frustrating aspect of the trade is the fact that farmers do not get their payments on a "delivery-cash basis". The payments are often delayed even upto four months.which in addition to some of the already discussed problems makes cotton a very unattractive crop. To the farmers, the cooperative societies are very inefficient and some have even questioned whether the existence of these societies is justifiable.

In East Seme location, the Seme-Kisumu cooperative society has a complete monopoly of the market unlike in West Kano where in 1978 both the CLSMB and the Kano/Kajulu cooperative society shared the market.

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6% of the farmers interviewed in West Kano sold their seed cotton to the CLSMB and expressed their satisfaction with the project since they received money on delivery of produce. However, those who sold their produce to the cooperative societies were very dissatisfied and some expressed that they will be forced to grow other more lucrative crops such as sugarcane where feasible. Should more farmers decide to grow other crops the total seed cotton output from the region would be greatly affected which is not in compliance with the policy objectives for agriculture as stated in the 1979/83 Development Plan.

Apart from the long delay in payments, all the farmers interviewed felt that the price of cotton (K.3.45 shillings per kilogramme of AR and K.1.70 shillings per Kg. of BR) is too low to justify the inputs used. Therefore it is one of the major constraints in the cotton industry in the region. Aldington (1973) came to similar conclusions and states that the lack of motivation in cotton production stems primarily from low prices to growers of seed cotton[12]. He argues that lower producer prices sets off a self perpetuating cycle. Lack of motivation leads to poor husbandry standards that lead to low producer returns etc.

Despite the problems facing the cotton industry in Kisumu region, it plays a significant role in the rural economy in terms of provision of employment and income to several families.

3:4:5: EMPLOYMENT AND INCOME:

In the survey area 91% of the farmers stated that farming was their major source of income. 89% of these farmers grow cotton as their major cash-crop.

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The significance of the industry maybe further illustrated by the fact that it offers employment and income to 6171 families all who are members of the Kano/Kajulu cooperative society. It is assumed that a similar role exists in the remaining cooperative societies zones of influence.

The average income per farmer was quite varied in the survey area. In the Nyamware sublocation the overall average income per household was K.1,200 shillings with some farmers earning a net of K.6000 shillings from the sale of seed cotton. The comperative average values per household in Kadhiambo and Kochieng' sublocations were K.1650 shs. and K.1000 shs. respectively. Similar disparities were observed within East Seme location with an average income of K.1200 shs. and K.800 shs. in Kit-Mikaye and Kaila sub-locations respectively Average values are known to suffer from the impact of extreme values. Therefore inorder for one to appreciate the contribution of the cotton industry in Kisumu, it is necessary to look at the aggregate amount of money that accrues to the region. In 1975 cotton growers in Western Province earned 14 million Kenya shillings. Nyanza earned 17.3 million shillings in 1977 of which 48% went to South Nyanza district. Siaya and Kisumu accounted for the remaining 25% and 27% respectively.

The significance of the income from seed cotton sales may further be explained through comparison with what is earned from other cash crops in any one given year (see table X). In all the three districts, income accruing from sale of cotton is only second to sugar cane. In this respect any activities that could increase cotton production in the region is likely to have a significant impact in the rural economy of Kisumu region.

TABLE X: NYANZA PROVINCE: INCOME FROM MAJOR CASH CROPS (1977)'000'K.shs.

	COTTON	SUGARCANE	COFFEE	TOBACCO
Siaya	4,404	12,543	-	
Kisumu	4,736	670	462	
South Nyanza	8,253	13,588	6,335	
TOTALS	17,392	26,801	6,797	4,803

Source: District Annual Reports 1977:

The role of cotton production in providing direct employment to the various families has already been discussed under the various stages of cotton production. One factor which features prominently in the above stages is the shortage of labour during the weeding and picking seasons.which also coincides with the periods of food crop production which the farmers often give the first priority. This labour shortage could be alleviated either through mechanisation where possible (on long term planning basis) or by the availability of Finance to employ the labour despite its costly nature. Other employment opportunities generated by the production of cotton are associated with the provision and distribution of the various chemicals and fertilizers which are important inputs in the production of cotton. These may be regarded as subsidiary employment (wholesale and retail trade) in the commercial and transportation sectors.

One might summarise by stating that the activities generated at each level increases income and employment opportunities, all which are significant to the rural economy.

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The role of the cotton industry in the hinterland can be increased through the elimination of weaknesses noted at the various stages of the crop production marketing and transportation.

3:5: CO-OPERATIVE SOCIETY LEVEL:

3:5:1: Role of the Co-operative Societies:

The co-operative movement is an important instrument for achieving mass participation in national development and for providing means of raising the living standards of the participants and those who otherwise would not have access to inputs and services necessary for them to achieve a better standard of living. The co-operative societies should therefore be regarded as organizational tools for promoting rural development generally and income opportunities in both rural and urban areas[13].

In Nyanza province there are sixteen co-operative societies who handle the seed cotton from the farmers. They constitute an important linkage between the producers of cotton and the consumers of the produce. Hence an analysis of their organization and activities is necessary if the weaknesses that minimize their effectiveness in rural development are to be identified.

The co-operative societies are responsible for purchasing seed cotton from the farmers on behalf of the CLSMB who pay them 18 cents per kilogram of seed bought. In their endevour to serve their members, the cooperative societies have 'opened' several cotton stores within the cotton growing areas (see map VII). Most of these stores are situated at local and market centres inorder to take advantage of the services within the centres.

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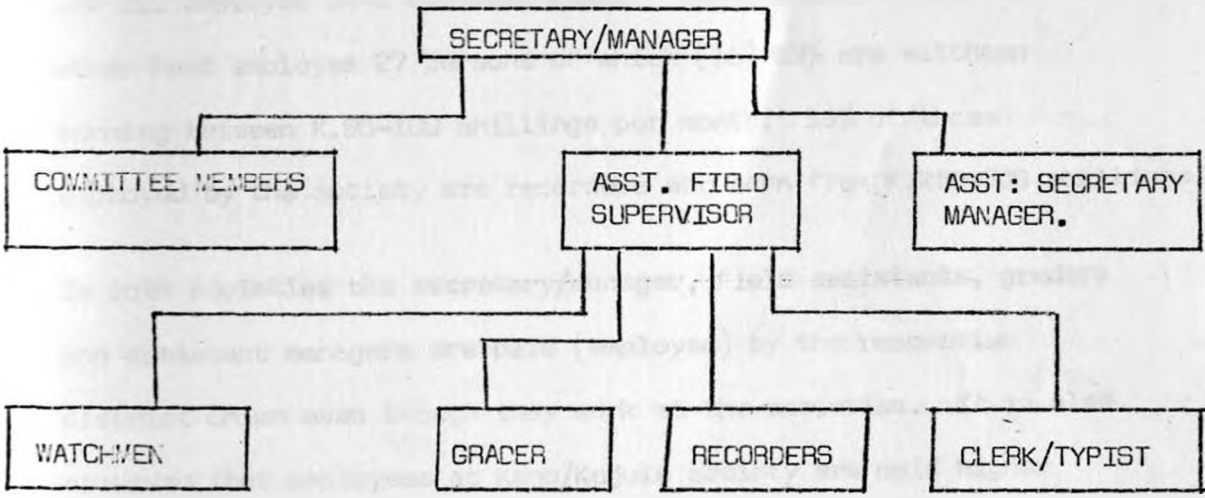
The societies are also responsible for distribution of cotton seed and pest control chemicals which indeed give them a unique role in the cotton industry.

3:5:2: ORGANISATION:

Within a typical cooperative society such as Seme/Kisumu or Kano/Kajulu which were visited, the head of the society is the secretary manager with a supporting staff who work in the society but are employed by the district union (Kisumu). The structure of the organisation is as shown below (fig.7)

FIGURE 7: STRUCTURE OF A CO-OPERATIVE SOCIETY:



The field assistant supervises the activities at the various stores. The major problem which he faces is the lack of means of travelling and thus his visits to the stores are very limited. This perhaps accounts for the prevalence of malpractises at the cotton stores due to the lack of sufficient supervision.

The recorders weigh and record the amount of seed cotton purchased from the farmers. This level within the society has been identified as inefficient by the farmers who complain that their produce are sometimes under-weighed and of congestion at the stores.

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These problems require immediate attention as they are likely to 'kill' the incentive of the cotton farmers. Other malpractices such as adding sand to the cotton inorder to increase the weight of cotton also warrants investigation. The grader however determines the quality of cotton into either AR (High quality) or BR given the fact that the former is twice as expensive as the latter. Therefore his role in the society can not be overemphasised.

3:5:3: EMPLOYMENT AND INCOME:

Kano/Kajulu co-operative society employes 33 persons of which 85% (28) are watchmen who earn about K.110 shillings per month. They are all employed on a seasonal basis. Seme/Kisumu society on the other hand employes 27 persons of which (16) 63% are watchmen earning between K.90-100 shillings per month. 19% of those employed by the society are recorders who earn from K.250-300 shillings.

In both societies the secretary/manager, field assistants, graders and assistant managers are paid (employed) by the respective district union even though they work at the societies. It is also observed that employees at Kano/Kajulu society are paid higher salaries than their counterparts working with Seme/Kisumu society. An example which has been cited is at the watchman level. Similarly, the recorders in Kano/Kajulu earn about K.300-350 shillings as compared to K.250-300 shillings of Seme/Kisumu. The disparity is perhaps explainable by the amount of money which accrues to various societies.

From the above discussion one can state that if the cooperative societies were strengthened, their contribution to the rural economy could be significant given the fact that more than 90% of the people they employ are 'local'.

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In this respect some of the problems which the societies face should be considered.

In the two societies, the lack of transportation facilities (expensive) for the field assistants is seen as very significant as has already been discussed. Secondly the societies claim that the CLSMB often delays the release of lorries to clear the re-bagged sacks of seed cotton leading to congestion at the stores. Thirdly, labour inavailability is a problem during the re-bagging period since it is costly. The labourers usually demand 40 cents to re-bag one sack of seed cotton. However, this is seen as an internal problem which the societies should be able to solve if they were to increase the efficiency of their operations and thus make a reasonable profit to justify the money which the re-baggers demand.

The fourth problem is related to the delay in payment which the officials state is attributable to the delay in release of money at the headquarters. This matter warrants immediate attention since the farmers have expressed their dissatisfaction with the payment system. The effects of this delay was discussed under the farm level linkage.

Finally, the societies are experiencing several managerial problems as is exemplified by the fact that records showing past purchases of seed cotton by the various societies is hard to come by. This may be explained by the fact that most of those who are employed usually do not understand the nature of their work or merely to malpractices. This is a factor which is quite crucial to the existence of the cooperative societies themselves.

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3:6: GINERY LEVEL:

The ginneries occupy a unique position in the cotton industry because of their direct links with both the seed cotton producers and the consumers of processed cotton which necessitates that their activities should be examined.

There are about seven ginneries in Kisumu Region which are fairly evenly distributed as can be seen from map VI. The ginneries have a monopoly of the market at given locations as they receive seed cotton from specific cotton cooperative societies. The ownership pattern of these ginneries is seen as significant in terms of money that is likely to be re-invested in the region and the total number of people that benefit from the income accruing to a given ginnery. Below is a list of the ginneries and their owners.

GINNERY	OWNERSHIP
1. Nambare	CLSMB
2. Malakisi	Produce Dealers and Millers
3. Kibos	CLSMB
4. Ndere	Kenya Industries
5. Samia	Cooperative Society
6. Kendu Bay	Small and Co.
7. Homa Bay	Cooperative

The ginneries owned by cooperative societies such as Homa Bay and Samia if run efficiently should be able to contribute more to the hinterland population as compared to the privately owned ginneries in terms of additional income that accrues to the members of the various societies. The ginneries run by CLSMB tend to be regarded as public service institutions and thus tend to be inefficient. However these points need further research since there are several other factors which are likely to affect the efficiency of a given ginnery.

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Out of the ginneries in Western Kenya, Kibos ginnery was selected for detailed analysis of the role of a given ginnery in rural development. It was chosen on the assumption that activities of the ginnery are similar to those of other ginneries in the region. The ginnery was established in 1968 but was "silent" upto 1972.

