INDUSTRIAL LOCATION AND PUBLIC POLICY: THE CASE OF KENYA'S TEXTILE INDUSTRY

by

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ABSTRACT

The purpose of this interim research report is to develop models of the relationship between industrial location and public policy in Kenya, to test the validity of these models using empirical data, and to use those parts of the models which appear to be valid to help improve policy outcomes. The approach will be contextual, in that government interventions will be considered in relation to the wider context of overall industrial, spatial and population policies, and in relation to the political economy of which these policies are a part. Data have been collected in interviews with government administrators, and with officials from 17 textile, knitwear and clothing manufacturing firms. Data analysis will be based on procedures taken from the disciplines of political science and regional economics.

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1.0 INTRODUCTION

1.1 "Policy Sciences" Approach

This paper is part of the current movement in social science research institutions to develop new techniques particularly suited to assist policy makers in developing countries. To an increasing extent, social scientists are undertaking research which evaluates the current and long term outcomes of policies and events, and is designed in such a way that it helps policy makers improve such outcomes, and minimizes the resources that must be expended to bring about these outcomes. Policy oriented social scientists (who may be called "policy scientists"[1]) try to achieve these goals by developing systematic, critical procedures for evaluating the objectives and consequences of policies and governmental activities. Such an approach characteristically begins by positing a causal model said to explain a particular social process, part of which the government would like to modify. Hypotheses implicit in the model are then tested and refined on the basis of appropriate empirical data. On the basis of the refined model, correlates of desired behaviour are determined, and inferences are made about policy alternnatives. Examples of previous interventions in the same or a comparable setting are examined. Attempts are then made to answer questions such as: How many resources of what kind must be expended by the government to achieve the desired changes in behavior? Can the government afford this resource expenditure? What is the relative effectiveness of fixed policies (e.g. investment credit allowance) vis a vis agreements negotiated on an ad hoc

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This paper will ultimately be expanded and rewritten as the author's PH.D. thesis. The entire research project is being financed by grants from the African Studies Center, Boston University, and from the Ford-Rockefeller Research Program on Population and Development Policy.

1. Cf. Lasswell, 1971.

basis (e.g. duty remission)? Are sectors that are the object of these interventions likely to ignore the incentives offered by the government, and refuse to alter their behaviour in the desired direction? How long will the intervention be necessary before the behavior is self-sustaining?

The following paper is hopefully an example of the "policy sciences" approach outlined above. We will begin by reviewing in very broad terms the current state of theoretical and empirical knowledge concerning population distribution, migration, and the location of industry. We will then posit two models of social behavior which seem appropriate in the Kenyan context. From the point of view of the policy maker, the first model is substantive and the second procedural. The substantive model is concerned with the determinants of industrial location, and the relationship between this and governmental incentives. The procedural model is concerned with the interrelationships among variables affecting bargaining outcomes between governments and private investors. The hypotheses implicit in these models will then be tested and refined on the basis of data on textile manufacturers in Kenya. In the case of the substantive model, correlates of location of textile manufacturing firms outside of Nairobi and Mombasa will be identified. In the case of procedural midel, examples will be identified of situations where bargaining skill on the part of government negotiators helped to achieve certain goals of industrial policy. Finally, an analysis will be made of costs and benefits of alternative policies and bargaining procedures concerned with influencing the location of new manufacturing firms.

We must emphasize at the outset what the empirical base and scope of this paper are narrow. We are concerned exclusively with location decisions of some of the larger textile firms in Kenya. Although it is reasonable to hypothesize that the location decision making process is similar in other industries, and although in the future we will examine location decisions of firms in other industries in order to substantiate this, the fact remains that at present our conclusions are subject to inevitable biases resulting from the restricted nature of the sample. Our analysis of government policies towards these firms is subject to a comparable set of biases, the strength of which depend on the degree to which the government has treated the textile industry differently from other indistries.

In addition to the narrow sampling base, the scope of the analysis is also narrow. We are concerned here solely with the qualitative analysis of factors which have influenced location decision making, and in particular the role of government in this process. We have not yet attempted to quantify these factors, although we intend to do so in the next stage of this project.

We have also not examined the impact of the sample firms on the town/region in which they are located, although we intend to do this. Finally, this work will only be of use to the government if, as a result, specific projects can be recommended for promotion outside of Nairobi and Mombasa. Again, we have not yet done this, but intend to do so.

1.2 Population Distribution and Industrial Location: a General Theoretical Framework

Migration and the resultant changes in the distribution of population are a central feature of the modernization process. Much of what are generally considered desirable causes and/or effects of modernization[2], and much of what are considered undesirable[3], can be traced directly to the wrenching away of young people from their home, family, and customary way of life in a physical as well as spiritual sense. Because of the centrality of this phenomina to the development process, there has recently been a great deal of theoretical and empirical work in this area using the techniques of many different disciplines.

The distribution of population in a region or nation is the nesult of a combination of cultural, political and economic factors. Although we will discuss each of these three groupings of factors spparately for purposes of clarity, it will be obvious from our discussion that they are all closely interrelated.

Cultural factors in the distribution of population have been extensively studied by anthropologists, geographers and sociologists[4]. A simple way of looking looking at a much more complex situation is that many ethnic groups throughout the world have emotional attachments to particular localities. Such attachments may reflect a long tradition of settlement in a locality, such as in the African rural areas occupied predominantly by one tribe. On the other hand, the presence of a core group of migrants from an ethnic group in a locality may attract other migrants from that group, which over time may significantly alter patt patterns of population distribution in a region.

In both cases aspects of the locality become embedded in the mythology of the ethnic group. Thus, a sacred mountain or tree becomes the focus of the

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2. e.g. increased productivity, integration of local with national markets, increased factor endowments, development of entrepreneurship. Cf. Uphoff and Ilchman, 1972, pp. 92-99.

3. e.g. alienation, immorality, crime, loneliness, NB. Gutkind, 1973.

4. Barbour and Prothero, 1961. Moss and Rathbone, 1975.

group's religion, and the landmarks of a city become the focus of the lyrics of the group's music. Factors such as these often lead to feelings of exclusiveness and intolerance of outsiders, and make it difficult for group members to move to other, less congenial areas.

Groups may originally become attached to these regions for a variety of reasons. In the case of pre-industrial societies, they may have originally migrated because of religious reasons, periodic raids or conquest by another group, by a disastrous period of drought, famine, or pestilence, or simply by a desire for better land and opportunities. After travelling for months, years, or generations, they find a new location which is suitable for their agricultural and other economic activities, and where they can remain unmolested by potential enemies and/or become assimilated into other indigenous groups. In modernizing societies, the same types of group migrations may take place in order to escape racial discrimination, religious or political persecution, and/or to find greater economic opportunities. Thus, cultural attachment to locations characteristically evolves out of economic and political necessity. However, over time the cultural factors play an importance in and of of themselves in maintaining patterns of population distribution.

Political factors are important determinants of population distribution in societies at all levels of development. Political activities and policies which affect population distribution and migration may or may not have primarily demographic objectives. Thus, military actions may be undertaken explicitly to alter patterns of settlement[5] or may be undertaken primarily for other reasons while having demographic effects[6]. Municipalities may enforce restricted ethnic or social class divisions in a community[7]. On the other hand, municipalities may be forced to charge high taxes and fees in order to finance a certain level of services. These taxes and fees may in turn force certain resident groups to move elsewhere[8]. Government determined wage rates may be fixed disproportionately high in certain areas to encourage labor

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5. e.g. The long standing Arab-Israeli conflict represents an attempt by Israelis to maintain their present settlement patterns at the expense of Palestinian refugees, and a counter-attempt by Palestinians to eliminate Israel settlements and replace them with their own.

6. e.g. The recent civil war in Vietnam was fought primarily over ideological and personal issues. However, it also had the effect of altering settlement patterns in the southern region, first by the hamlet program of the Thieu government, and then by the urban-rural migration policies of the present communist regime.

7. This may be achieved by explicit, apartheid legislation or by zoning regulations.

8. e.g. In many North American cities middle class residents have been forced to leave as a result of the high taxes charged to finance welfare payments and services for increasing numbers of low income residents.

migration[9]. In addition, wage differentials may be instituted in response to differential political influence between sectors. Such differentials will likely lead to increased migration from low wage to high wage areas. At the same time, low wage areas may become increasingly attractive to new investment, which in turn will generate other migration flows. Governments rarely act impartially to achieve some idealized norm of population distribution and migration. Governments are spokesmen for coalitions of interest groups, and must deliver benefits to these groups. Such benefits may include explicit attempts to alter patterns of population distribution. Other policies may be adopted which have the secondary effect of altering population distribution as long as the regime gains more for its key sectors because of the major thrust of the policy than it loses as a result of the secondary effect[10].

In the preceding discussion of cultural and political determinants, we have given numerous examples of interrelated economic factors. These economic factors have been the most systematically researched of all the determinants of population distribution. Elaborate theoretical models have been developed, some of which have been rigorously tested using quantitative empirical data collected by economists and economic geographers. A number of propositions have emerged from this research which have stood up to empirical testing in developing countries[11]:

1) Population distribution and migration are the result primarily of rational economic choices.
2) Increasing levels of modernization act as catalysts and facilitators of increasing levels of migration.
3) The net flow of this migration is from rural to urban areas, which in turn results from a large rural-urban movement less a smaller urban-rural movement.
4) This rural-urban migration takes place in stages. A migrant may originate in a subsistence farming area, move first to a local

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9. e.g. "hardship" wage supplements are often given to workers in isolated outposts.

10. Of course, the secondary effect may not represent a loss at all, but rather an unplanned for gain.

11. Revenstein, 1885 and Lee, 1966, cited in Todaro, 1976; Wescott, 1975; El-Shakhs, 1972; Berry, 1971.
Most migrants to primary cities benefit economically from their migration, and probably tend as a result to be politically conservative. However, if the children of migrants remain in primary cities and are unable to obtain satisfactory employment, they may advocate radical political solutions NB. Weiner, 1967.

trading center, next to an intermediate sized urban center, and finally to a major city. A laborer may stop migrating either temporarily or permanently at any one of these stages if he is able to secure employment.

5) A decision to migrate from one stage to the next is likely if the combination of wage rate and level of unemployment in the destination town amounts to an increased expected income with respect to the status quo.

6) In the earliest stages of development, the level of primacy (proportion of urban population in the four largest urban centers living in the largest city) may be relatively high but may still increase further because economic development does not occur fast enough, or evenly enough, to support large intermediate cities. The nature of the colonial experience, the lack of a tradition of urbanism, and a small national area are other factors that may lead to high levels of primacy. As the level of economic activity continues to increase, political conflicts between the largest city and its periphery are resolved in favor of the periphery. Intermediate cities become more economically viable, and begin receiving a larger proportion of public resources. These cities, in turn, offer relatively large markets for agriculture and industry which leads to employment opportunities and modern services for an increasing proportion of the rural population.

7) In some situations there are structural, political, cultural or geographic factors which prevent this decrease in primacy from taking place. Where this is the case, there is a disproportionately high level of migration to the primary city, skimming off young men from the rest of the country The process of diffusion of innovations to the countryside is hampered. Services tend to be concentrated in the primary cities, making access by the majority of the population very difficult. Job opportunities in the primary city do not keep pace with the inflow of job seekers, a situation which may create political instability.

The above propositions point out the importance of the location of economic activities in determining patterns of population distribution and movement. Thus, theories regarding the location of industry are directly relevant in understanding patterns of population distribution in modern or modernizing societies.

Industrial location theory has developed along two broad lines. On the one hand, it is argued that firms locate where they can minimize variable costs. Assuming given raw material sources, markets, wage rates, external economies, production functions and transport rates a firm will select the least-cost location[12]. These theories assume that a potential investor has complete information on these variable costs.

Others have argued that control over market areas is the dominant factor in industrial location[12a]. Assuming more than one producer in a given industry, each firm will locate so that it controls the largest market area possible, given the constraints of variable costs.

Although these theories are useful as first approximations, they miss important subleties of the determinants of industrial location in developed countries, and can be outright misleading in understanding the situation in developing countries. They fail to consider cases where factor proportions and production functions can be altered to take maximum advantage of a particular location. They do not consider that differences in demand elasticities between markets may persuade an entrepreneur to locate near to the market with the more elastic demand situation, regardless of variable cost premiums that may be necessitated. They do not consider situations whereby raw material sources, markets and transport and wage rate differentials may change frequently and dramatically. They do not consider personal, cultural or political factors which frequently outweigh economic considerations. They often do not give proper consideration to the importance of proximity to financial institutions, offices of the central government, availability of reliable sources of transport, quality of the labor force, quality of infrastructure and a variety of external economies all of which are particularly critical considerations in developing countries[13].

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12. e.g. Hoover, 1948 and Weber, 1929. "Least-cost" theories of these and other writers are summarized in Nixson, 1973, pp. 5-10.

12a. e.g. Fetter, 1924; Smithies, 1941; Christaller, 1966. Losch has attempted to integrate both the least-cost" and "market-area" approaches. Losch, 1954 cited in Nixson, 1973, pp. 12-15.