3:6:1: EMPLOYMENT STRUCTURE:

There are about 80 operatives employed at the ginnery of whom 82% are unskilled personnel, and 5% semi-skilled. Only 13% of those employed are skilled and is composed of technicians and engineer. These figures illustrate the fact that the establishment is catering for the least educated people who are the majority in the rural area. This is confirmed by the fact that 90% of the people interviewed had only primary level education. In this respect, the expansion of the ginnery level activities should be seen as a necessary step towards further absorption of this population who cannot easily find alternative jobs elsewhere. This would increase the contribution of the ginnery to the rural economy in terms of both increased employment opportunities and income.

3:6:2: EMPLOYMENT LINKAGES:

It is interesting to note the origin of the various employees at the industry inorder to determine the extent of its influence. According to the survey data, 60% of those employed at the factory come from Kisumu district as compared to 30% from Siaya. The remaining 10% of the operatives come from other districts in the region. Out of the total number of operatives coming from Kisumu district, the largest proportion come from West Kano location (where the ginnery is located) which shows that the immediate environs of the factory have benefited more from the ginnery activities in terms of employment.

They are expected therefore to spend most of their savings locally to the benefit of other sectors of the rural economy.

The migrants (60%) on the other hand stay in Kisumu town and are likely to spend most of their savings in the town given the low salaries which they earn. They commute to work everyday using bicycles and public transport. This movement creates employment opportunities in the public transport sector.

Apart from direct employment at the ginnery, other employment opportunities are also created in the transportation sector as the purchased seed cotton are brought to the ginnery. Although the resultant opportunities created appears small it is quite significant given the total amount of seed cotton that is consumed by the ginnery.

3:6:3: INCOME DISTRIBUTION:

According to the survey data 90% of those interviewed earn less than K.400 shillings per month with the highest salary being K.550shillings that is paid to the fitters. Such low incomes are due to the fact that most of these operatives are unskilled and semi-skilled. In view of these low salaries repatriation of money to areas of origin is rather limited. However it can be stated that with increase in the salaries more benefits would accrue to the participants.

THE GINNING PROCESS:

The ginning process takes place in three main stages. First is the opener stage which involves the cleaning of seed cotton and it is separated from stones, sand and dust. The seed cotton is then passed on to the platform which feeds them into the gins where the lint is separated from the seed. The lint is then transferred to the 'box' after which it is pressed and turned into bales. Plate 13 shows the processed cotton ready for shipment to various consumers.

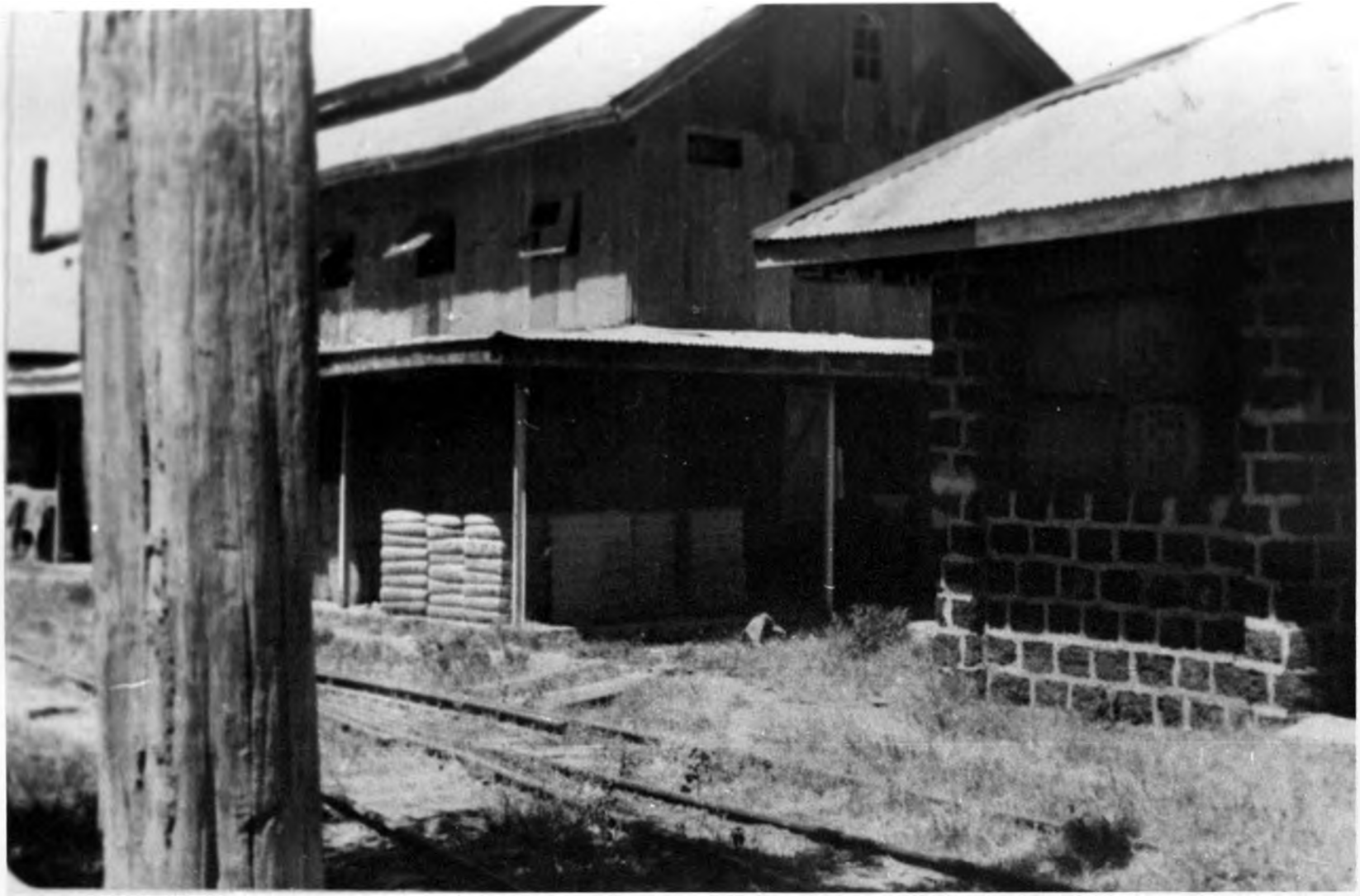

PLATE XIII: Kibos Ginnery.
Note the bales of cotton lint ready for shipment.

Kibos ginnery has six gins and produces about 8 bales of lint per shift of eight hours. The ginnery operates two shifts in a day which means that it produces an average 16 bales of lint per day. These values may be contrasted to those of Homa Bay or Ndere ginneries with 12 gins which produce slightly more than double the amount of bales per day when other factors are constant.

3:6:4: PRODUCTION LINKAGES:

3:6:4:1 - INPUTS:

The major raw material input in the ginning process is seed cotton which is purchased from the various cooperative societies by the ginneries, to the benefit of the rural population. Table XI below shows the purchases of seed cotton by Kibos ginnery during the 1977/78 season and earned the farmer about K.4 million shillings.

Once the seed cotton has been purchased it is delivered to the ginneries by lorries (plate 14) supplied by CLSMB. On arrival at the ginnery the cotton is unloaded, weighed (plate 15) and kept in the three ginnery stores, before ginning (plate 16).

TABLE XI: KIBOS GINNERY SEED COTTON PURCHASES 1977/78

CO-OPERATIVE SOCIETY	SEED COTTON '000' KILOGRAMMES	
-	AR	BR
KANO/KAJULU	363.4	38.6
Nyakach	326.0	73.8
Kibos Project *	225.0	19.4
Seme/Kisumu	199.7	34.0
TOTAL	1,114.1	165
VALUE K.shs. '000'	3,843.6	290.2

PLATE XIV: Delivery of seed cotton to the ginnery.

PLATE XV: Unloading and weighing of seed cotton.

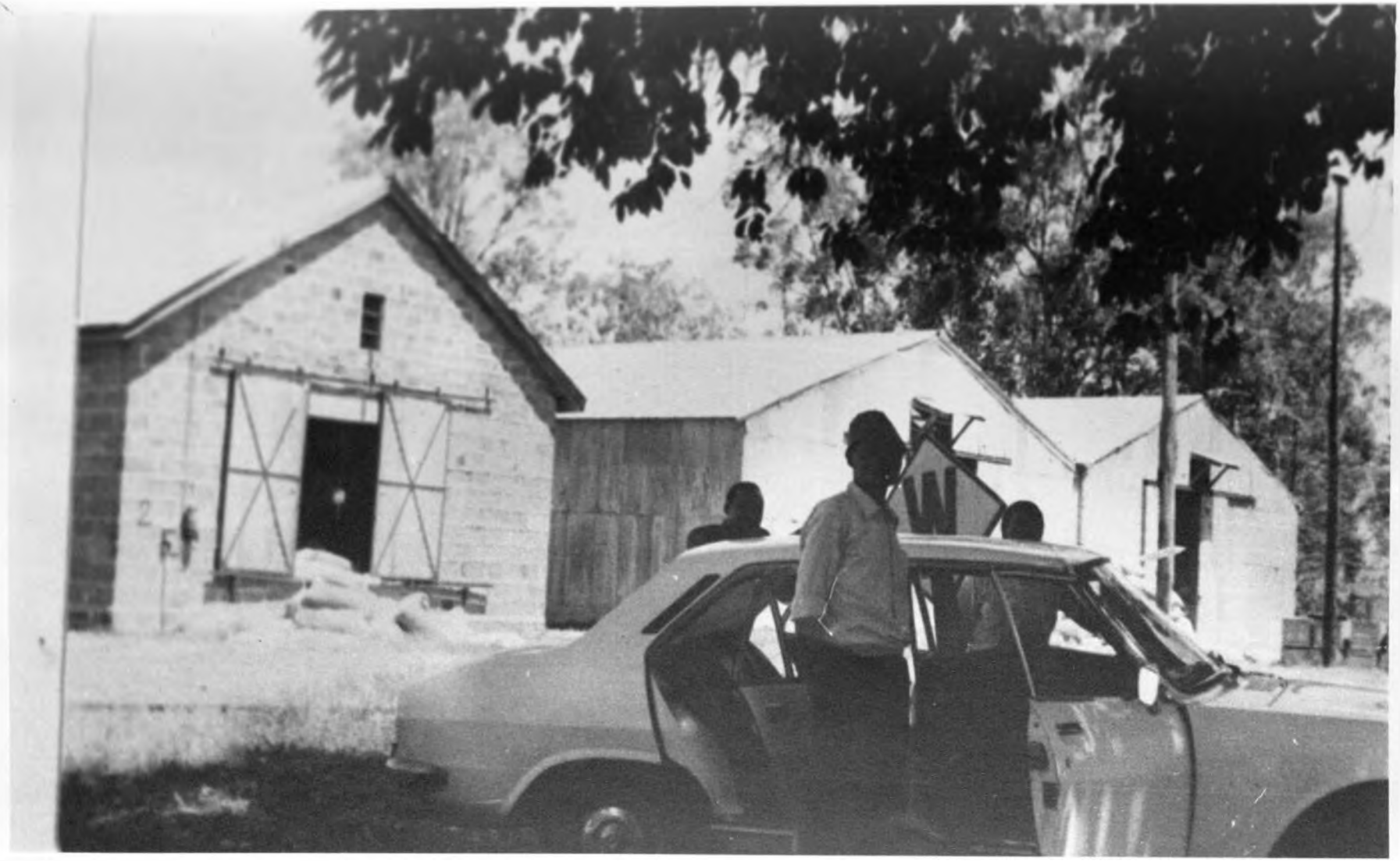

PLATE XVI: Kibos Ginnery. Seed Cotton Stores.

Other inputs used in the processing of seed cotton are namely Chemicals such as Copper Chloride Dust, Perecot Dust red, Cottonox, Cuprocot and Cuprous oxide which are supplied by the CLSMB in the case of Kibos Ginnery. These chemicals are either imported or obtained from Nairobi. Cotton gins and gear box rollers for cotton ginnery maybe obtained from Kisumu Engineering Workshop, Nairobi or imported from overseas. These input linkages are expensive and account for quite a significant proportion of money leaving the region. However, one can argue that they are necessary inputs in the ginning process which is important to rural economy in terms of total income earned per given season and the employment created.

3:6:4:2: OUTPUT:

The major outputs of a ginnery are cotton lint and cotton seed. In 1978 Ndere ginnery produced a total of 6300 bales of cotton lint. Kicomi purchased 51% of the lint produced as compared to Sunflag and Ralli Brothers whose purchases accounted for 28% and 13% (of the total output) respectively. Figure 8 shows the quantity purchased by the given buyers. Within the same period, a total of 2460 tons of seed cotton was produced, 73% of which was purchased for planting and 12% bought by Kibos Industries. The figures illustrate the capacity of a given ginnery in producing lint and cotton seed and the corresponding amount of money earned as had been discussed under Kicomi's production linkages. Kicomi has emerged as the major consumer of the output of cotton lint produced in all the ginneries. This is true for all ginneries in Nyanza. This is confirmed by the flow chart (below) which shows the movement of the commodity to various consumers.

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FIG.8 NDERE GINNERY (1978) COTTON LINT AND SEED DISPOSAL

SOURCE = C.L.S.M.B. (1978)

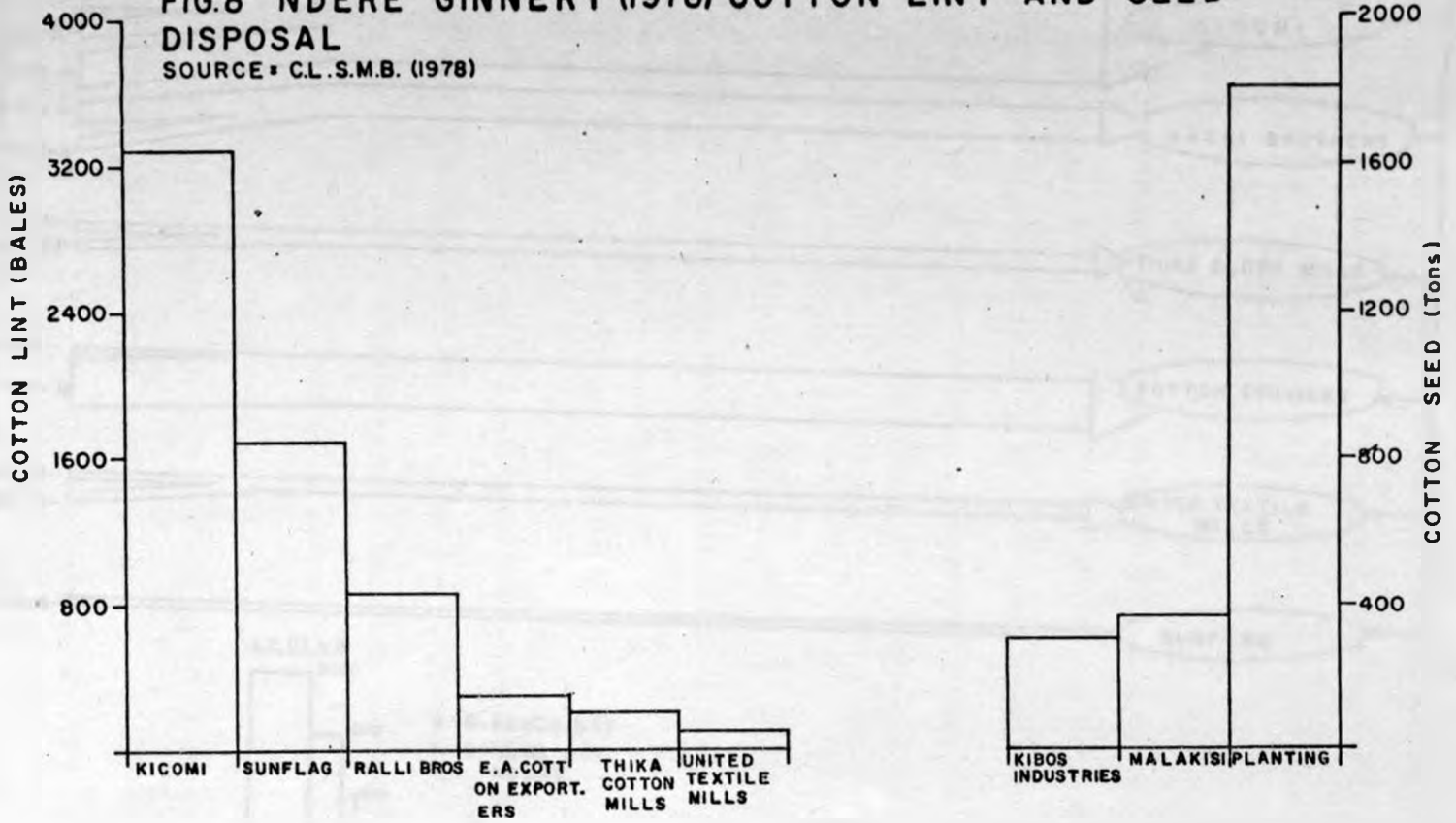
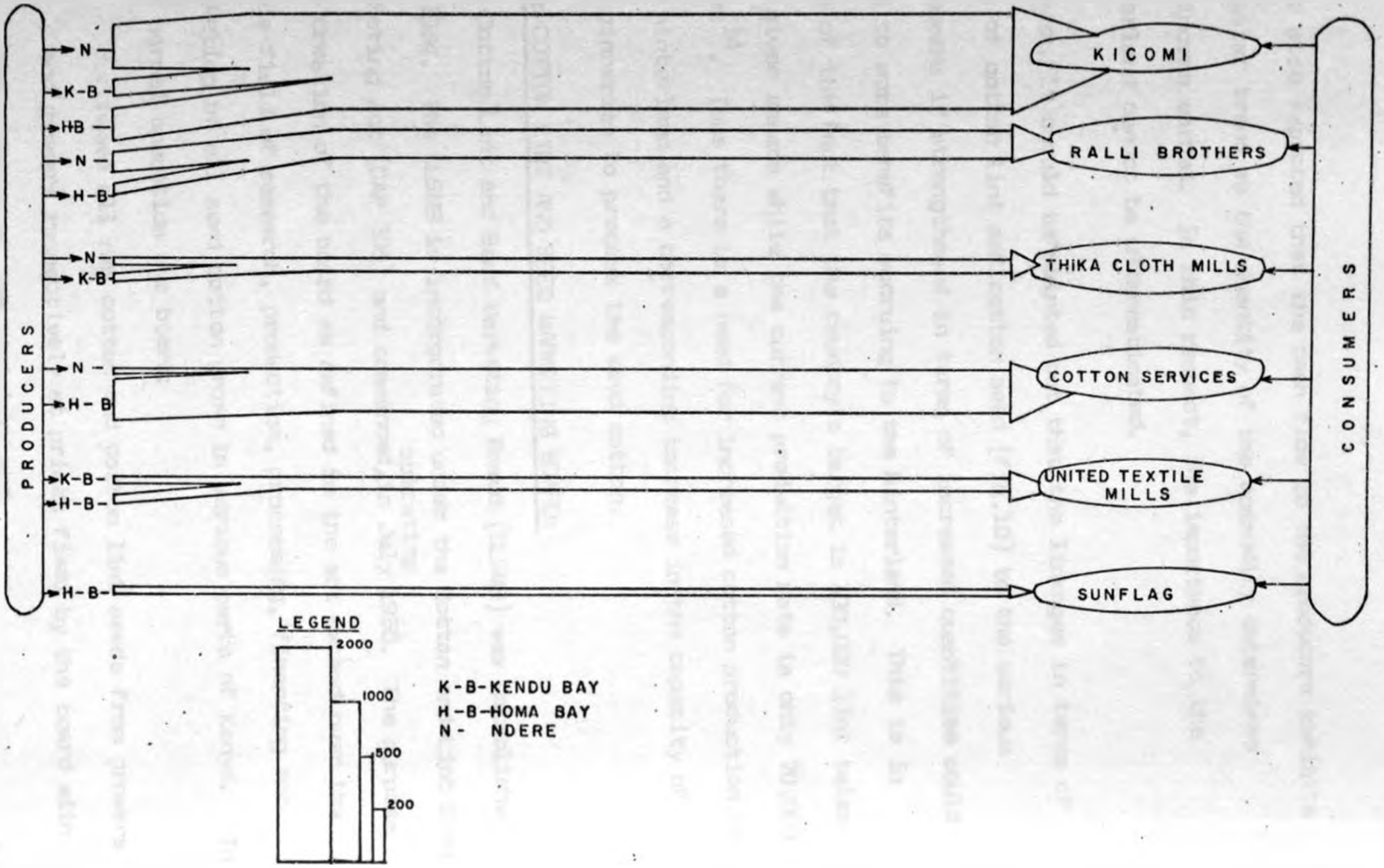


FIG. 9 FLOW CHART OF COTTON LINT BALES TO CONSUMERS AUGUST—SEPTEMBER 1977



It is also expected that the cash flow to the producers exhibits a similar trend as the quantity of the commodity determines the income earned. In this respect, the importance to the hinterland cannot be underestimated.

However, it should be pointed out that the linkages in terms of flow of cotton lint and cotton seed (fig.10) to the various consumers if strengthened in terms of increased quantities could lead to more benefits accruing to the hinterland. This is in view of the fact that the country's target is 100,000 lint bales per given season while the current production rate is only 70,000 bales[14]. Thus there is a need for increased cotton production in the hinterland and a corresponding increase in the capacity of the ginneries to process the seed cotton.

3:7: COTTON LINT AND SEED MARKETING BOARD:

The Cotton Lint and Seed Marketing Board (CLSMB) was established in 1954. The CLSMB is incorporated under the Cotton and Lint Seed Marketing Act (CAP 335) and commenced operating in July 1955. The purpose and creation of the board as defined in the act extend over the whole field of research, production, processing, financing and marketing of all seed cotton grown in various parts of Kenya. In its normal operation the board:

i) Purchases all raw cotton and cotton lint seeds from growers and ginners respectively at prices fixed by the board with the approval of the Minister, and

ii) disposes within Kenya or exports overseas Kenya Cotton Lint and cotton seed through its own agencies[15].

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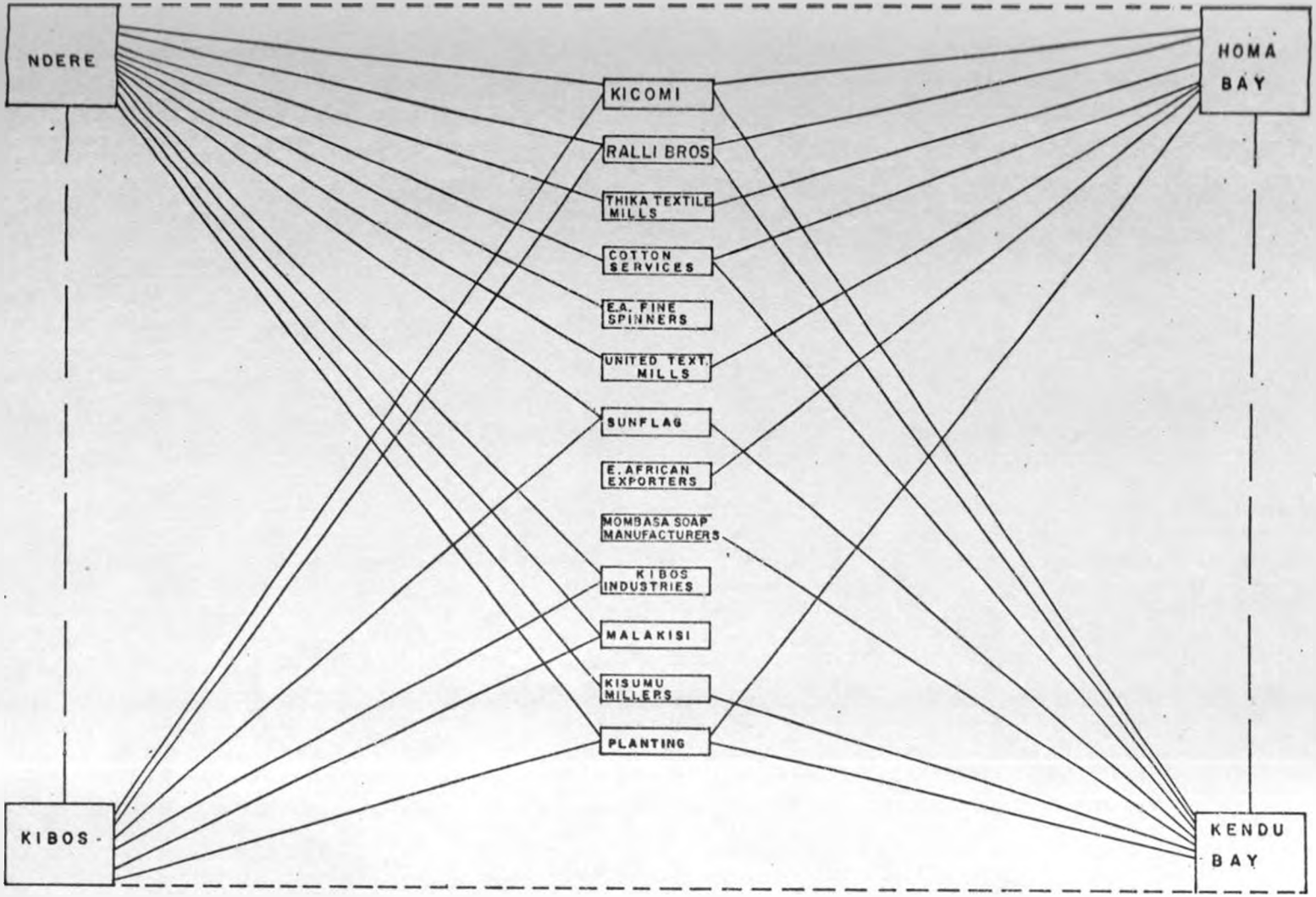
FIG. 10 FLOW OF COTTON LINT AND SEED COTTON TO CONSUMERS



3:7:1: EMPLOYMENT AND ORGANIZATION:

All activities of the board are co-ordinated by a chairman who is answerable to the Minister for Agriculture.