These theories are oriented towards explaining the location of industry within a given country or region. There are comparable theories of the global distribution of industry using least cost (e.g. theories of comparative advantage) and market-area (e.g. theories of imperialism or neocolonialism) approaches

13. Alonso, 1971.

2.0 Industrial Location and Public Policy: the Kenyan Context

We are now ready to draw out those aspects of the theoretical and empirical work just described which are relevant to the Kenyan context, and to use them as the foundation for a model of the determinants of industrial location and public policy in Kenya. We will also develop a model of economic bargaining, which will help in processing empirical data regarding the terms of exchange between the Kenya government and potential investors with particular regard to location.

2.1 Population Distribution, Migration and Industrial Location

There has been a considerable amount of research done in Kenya on patterns and determinants of population distribution and migration. The findings of this research tend to confirm, or at least do not disconfirm, the generally accepted propositions cited in the previous section. There is a high rate of rural-urban migration. For example, the 1969 census found that 76% of the population of Nairobi was born elsewhere. In 1969, the African population of Nairobi was growing at a rate of 15.2% per annum. Since the rate of natural increase for Nairobi was only a small fraction of this,[13a] most of the overall growth rate was the result of migration. There is also a high rate of migration into other urban centres. Most migrants go first to the town nearest their rural residence and they prefer remaining there if they can obtain adequate employment.[14] Because of pressure on the land[15], rising agricultural productivity, and the attraction of towns, the government expects a minimum 7.1% annual increase in urban population up to the year 2000. By that time, urban areas will have to accomodate 26-32% of the population (7.3-10.9 million) as compared with 9.9% (1.082 million) in 1969.[16]

13a. The rate of natural increase for Kenya has been estimated at 3.3% based on 1969 census data. The rate for Nairobi is undoubtedly somewhat lower because of the relatively high level of development, GK 1971a.

14. Rempel, 1970; Marco, 1967; I.L.O., 1972, p. 46.

15. Kenya has one of the highest levels of rural population per sq. km. of arable land (678) in the world. This compares with a level of 93 in Tanzania, 280 in India, and 543 in Indonesia. Som, 1972; UN, 1973; F.A.O. 1971. GK 1971a.

16. The Government defines "urban area" as a town with a population greater than 2000. GK, 1974, p. 114.

There is considerable circular migration in Kenya. This is reflected by the fact that most recent migrants to Nairobi have not developed a firm commitment to the city, and plan to return to their original rural area when they retire.[17] Migrants are disproportionately male[18] and concentrated between the ages of fifteen and about thirty-nine years.[19] High rates of migration have characterized the largest ethnic groups in Kenya (Kikuyu, Luo, Luhya, Kamba[20]) as well as some of the smaller ones (Tharaka, Iteso, Nandi, Pokot, Sabaot, Kipsigis, Elgeyo, Pokomo, Riverine, Swahili-Shiraze, and Bajuni), while low migration rates have characterized other relatively small groups (Gusii, Embu, Mbere, Meru, Tugen, Marakwet, Somali, Galla, and Samburu)[21]. The ethnic diversity of migrants, and the differential migration rates of different ethnic groups are likely to continue in the future.[22]

Decisions to migrate are influenced by the interrelationship of three factors: the influences that push migrants away from their home bases (high birth rates, fragmentation of land holdings, increased education, high unemployment and underemployment), the attractions of urban areas (access to services, more jobs at higher wages, "bright lights") and the relative ease with which these groups can get from one place to another. Although these conclusions have been derived from predominantly qualitative studies based on census and survey data, some of them have been corroborated by econometric studies. For example, Huntington found rural-urban migration in Kenya to be positively correlated with urban incomes and negatively correlated with rural ones. Furthermore, he found that urban wage elasticities were higher than rural elasticities, indicating that high rates of rural-urban

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17. Vengroff, p. 588.

18. However, the proportion of women and children migrants increased between 1948-1962, and is likely to further increase in the future. Ominde, 1968, p. 189.

19. There is some variation outside of this age range among ethnic groups. Ibid, pp. 188-189.

20. Ibid., p. 189. These four groups combined make up about 58% of the total population. G.K., 1970, vol. 1, p. 69.

21. Ominde, 1968, p. 189. The largest of these smaller groups, the Meru, make up about 5% of the population.

22. The migration rates of certain of the smaller ethnic groups might change in the near future, For example, if transport facilities were improved for the Galla-Somali, their migration rate would undoubtedly increase. Substantial increases in world agricultural prices might tend to lower the migration rates for the smaller ethnic groups that produce export crops. However, the larger ethnic groups, because of their numbers and the resulting pressure on their land, will continue to have high migration rates.

migration will continue except in the unlikely event that rural incomes begin to increase at a faster rate than urban incomes.[23] The Todaro "expected income" model has not been tested in Kenya, although it was conceived with the Kenyan experience very much in mind.[24] However, a "comprehensive and significant test" by Barnum and Sabot based on Tanzania data found that an expected wage variable explained considerably more variation in rate of migration than the nominal wage rate.[25] Propositions regarding the impact of population movement and distribution on regional development have been confirmed by factor analysis based on official economic and demographic statistics. Soja has shown that Nairobi is the major nucleus for the generation and diffusion of socioeconomic development throughout Kenya. As a result, districts in relative proximity to and having close interaction with Nairobi tend to have relatively high levels of development. This pattern is largely the result of the attitudes and objectives of the former colonial government and settler population.[26] Extensive rural-urban migration compounds these problems by leaving behind very old and very young people, the uneducated, and large numbers of women in rural areas.[27]

This highly uneven pattern of modernization has resulted in a situation where three-fourths of the national area is "...functionally not part of the Kenya nation...the level of participation is extremely low and, more important, the frequency of internal conflict is such that the impress of the central government appears weak and ineffective".[28] Partly as a result of this uneven pattern of modernization, agricultural production per capita is not increasing.[29] In addition, the inability of large numbers of workers in both rural and urban areas to earn a reasonable income may in the long run lead to political instability.

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23. Todaro, 1976, pp. 73-75.

24. Todaro, 1969.

25. Todaro, 1976, pp. 73-75.

26. Soja, 1968. Cf. Kimani & Taylor, 1973; McKim, 1974.

27. According to one estimate, about a third (400,000) of all rural households are headed by women whose husbands are away in town. I.L.O., 1972, p. 47.

28. Soja, 1968, p. 112.

29. F.A.O., 1973. Although the value of agricultural production has steadily increased, rapid population growth has prevented any significant change in per capita agricultural production.

30. According to one study based on 1971 figures, 20% of adult males and 50% of females working in Nairobi are unable to earn a reasonable minimum income. I.L.O., 1972, pp. 51-64.

Patterns of unequal development in Kenya are evident in Table A. The 1973 Index of manufacturing employment per capita is by for the highest in the four disticts of Nakuru, Kiambu, Kisumu and Uasin Gishu-reflecting the location of Nakuru town, Thika (and the Nairobi peri-urban area), Kisumu town and Eldoret respectively. Of these four districts, Nakuru has the highest index, which is still less than one-third that /of Nairobi, and one-half that of Mombasa. There is also considerable variation among the four districts - the index for Kisumu being aboutone half that of Nakuru. The distribution of total wage employment is somewhat less unequal - although the leading manufacturing districts were also the leading districts for total wage employment.

This pattern of regional distribution of employment did not change considerably during the first 10 years of independence, although there were some interesting minor changes. Nairobi's share of manufacturing employment increased by about 9%, although its share of wage employment remained the same. Mombasa's share of both manufacturing and total employment declined slightly. Kiambu district registered the most significant gains in share of manufacturing (15% between 1967-1973) and in wage employment (28% between 1963-1973.) Nakuru district registered a 9% gain in manufacturing share (1967-1973) and a 15% loss in share of total employment (1963-1973). Kisumu district registered a 19% decline in proportion of manufacturing employment (1967-73), and a 35% decline in proportion of total employment (1963-73)

Table B indicates that there were also changes in the regional distribution of employment within the urban sector. Between 1967-73, the proportion of urban manufacturing employment in Nairobi increased by 9%, while the total proportion increased by 7%. The only other major town to register such increases was Thika, where there were gains in proportionate manufacturing (50%) and total (26%) employment. In all other major towns, proportionate manufacturing and total employment remained the same or declined during this period. The most striking decline was in Eldoret, which was closely followed by Kisumu. 1974 figures on total employment show a continuation of these trends. A closer look at the evidence of urban employment stagnation outside of Nairobi and Thika indicates that there were moderate gains in proportionate employment in Nakuru, Kisumu, and Eldoret between 1967-1971, followed by sharp declines. Thus, between 1971 and 1974, proportionate urban total employment declined by 25% in Nakuru, 35% in Kisumu, and 63% in Eldoret. Likewise, between 1971 and 1973, proportionate urban manufacturing employment declined by 15% in Nakuru, 59% in Kisumu, and 69%

Table A

Percentage distribution of wage employment in selected Districts and Provinces

Province/ District	1969 % total popu-lation	1963 mfg	1963 total	1967 mfg	1967 total	1973 mfg	1973 total	1973 Index of employment per capita** mfg	1973 Index of employment per capita** total
Nairobi	4.7	41.8	26.6	42.5	27.4	43.4	26.7	923	568
Central	15.3	12.1	14.2	12.7	14.7	14.1	16.1	92	105
Kiambu	4.3		6.4	10.7	7.1	12.3	8.2	286	191
Murang'a	4.1		2.9	0.3	2.7	0.2	2.8	5	68
Nyeri	3.3		2.4	0.8	2.5	1.1	2.7	33	82
Other	3.6		2.5	0.9	2.4	0.5	2.4	14	67
Nyanza	19.4	3.3	8.0	7.3	7.3	6.2	6.8	32	35
Kisumu	3.7		5.4*	6.8	4.7	5.7	4.0	154	108
Kisii	6.2		1.6	0.1	1.4	0.2	1.6	3	26
Other	9.5		1.0	0.4	1.2	0.3	1.2	3	13
Western	12.1	0.3	2.7	0.7	3.0	1.5	3.2	12	26
Kakamega	7.2		1.6	0.2	1.7	0.8	1.9	11	26
Other	4.9		1.1	0.5	1.3	0.7	1.3	14	26
Coast	8.6	18.2	12.8	17.8	13.0	16.9	11.7	197	136
Mombasa	2.3		8.8	16.7	9.2	14.9	8.5	648	370
Other	6.3		4.0	1.1	3.8	2.0	3.2	32	51
Rift Valley	20.2	19.9	29.4	14.8	28.1	14.9	28.2	74	140
Nakuru	2.7		9.4	7.5	8.9	8.2	8.2	303	303
Kericho	4.4		6.5	0.8	6.3	1.1	6.9	25	257
Uasin Gichu	1.7		4.2	4.4	3.8	4.2	4.2	247	247
Other	11.4		9.3	2.1	9.1	1.4	8.9	12	78
Eastern	17.4	4.3	6.2	4.2	6.1	3.0	6.8	17	39
Machakos	6.5		2.8	3.4	2.7	2.7	2.8	42	43
Meru	5.5		2.0	0.3	1.9	0.1	2.1	2	38
Other	15.4		1.4	0.5	1.5	0.2	1.9	1	12
North Eastern	2.3		0.3	0.0	0.4	0.0	0.4	0	17

* Estimate based on aggregated data from Kisumu/Siaya.

** % employment /% 1969 population = Index of employment per capita

N.B. District manufacturing data not available for 1963.

Source: Calculations made on the basis of data in GK1965, GK 1971, GK 1976, GK 1970.

Table B

Percentage distribution of wage employment in main towns*

Year	Nairobi		Mombasa		Nakuru		Thika		Kisumu		Eldoret		Other	
	mfg	total	mfg	total	mfg	total	mfg	total	mfg	total	mfg	total	mfg	total
1963		53.9		18.6		3.9		1.9		4.3		3.3		14.1
1967	50.8	54.5	19.9	19.1	5.0	4.3	5.0	1.8	3.7	3.9	4.7	3.1	10.9	13.3
1968	48.0	53.6	22.3	18.8	5.3	4.7	5.4	2.0	3.9	4.3	4.6	3.1	10.5	13.5
1971	47.9	55.0	20.5	17.9	5.3	4.5	6.1	2.3	5.1	4.2	4.9	3.1	10.2	13.0
1973	55.6	57.6	19.1	18.3	4.6	4.0	7.5	2.4	3.2	3.4	2.9	1.9	13.6	12.4
1974		58.9		17.9		3.6		2.4		3.1		1.9		12.2

* i.e. wage employment in a particular town as a percentage of total wage employment in all towns with a population of 2000 or more.

Source: Calculations made on the basis of data in G.K. 1971, G.K. 1972, G.K. 1973, G.K. 1976, G.K. 1976a.

in Eldoret.[31]

In the following and in future research reports, we will argue that this increasing concentration of employment opportunities in Nairobi and Kiambu district can be explained both by the nature of the industrial location decision-making process, and by the nature of relationships between the public and private sectors in Kenya.