Most of the people employed by the board at the various provincial branches are mostly middle income group (even though we were not able to get their salary structure)as can be deduced from their levels of education. Like in all government departments the people employed come from all over the coutry. Therefore the benefits that accrue to the various individuals working with the board cannot be confined to a specific area. However, one can point out that at the lower levels within the CLSMB at the district branches, local personnel are mostly employed to the benefit of the rural areas. More than twenty people work at the CLSMB Nyanza province branches.

3:7:2: PURCHASING OF SEED COTTON:

The purchasing of seed cotton from the farmers is done by the cooperative societies on behalf of the CLSMB. As had already been discussed in section 3:5:1, the coooerative societies receive a commission of 18 cents per kilogramme of cotton purchased. The cooperative societies have been shown to be inefficient in their endevour to serve the cotton growers. This has mainly been due to poor oganization and malpractices at the societies which has often resulted into delay of (upto 4 months) payments to the farmers. This has led to making the crop very unattractive yet it is in the interest of the nation that more cotton should be produced.

In a bid to make the process more efficient, the CLSMB introduced the Kibos Cotton Project (in 1978 - Kisumu District) whereby the board purchased the cotton seed directly from the farmers.

The project was successful but was met by resentment by the cooperative societies who felt that they were being undermined. In this respect, the CLSMB should redefine its relationship with the cooperative societies so that such conflicts do not arise. All in all, the purchasing of seed cotton has been identified as highly inefficient and needs immediate attention if the desired increase in cotton production is to be achieved.

3:7:3: GINNING OF SEED COTTON:

The ginning of seed cotton by the ginneries is carried out on behalf of the CLSMB at a commission rate of K.shs.1.50 per 150 kilogrammes of cotton lint produced or at a rate of K67 shillings per ton if the ginnery uses its own bags. There are no major identified problems identified with resoect to the ginning of cotton.

3:7:4: MARKETING OF COTTON LINT AND SEED:

Western Kenya produces high quality cotton which is experted to countries such as West Germany, China, United Kingdom etc. The criticism of the CLSMB is that they continue to export cotton while at the same time the local textile industries also import cotton. For instance in 1970 local industries only consumed 27% of the total cotton lint as compared to 78% which was exported. This trend has continued upto the present time.[16] The basic reason given by the local textile industries is that the right variety of cotton is not available in the country. However,one wonders why they import lower quality cotton as compared to that produced in the country. This points out the need for growing the right cotton variety to meet the requirements of the local industries given the fact that textile products fetch higher prices than exportation of raw cotton.

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3:7:5: PROMOTION OF COTTON PRODUCTION:

The CLSMB in trying to promote cotton production ensures that the best seed cotton for planting are available to the farmers as had been discussed under cotton production. In addition the board supplies various chemicals that are necessary in the production of the crop.

In a bid to educate the farmer the CLSMB has employed cotton instructors who are charged with the responsibility of showing the farmers how to use various chemicals and how to produce a good crop. However, the number of these instructors per given area have been too few to be effective. This therefore requires that more persons should be employed who should also work in conjunction with the agricultural extension officers to improve the poor husbandry of the crop which is prevalent in the region.

It has also been argued that the low prices paid per killogramme of seed cotton (AR K3.45 shs./kg and K1.70 shs per kg. of BR) is responsible for the lack of interest in the production of cotton. However, according to the CLSMB officials, the current value of seed cotton in the world market is about K 2 shillings which means that the Kenyan cotton prices are heavily subsidized. Therefore these negative criticisms are not justifiable. One might argue that further subsidization is necessary if the crop is to be attractive to the farmers especially as these regions can produce other alternati crops such as sugarcane whose returns per acre are much higher.

In summary one might state that the CLSMB performs its functions satisfactorily.

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However more detailed (analysis) studies on the activities of the board are necessary in order to identify some of the possible hidden inefficiencies.

3:8

The above discussions in chapter three have shown clearly the importance of the cotton industry in the rural (Nyanza and Western) economy. It is however necessary to show the degree of concentration of these activities on a national context before one can suggest any decentralization measures.

The computed is 2.5 (see Appendix V) which means the region has more then its share of the industry. However, the weakness of the L.Q. as pointed out in the methodology assumes that what is found at the nation should also be found in the region and hence limits the conclusions which can be made. Moreover, the data which was available could have been overstated or under valued by the various textile establishments. Therefore conclusions made must be regarded only as rough estimates of the existing situation.

Western Kenya according to our computation has more than its share of the textile industry. However, the field survey has revealed several weaknesses in the industry which if improved is likely to lead to further concentration of the industry in the region. This is acceptable so long as one argues that the concentration of the industry is necessary because of the role it could play in the development of the current stagnant economy of the area.

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CHAPTER FOUR:

SIGNIFICANCE OF THE IDENTIFIED PROBLEMS AND INDUSTRIAL LINKAGES TO THE DEVELOPMENT OF THE HINTERLAND.

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4:1:

This study recognizes that Kicomi like any other industry has both backward and forward linkages with other industries both in the town and in the resource hinterland. Within these two major categories of linkages, there are, a series of activities that are identified as significant levels within the given linkage structure which are of direct relevance to the future development of the region. Furthermore, these linkages have revealed useful information which can bessignificant even at the national level especially with regard to various industrial and regional development policies in the country. We shall proceed to discuss the identified linkages stating their nature, factors minimising their effectiveness in development and recommendations on how the various problems can be eliminated inorder to increase the efficiency of the given relationship.

4:1:1: EMPLOYMENT LINKAGES:

One of the most significant relationships between Kicomi and the other levels within the linkage structure is their contribution to the rural economy by providing both income and employment opportunities to the populace. In addition the various backward and forward linkage levels caters for the least educated people who are often unskilled and semi-skilled people who constitute a greater proportion of any given region in Kenya. This contribution is significant in view of the fact that non-farm employment is vital given that some areas of the region are facing land pressure problems due to high rate of population increase.

KICOMI:

Taking the case of Kicomi one realizes that the activities of the industry have important implications for the development processes in the rural areas in several ways.

i) Apart from offering employment, a portion of the income earned by the factory operatives is repartriated to the rural areas which though minimal quantitatively, is seen as significant in raising the standard of living in the hinterland. The relationsbip is however recognized as weak due to the low salaries that the majority of these operatives earn.

To strengthen this linkage which is seed as inefficient, is the need to raise salaries of the employees so that increased savings maybe repatriated to the rural areas. The same observations apply to wholesale and retail traders and clothing fabrication industries in the town and the ginneries which are located in the hinterland.

In this respect the government should ensure that the minimum wages paid to the employees is worked out on the basis of the value of the final output produced by the various industries rather than based on the level of education as the only criterion. This would stop various entreprenuers from exploiting the people and making the industries more contributory to their hinterland.

Research or studies should be undertaken by the Ministry of Commerce and Industry - through the departments of industry and planning in order to determine whether the various operating industries are benefiting the hinterlands. The Industrial Survey and Promotion Centre (ISPC) should therefore incorporate in their activities a division which would deal with evaluation of the benefits derived by the local people and the country as a whole from various industrial activities. It is not sufficient for ISPC to only evaluate the project proposals but also their functioning after establishment of the enterprises needs careful evaluation as has been suggested above.

ii) At another level it can be said that Kicomi is contributing to the underdevelopment of the hinterland because of its attraction of the most active population to the town. This observation points out the fact that the backwash effects of the industry are stronger than the trickling down or spread effects as illustrated by (i) & (ii) in that it draws a number of people to the factory whose contribution to the rural economy is greatly limited by the low salaries which they earn. Thus the money which is sent home has only led to the creation of very few employment opportunities which is not significant. However, this potential can be exploited in future when more money would be sent home by the operatives who migrate to work in towns. The same arguments are also true for the ginneries and the clothing fabrication establishments. The recommendations given for (i) are applicable to this currently exploitative relationship which is minimising the development of the rural area.

4:1:2: PRODUCTION LINKAGES:

The production linkages are seen as important to the hinterland in terms of the total amount of income accruing to the given region. This income is signigicant to the rural economy in light of the stimulation of activities in other sectors of the economy (e.g. service centre). We shall proceed to discuss the nature of the identified production linkages at the various levels within the linkage structure.

4:1:2:1: KICOMI

i) Kicomi is one of the major consumers of the cotton lint produced in Kisumu region as has been revealed by the study. However greater

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benefits would accrue to the cotton producing areas if Kicomi reduced its importation of cotton lint from other foreigh countries. This is only possible if the local cotton production can meet the demands and requirements of the textile mills (e.g.Kicomi) in the country by producing sufficient cotton and the right quality or variety of seed cotton.

In this respect the Ministry of Agriculture (M.O.A.) in conjunction with the Cotton Lint and Seed Marketing Board (CLSMB) should ensure that the right cotton seeds(variety) are distributed to the farmers. The CLSMB should therefore conduct surveys covering all textile mills in the country and determine the type of cotton lint and quantity needed per given establishment in any one year. This would enable both the M.O.A. and the CLSMB to plan for the cotton production in such a way that it aids in the re-orientation of the cotton industry internally.

Secondly the CLSMB should review its policy on the exportation of cotton lint and make recommeddations to the Ministry of Commerce and Industry (M.O.C.I.) so that importation of what can be produced locally is minimised. This would mean that with increased purchases of local cotton lint, incomes in the hinterlands and hence standards of living would rise. Coupled with the fact that the savings accruing from higher incomes is likely to be invested in the given region with associated benefits of increased employment opportunities in both the agricultural sector and in non-farm activities.

ii) Kicomi also imports man made fibres whose increasing prices means quite a significant loss of foreign exchange to the country. In this respect, the Kenya Industrial Research and Development Institute (K.I.R.D.) should look into the possibilities

of producing these items such that this dependence on supply from foreign countries is minimised.

The M.O.C.I. should alsoireview its policy in permiting the importation of man-made fibres such as polynosic fibres which can be substituted by locally available cotton. The K.I.R.D.I. should therefore carry out further research into the textile industry in the country to identify products which can be substituted by locally available products and thereby help in the reorientation of the nations economy internally.

iii) Other production linkages of Kicomi that are to a large extent externally oriented is the importation of machinery and chemicals. This linkage is likely to persist for a long time to come given the fact that Kenya lacks the necessary mineral resources in their production. However, feasibility studies of establishing these industries should be looked into by M.O.I.C. especially with regard to the machinery requirements. The Ministry of Natural resources through its geological surveys programme should intensify their activities so as to uncover any potential mineral resources that could be exploited to establish these industries.