By way of summary, we can now present an interdisciplinary series of statements concerning population distribution and movements in Kenya based on widely accepted theoretical propositions and empirical evidence from Kenya:

1) Patterns of population distribution in Kenya are the result of traditional patterns of ethnic settlement, regulations and restrictions enacted during the colonial period, and the location, both historically and at present, of economic opportunities.

2) Current population movements are primarily the result of the location of economic opportunities.

3) Migration decisions are primarily the result of rational calculations of expected income differentials which take into account both wage rates and levels of unemployment. Migration takes place between one area and another if there is a significant differential in expected income between the two areas.

4) There are two major migration streams in Kenya, one from relatively disadvantaged to relatively advantaged rural areas (rural-rural) and one from rural areas to small urban areas to large urban areas (rural-urban). There are also smaller counter-flows in the opposite direction.

5) For economic, cultural, and historical reasons, migrants in Kenya are disproportionately young males belonging to certain tribes.

6) To a large extent patterns of labour migration in Kenya today have been influenced by policies of the colonial and independent

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31. Although these figures do not include the urban informal sector, it can be assumed that proportionate employment in the informal sector is roughly comparable to proportionate employment in the formal sector in each town.

governments. Although such policies may have had explicit demographic objectives, they frequently had other objectives which were of primary importance. In some cases the demographic consequences of such policies were unintentional. In cases where potentially undesirable demographic consequences were predicted in advance, it was decided that the primary objectives of the policy outweighed the unwanted consequences.

We will take the above statements to be assumptions upon which the model of industrial location in 2.3 will be based. This is not to say that all of these statements have been empirically verified although some of them have, and none of them have been flatly contradicted.

There has been relatively little research done in Kenya concerning the determinants of industrial location, particularly in comparison to the number of studies dealing with the distribution and movement of population. However, the work which has been done gives us a general idea of patterns and determinants of industrial location.

The most extensive study of industrial location was done by Ogendo[32] and is based on government statistics and personal interviews with entrepreneurs involved primarily in agricultural processing and fabricating firms with five or more employees during the period 1964/65. This study isolated a number of important determinants of historical patterns of industrial location in Kenya.

One of these factors was transportation. The existing pattern of industrial location has been greatly influenced by the development of the railway and road system. Within this transportation network the location of individual firms often represents an attempt to minimize transport costs, either of raw material inputs or of manufactured outputs. Ecological and political factors have also influenced the location of many industries. The location patterns of certain industries tend to co-vary with patterns of rainfall reliability and other climatic considerations, availability of water, and high quality agricultural land, and the geological distribution of minerals. The location pattern of manufacturing industries has also been determined to a large extent by the partition of Kenya into "alienated land", "crown land" and "African reserves". These industries have tended to concentrate in the former

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32. Ogendo, 1972.

because of the presence of better infrastructure, larger markets, etc.

Another important set of locational factors are personal considerations. Entrepreneurs may choose to locate their firms in order to be close to friends, family, and social amenities. The reasons for this go beyond those of a purely personal nature. Personal considerations often have the effect of reducing costs, (e.g. a personal acquaintance with a raw material supplier or banker may influence the availability of materials or funds) and increasing revenue (e.g. personal contacts with merchants).

Another set of factors pointed out by Ogendo are locational related savings in processing costs. Such savings are said to include lower labor costs as the result of the availability of a large labour supply; cheaper and quicker replacement of parts for firms located in Nairobi; increased availability of power, fuel, water and business services in the larger towns; lower transport costs when certain industries are dispersed rather than concentrated; and marginally lower wage rates and a lower frequency of labor disputes outside of Nairobi and Mombasa. It is said that most agricultural processing industries such as the textile industry tend to be market oriented because of the large savings in the transportation of the finished product. It is also argued that in most cases there are a set of location factors for each firm, rather than one factor, and that there is rarely an "optimum" location for a plant since conditions may change so rapidly. Furthermore, firms often knowingly choose a sub-optimal location, rather than spend the time and money to find a marginally better one. Because the difference in benefits between locations is generally small, this behaviour on the part of firms is perfectly rational.[33]

We will examine the validity of these conclusions in section 4, which is based on our empirical findings. However, one general comment concerning them is appropriate here. Although the study provides a very useful description of Kenya's industrial geography, it is less useful than it might be from a policy point of view because there is little analysis regarding the relative importance of different factors. In order to design

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33. Ibid., pp. 61, 67-68.

efficient policies (i.e. policies which achieve the maximum results at the minimum cost in terms of the government's resources) we need to have a sense of which locational factors are the most critical ones in which industries. Incentives can then be designed which make these critical factors more attractive at selected locations.

Another study was conducted by Nixson[34] between 1965-7, and was based on 64 written responses to a questionnaire from a cross section of large manufacturing firms, followed up by personal interviews in the cases of some Nairobi and Mombasa based firms. Although Nixson's focus was on the equitable allocation of industrial projects throughout the East African Common Market, some of his analysis is also relevant to the problem of industrial dispersion within Kenya. Nixson's conclusions regarding locational factors are similar to Ogendo's. Beyond this, Nixson argues against tax incentives and in favor of direct subsidies as the government's most effective means of promoting industrial dispersion.

A more recent but much less extensive study was based on interviews with firms in Thika, Nakuru, and Kisumu.[35] The basic conclusions were very similar to the previous studies in that a number of different factors were pointed out with little indication of their relative importance. One factor was mentioned which was not brought out before— the importance of "political factors". We will discuss more about these factors shortly.

Another study is currently underway at the Ministry of Finance and Planning.[36] Up to now, this study has been based primarily on data, collected by the Ministry of Labor, consisting of a tabulation of manufacturing firms in Kenya in June, 1975. This study provides a useful overview of relatively recent patterns of industrial location. Data tabulations from this study are summarized in Tables C, D and E. The following general conclusions are evident:

1) Manufacturing activities are heavily concentrated in Nairobi, and to a lesser extent, in intermediate sized towns and in the Nairobi peri-urban area.

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34. Nixson, 1973.

35. Parmeno, 1971.

36. Norcliffe, 1975 and 1976.

TABLE C KENYA'S MANUFACTURING ESTABLISHMENTS BY TOWN

	SIZE CATEGORY				
	1	2	3	4	TOTAL
KENYA	100	100	100	100	100
NAIROBI	52.7	57.7	55.3	48.0	53.5
MOMBASA	17.5	12.2	16.1	15.3	15.7
NAKURU	3.7	5.7	4.3	3.4	4.2
KISUMU	4.6	5.7	2.5	0.6	3.9
KIAMBU DISTRICT	1.7	2.4	3.1	5.1	2.6
ELDORET	2.9	2.0	0.0	3.4	2.3
THIKA	1.9	1.2	1.2	5.1	2.2
REST OF KENYA	15.0	13.0	17.4	19.2	15.6

Source: . Norcliffe, 1975.

TABLE D: LOCATION QUOTIENTS FOR INDUSTRIAL TOWNS AND DISTRICTS

CATEGORY	NAIROBI	MOMBASA	NAKURU	KISUMU	KIAMBU DISTRICT	ELDORET	THIKA	REST OF KENYA
A	0.61	0.58	1.79	0.43	1.60	1.45	1.14	2.51
B	0.76	1.02	0.69	1.49	0.56	1.89	1.32	1.67
C	0.37	0.96	2.38	0.00	5.77	0.00	4.55	1.92
D	0.84	1.44	1.54	0.83	2.48	2.80	4.40	0.00
E	1.16	1.32	0.51	0.73	0.55	0.62	0.97	0.46
F	0.25	0.64	2.16	0.47	2.10	2.77	1.24	3.26
G	1.20	1.05	0.67	0.85	0.91	0.21	0.86	0.54
H	1.40	1.07	1.25	0.81	0.00	0.00	0.00	0.00
I	1.31	1.06	0.79	0.00	0.00	0.00	0.00	0.64
J	1.14	1.36	0.49	1.83	0.78	0.89	0.93	0.13
K	1.25	0.84	0.48	2.33	0.00	1.76	0.00	0.32
L	1.3	0.80	0.60	1.28	1.92	0.00	1.14	0.16

Location Quotient = $\frac{\text{firms in given category in given town}}{\text{" " " " " " Kenya}} \div \frac{\text{total firms in given town}}{\text{" " " " Kenya}}$

CATEGORY	I.S.I.C. NUMBERS	DESCRIPTION
A	3111, 3112, 3113, 3114 3115, 3116, 3118, 3121 3122	Primary food industries
B	3117, 3119, 3131, 3133 3134, 3140	Secondary food industries
C	3215, 3216, 3231	Fibre processing and tanning
D	3211, 3212, 3213	Textile finishing industries
E	3220, 3233, 3240	Clothing and footwear
F	3311, 3312, 3319, 3411 3512, 3513, 3692	Wood, Wood products, pyrethrum and cement products
G	3320, 3419, 3420	Furniture, paper and printing
H	3511, 3514, 3521, 3522 3523, 3529, 3530, 3550 3560	Chemicals, chemical products and petroleum
I	3610, 3620, 3691, 3699	Non-metallic minerals
J	3700, 3811, 3812, 813 3819	Metal industries
K	3820, 3830, 3841, 3842 3843, 3844, 3845, 3850	Engineering
L	3900	Miscellaneous

Source: Norcliffe, 1975.

TABLE E: SIZE STRUCTURE OF MANUFACTURING ESTABLISHMENTS IN MAJOR TOWNS. (PERCENTAGES).

	1	2	3	4	TOTAL
NAIROBI	44.5	25.0	15.6	14.9	100
MOMBASA	50.3	18.0	15.6	16.2	100
NAKURU	37.8	31.1	15.6	15.5	100
KISUMU	53.7	34.2	9.8	2.4	100
KIAMBU DISTRICT	28.6	21.4	17.9	32.1	100
ELDORET	56.0	20.0	0.0	24.0	100
THIKA	39.1	13.0	8.7	39.1	100
REST OF KENYA	43.4	19.3	16.9	20.5	100
ALL KENYA	45.1	23.1	15.1	16.1	100

Source: Norcliffe, 1975.

2) Most primary raw material processing firms are located close to their principal inputs.

3) High value-added industries are concentrated in Nairobi primarily to take advantage of infrastructure and linkages with other industries.

4) Market oriented industries are distributed throughout the country, with the largest plants located in the largest market: Nairobi.

5) The only industries which up to now have been genuinely footloose are those in categories D and E. Since a large proportion of the urban workforce is dependent on manufacturing,[37] it is argued that the next development plan should outline an industrial location policy, including the identification of footloose industries, and industrial projects suitable for towns other than Nairobi and Mombasa.

2.2 The Evolution of an Industrial Location Policy

In order to understand present government policy towards industrial location, it is useful to outline demands on the government which have brought these policies about.

There are two different types of demands that have been made. On the one hand, politicians have complained about patterns of industrial concentration in Kenya. For example, in 1966 the M.P. and perennial government critic Mr. Shikuku (Butere) complained that the Minister for Commerce and Industry, Mr. Kibaki (presently the Minister for Finance and Planning), was responsible for centralizing all new industries in the Nairobi area, extending out into Kiambu district as far as Thika. This to Shikuku was enough to call for a Cabinet reshuffle. "We are all here to build the nation and it is not to be built on one side", he said.[38]

37. According to a crude estimate made in this study, at least 40% of the urban workforce is either directly or indirectly dependent on manufacturing.

38. House of Representatives Official Report, X, 4th session, 6 October, 1966, cols. 472-5.

There has been a steady flow of complaints from other parliamentary critics regarding the excessive concentration of industry in Nairobi and Thika and the resultant outmigration from rural areas to these towns.[39] As Mr. Moss (Mt. Elgon), the Assistant Minster for Power and Communication, put it: "'The nearer the bone, the sweeter the meat'...Therefore, it's only those in Nairobi who are benefiting (from the government's industrialization policies)".[40] Other M.P.s have criticized the government for the limiting of industrial estates to a few towns,[41] the plight of 'backward' districts and tribes,[42] and the lack of a planning team in the Ministry of Commerce and Industry responsible for decentralizing industrial projects.[43]

There are obvious ethnic overtones to the criticism of industrial concentration in Nairobi and Thika (predominantly Kikuyu areas, particularly the latter) by politicians from other (non-Kikuyu) regions. However, it is significant that accusations of tribal favoritism have generally not been explicitly a part of this debate, unlike for instance the debate on allocation of government jobs in the mid 60s.[44]

The other type of complaint characteristic of the political debate on industrial location concerns industrial developments in particular constituencies. Factories are important political symbols, even if they do result in a relatively small number of jobs in comparison with the number

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39. Mr. Odoyo (Nyakach), National Assembly Official Report, XXXVII 2nd Session, 14th February, 1975, cols. 271-3. Mr. Anyona (Kitutu East), Mr. Mbole (Iveti South), and Mr. Murgor (Eldoret South), Standard, 10th September, 1976.

40. National Assembly Official Report, XXXVII, 2nd session, 12th February, 1975, col. 185.

41. House of Representatives Official Report, Mr. Omweri (Wanjare-South Mugirango), X, 4th session, 6th October, 1966, cols. 513-516.

42. Mr. Ole Lemein (Narok South), National Assembly Official Report, XI, 5th session, 21st February, 1967, cols. 219-22.

43. Mr. Muliro (Trans Nzoia), House of Representatives Official Report, X, 4th session, 6th October, 1966, cols. 480-3.

44. The latter debate concerned the disproportionate numbers of Kikuyus, and to a lesser extent Luos, who were receiving appointments and promotions in the civil service. For a brief review of this debate, see Rothchild, 1969. For general background information on the complex role of 'tribalism' in recent Kenyan politics, see Rothchild, 1969, and Leys, 1975, pp. 198-206.

One reason for the lack of an explicit tribal content in the debate on industrial location is that many different tribes have a stake in the large manufacturing sectors of Nairobi and Mombasa. Thus, the issue of industrial concentration in these towns vis a vis the rest of the country is not clearly divided along tribal lines.

of job seekers. Thus, politicians are continually asking officials from the relevant ministries why a certain factory (usually based on locally available raw materials) has not been built in their area. MP's have argued that a pencil factory should be built in Thompson's Falls[45] and Kitui[45a], a vegetable dehydration plant in Kisii,[46] a vegetable canning factory in Sagana[47], etc.[48]

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45. Mr. G.G. Kariuki (Laikipia West), National Assembly Official Report, XI, 5th session, 5 April, 1967, col . 1984. A pencil factory was eventually built in Nairobi in 1974.

45a. Mr. Ivuti (Kitui South), National Assembly Official Report, XXXVII, 2nd session, 20 February, 1975, col. 439.

46. Mr. Omweri (Wanjare-South Mugirango), House of Representatives Official Report, X, 4th session, 6 October, 1966, col. 516. The vegetable dehydration factory was eventually built in Naivasha in 1968.

47. Mr. Warrithi (Othaya-South Tetu), Ibid., col. 509. A new vegetable canning factory has not yet been built.

47. Mr. Kamuven (Baringo East) called for the decentralization of the dairy industry in his province, Ibid., cols. 511-2; Mr. Mati (Kitui East) asked for a castor seed factory in Kitui, National Assembly Official Report, XI, 5th session, 4 April, 1967, col. 1900; the District Commissioner for Laikipia asked for a meat processing plant in Nanyuki, Daily Nation, 26 January, 1973, p. 5; Mr. Kurgat (Kerio-Kusini) asked for a cement factory in Eldoret or Nyaru, National Assembly Official Report, XXXV, 5th session, 12 July, 1974, col. 111; Mr. Owala-Orwa (Homa Bay) asked for a sugar factory in South Nyanza, Ibid., col. 615; Mr. Moss (Mt. Elgon) proposed a starch factory in Kitale and a textile mill in Busia, Ibid., XXXVII, 2nd session, 12th February, 1975, col. 185-6; Mr. Onyango-Ayoki (Kisumu Rural) called for the development of sisal, groundnut and cotton based industries in his area, Ibid., col. 225; Mr. Mate (Meru) called for a tea factory in his area, Ibid., XXXVII, 2nd session, 25th February, 1975, col. 502-3; Mr. Amin (Wajir) asked for a meat factory in Wajir, Ibid., XXXVIII, 2nd session, 27 May, 1975, col. 720-2.

These are only a few representative examples of such requests.

Politicians have also complained that particular factories built in Nairobi or Thika should have been built in their area since raw materials would be closer at hand,[49] or that a factory originally planned for their area might be relocated for political reasons.[50] In some cases, constituents may complain directly to the government about the location of a particular factory. For instance, there was a well-publicized case in which Kisii farmers threatened to stop growing pyrethrum[51] to protest a decision by the Pyrethrum Board to expand its processing plant in Nakuru rather than to build a new one in Kisii. Farmers protested that they had not been consulted regarding the decision, and yet were assessed a levy to help pay for it. Farmers might have carried out their threat if President Kenyatta had not met with them, cancelled the levy, and convinced them to keep on growing the crop.[52]

A more veiled form of criticism are the questions put by M.P.s to the government concerning its plans for the development of certain underdeveloped districts.[53] There is also direct criticism of the government because of the lack of industries and/or infrastructure in

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49. E.g. These have been complaints about the corn cob processing plant being built at Ruaraka rather than Kitale, Daily Nation, 18 January, 1973. See also Daily Nation, 20 January, 1973, p. 7. In another example, Mr. Anyona (Kitutu East) has complained that/passion fruit processing fruit firm built a new factory in Thika, rather than expanding the existing one in Sotik. As a result, many workers in Sotik allegedly lost their jobs. National Assembly, Official Report, XL. 2nd session, 22nd April, 1976, cols. 2150-2.

50. Mr. Oduya (Elgon West), House of Representatives Official Report, X, 4th session, 6 October, 1966, col. 501.

51. At the time, Kisii farmers were responsible for about 2/3 of total national production of this valuable export crop, according to the Minister of Agriculture, Mr. Nyagah. Daily Nation, 20 April 1973, p. 4.

52. Daily Nation, 15 March, 1973, p. 15; Ibid., 7 April, 1973; p. 4; Ibid., 11 April, 1973, p. 9; Ibid., 20 April, 1973, p. 4; Mr. Ogero (West Mugirango), National Assembly Official Report, XXIX, 4th session, 6 April, 1973, col. 318; Ibid., 19 April, 1973, col. 690.

In this meeting with the Kisii management committee of the Masaba Farmer's Cooperative Union, President Kenyatta also promised that any future levies would be preceded by consultations with pyrethrum growers. However, it was agreed that the expansion of the Nakuru factory should be continued as planned. Standard, 27 June, 1973, p.1.

53. Mr. Godhia (Hamisi) re. industrialisation of Kakamega town, National Assembly Official Report, XI, 5th session, 16 February, 1967, cols. 88-9; Mr. Omweri (Wanjare-South Mugirango) re. industrialization of Kisii town, Ibid., 7 April, 1967, cols. 2264-5; Mr. Mbai (Kitui South) re. industrialization of Kitui district, Ibid., col. 2229.

particular areas.[54] The dearth of factories in agricultural areas has been criticized as hindering agricultural production.[55] These criticisms may be accompanied with threats of increased crime or political agitation in the region concerned if the situation doesn't improve.[56]

Finally, there has been some limited criticism from urban based politicians concerning the human cost of industrialization in their constituencies.[57]

The government's response to these criticisms also falls into two categories. The characteristic response to a specific request/ complaint regarding the development of an industry or industries in a given area is to state that such a development is under consideration, or that it is technically or economically unviable.[58] However, there

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54. Mr. Kitonga (Kitui East) re. Kitui district, Ibid., XXXVII, 2nd session, 7 February, 1975, col. 80-2; Mr. Said (Mombasa North) re. the mainland north or Mombasa, Ibid., col. 83.

55. J.M. Kariuki (Nyandarua North) was one of the few M.P.s to argue in parliament for a factory outside of his own district--in this case a sugar factory in Bondo, Nyanza Province, Ibid., XXXV, 5th session, 31 July, 1974, col. 616-8.

56. Mr. Godia (Hamisi) ended his plea for the industrial development of Western Kenya by threatening: "if this is not done, then there is a saying which states, 'The devil finds work for idle hands to do'...which will not be good for the country. Ibid., XI, 5th session, 24 February, 1967, col. 431. In the same debate, Mr. Shikuku (Butere) asked if the government was trying to drive the people of Western Province to become like the Shifta rebels of Northern Kenya, Ibid., cols. 431-2. Mr. Khayoya (Bungoma South) added that Western Kenyans had a long history of agitating against colonialism. For example, in 1948 the people of this region threatened to become part of Uganda, thereby forcing the colonial government to grant a seat in the Legislative Assembly to the region. Thus, he concluded, "...if it is a question that we must act before the Kenya government can do something, then we know how to act..." Ibid., col 439-40.

57. Mr. Mwaro (Mombasa West) has complained that industrial expansion has led to the eviction of people from their land. Ibid., XXXVII, 2nd session, 19 February, 1975, col. 349-53.

58. Mr. Mboya, Minister for Economic Planning and Development, Ibid., XI, 2nd session, 7 April, 1967, col 2265; Mr. Kibaki, Minister for Commerce and Industry, Ibid., col. 2229; Mr. Wood, Asst. Minister for Commerce and Industry, Ibid., XXXV, 5th session, 12 July, 1974, col. 111; Mr. Nyagah, Minister of Agriculture, Ibid., XXXVII, 2nd session, 25 February, 1975, col. 502-3; Dr. Kiano, Minister for Commerce and Industry, Ibid., 11 March, 1975, col. 899; Asst. Minister for Agriculture, Mr. Mwicigi, Ibid., XXXVIII, 2nd session, 27 May, 1975, col. 720-2.

are a few cases of projects implemented in a particular region at least partly in response to political pressure from that region. Such projects may be relatively unattractive according to conventional financial criteria, and depend on special concessions from the government for their survival.[59]

The government's response to criticism regarding overall patterns of industrial location has been a number of tentative steps towards developing an industrial location policy. The initial responses were expressions of concern at all levels of government, coupled with an unwillingness to retard overall economic growth by making unprofitable investments in less developed regions.[60] The government pointed out that there were limits to its ability to influence the location decisions of private investors, which in turn had to be based on considerations of location economics.[61] Since then, the government has experimented with a variety of incentives to promote industrial decentralization, including special funds for less developed areas,[62] tax revenue transfers,[63] industrial estates,[64] regional minimum wage differentials,[65] industrial

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59. e.g. Paper mill recently built in Webuye, Western Province.

60. GK, 1965a, p. 47; GK 1966, p. 35; President Kenyatta's opening speech to the 6th Parliament, Ibid., XIV, 6th session, 26th February, 1968, col. 3; B.H. Ogola, Ministry of Economic Planning and Development, East African Standard, 12 April, 1968; National Assembly Official Report, XIII, 5th session, 17 October, 1967, cols. 803-6; House of Representatives Official Report, X, 4th session, 11 October, 1966, cols. 653-4. All the preceding cited in Rothchild, 1969, Cf. a later comment by Mr. Mwicigi (Kandara), Asst. Minister for Agriculture: "I don't know the reasons why some people want some of the industries at Thika to be shifted to their areas". National Assembly Official Report, XXXVII, 2nd session, 13 February 1975, col. 236-7. (translated from the original Swahili).

61. Mr. Kibaki, Minister for Commerce and Industry, Ibid., XI, 5th session, 5 April, 1967, col. 1985; Mr. Mboya, Minister for Economic Planning and Development, Ibid., 16 February, 1967, cols. 88-9; Mr. Wamae, Director I.C.D.C., Daily Nation, 16 January, 1973, p. 5.

62. The Ministry of Cooperatives and Social Services has had such a fund, East African Standard, 10 February, 1967.

63. For a while, 50% of the Graduated Personal Tax collected in Nairobi and Mombasa (less 50% of collection costs) was transferred to rural county councils. National Assembly Official Report, XIII, 5th session, 18 December, 1967, col 3461. However, this practice was abolished shortly after Margaret Kenyatta became Mayor of Nairobi.

64. GK, 1969, p. 325; GK, 1974, p. 295-7.

65. GK, 1975, supplement No. 28, 26 May.

survey and promotion services,[66] and investment credit allowances.[67] In addition, a hierarchy of growth centers have been designated on the basis of regional physical plans as having priority for the development of services and infrastructure.[68] In this regard, the current development plan includes targets for investments in urban infrastructure in the major designated growth centers.[69]

Thus, since independence there has been a steady flow of criticism, primarily from Parliament, regarding the location of industry in Kenya. The government has responded to this criticism with statements of commitment to the principle of industrial decentralization, and a variety of incentives intended to facilitate this end.

In the following section, a model will be presented for evaluating the effectiveness of this response.

2.3 Model of the Role of Government in Industrial Location Decision Making

Our model of the role of government in industrial location decision making is derived in part from the conclusions of the preceding Kenya studies, and in part from the received general theories.

The classical "least-cost" location models depict a partial equilibrium situation. Locations are selected which minimize average costs by minimizing variable average costs (e.g. transport costs and wages). A typical model is pictured in figure 1.[70] It is assumed that the principal input for a firm is available at N. Thus, assuming constant wages, locational related costs are minimized at C_1 on the firm's space cost curve AC_o. Governmental incentives and disincentives in support of industrial decentralization are generally formulated with this model in mind. In figure 1, incentives (e.g. tax credits, incentives and tariff remissions, transport subsidies) are offered to firms located at

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66. GK, 1969, p. 315; GK, 1974, p. 294.

67. Budget speech delivered to the National Assembly on 15th June, 1975 by the Hon. Mwai Kibaki, Minister for Finance and Economic Planning.