The chemical industries, however, can be established within reasonable costs and the I.S.P.C. (charged with the responsibility of preparation of pre-feasibility and feasibility studies) should therefore make the relevant studies and communicate their findings to the industrial planning department (M.O.C.I.). It should also be pointed out that the existing chemical industries(relevant to textile industry) in the country should be expanded either through provision of funds by the government or other incentives given to entreprenuers. The Centralisation of these industries in Nairobi or Mombasa is not advocated as it encourages the transfer of quite significant savings

from one region to another to the disadvantage of the buying region. In this respect, the dispersal of these chemicalsindustries into areas of significant textile production potential (such as Kisumu) should be encouraged where feasible. This latter aspect on industrial dispersal should be examined by I.P.S.C. which is s supposed to help plan for greater geographical distribution of industries.

4:1:2:2: GINNERY:

i) The ginneries contribute to the development of the cotton belts through their consumption of almost all the seed cotton produced by the area. This linkage to the resource hinterland can be made to contribute more to the economy if the ginneries would increase their purchase of seed cotton from the given region. The consumption rate of the ginneries is however determined by their capacity to gin which is ins turn influenced by the demand of its products. In this respect the CLSMB which is the body responsible for the marketing of the ginneries' final output should carry out surveys on the capacity of each ginnery in terms of how much seed cotton it can gin during one given season.

The expansion of the ginneries if found necessary should be financed through funds from the government with respect to those that are owned by the CLSMB or the cooperatives while the privately owned ones would perhaps require incentives to induce them to expand the ginneries when other factors are constant. To meet the envisaged increased demand by these ginneries, the farmers must be urged to increase their current production capacity.

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The Ministry of Agriculture through its agricultural extension officers and the CLSMB through the cotton instructors are expected to play a greater role in the promotion of cotton production. The activities of these officers however, can only be effective if their total number is increased and means of faster communication is provided by the respective bodies. This is in view of the fact that most of these officers travel on foot and one finds (two officers, one from M.O.A. and the other C.L.S.M.B.) officers per given sub-loaction with more than one thousan households to cater for. Moreover each of these officers work independently. There is a need for the M.O.A. and the C.L.S.M.B. to co-ordinate their activities so that they can be more effective and achieve the desired objective of promoting cotton production through adoption of proper husbandry methods.

(ii) The ginneries also import chemicals and other machinery which reduces the amount of savings the region can accumulate. The recommendations made with regard to these commodities under Kicomi (ii) are also applicable in this case.

4:1:2:3. Farm Level:

The farm level production linkages are mainly associated with the supply of cotton seeds, fertilizers and chemicals, all which are important inputs in cotton production.

(i) The study has shown that most farmers apply neither fertilizers nor pest control chemicals to their farms due to the lack of

capital resources to invest in the crop. Credit facilities should therefore be made more accessible to the farmers (who claim that it is very difficult to get loans) by the various agricultural financing institutions such as Agricultural Finance Company, the C.L.S.M.B. and the various co-operative societies.

The co-operative societies' loaning system has been identified by the study as inefficient since the loan often arrives late which has contributed in part to the farmers loosing interest in growing the cotton in the region. The Co-operative Bank of Kenya through the primary co-operative societies should find ways and means of improving the supply of loans to the farmers as a matter of urgency. Furthermore, they should not give the farmers loans on a "piecemeal" basis, whereby a farmer is given 'ploughing' loan while that of weeding never comes or arrives when the weeds have already smothered the cotton.

(ii) The distribution of chemicals and cotton seeds is inefficient within the study area due to the fact that on a number of occasions they arrive late when the "best" planting time has already passed. Late planting, as pointed out by the study has significant impact on the final output per hectare. The Kenya National Federation of Cooperstive (K.N.F.C.) as the body which supplies all agricultural inputs should ensure that the distribution of various inputs reach the farmers early enough to allow the farmers to take advantage of sowing early.

4:1:3. MARKETING LINKAGES:

The marketing linkages are discussed at three levels dealing with seed cotton, cotton lint and wholesale and retail levels.

4:1:3:1. Seed Cotton and Cotton Lint:

(i) The co-operative societies currently have a monopoly of the seed cotton market as compared to the C.L.S.M.B. which is the only major competitor. The co-operatives have been identified as inefficient, a fact which is clearly illustrated by the fact that they take upto four months before they pay the farmers for their products. This has been explained in part by the misappropriation of funds by the co-operative officials and by the fact that they do not prepare their returns early enough which results in delay of the release of the money from CLSMB. The financial and managerial activities of these primary co-operative societies should be examined and reviewed by the Ministry of Co-operative Development (M.O.C.D.) with the aim of increasing their efficiency.

It is also recognised that within the present marketing system adopted in the sales of cotton lint, the highest profits accrue to the ginneries. If the ginneries are to benefit a number of people in the rural areas rather than a few individuals, they should be owned wholly by co-operative societies or in partnership with either CLSMB or other private entreprenuers. This proposal can only be beneficial to the farmers if the various co-operatives are well managed. The M.O.C.D. should

therefore encure that persons employed within the various co-operative societies are knowledgeable and have been trained on how the co-operative societies should be managed profitably and with maximum efficiency. If such local personnel is not available locally, training facilities should be offered by the Kenya National Federation of Co-operatives (K.N.F.C.) which is the body concerned with co-operatice education and training programmes.

(ii) The exportation of cotton lint and its implication to hinterland development has already been discussed under production linkages (4:2:2:1.).

4:1:3:2. Wholesale and Retail Traders:

(i) There are several malpractices and irregularities within the textile wholesale sector (formal) which has led to unfair compattition in the market leading to the "phasing" out of most Africans from the business. The Kenya National Trading Corporation (K.N.T.C.) should be able to curb these malpractices by ensuring that a uniform price is maintained on similar and locally produced textile fabrics. If necessary the K.N.T.C. should employ inspectors to monitor the activities of the wholesale traders to eliminate these observed irregularities.

At another level appointed Kenyan agents often let other non-citizens to operate their businesses for a variety of reasons most of which are related to poor management and accounting systems which the Africans have adopted. It is therefore necessary to train the up-country African traders in business

management. This programme may be taken either by the Kenya Industrial Training Institute or other relevant institutions within the country. In addition K.N.T.C. has to strengthen its activities in ensuring that its Kenyanization efforts are not frustrated by the wholesalers and this can only be achieved through periodic monitoring of wholesale sector operations.

(ii) The informal sector retail trade (in textiles fabrics, made up textile goods, furniture making etc) activities were shown to be inefficient due to their small scales of operation and lacking in organization which limits their contribution to the hinterland and/or town both in terms of income and job opportunities that could be created if these inefficiencies were eliminated or improved. The Ministry of Commerce and Industry (M.O.C.I.) in conjunction with M.O.C.D. should train and organise these informal sector entreprenuers through the Informal Sector Development Programme and Extension Services (I.S.D.P.E.S.) and the K.N.F.C. The I.S.D.P.E.S. training should be able to make the various informal sector units more productive and to absorb more employees (programme to be implemented through the sub-committees of the District Development Committees). The K.N.F.C. should extend its activities to cater for co-operative education and training in managerial skills which are seen as necessary if the informal sector is to increase its contribution to the rural and urban economy.

With regard to the training of those involved in making of furniture, mattresses etcetera (at the informal level) could

be undertaken by Kenya Industrial Training Institute whose major objective as stipulated in the development plan (1979/83) is to help in small scale industrialization. Furniture making and retail trade in the products produced are identified as having potential for future development if the quality of the products are improved and the market potential exploited.

4:1:4. TRANSPORTATION LINKAGES:

Transportation is identified as crucial to cotton production within most parts of the cotton belt (parts of Western Kenya) in two ways. In the first instance the roads are poorly maintained and are impassable during the rainy season that often coincides with the transportation of seed cotton to the various cotton stores. The Ministry of Works in conjunction with the Ministry of Agriculture (M.O.A.) should undertake programmes that ensure that roads are properly maintained and that there are sufficient feeder and access roads in economically significant areas.

The second problem is the inavailability of vehicles to transport the seed cotton from the farmers' homes to the cotton stores. It is recommended that the farmers co-operative societies should purcchas lorries through the help of the Co-operative Finance Company of Kenya (a subsidiary of the Co-operative Bank of Kenya), or any other financing institutions in the Country. The purchased vehicles should belong to members of the society and should also be of use in the transportation of other products from the farm. It is important that 'non-locals' or private individuals should not own these vehicles in order to avoid exploitation of the farmers and

enabling them to earn more money from sources other than the sale of their farm produce. The success of such a project depends to a large extent on the management and effectiveness of the co-operative societies within the given areas.

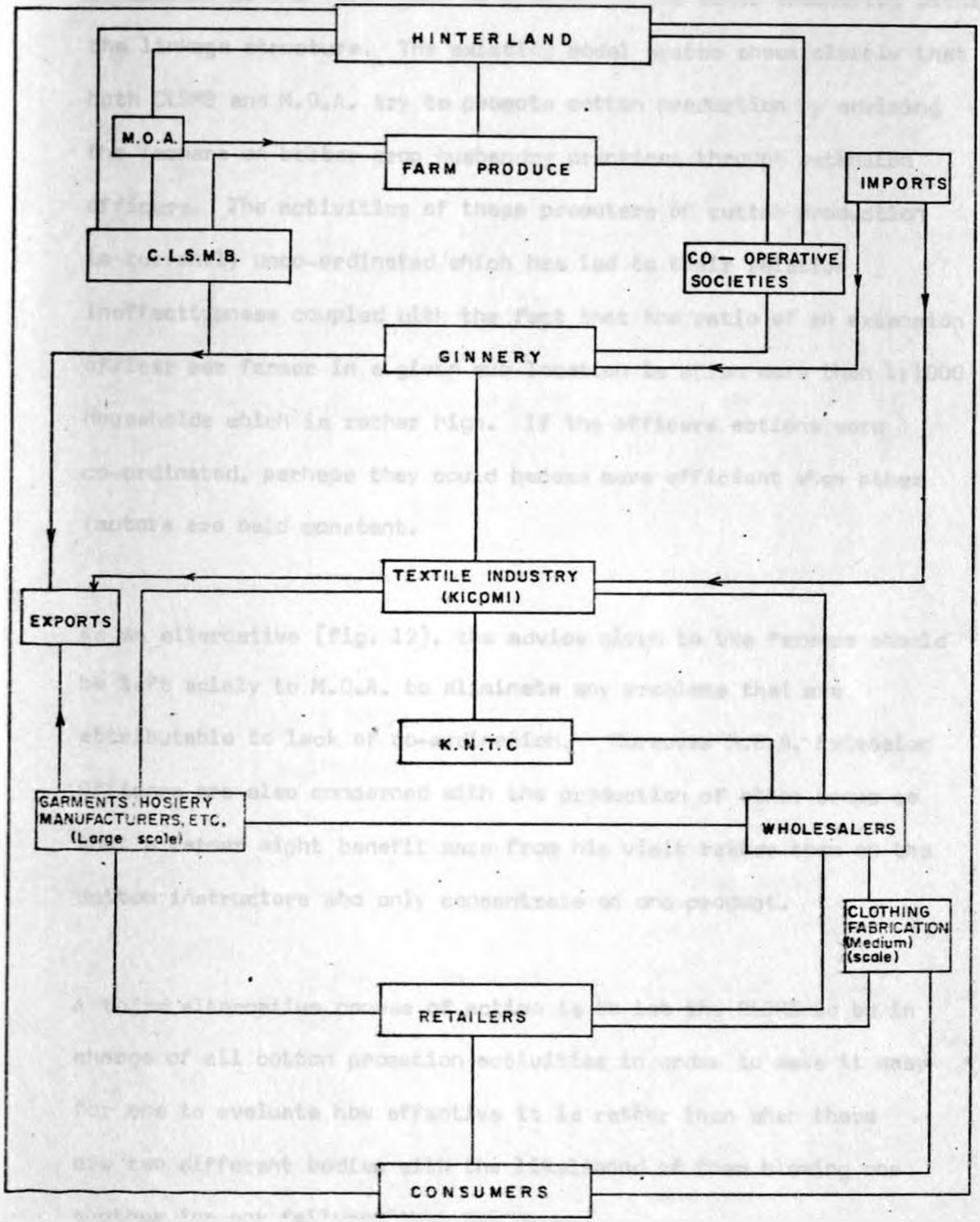
4:2 RELATIONSHIP OF TEXTILE INDUSTRY TO HINTERLAND:

After a consideration of the various aspects of the identified linkages and their implication to development of the rural hinterland, it is necessary to also look at their inter-relationship which is seen as equally important to the development of both the hinterland and the textile industry as a whole.