68. E.g. GK, 1970a. See also GK, 1974, p. 114-47.

69. G.K. 1974, p. 123.

70. Cf. Jones, 1974, p. 550.

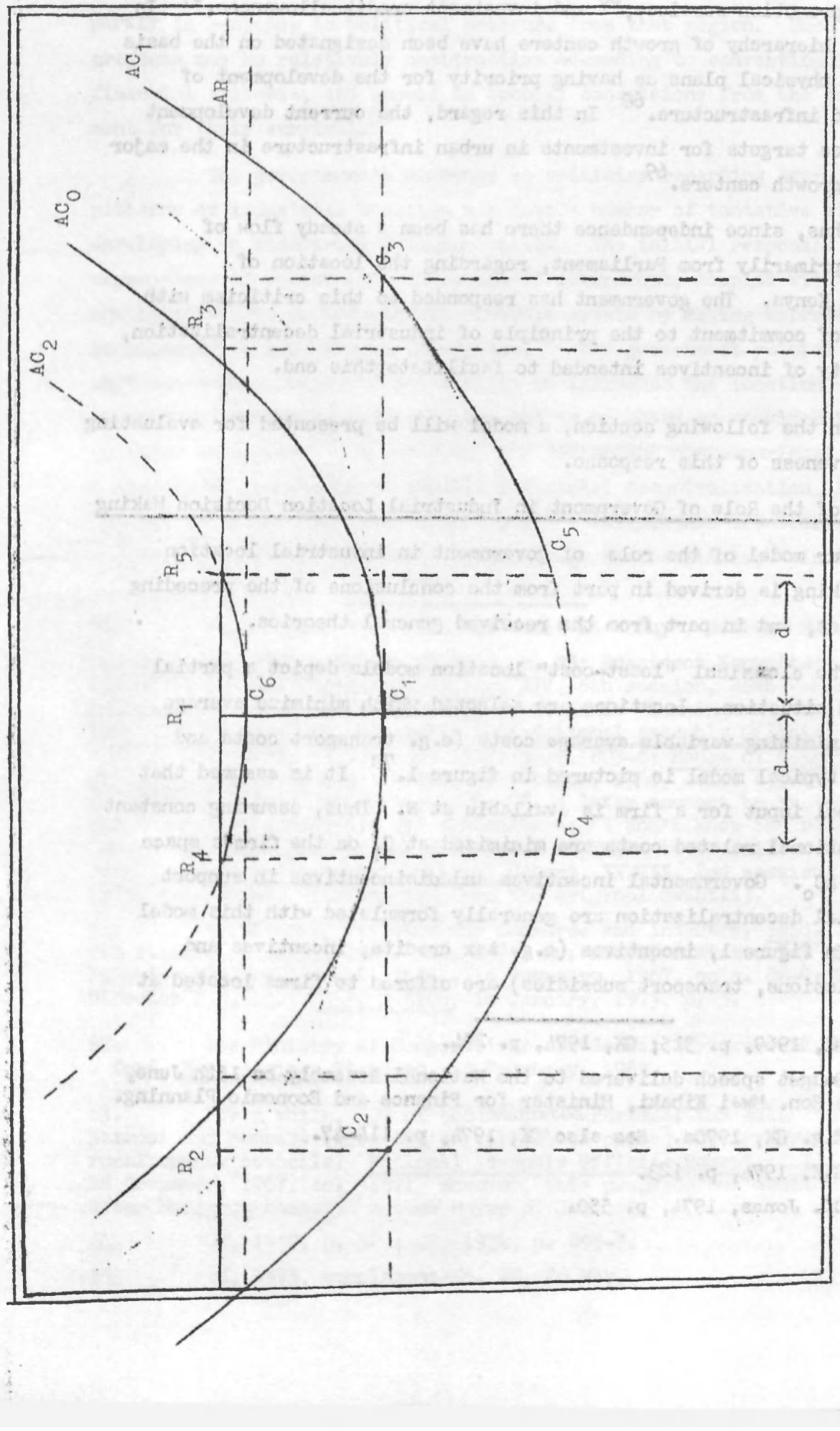

Figure 1 - Space Cost Curves.

distance D or greater from N, which have the effect of lowering the firm's space cost curve to $AC_{.1}$. The firm can now expect to make a smaller profit (R less C) in N than in locations between L_1 and L_5, and between L_2 and L_6. Thus new firms will choose to locate in these outlying regions. The government can achieve the same result by enacting disincentives (e.g. high minimum wage rates, high municipal taxes) for firms located in N, which will raise the firm's space cost curve to AC_2. Profit maximizing firms will choose to locate at some distance greater than or equal to D from N. The exact location will depend on whether or not incentives are offered in addition to disincentives. In many industries, firms would expect to generate different levels of revenues at different locations. This situation is depicted in figure 2.[71] For every peak on the space revenue curve AR, there is a space cost curve AC. In the example shown, a profit maximizing firm will locate at N because:

$$R_N - C_N > (R_a - C_a), (R_b - C_b)$$

An incentive offered for location outside of N would lower AC_{Rb} to $AC_{Rb'}$ and AC_{R_a} to $AC_{Ra'}$. The firm would now locate at L_b because:

$$R_b - C_{b'} > (R_N - C_N), (R_a - C_{a'}).$$

These models are no doubt appropriate for Kenyan industries with unusually high transport cost components. However, empirical research conducted in Kenya and other developing countries outlined above suggests that the classical models in many ways misrepresent the actual location decision-making process of most firms. A reformulated version of the original model from figure 1 is pictured in figure 3. This new model focuses on perceived average costs (PAC) rather than AC, the difference being that:

$$AC = f(T_1, W) + FC - I$$
$$PAC = f(T_2, W, p, e, o, i,) + FC - I$$

Where T_1 = transport cost calculated as cost of shipping X materials or goods Y distance.

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71. Cf. Ibid., p. 452.

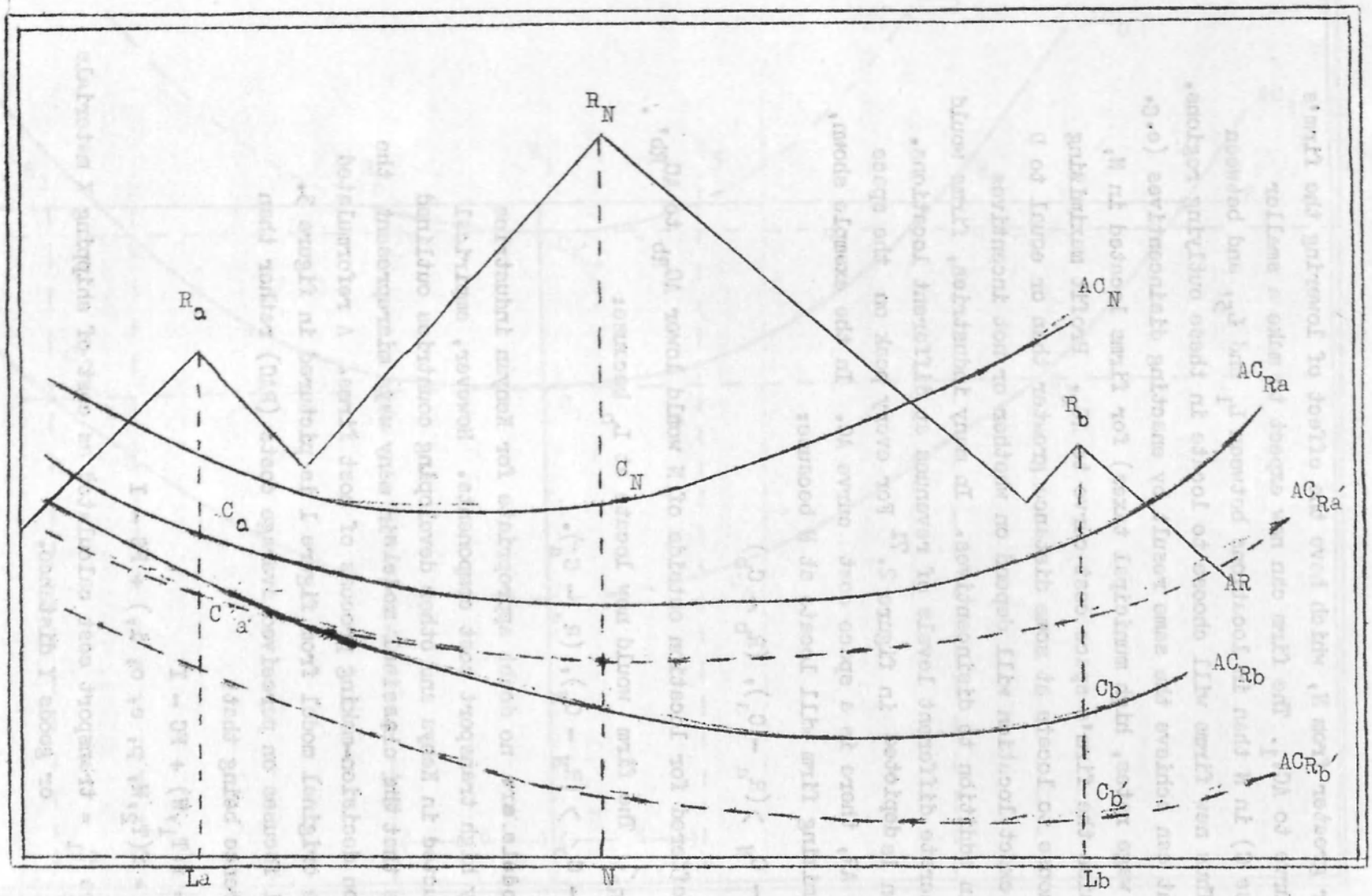

Figure 2 -Space revenue curve and alternative space cost curves.

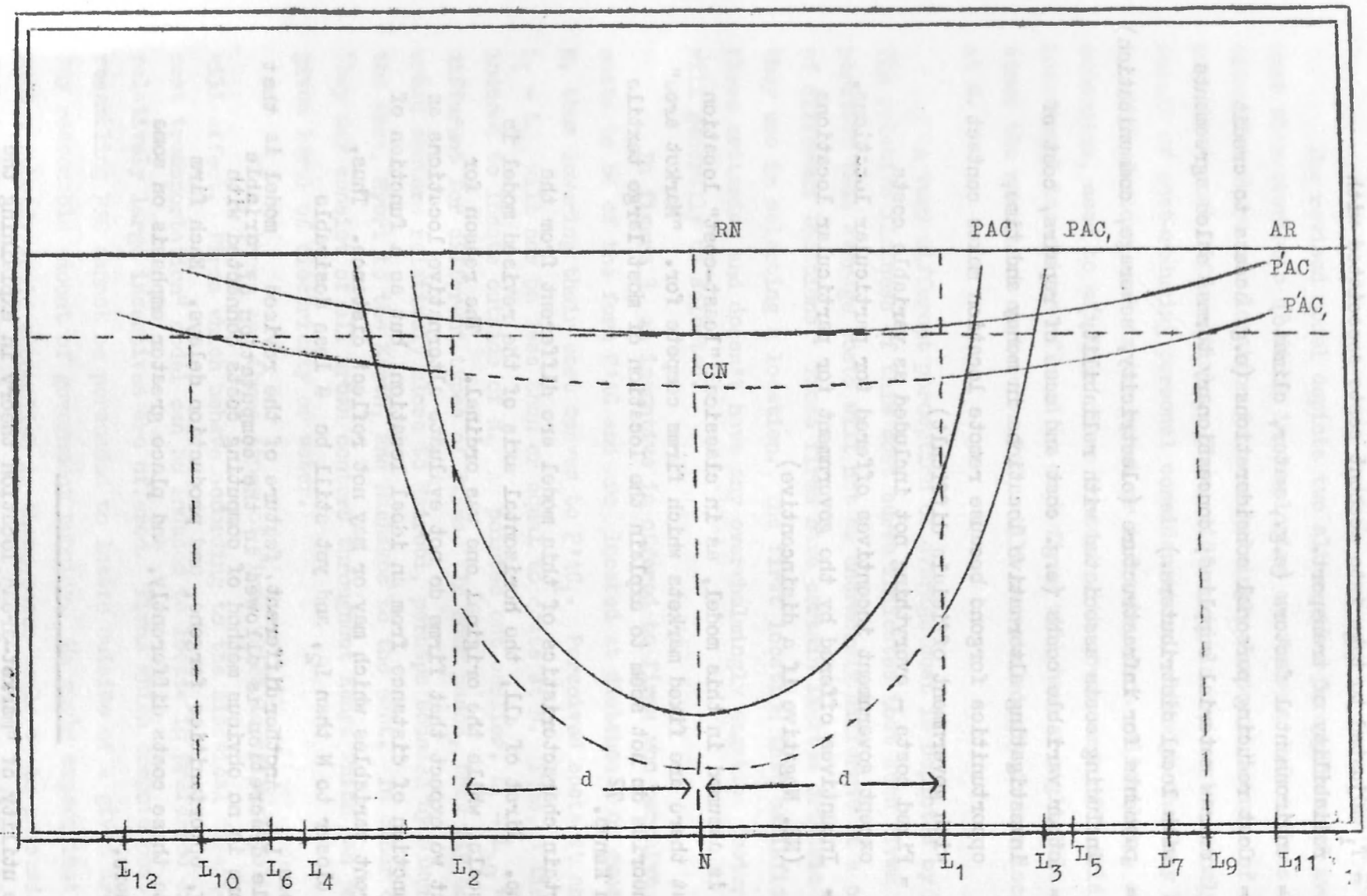

Figure 3 - Perceived space cost curves.

W = Wages

T_2 = T_1 adjusted to take into account costs associated with reliability of transport.

e = environmental factors (e.g., water, climate)

p = Cost reducing personal considerations (e.g. access to credit or raw material supplies; concessionary terms; sales agreements with local distributers.)

i = payments for infrastructure (electricity, sewerage, communication) including costs associated with reliability)

o = other variable costs (e.g. cost and ease of repairs, cost of investigating alternative locations in money and time, opportunities forgone because remote location makes contact with government officials difficult)

FC = Fixed costs - everything not included as variable costs except government incentives offered for particular locations.

I = Incentives offered by the government for particular locations (NB. Negative if a disincentive)

It is assumed in this model, as in classical "least-cost" location theory, that there are fixed markets which firms compete for. "Market area" location theories do not seem to explain the location of most large textile projects in Kenya.[72]

Certain characteristics of this model are different from the original one. First of all, the horizontal axis of the revised model is a nominal scale, while the original one was ordinal. The reason for this is that we expect that firms do not evaluate alternative locations as a direct function of distance from an ideal location, but as a function of many different variables which may or may not reflect distance. Thus, L_{10} may be closer to N than L_2, and yet still be a less desirable location than L_2. Another different feature of the revised model is that considerable discretion is allowed in the computation of variable costs. There is no obvious method of computing costs connected with reliability, opportunities forgone, and production delays. Each firm will compute these costs differently, and place greater emphasis on some than on others.

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72. The utility of "market-area" location theory in explaining the location of small scale industry will be examined in a future paper, where we will discuss the generation of backward and forward linkages from large industrial projects.

The revised model depicts two alternative perceptions of average cost characteristic of firms in developing countries. PAC defines the situation where one location is overwhelmingly favoured because of certain perceived cost differentials. These differentials are most commonly the result of cost-reducing personal considerations, although they may be enhanced by other factors such as transport or infrastructure reliability, external economies, need to maintain close contact with government officials, etc. Locational incentives offered to such firms will have a negligible effect, since the resultant cost curve PAC_1 still overwhelmingly favors location at N.

A very different perception of average cost is depicted by P'AC. The relative flatness of this cost curve indicates that such firms perceive that average costs will not be enormously different at a number of different locations. These firms have certain limited criteria that they use in selecting a location. The first location that satisfies these criteria, and doesn't have any overwhelmingly negative feature, will generally be selected.

In figure 3, an incentive is offered to firms who perceive their costs to be of the form P'AC and are located at distance d or greater from N, thus lowering their cost curves to $P'AC_1$. Perceived costs at any location $L_1 - L_{10}$ will now be less than or equal to costs at N. Thus, a firm may be induced to locate outside of N. As pointed out earlier, $L_1 - L_{10}$ will be different for different types of firms. In some cases, they may consist of urban centers relatively close to Nairobi, perhaps bounded by Nakuru to the west, Nyeri to the North, and Machakos to the east. In other cases, they may consist of all urban centers throughout Kenya which can provide a given level of electricity or water.

Thus, there are three types of firms which locational policies will affect. Firms which behave according to the classical "least-cost transportation" model can be induced to locate in preferred areas if relatively large incentives are offered. Firms which compute cost curves resembling PAC cannot be persuaded to locate outside of a given area for any reasonable amount of government subsidy. We would expect that the most a subsidy would accomplish in these cases would be to persuade a firm to locate just outside the city limits of a preferred town (i.e. if subsidies are available to firms which locate in "rural" areas). In the final case of firms with cost curves approximating P'AC, it would seem that a relatively minor governmental incentive would be sufficient to induce

location in a preferred area. However, this will only take place if the PAC curve is moved downwards. This, in turn, will occur most efficiently if incentives reduce the costs perceived to be significantly location related. Thus, if a firm perceives the cost in time and money of evaluating a number of different locations as the most significant location related cost, the government would do better to assist in and directly subsidize such evaluations rather than to offer tax incentives. In other situations, a firm may be willing to incur additional costs at a suboptimal location if the government will offer a compensating subsidy such as duty remissions on imported inputs.

Locational policy alternatives should be evaluated with these three different types of firms in mind. It is also useful to view the relationship between government and private firms as a continuous bargaining situation, part of which relates to location. Such a point of view or model is based upon certain assumptions:[73]

1) Each bargaining agent (e.g. firm, government, financial partner) controls elements involved in exchanges between them, and the elements controlled by one agent are desired by another (e.g. firm controls amount of capital to be brought into country, government controls level of protection).

2) Bargaining may be either explicit (e.g. a firm agrees to locate upcountry in exchange for a certain level of protection) or tacit (e.g. government has a general policy of looking favorably on firms that locate upcountry).

3) There are common as well as conflicting interests among participants.

4) Systematic and carefully defined bargaining concepts will be useful in the critical evaluation of bargaining encounters, and ultimately, in improving bargaining skill and bargaining outcomes.

According to such a model, each bargaining agent is aware that there are costs and benefits attached to any exchange; although it is often difficult or impossible to measure and compare these costs and benefits,

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73. Cf. Schelling, 1968, pp. 21-52, 83-118; Coddington, 1968, pp. 71-80; Curry & Wade, 1968.

each agent attempts to do so in a rational manner and to bargain for the most preferred cost-benefit ratio attainable. A critical variable in bargaining power is the ability to bind oneself via irrevocable commitments. On the other hand, there are cases where negotiated agreements require some coordination of participant expectations, such that neither side expects the other to retreat. Such coordination is often possible around outcomes which are prominent, unique, simple, and/or have a precident, rather than around less distinguishable outcomes.

Bargaining models are illustrated in figures 4 and 5. In figure 4, Ab corresponds to N in figure 3, aB corresponds to L_{γ} and AB corresponds to L_{12}, all with respect to space cost curve PAC. Assume that those are the only three locations available to a firm, and that A, B and a,b define the costs perceived to be significantly location related by the firm. Each bargaining partner attempts to maximize welfare by moving as far as possible along its respective axis.

According to bargaining theory if the government can commit itself first to B, the firm will choose to locate at aB, since this is a more desirable location than AB. On the other hand, if the firm can commit itself to A first, the government will permit the firm to locate at Ab, since this is also a more desirable location than AB. We assume that both the government and the firm view AB as a suboptimal location. From the firm's point of view, such a location would result in reduced profits. From the government's point of view, such a location would result in fewer taxes collected and the danger of bankruptcy or higher consumer prices in the future. In terms of this model, we would hypothesize that there are many cases where the government can commit itself to B either as part of an overall location policy, or as a position taken during pre-investment negotiations. In such cases, firms will willingly locate in aB, both because aB is preferable to AB, and because the firm was never really committed to Ab in the first place. In many cases, Ab was simply the first location found which satisfied the firm's minimum requirements, aB is likely to prove equally suitable. Firms will only be successful in commiting themselves to b if there is some prominent reason for a particular location (e.g. an essential raw material is only located there) or against other locations (e.g. electricity supplies are inadequate).

Another way of looking at this bargaining process is shown in figure 5. Indifference curves for government and a particular firm show the preferred mix of x and y, which might stand respectively for effective level of protection

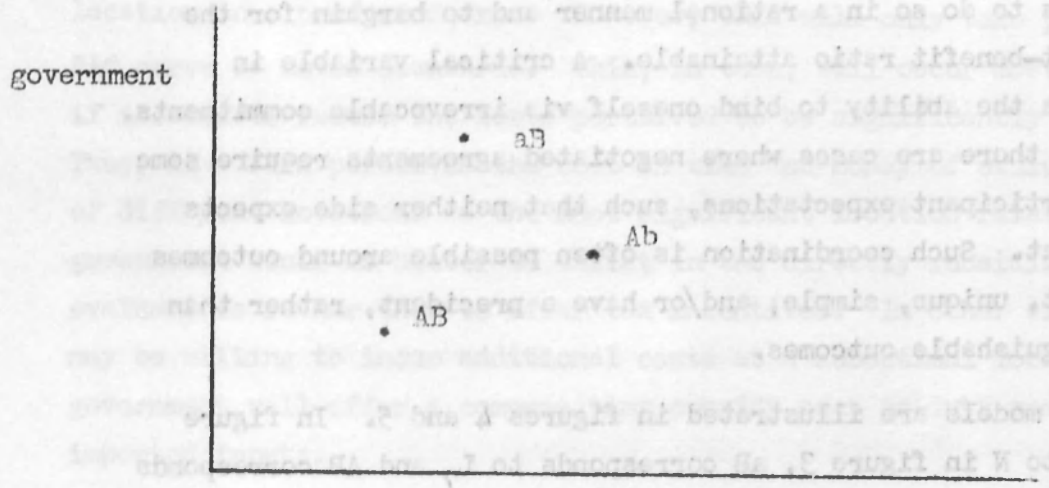

Figure 4

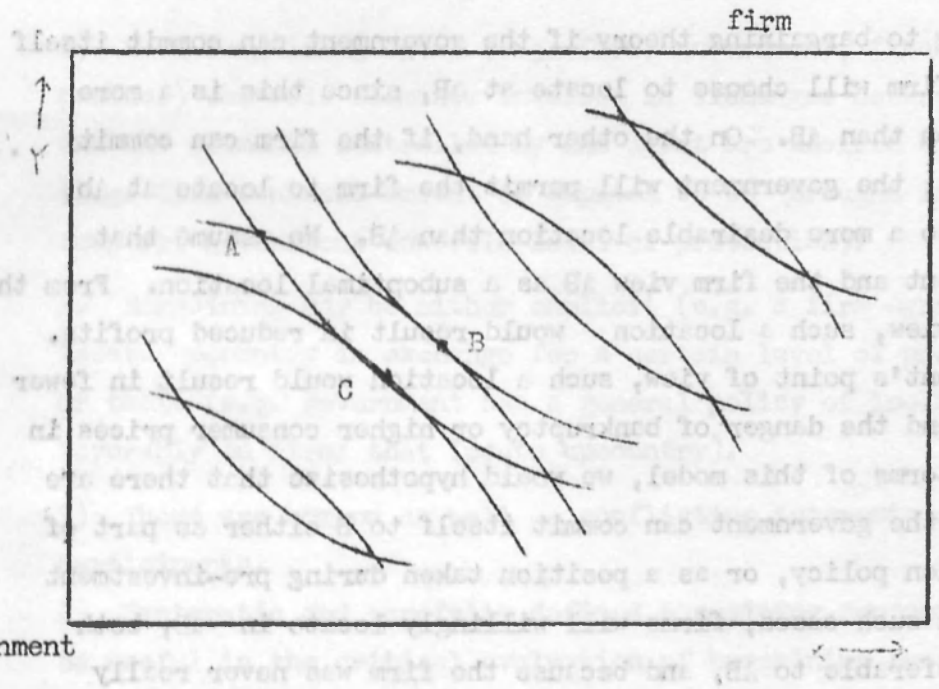

Figure 5

granted to the firm, and government investment in the firm by way of equity or loans. Given that bargaining starts at point A, government can optimize its position at B (i.e. reach a more favorable indifference curve), while the firm will be no worse off at that point. On the other hand, the optimal position for the firm is at C, at which point the Government will be no worse off than at A. Thus, bargaining will take place within the triangle ABC.

Actual bargaining is more complicated than this, since there are always other variables under dispute, such as location. For example, a firm might agree to locate in a certain location if the government would reach an agreement at C.

We can now summarize the assumptions from which our models of industrial location and public policy are constructed:

1) Migration and resultant patterns of population distribution are highly dependent on location decisions made by private businesses.
2) Decisions concerning location are primarily concerned with minimizing costs.
3) Location decisions are influenced by bargaining between government officials and firms.

On the basis of these assumptions, we have derived the following hypotheses to be tested:

1) There are at least three different methods of computing costs on which location decisions may be based.
2) Firms are generally concerned with a limited number of criteria in making location decisions. In some cases, one location is overwhelmingly favored in terms of these criteria. In most other cases, a number of different locations would be acceptible. In such cases, firms usually select the first location which satisfies these criteria, since firms are unwilling to sacrifice time and money for the possibility of finding an optimal location.
3) Government incentives may affect location decisions by altering space cost curves; however, incentives are often inefficient and/or marginally effective because they influence costs not perceived by firms to be the most important ones, because they may work at cross purposes, and because certain types of firms perceive that their costs in suboptimal locations would be unacceptibly high. Thus, incentives will be most "cost-effective" if they are tailored to influencing firms who perceive their space-cost curves as being relatively flat.

Our model views the relation between government and industry as a continuous bargaining situation, part of which relates to location. Self-interested policy makers agree to make exchanges with businessmen and vice versa. For example, policy makers may be willing to forgo collecting certain taxes in order to increase the level of investment in rural areas. However, businesses may be willing to locate in rural areas only if they are given preferential duty remission in addition to tax concessions. Both sides will eventually compromise on some intermediate position. Either side will agree to an exchange if as a result they will end up in a more preferred position with respect to their goals than they would have been in if they had not made the exchange. Government officials may attain locational and other objectives through the skillful use of bargaining techniques, including the use of irrevocable commitments, threats, promises, and tacit coordination. These basic ideas make it possible to analyze the complex determinants and effects of industrial location policies.