4:2:1. Figure 11 is a model of the existing linkage structure in a textile industry in Kenya as exemplified by the study of the relationship of Kicomi (to its resource hinterland) one of the major textile industries in the country. An examination of this model reveals a fairly complex organization with the textile industry (e.g. Kicomi) as the focal point from which radiate both forward and backward linkages.

It can be argued that the existing linkage structure is over-burdened by a series of inefficient bodies which therefore minimises the benefits which could accrue to the hinterland from the activities at various levels within the linkage structure. Furthermore, the industries within the linkage structure are seen as largely exploitati and leading to the underdevelopment of the resources hinterland. We shall proceed to discuss various aspects of the linkage system in orde to make it more contributory to development of the rural areas of Kisumu region.

FIG. II MODEL OF EXISTING LINKAGES IN A TEXTILE INDUSTRY



4:2:2. Farm Level:

An examination of the backward linked activities shows that cotton production at the farm level is crucial to the other industries within the linkage structure. The existing model system shows clearly that both CLSMB and M.O.A. try to promote cotton production by advising the farmers on better crop husbandry practices through extension officers. The activities of these promoters of cotton production is currently unco-ordinated which has led to their relative ineffectiveness coupled with the fact that the ratio of an extension officer per farmer in a given sub-location is often more than 1:1000 households which is rather high. If the officers actions were co-ordinated, perhaps they could become more efficient when other factors are held constant.

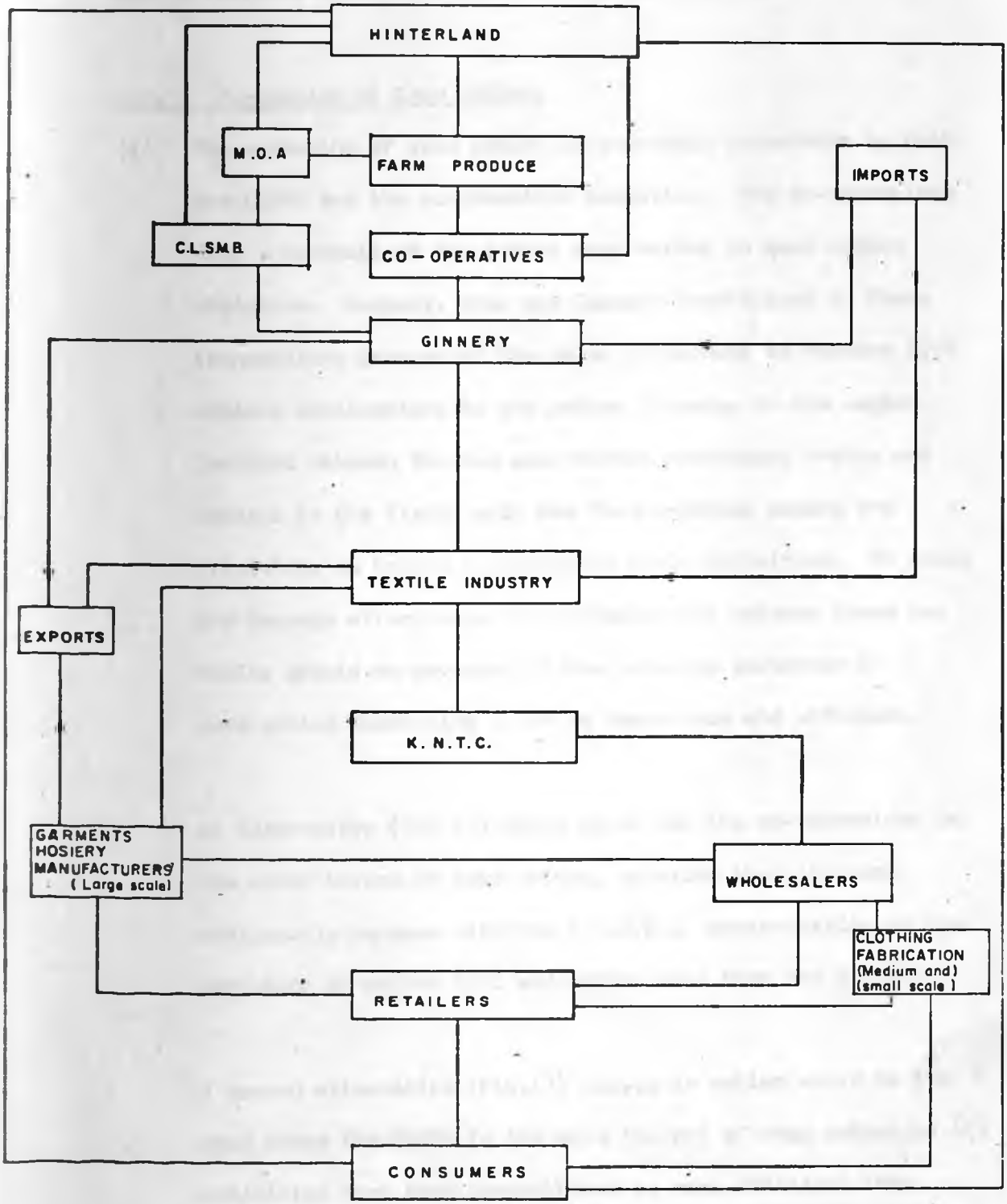
As an alternative (fig. 12), the advice given to the farmers should be left solely to M.O.A. to eliminate any problems that are attributable to lack of co-ordination. Moreover M.O.A. Extension Officers are also concerned with the production of other crops so that a farmer might benefit more from his visit rather than on the cotton instructors who only concentrate on one product.

A third alternative course of action is to let the CLSMB to be in charge of all cotton promotion activities in order to make it easy for one to evaluate how effective it is rather than when there are two different bodies with the likelihood of them blaming one another for any failures that may occur.

The emphasis on farm advise is due to the very poor standards of husbandry methods observed in the area and accounts for the poor

Alternative I

FIG. 12 MODIFIED LINKAGE STRUCTURE IN A TEXTILE INDUSTRY



yields and consequently low incomes per farmer. The M.O.A. in conjunction with the CLSMB should redefine their relationship in a bid to increase their efficiency at the farm level.

4:2:3. Purchasing of Seed Cotton:

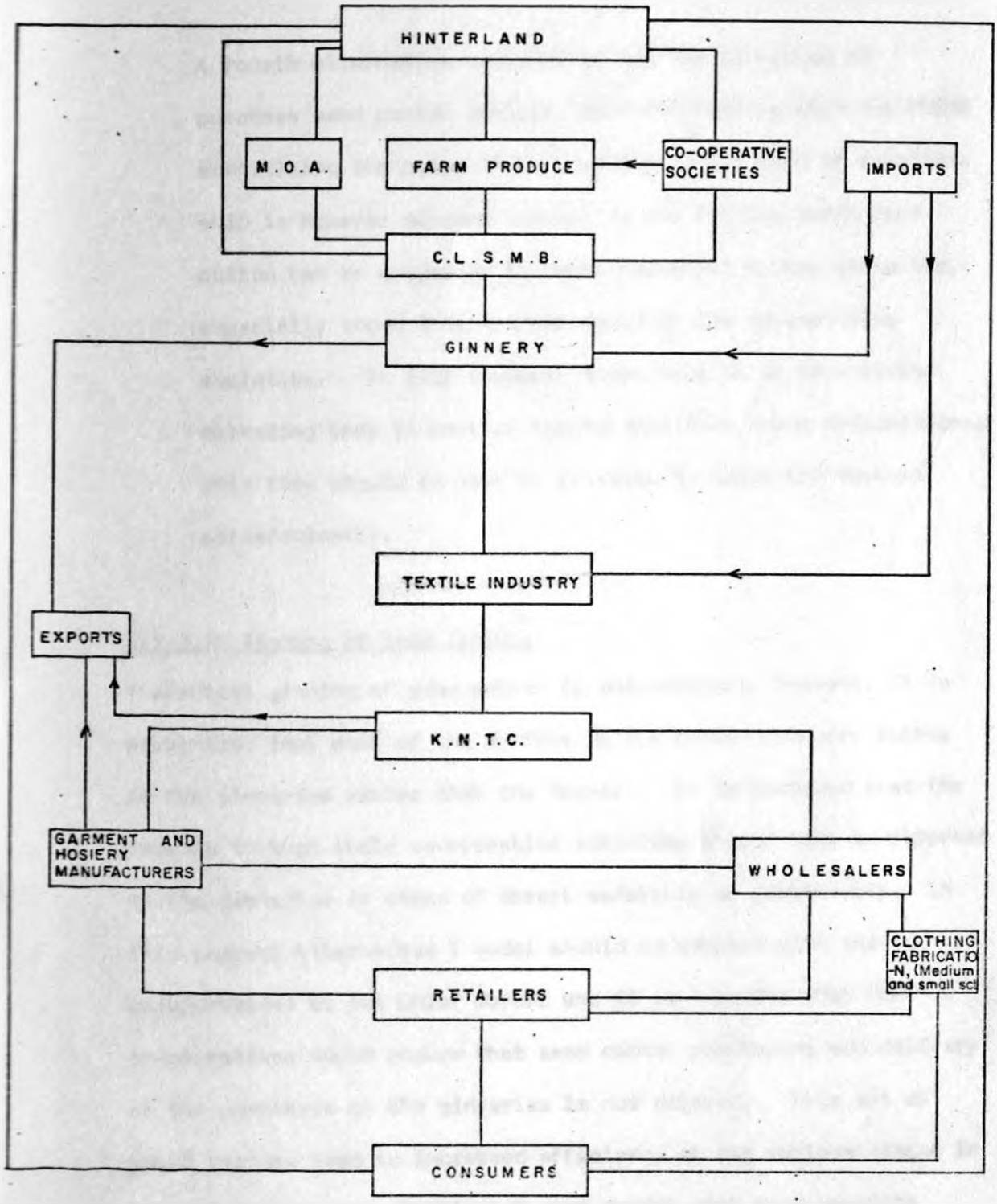
(i) The marketing of seed cotton is currently undertaken by both the CLSMB and the co-operative societies. The Co-operatives have a monopoly of the cotton seed market in most cotton districts. However, they are largely inefficient in these transactions because of the delay in payment to farmers with serious implications to the cotton industry in the region. Conflict between the two seed cotton purchasing bodies was obvious in the field, with the Co-operatives seeing the C.L.S.M.B. as trying to undermine their activities. To serve the farmers effectively, the relationship between these two bodies should be reviewed if the existing dichotomy in seed cotton purchasing is to be harmonious and efficient.

An alternative (fig.12) would be to let the co-operatives be the chief buyers of seed cotton, provided that they are efficiently managed with the C.L.S.M.B. concentrating on the marketing of cotton lint and cotton seed from the ginneries.

A second alternative (fig.13) course of action would be the case where the CLSMB is the sole 'buyer' of seed cotton as its activities have been demonstrated as more efficient than those of the co-operatives. It is proposed that the co-operatives should in this case be directly engaged in actual cotton production with the societies owning large farms

Alternative II

FIG. 13 MODIFIED LINKAGE STRUCTURE IN A TEXTILE INDUSTRY



which can take advantage of economics of scale and greatly increase the total cotton production per given area.

A fourth alternative would be to let the ginneries to purchase seed cotton directly from the farmers with the CLSMB controlling the price of seed cotton. This kind of relationship is however disadvantageous to the farmers whose seed cotton can be subjected to under-valuation by the ginneries, especially those that are not owned by the co-operative societies. In this respect, there must be an intervening marketing body to protect the farmers from these malpractices, only they should be seen in practice to serve the farmers satisfactorily.

4:2:3.2 Ginning of Seed Cotton.

The actual ginning of seed cotton is satisfactory, however, it is recognized that most of the profits in the cotton industry accrue to the ginneries rather than the farmer. It is proposed that the farmers through their co-operative societies should have an interest in the ginneries in terms of direct ownership or partnership. In this respect Alternative I model should be adopted with the co-operatives as the chief buyers and it is expected that the co-operatives would ensure that seed cotton purchasing and delivery of the purchases to the ginneries is not delayed. This set up would perhaps lead to increased efficiency at the various stages in the production and marketing of seed cotton with more benefits accruing to the cotton farmers.

If alternative II is adopted, then for the farmers to have a fair

deal, the ginneries should be owned in partnership with CLSMB to avoid possible discrimination against the ginneries wholly owned by the co-operatives. On the other hand if the existing situation (fig.11) is maintained, the ginneries should be owned by the co-operative societies in partnership with either CLSMB or the private individuals in order to make them more beneficial to the cotton growers and hence the rural economy.