3.0 Methodology

3.1 Sampling procedure Formal interviews are being administered to firms selected from the population of all agricultural processing and manufacturing firms in ISIC two-digit classifications 31, 32, 33 and 34. Firms are being selected from this population based on stratified sampling techniques.

In the first phase of the inquiry, the sample has consisted of 17 firms with fifty on more employees selected from ISIC four-digit classifications 3211 (spinning, weaving and finishing textiles), 3213 (knitting mills) and 3220 (weaving apparel). These industries have been selected because they are relatively footloose, labor intensive, and have the potential for generating significant backward and forward linkages[75]. Smaller fimms which have have been set up as a result of large firms in the sample will be interviewed at at later date.

In the second phase, not yet begun, firms will be selected from ISIC 3311 (saw mills, planing and other wood mills), with special emphasis on firms producing wood products such as pre-fabricated housing materials. A Canadian consulting group has recently prepared a proposal for the Ministry of Housing to develop such firms in selected high population density regions of the country[76]. We will evaluate the prospects of such a development with respect to our model of industrial location. Firms will also be selected for interviewing from ISIC 3113 (Canning and Preserving of Fruits and Vegetables), 3115 (Manufacture of Vegetable and Animal Oils and Fats), 3116 (Grain Mill products) and 3121 (Manufacture of food products not elsewhere classified).

On the basis of research discussed in 2.2, the above industries are ideally suited to be located outside of Nairobi and Mombasa. If we find during our interviews that these firms are encountering considerable difficulties resulting from their upcountry location, then the prospects for the decentralization of other industries are dim. However, if the firms in the sample are viable in their upcountry location or believe that they would be viable (in the case of Nairobi and Mombasa based firms), then the prospects for decentralizing these and certain other types of firms are more favourable.

3.2 Data Collection Because the final recommendations relate the endogenous forces influencing geographical distribution of jobs and people to policy variables such as tax incentives and government subsidies, data collection proceeds along two parallel tracks: one concerned with the decision process

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75. In 1973, firms with 50 or more employees accounted for 83.7% of wage employment in manufacturing, and 98.5% of wage employment in the textile industry (ISIC 3211, 3213). Computed from data in GK, 1975.

76. Kendev, 1975.

used by firms in choosing a location, and the other concerned with the resources of and restraints on the Kenyan government, and its resultant industrial location policies.

Data on location decision making is primarily collected during interviews with officials of sample firms. My initial approach is via letter, which is followed up in a few days with a telephone call. I try to reasure businessmen that I am not a government official, and that facts btained will be considered "on background". Some businessmen are still reluctant to provide proprietary information that could be useful to competitors. I have tried to design interview techniques which minimize this problem. I have also attempted as much as possible to cross-reference interview responses with each other and with public records, to detect inconsistencies. Interview responses have also been compared with feasibility studies, correspondence between firms and government, and interview responses of government officials involved in pre-investment negotiations.

I have conducted most of my interviews with the most senior official available, who is usually either the managing director or the general manager. In most cases, this official was with the company when the location decision was made. In many cases, he was primarily responsible for making the decision. Often I have also interviewed the chief accountant and one of the production managers.

Some data on industrial policy are collected during these interviews with businessman. In addition, I am talking with individuals knowledgeable about the administrative capability of the Kenya bureaucracy and the political constraints upon this bureaucracy such as appropriate officials of the Central Organization of Trade Unions, the Kenya National Chamber of Commerce & Industry, the Federation of Kenya Employers, the Nairobi City Council, the press, and relevant governmental agencies (e.g. Office of the Chief Economist, and the newly established regional offices of the Ministry of Finance and Planning; Physical Planning Department, Ministry of Lands and Settlement; Industrial Survey and Promotion Center, Ministry of Commerce & Industry; Kenya Industrial Estates, Ltd., Industrial and Commercial Development Corporation).

3.3 Data Analysis

Analysis is being carried out in two stages. First of all, hypotheses are being tested qualitatively on the basis of interview responses. Interview and other data will then be coded, and used to quantitatively test hypotheses.

At this stage, only qualitative tests have been made. Although it is difficult to specify exactly how our hypotheses should be tested, certain guidelines are clear:

1.) We have suggested that location decisions are based on a limited number of criteria. The validity of this should become apparent from the responses to questions concerning locational factors[77]. It is important to note how quickly and emphatically the official lists the important locational factors. Does he list a couple of factors without hesitation, or does he hedge? And if he hedges, does this reflect the fact that a large number of factors were taken into consideration, or that he doesn't remember which factors were important, or that he is reluctant to admit which factors were important?

2.) It is suggested that firms generally do not believe that the marginal differences between an optimal location and an adequate location warrant the expense of finding the former if the latter is already available. The responses to questions concerning comparison of alternative locations are relevant here. If firms do not conduct thorough evaluations of alternative locations, this would lend support to our hypothesis. The responses to these questions should also indicate whether or not firms rank alternative locations as a function of distance from an ideal location.

3.) If the preceding hypotheses are confirmed, we would expect that our hypothesis concerning policy would also be confirmed: namely that for certain types of firms relatively minor governmental incentives, would be sufficient to induce industrial decentralization; however, if the same incentives are offered to other types of firms, the incentives will be ineffective, and may work at cross purposes.

4.) Hypotheses on the importance of bargaining between business and government to location decision making will be tested in selected case studies of bargaining encounters. The comparative utility of alternative bargaining strategies will also be examined in these case studies.

3.4. Dissemination of research results

This study is being carried out in cooperation with the Industrial Survey and Promotion Center (ISPC), Ministry of Commerce and Industry, and with the Project Planning and Evaluation Unit (PPEU), Ministry of Finance and Planning.

The study is in accordance with the ISPC circular of 5th February, 1976 entitled "The Planning Process in Kenya" which points out that policies affecting the location of industry must be coordinated with an overall

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77. Parts of the questionnaire have been adapted from the questionnaire used by Malinowski and Kinnard, 1961.

industrial policy. This document states: "These new problems (i.e. population explosion, rural-urban migration, and unemployment) call for a re-orientation of the planning strategies without sacrificing economic growth; a balance has to be struck between (a) concentration of industries at growth poles and geographical dispersion (b) capital intensive or labour intensive, (c) large or small industries (d) traditional or appropriate technology use". My research project also concerns policies intended to affect industrial location in the context of overall industrial policy.

This project is also in accord with one of the goals cited in the 1974-78 Development Plan: "To encourage the expansion of several large towns in addition to Nairobi and Mombasa, thereby providing more alternatives for the absorption of the migrant population and avoiding the problems arising from excessive concentration in these two towns."[77a]

Research results will be fully available to ISPC, PPEU, and any other interested governmental institutions.

My project will also link up with the broader research effort currently underway at Boston University, which is addressing the following issues affecting African countries "(1) the economic, social, psychological, and political consequences of alternative population distribution patterns - particularly with respect to urban concentration; (2) forces affecting or determining individual and family migration decisions; (3) determinants of private business location decisions; (4) determinants of public sector facility location decisions; (5) the administrative framework for formulating and implementing spatial and urban policies; and (6) reciprocal relationships between politics and policy making and implementation with respect to spatial distributions of activity."[78]

Thus, my research will be part of a much larger effort "to make reasonable predictions concerning the effects of alternative policy measures on spatial distributions of population and activity and to make normative judgements about the relative desirability of different spatial patterns"[79] both in the particular case of Kenya, and in the wider African context.

77a. GK, 1974, p. 119.

78. African Studies Center, 1975.

79. Ibid.

4.0 Factors in industrial location: economic and personal

4.1 Locational factors

Before discussing the factors of industrial location, it is important to understand the method of location selection. Only one textile firm of all the ones interviewed claimed to have conducted a formal survey of many different locations, during which operating costs and market conditions were systematically examined. In the case of this firm, the General Manager spent 6 months first examining locations within a 25 mile radius of Nairobi, and later, at the insistence of the government, examining other locations throughout the country. His procedure was to visit the local branches of Barclay's and the Standard Bank in each community under consideration, and to ask the bank managers for tips and contacts[80]. After going through this process a number of times, he began eliminating locations from consideration because of various negative factors, particularly the problem of waste disposal, until only one possibility remained.

In all other cases, no formal study was made comparing different locations. Most businessmen felt that the cost of such a study in time and money was not justified. Concerning the former cost, it should be remembered that there are a number of different producers in this industry, making it more competitive than other industries in Kenya. Thus, it was generally felt desirable to get into production as quickly as possible in order to gain a foothold in the market before a competitor did. However, this desire to get into production did not always result in the absence of formal studies. For example, the only firm which conducted a formal study was also the most outwardly concerned with "beating out the competition" in the form of another new mill.

Another example of the importance of time as a locational constraint was the example of a firm that started production in Nairobi in 1959. In 1964, the firm was able to purchase a large consignment of second hand machinery, with which to significantly increase its production capacity. They had planned to move to a larger site for some time. Now, however, they had to find a site with buildings already there in which to store their equipment. When they heard that the site of an old chemical company, then bankrupt, with 10,000 sq. ft. of buildings on it was available in Thika, they took it almost immediately.

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80. These bank managers proved to be extremely helpful, since the prospect of a large textile mill in their community promised a considerable increase in their business.

It should be clear in the following that many firms claim to have considered two or three different locations before choosing their present one. These locations tended to be well known ones such as Mombasa, and were rejected for various negative reasons. These firms were not merely trying to minimize costs, but to find a location which met certain criteria. When such a location was found, it was selected. It was not felt that it would have been worthwhile continuing to look for an optimal location. With this in mind, textile manufacturers gave a number of different reasons to explain the location of their respective firms. Although no single factor emerged as the most important locational determinant for the industry, certain factors were clearly more important than others.

Surprisingly, some of the locational factors suggested by industrial location theory turned out to be of marginal importance. For example, one might expect that the supply and cost of labor would be a significant locational determinant as it is for this industry in other parts of the world. However, this was often not the case. One mill located in Mombasa, told us that most of their unskilled workers come from the Kisumu area, and most of their skilled workers are Kenyans who have left jobs working in textile firms in Uganda. The officer interviewed said that he could have obtained such workers just as easily if his firm had been located elsewhere in Kenya. Furthermore, the official believed that a textile mill located in a smaller town would not make significant savings in labor costs. Although wages might be initially low at such a factory, the establishment of other, neighboring firms would eventually drive wages up. Wages would also tend to go up as the Tailors' and Textile Workers Union pressed for a uniform national wage structure . Such a pattern is already evident in Table F, which gives a sample of current minimum wages in the textile industry. In all but one case, these wages are between 355/- and 365/-, regardless of location.

There were some cases where labor considerations were admitted to be a factor in plant location. A Thika mill told us that Nakuru and Eldoret w were rejected as potential locations in part because it was not clear that an adequate labor supply would be available. Furthermore, one of the reasons for their selection of Thika rather than Nairobi as a location was that at the time the location decision was made there was a considerable wage differential between the two towns. Another firm also mentioned availability and cost

Table F: Minimum Wages in Selected Textile Firms

Firm	Location	Minimum Wage*	Effective Date
Thika	Thika	360/-	1/3/76
Sunflag	Nairobi	365/-	"
Midco	Nairobi	365/-	"
Capital	Nairobi	365/-	"
Jaydee's	Nairobi	365/-	"
Nanyuki	Nanyuki	365/-	4/1/76
E.A. Fine Sp.	Nairobi	415/15	1/6/76
Kenya Rayon	Mombasa	361/55	1/7/76
Kenya Towel	Mombasa	361/00	1/7/76

* Including housing allowance. In some cases, wages for new recruits are somewhat lower for first 3-6 months of employment.

Source: Wage agreements between textile firms and Tailors and Textile Workers' Union.

of labor as reasons for their location in Thika. Still another firm told us that wages currently paid to the bulk of the labor force in their factory located in Kiambaa (12 miles from Nairobi city centre) were 19-25% lower than they would have to be in Nairobi, and that the housing situation for the work force was greatly simplified. However, these factors were not the primary reasons for the location of this factory. A firm intending to produce synthetic fibers has said that one of main factors considered in choosing Thika as a location was the presumed availability of skilled labor because of the proximity of other large textile firms. However, this presumed advantage may be less important than they think. For one thing, if this firm joins the Textile Manufacturers Association, it will be subject to an agreement that member firms will not try to entice trained laborers away from other member firms. In addition, one government official interviewed believes that many of the laborers working in Thika mills are becoming increasingly careless in theirwork, and that a new mill would probably do better to train its own workers from scratch. Labor considerationswere an important factor in the location of another upcountry mill. In this case, a large number of potential locations was narrowed down to a choice between two locations. A major reason for the selection of one of these was the relatively homogenious ethnic composition of that community, in contrast to the other. It was felt that as a result, there would be less friction between laborers, particularly in the event of political unrest in the country. This factor was of particular concern to the firm's general manager, who played a major role in making the decision, since he had previously been stationed in Nigeria during the civil war.