4:2:3. With respect to the sale of cotton lint it is suggested that the relationship between the ginneries and the local textile industries (e.g. Kicomi) should be enhanced since the value of processed cotton is higher than what is derived from the exportation of raw cotton. The link between the ginneries and the export market should be weakened and only exploited when the domestic demand for cotton lint has been fully satisfied.

4:2:4. Textile Industry and Textile Manufacturers:

At the textile industry level the exportation of textile products should be strengthened as the relationship is currently weak since exportation of textiles has been minimal. The same arguements applies to the exportation of textile goods from various textile manufacturers (e.g. garment factories) which will lead to an increase in the income accruing to the given factories. The local textile industries should therefore increase their production capacity such that they satisfy the envisaged increase in the demand by the industries utilising the textile products in the country. It is however recognized that the above chain of action is to a large extent dependant on the demand for the goods produced (by the textile manufacturers) and their quality which must be improved such that

they can compete effectively in the international market.

The government through the M.O.C.I. should therefore provide incentives to the local textile manufacturers to expolore the export market since these import substitution industries will be more beneficial to the country through exportation of goods. In this respect the current incentive of a 10% rebate given to the textile exporters has not encouraged export production. It should therefore be reviewed and increased accordingly by the M.O.C.I.

However, it must be recognized that these industries should be owned to a large extent by Kenyans (and where possible the cotton farmers through the co-operative societies should have shares) so that any protective measures and incentives offered by the government to these textile manufacturers and exporters should be to the benefit of Kenyans rather than non-citizens who are not likely to re-invest the profits in the country.

4:2:5 Wholesale and Retail Trade:

Under the current system, there are three ways through which the textile products from the given industry reaches the consumers. One way is through the purchases of various textile fabrics by large scale textile manufacturers directly from the textile industry from which they make garments, bedspreads, hosiery products that are sold to the consumers through wholesalers and retailers. This linkage system is seen as satisfactory, though suggestions on how it can be improved is only possible after a detailed examination of the associated industries and wholesalers which was beyond the scope of this study.

The second method is through the K.N.T.C. which purchases the various textile goods from the textile industry and makes them available to the retailers and medium and small clothing fabricating enterprises through wholesalers. A third method is through wholesalers who are not agents of KNTC and purchase the goods (textile fabrics) directly from the industry (fig.11). According to the study, the relationship between the two groups of wholesalers (KNTC and non-KNTC agents) has resulted in unfair competition at the sales of these products to the retailers.

To eliminate the noted irregularities it is proposed that all wholesalers should obtain their goods through KNTC which would then ensure that all the goods are sold at the same prices (see alternative I). The large scale manufacturers would however still be able to purchase their fabrics and other products directly from the textile industries in recognition of the fact that KNTC does not have the capacity to handle the volume of trade that would result if these manufacturers also had to obtain their goods through K.N.T.C.

A second alternative (fig.13) involves increasing the responsibilities of K.N.T.C. by making it the sole distributor of textile products produced from the textile industry to any other consumers (Wholesalers and the large scale manufacturers) in the country. Such an action would mean that more money on profits would accrue to K.N.T.C. to the benefit of the national exonomy rather than its accumulation to the textile industries. It would also help in eliminating any irregularities that exist in the present system.

However, for such a system to function efficiently, the organization of K.N.T.C. must be re-structured so that if can handle the increased

4:2:6. PRIORITY RECOMMENDATIONS:

The above discussion has suggested a number of actions and changes which should be taken into account in order to make the operations of the identified linkage structure more efficient and contributory to the resource hinterland. We shall proceed to outline the priorities in terms of short term and long term planning periods. The short term period is considered in two categories:

(1) Immediate changes which can be introduced within the current plan period 1979/83; and

(2) those which can be introduced during the next plan period (1984/88).

Long term changes are those that can be started within a period of ten years or more.

4:2:6:1. SHORT TERM RECOMMENDATIONS:

At the farm level it is recommended that the improvement of cotton husbandry should be undertaken immediately in order to increase the productivity per hectare of land which is currently very low. The C.L.S.M.B. and the Ministry of Agriculture should redefine their roles in the promotion of cotton production at the farm level in order to increase efficiency of their activities. It is considered that co-ordination of the activities or operations of the respective field officers is essential to the success if cotton production programmes in the region when other factors are constant.

In recognition of the poor maintainance of roads in part of the region, the Ministry of Works in conjunction with the Ministry of Agriculture should undertake a re-gravelling or butimization of

roads where it is economical. The two Ministries should also conduct surveys in the cotton belt region in order to evaluate the adequacy of road network in terms of both feeder and access roads. This programme can be extended to the next plan period when actual construction could start given the high costs of road construction.

It has been illustrated that the co-operative linkage level is inefficient due to poor management. It is therefore suggested that the societies should employ trained personnel. If such skills are not available, the officers should be sent for training within co-operative (education) training institutions. The societies should improve the organisation of their activities such that the distribution of cotton seed and pest control chemicals is efficient. It is also recommended that the societies employ more field supervisors so that the current malpractices noted at the cotton stores are eliminated.

The C.L.S.M.B. should also review the pricing policy of seed cotton as a matter of urgency if the production of cotton is not to decline in view of the fact that most farmers are likely to resort to planting crops such as sugar cane that will give them higher returns.

At the wholesale and retail trade level, the K.N.T.C. should re-organise its activities such that it can effectively control the operations of the wholesalers in the towns (e.g. Kisumu). The Training of African businessmen (Wholesalers and Retailers) should be undertaken by the M.O.C.I. if the Kenyanisation objective is to be achieved.

In recognition of the fact that C.L.S.M.B. continues to export cotton lint while the local textile mills import the same product, an immediate review of the Cotton Lint and Seed Marketing Board's policy on the commodity is recommended.

In view of the very low wages paid to the wholesale and retail employees and the industrial operations by their respective Employers (Kicomi, Ginneries) the Ministry of Labour should conduct surveys covering those industries in order to make sure that the workers are not exploited.

Within the second plan period it is recommended that the co-operative training facilities for the informal sector retail trader, clothing fabrication etcetera should be introduced. In recognition of the potential role of the informal sector to both the rural and urban economics it is suggested that K.N.F.C. should expand its training facilities to cater for the informal sector as well since it currently only trains personnel from the formal sector.

To ease transportation of seed cotton to the farms it is recommended that within the second plan period the co-operative societies should purchase the vehicles to transport cotton produced by the farmers to the marketing centres.

The expansion of existing Chemical Industries serving the textile industries in the country should also commence within this plan period.

LONG TERM RECOMMENDATIONS:

The Kenya Industrial Research and Development Institute should expand its activities to include studies on various aspects of textile processing. The studies should among other things, identify those products which are locally available and can be used as substitutes for some of the products that are currently imported. Feasibility studies of establishing industries producing machinery required by the textile industries should also commence within this plan period.

4:3. KISUMU AS AN INDUSTRIAL AND GROWTH CENTRE:

The study has revealed several characteristics of the industrial sector of Kisumu and its relationship to the resource hinterland. The contribution of Kisumu town to the urban economy has been limited as is illustrated by the fact that both total urban and manufacturing sector's wage employment has been declining since 1975. One can thus question how such a town is expected to act as an effective growth centre in a wide region such as Western Kenya. This is a clear indication of the need for increased investment in the town. It is therefore suggested that there should be a conscious effort by the government and other private entreprenuers to invest in the town.

The majority of industries in Kisumu (e.g. Engineering and agro-based industries) have strong linkages with Mombasa, Nairobi and other foreign countries as compared to the hinterland from where they drain both human and capital resources. Their relationship with the hinterland is therefore weak due to the very low salaries which the industrial operatives earn that has limited the repartriation

of savings to the hinterland. Hence minimisation of their contribution to hinterland development. These industries are also identified as strongly consumer oriented since they are mostly service industries. This consumptive linkage aspects therefore benefit these industries than the hinterland.

To make these industries more contributory to the development of the region, it is suggested that the government through the Ministry of Commerce and Industry (M.O.C.I.) and other financial institutions should help the local people in the area to have shares in these industries or to purchase them. The "complete" ownership of these industries though attractive in terms of petential benefits to the area, is only possible if the African entreprenuers will be able to manage them efficiently. This means that the country should train its own technical and managerial personnel. This project should be undertaken by the Kenya Industrial Training Institute and other institutes of technology especially WECO (Western College of Arts and Science) and RIAT (Ramogi Institute of Science and Technology) with respect to the requirements in Western Kenya.. It is therefore recommended that these institutions include in their curricula, courses that relate to the possible requirements of the industries in the region such as textile, paper mills, Engineering, sugarcane and so on.

It is also recommended that the government through provision of appropriate incentives such as reduction in import duty on key raw material inputs, reduced taxation rates etcetera should encourage various industries in the Country to increase their employment

generation capacity. With respect to the low incomes that most of the industrial operatives earn, the government through the Ministry of labour should ensure that the industrial entrepreneurs do not emploit their employees. This appears to be the common case in the industries located both in Kisumu and in the hinterland.

4:4. FACTORS OF REGIONAL AND NATIONAL SIGNIFICANCE:

Regional Level:

Kisumu region has been identified as a downward transitional zone suffering from stagnation and/or decline in the rural economy. These aspects are further enhanced by the mass out-migration of the economically active population which is in part responsible for the under-development of the region as a whole. Both the adopted industrial policies and growth centre strategy have failed to bring about any major improvement in the pattern of flow of human and capital resources in the region. These policies have therefore not eliminated the dual pattern in the economy of the region but rather intensified it with associated increasing regional inequalities and imbalances.

It is recognised that despite the negative impact of these policies, the development of the region will to a large extent depend on the exploitation of its rich agricultural resources in view of its lack of economically important minerals. However, it is considered necessary that the agro-industries to be established in the region should be planned to contribute to the hinterland through the deliberate development of their potential linkages within the region.

It is in this connection that the use of industial linkage systems should prove a useful guide for the Ministry of Commerce and Industry in their decisions on the location of agro-industries in resource regions.

National Level:

The study has shown that to bring about effective regional development, it is necessary to re-examine the development policies adopted in the country. It is therefore recommended that the industrial policies which makes Kenya's economy open and externally oriented must be re-viewed. They have tended to perpetuate the dualistic or colonial spatial structure of the economy. This spatial structure of the economy must therefore be changed if effective regional development is to be achieved in the country.

For instance the private sector is stronger and much larger in the country and is to a large extent foreign owned and controlled. Most of their investment location decisions are therefore made outside the arena of public policy makers in the country. These entreprenuers often look for locational efficiency in towns with bigger and stable markets (mainly in Nairobi and Mombasa); and therefore encourage concentration of industries in a few regions of the country thus defeating the objective of geographic dispersion of industrial development. It is further recognised that the policy of geographic dispersion of industries in Kenya can more effectively be pursued through the development of a strong public sector so that deliberate policy aimed at directing capital investments into selected growth centres is not frustrated by the private sector.

This study has illustrated that growth centres are useful in regional development. These centres are selected on the basis of the resource hinterland and planned to facilitate the exploitation of the resource potential. Therefore the location of industries (especially agro-industries) within the designated growth centres has more to gain from the utilization of the resource hinterland besides advantages of the developed infrastructural services and market within the centre. In view of this, the national objective of equitable distribution of (industrial) development can easily be achieved through the location of industries in growth centres.

However, the inherent weaknesses of the growth centre should be identified and strengthened if it is to act as a strategy for rural development. For instance the deliberate development of a regional growth pole may engender a sequence of growth which leads to a decline in the surrounding areas as the growth centre attracts resources to itself. In this respect there is a danger that the regional core may remain exploitative of the resource hinterland with associated backwash effects that will negate or minimise the benefits expected to spread in the region. Measures should therefore be established to monitor the extreme effect of backwash relationship to the hinterland and at the same time one should identify and encourage the development of spread effects.

One way in which this can be achieved is through analysis of the various linkages between a given growth centre and its hinterland and evaluating its contribution to the hinterland. The role of rural and market centres in strengthening the linkages especially

spread effects from the centre to rural areas should also be recognised as significant. In this respect the other smaller growth and potential growth centres within Kisumu Region such as Webuye, Mumias, Kakamega, Kisii, Homa Bay, Siaya, Muhoroni, Chemelil etc. should be developed in such a manner that their activities are complementary to each other and to the core centre of Kisumu.

Other measures to be taken into account in consideration of the weaknesses of the growth centres, are those that counteract backwash effects of the core such as enhancement of productivity in the hinterland, raising living standards in the resource hinterland through provision of necessary infrastructure and priority to be given to the creation of employment opportunities and raising the levels of income in the hinterland.

All in all, it is recognised that the growth centre cannot be an effective regional policy instrument in an externally oriented economy. The re-orientation of the economy internally must therefore be given first priority by planners in a country like Kenya that is largely externally oriented.

CHAPTER FIVE:

SUMMARY AND CONCLUSION:

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5:1. SUMMARY AND RESEARCH FINDINGS:

The persistence of the inherited spatial structure in Kenya is an indication of the failure of the various development policies in integrating and reorientating the economy internally. This has in part been explained by the ineffectiveness of the strategies and programmes that have been adopted by the government. Moreover the development of the rural areas has lagged behind that of the urban centres which continue to attract both human and capital resources to themselves and thereby enhancing under-development of their rural hinterland. This study examines the relationship of Kisumu's industrial sector to the resource hinterland with the view of identifying those factors that have led to the persistence of the dualistic and parasitic relationship between the town and its rural hinterland. It is assumed that the type of industries in a given urban centre will to a large extent determine the rate and nature of development that takes place in the rural areas.

The study focused mainly on an examination of Kicomi's industrial linkages to the resource hinterland. It emphasized the identified backward and forward linkages of Kicomi to the hinterland which involved an analysis of the activities at the various stages of the linkage structure namely; farm, co-operative societies, ginneries, and Cotton Lint and Seed Marketing Board levels (backward linkages) and wholesale and retail trade, clothing fabrication and other related industrial and commercial related operations levels (forward linkages). The relationship of Kisumu's industrial sector to the region was also analysed including an evaluation of the effectiveness

of Kisumu as a growth centre in Western Kenya. The regional development policies were also analysed with the aim of pointing out how they have influenced development in Western Kenya in particular and in the country as a whole.

This analysis has established that Kicomi's relationship to the resource hinterland is weak due to its limited contribution to the region's economy in terms of incomes accruing to the various employees and by the fact that it still continues to import cotton lint which is locally available. Within the identified backward linkage structure in the hinterland inefficiencies weakening the system focuses mainly on poor cotton husbandry and poor management of the co-operative societies which has greatly limited their contribution to the development of the hinterland. The forward linkages of Kicomi can ba made more contributory to the economy of the region if the related industries became locally owned and their employment capacity expanded.

It was also found that Kisumu town is functionally parasitic to the hinterland and is therefore ineffective as a regional growth centre due to the predominance of service industries within its industrial sector. It therefore tends to draw more of the human and capital resources of the region than the benefits accruing from it to the hinterland. The town is also suffering from high and increasing unemployment rate, inadequacy of infrastructural facilities while at the same time its high industrial potential remains unexploited.

The region (Western Kenya) is recognised as a downward transitional

zone because of the mass out-migration of the economically able population from the area, coupled with the fact that the agricultural potential has not been exploited effectively to the benefit of the inhabitants of the area.

The current regional development policies namely the growth centre strategy and the adopted industrial policies have not succeeded in bringing about effective regional development in the Kisumu region.

5:2. RECOMMENDATIONS:

In view of the problems limiting the efficient functioning of Kisumu as an industrial and growth centre within the region as a whole and the identified weaknesses in the industrial linkage structure, the study has recommended the following policy changes and programmes for the future improvement.

In recognition of poor cotton husbandry in the cotton growing districts it is recommended that the Ministry of Agriculture and the Cotton Lint Seed and Marketing Board should redouble their efforts in advising the farmers on how to grow better crops. It is also suggested that the two bodies should redefine their relationship and if necessary only one body should be left in charge of cotton promotion at the farm level. If the existing relationship between the two is maintained, increased efficiency could be effected through the closer co-ordination of the activities of the field officers from both sides.

One of the problems which is facing the cotton farmers is the lack of capital to invest in the crop. It is therefore recommended

that the government through the various agricultural financing institutions should make credit facilities more accessible to the farmers. The CLSMB should review its prices as an incentive for the farmers to continue growing cotton rather than being diverted to production of other crops such as sugar cane which are currently fetching a better price on the market.

As the study has illustrated, the co-operative societies should re-organize their activities so that they serve the members more efficiently by ensuring punctual delivery of cotton seeds and pest control chemicals and in eliminating the long delay in payment of the farmers for their product. The poor management inherent in these co-operative societies is in part due to the employment of persons who are not qualified or trained in co-operative management. It is therefore suggested that these co-operative societies should employ qualified staff and if such skills are not available locally, the District Co-operative Unions (through the Kenya National Federation of Co-operatives) should send the staff which they employ to regular training in the institutions concerned with co-operative education in the country.

In recognition of the potential role of well managed co-operative societies in rural development it is proposed that the (Cotton) farmers' co-operative societies should organise the purchase of vehicles to facilitate increased efficiency in the transportation of seed cotton from the cotton farmers to the marketing centres. It is however, important that the co-operative societies should own the vehicles purchased or used in order to ensure that the farmers are not exploited by other entreprenuers who might take advantage of

the monopoly of transporting the farmer's produce.

The study identified that the low salaries paid to the (Industrial) operatives in the textile industries (Kicomi, ginneries) and by related textile commercial activities (wholesale and retail trade) has in part led to the underdevelopment of the hinterland. The Ministry of Labour should therefore take necessary steps to ensure that the employees are not exploited by the various industrial and business entreprenuers.

The textile industry depends on a number of imported raw materials which leads the transfer of savings from Kenya to other foreign countries. This reduces the potential benefits that could be derived from the textile industries to the country. It is therefore recommended that the government reviews its policy on exportation and importation of various products that are available locally (e.g. cotton lint) and those which can be substituted by local resources such as polynasic fibre. Restriction on the commodities which are available locally would help in the re-orientation of the textile industry internally. It is also recommended that researches into the textile industry requirements should be encouraged in order to determine which inputs could be substituted by locally available resources.

With regard to the importation of chemicals required by the textile industries it is suggested that the existing chemical industries should be expanded to reduce the dependence on imported chemicals. In addition feasibility studies should be conducted (by the Ministry of Commerce and Industry) on the possibilities of establishing those

industries manufacturing chemicals (required by the textile industry) that are currently not available locally. The possibilities of establishing industries manufacturing relevant machinery should be looked into by the government through M.O.C.I.

The existing textile industrial linkage structure in the country is weak because of noted inefficiencies at various levels in the linkage structure and linkages within the total system. This reduces the benefits that actually accrue to the people. A number of suggestions are therefore recommended to rectify the situation.

First, the Kenya National Trading Corporation should reorganize its activities such that it can monitor the operations within the wholesale and retail trade sector to ensure that the observed malpractices and irregularities are eliminated.

One of the alternatives of increasing efficiency of the textile linkage structure and the benefits accruing from the textile industry is to centralise the distribution of all textile products in the country such that K.N.T.C. is the sole agent from which exporters and various local consumers (garments manufacturers, wholesalers) can purchase the textile products which they require. Such an action would enable the government through K.N.T.C. to monitor effectively the weaknesses within the system. Moreover the benefits of large scale trade would accrue to the government rather than to a few individuals. A second alternative is to maintain the existing textile linkage structure but strengthen the weaknesses observed. It is recommended that the M.O.C.I. should conduct surveys to determine the effectiveness of the existing industrial linkage

system in terms of its contribution to development within the regions, and in the country as a whole.

At the town level it is recommended that the potential of Kisumu's Industrial sector should be exploited through increased investment from both the government and other private entreprenuers if it is to function efficiently as a growth centre from which development impulses could disseminate to the rural hinterland. In addition the various government ministries should improve the infrastructural facilities in the town in order to make it attractive to various entreprenuers and improve the quality of services offered to the inhabitants of the town. It is recommended that more industries should be located in the town to increase the industrial sectors contribution to the urban economy in terms of increased income and employment opportunities.

It is recommended that the government at the national level should review its policies that make the country's economy open and externally oriented. The public sector in the country should be strengthened so that the effects of a dominant private sector are minimised since their policies are often not in the interest of the public. Kenyans should be encouraged through governments (or other financial institutions in the country) to control most of the industries which are presently in the hands of foreigners who repartriate their profits to their various countries of origin rather then re-investing in the country. Furthermore the government should review the growth centres and industrial development policies in the light of the national objectives of equitable distribution of development, geographical dispersion of industries and regional

development.

FUTURE RESEARCH RECOMMENDATIONS:

The study only confined itself to the defined scope as set out in the introduction. It is however recognised that there are significant aspects of this subject which warrant more detailed examination if a complete knowledge of the problem is to be achieved. It is therefore suggested that the following areas should be given special attention in future research:-

(1) A comparative industrial linkage systems analysis encompassing a wide range of industries.

(2) An investigation of the interrelationships between industries within given urban centres and rural regions in order to identify the production linkages which can be developed to improve living standards of the people, create more employment opportunities and increase income levels. Similar studies could also be carried out at the inter-urban and intra-regional levels.

(3) The growth centre strategy should be further examined to identify its weaknesses in promoting regional development in the country. This should lead to the formulation of a framework for monitoring the spread and backwash effects of the growth centres to the development of their regional hinterlands.

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APPENDIX: APPENDIX CONTENTS.

APPENDIX II:

CALCULATION OF GROWTH RATE IN EMPLOYMENT:

Total No. of operatives 1979 = 1755

" " " 1967 = 448

= 1307

% increase in employment $= \frac{1307 \times 100}{448}$

= 292%

Annual Growth Rate $\left(\frac{292}{12}\right)\%$

= 24%

APPENDIX III:

COMPUTATION OF CORRELATION COEFFICIENTS:

YEAR	EMPLOYMENT 000	COTTON CONSUMPTION BALES '000'	OUTPUT METRES '000'
1972	0.94	7.67	8085.
1973	0.95	9.50	9256
1974	1.10	8.73	8902
1975	1.14	8.79	8444
1976	1.21	8.52	9933
1977	1.29	8.78	9478
1978	1.65	8.71	10498

1. Emoloyment / Output Relationship

$r = {}^{1}/_{oy} \times \frac{}{ox} \times$ slope

slope = 2755.469

$\overline{ox}$ = .22435

$\overline{oy}$ = 774.65

r = 0.7980

r^2 = 0.636

Where

r = Correlation Coefficient

$\frac{}{o}$ = Standard deviation

r^2 = Coefficient of determination

Cotton Consumption / Output Relationship:

$r = \frac{1}{oy} \times \frac{}{ox} \times$ slope

Slope = 588.1236

$\overline{ox}$ = 0.24901

$\overline{oy}$ = 774.65

r = 0.189

r^2 = 0.04

APPENDIX IV:

WEST KANO AND EAST SEME LOCATIONS: % NUMBER OF FARMS PER GIVEN PRODUCTIVITY LEVEL:

YIELD KG./HA.	KODHIAMBO	KOCHIENG	NYAMWARE	KITMIKAYE	KAILA	KOMBE-WA	TOTAL FOR ALL LOCATION
0-250	27	-	18	34	56	33	27
251-500	27	15	38	25	22	52	32
501-750	27	23	13	33	11	5	18
751-1000	10	39	13	8	11	5	14
1000-1500		15	6				4
1500+	9	8	13			5	5

SOURCE: Survey Data 1978

APPENDIX V:

APPENDIX V:

CALCULATION OF LOCATION QUONTIENT*

$$\frac{A}{B} \times 100 = \frac{\text{Total Industrial employment in Western Kenya}}{\text{Total industrial employment in Kenya}} = \frac{44,598}{902,896}$$

$$= 0.0493$$

$$\frac{C}{D} \times 100 = \frac{\text{Total Industrial Cotton Employment in Western Kenya}}{\text{Kenya's Ind'l operatives in cotton industry}} = \frac{.2471}{19727}$$

$$= 0.1252$$

$$\text{L.Q.} = \frac{\frac{C}{D} \times 100}{\frac{A}{B} \times 100}$$

$$= \frac{0.1252 \times 100}{0.0493 \times 100}$$

$$= 2.5$$

* Source of data: Central Bureau of Statistics (1978)

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