One upcountry firm noted that it had considered as a locational factor the fact that there were 500 workers in the community who were just completing work on the construction of a new air field, and would be available for work in the mill. This firm noted that it preferred not to hire laborers who had experience in the textile industry in Kenya, since these workers would have become used to working at a very low efficiency. The firm would rather hire inexperienced workers, and train them on the job, at a nearby polytechnical college (e.g. for basic electrical and engineering skills), or overseas (e.g. for highly specialized textile production skills). A final case where labor considerations were a locational factor, although not the most important one, was a garment manufacturer in Nairobi. This was the only firm visited with an African managing director.[81] The firm does not belong to the Textile Manufacturer's Association, which the director believes to be a "cartel dominated by Indians", and involved in a variety of malpractices. Thus, he freely "pinches" skilled laborers from nearby mills. In fact, he told us that it is a mistake to train people because it is so much cheaper to "pinch" them. He said that one of the reasons for continuing to do business in Nairobi was the availability of trained laborers that could be "pinched", but that even in Nairobi there was a shortage of laborers with the types of skills that his firm requires.

Another locational factor that one would expect to be important based on industrial location theory is proximity to sources of raw materials and/or markets. The textile industry, and particularly some branches of it such as the clothing industry, are conventionally though of as market oriented industries. This is sometimes the case in Kenya, but not always.

The reason for the market orientation of this industry is not generally transport costs. Admittedly, it is cheaper to ship finished cloth or clothing than raw materials. For example, a Mombasa firm told us that their raw materials underwent an average 20% weight loss during the production process. Since raw materials were primarily imported, transport costs could be minimized by locating in Mombasa. The synthetic fiber firm considered Mombasa as an alternative site primarily because of savings in raw material transport cost and fuel oil price differentials (which reflect transport cost). However, the Mombasa location was rejected for other reasons. Another upcountry firm also felt it would significantly save on raw material costs by locating in Mombasa. It is believed it would also save on equipment and spares purchases in Mombasa, which tend to be available at relatively lower

81. This director is a civil servant working at the Treasury. He started up the firm by [illegible] an ICDC [illegible]

prices both because of lower transport costs and lower markup. Yet, in this industry overall, transport costs only amount to an average 1.8% of total costs[82]. Such costs are generally not a significant locational determinant. Access to certain transport facilities was also mentioned in some cases. Most of the firms used their own trucks for the bulk of their shipping requirements. This arrangement was thought preferable to use of commercial truckers or the railways because of lower costs and greater reliability. Some of these firm used the railways for bulk, long distance shipment of raw material inputs, and these firms tended to be located next to a railway siding. The importance of access to major roads and rail facilities was one of the reasons why every factory in the sample is located in or near a major town.

Although some firms admitted that they try to purchase cotton from ginneries as close to their factory as possible[83], proximity to ginneries was never mentioned as a significant locational determinant. In fact, most mills in Kenya cannot rely on any one source of supply because of production shortfalls,[84] and changing requirements for a particular grade of cotton due to changing production mixes.[85]

The same would seem to apply with regard to supplies of intermediate goods. For example, a Nairobi weaving concern obtains its yarns from two Nairobi mills: one in Nanyuki, and one in Kisumu. The choice is determined not by proximity but by the type of yarn required for the current mix of production.

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82. Calculated from 1967 data on "made up textiles except clothing" industry. Costs include all inputs, labor, interest and depreciation. In comparison, transport costs make up an average 3.1% of total costs of all manufacturing and repairs industries according to the same data. GK, 1972a.

83. A Thika mill, which obtains 50% of its cotton in Kenya, tries to buy as much of this as possible from a nearby ginnery in Kitui. Another firm has invited officials from a local ginnery to visit their mill, at which time these officials were urged to increase their production.

84. Because of increasing cotton consumption by Kenyan mills and correspondingly small increases in output of local ginneries, Kenyan mills are having to import increasing amounts of foreign cotton. A large part of this comes from Mwanza, Tanzania at the moment, which has replaced Uganda as the major foreign supplier. Mwanza cotton was until a few years ago shipped across Lake Victoria by boat. However the boat is currently not operating because of problems in the East African Community, so that Mwanza cotton must be imported via Dar es Salaam/Mombasa. This uncertainty of source of raw material supplies is one of the reasons why the textile industry in Kenya has not been raw material oriented.

85. Tanzanian cotton is primarily BR grade, while Kenyan cotton tends to be the higher quality (longer staple) AR grade. Many firms blend the two of these in varying proportions depending on the demands of the market. Thus, changing requirements of particular grades of cotton add an additional uncertainty concerning source of cotton.

Proximity to markets was most important for clothing and knitwear manufacturers, and of some importance to firms engaged solely in spinning and weaving. A Nairobi based firm said that in their line of knitted cloth, styles may change every 15 days. Since most of their customers are garment manufacturers from Nairobi, and since customers prefer to come to the factory to specify their requirements rather than to work through a travelling salesman, it is important for the plant to be located in Nairobi. The official said that if the firm had been located away from Nairobi, machinery would often lie idle while waiting for customer orders. On the other hand, in Nairobi, the plant is currently operating 24 hours a day, 7 days a week.

A Nairobi garment maker sometimes sells a large proportion of its output outside of Nairobi.[86] However, the rural markets are erratic, and are expensive to service because of higher expenses and commissions for salesmen and the high frequency of bad checks. Thus, the firm prefers to be located in Nairobi, so as to better service this more dependable market.

A Nairobi weaving mill produces bedspreads and towels primarily for the Nairobi market, and to a lesser extent for Central Province. Officials felt that for marketing and other reasons, the firm could not survive if located a significant distance from Nairobi, unless administrative and sales offices were maintained in Nairobi. However, this was not thought feasible for a relatively small firm such as this. Many other firms mentioned the ease of servicing a variety of markets from their location. Thus, a Thika mill noted its central position with regard to its three biggest markets of Nairobi, Mombasa, and the Kitale area. A Nairobi clothing manufacturer found 60% of its market in Nairobi, and the rest spread out like spokes of a wheel in Mombasa, Kisumu, Eldoret, and Nanyuki. A Nairobi spinning mill found Nairobi a central location not just for servicing the Kenyan market, but for its export markets (35% of sales) in Uganda, Sudan, Burundi, Somalia, Zambia and Germany. Nanyuki Textiles was thought to be well situated to cover both the Nairobi market, and the markets close to Nanyuki such as Nyeri and Embu. Only one firm producing yarn and woven cloth told us that access to the local market was a primary locational consideration.[87]

Thus, a central or proximate location with respect to markets was considered desirable by textile firms, and was most critical to certain

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86. According to the managing director, 1/3 of total sales are made outside of Nairobi during the worst of times, and 2/3 during the best periods.

87. According to the firm, 60-70% of sales are in the local Nyanza province. The official interviewed believed that because of long standing ties with distributors, that the firm would retain its share of the local market despite the new competitors which are entering the field.

clothing and knitwear manufacturers. However, in many cases market access did not seem to be a dominant locational factor. Firms located outside of Nairobi were able to maintain a hold on the lucrative Nairobi market by maintaining a Nairobi sales office and/or through local agents. Firms located in or near Nairobi tended to be there for other reasons of equal or more importance than access to markets.

Two locational factors - water and climate- were of considerable importance to many of these firms. Large amounts of water are necessary for bleaching, washing, and dying. Moderate temperatures and humidity are also desirable. All of the Thika mills mentioned the availability of ample water supplies from the Chania River as a critical locational consideration, although one firm complained that the price was rather high and quality only "adequate". One of the reasons the synthetic fiber firm rejected its alternative Mombasa location was the scarcity of water in that town.

Many mills also mentioned the importance of climate as a locational factor. Three upcountry firms said that they considered Mombasa as an alternative location, and one of the primary reasons for rejection in all cases was the high airconditioning expenses that would have to be incurred because of excessive heat.

Another locational factor that occasionally came up was the availability of spares and repair facilities. For example, two Nairobi firms stressed the importance of reliance on Nairobi based engineering firms for spares and service. However, most of the larger firms found that they had to keep their own spares in stock,[88] since even in Nairobi they could only buy rudimentary items such as bolts, nuts, and bearings. Most of these firms also did their own repair work, although they made use of local wood-working and metal shops when possible.

Finally, in most of the cases of locally owned and managed firms, the primary locational factors were personal ones. Most of these firms were owned and managed by Asian families that had lived for generations in Nairobi or Mombasa.[89] These entrepreneurs started with retail or wholesale businesses, and developed a network of business contacts. When the decision was made to go into manufacturing, there was never any thought of moving.

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88. One firm said that it kept eighteen months worth of spares in stock.

89. During the colonial period, Asians were not allowed to purchase land and operate businesses in territories designated as 'white preserves'. When Asians purchased firms located in such areas, they would have to dismantle them and set them up again in some other area. This explains the concentration of Asian firms in towns such as Nairobi and Mombasa. Swainson, 1976, p.40.

The Asian owners of a Nairobi firm started with a clothing shop on Government Road, Nairobi. After receiving a quit notice, they started a yarn importing business. From this they moved to cardigan production, and from there to fabric production. Their customers continued to be people they had known for many years. Although most of them came from Nairobi, some of them came from other towns such as Nakuru.[90]

Another Nairobi knitting mill was also built up from a small operation in Nairobi. Although in retrospect it might have been better to have built the plant in the peri-urban area to take avantage of lower costs and greater room for expansion, it was now felt that it would be too expensive and too risky to move.[91]

Another weaving firm is also located in Nairobi because of long standing family ties. They have considered renting their premises in Nairobi and moving to Kiambu (10 miles from city centre) to obtain more space, lower costs, and cooler temperatures. However, they have not done this because they are afraid that Asian entrepreneurs would not be welcomed by local government officials.

Another firm was established by a group of Asians and an African. For reasons of cost and climate, Kiambaa and Kikuyu, both within the Nairobi peri-urban area, were chosen as alternative locations. Kiambaa was eventually chosen because the African partner wanted the firm to be in his home (Kiambu) district.

A Mombasa firm started out as a garment making concern run by an old Mombasa family. Over the years, the firm has developed into an integrated spinning and weaving mill. Despite the problems of heat and water supply, the owners have no plans to break personal and family ties in Mombasa and move elsewhere.

One exception to the pattern of personal considerations dominating the location decisions of local firms is the case of a Thika mill. This firm is a joint venture between a local Asian businessman, and some Japanese textile concerns. The Asian initially preferred Mombasa as a location, since he already

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90. On the day we visited the firm, a garment manufacturer had come down from Nakuru to order some knitted cloth. Although the same cloth is made in Nakuru, he preferred to deal with his personal acquaintance at this firm.

91. Manufacturing firms in Kenya must apply for and receive a licence from the government every year. Last year, the Asian managing director and owner of this firm did not receive his licence renewal on schedule, and had to cut back on production and lay off many of his workers until the situation was clarified. Under such conditions of uncertainty, he is not prepared to undertake any expansion or change in location of his business.

had a blanket and garment manufacturing firm in that town. However, it was decided that the climate was unsuitable, and the firm went to Thika.

One compromise that many of the large, foreign owned firms have made is to maintain a Nairobi office. We have already mentioned the existence of sales offices in Nairobi. Many firms also have the offices of their top management in Nairobi.[92] The reasons given for this included the need to be in constant touch with financial and governmental institutions, and the need to work closely with the sales office. One firm was managed by a Nairobi based management company.[93] It is also likely that the same types of personal considerations that persuaded Asian businessmen to locate their firms in Nairobi were factors in persuading the predominantly expatriate executives of upcountry factories to set up a Nairobi head office. Although these men did not have long standing family ties and business contacts in Nairobi, like the Asians, they were attracted to Nairobi for its relatively sophisticated urban amenities.

It should be pointed out that the three integrated textile mills most recently built in Kenya have all been located well outside of Nairobi, and all have their top management working at the factory site. One firm owned and managed by a group from India has all its top management working at the factory site. The top management of another firm prefers to work upcountry because they find they can work much more efficiently than they would be able to in Nairobi, where they would be constantly interrupted by visitors and telephone calls. From a purely personal point of view, these men said they preferred living in a rural area, away from the bustle and problems of the city, and close to good hiking and fishing territory. This is not surprising, since many businessmen in Europe and North America also prefer working in rural areas for the same reasons.[94]

4.2 Conclusion On the basis of the preceding evidence, what conclusions can be drawn as to the validity of our model of industrial location? First of all, the overriding importance of personal considerations was confirmed. In

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92. In such cases, top executives, accountants, salesmen, and their staff are generally based in Nairobi. Production managers and staff are always based at the factory site.

93. Interestingly, the acting managing director, employed by the management company, was a member of the Asian family that originally owned and managed the firm.

94. This firm was the only one in the sample whose location was opposed by a segment of the community. Local European farmers made an unsuccessful bid to halt work on the factory on the grounds that it would take all the water from the local river and replace it with effluent. However, these objections were overruled by the town council, who viewed the prospect of the creation of 700 jobs as the most important consideration. This situation, again, parallels very closely the European-North American experience.

the cases of many of the Asian run firms, these considerations were purely personal (e.g. always lived in a particular town, desire to be close to family, desire topartake of amenities in the town) as well as cost reducing or revenue increasing. In terms of our model, many locally owned and managed firms never seriously considered any other location besides the one selected, which was chosen for primarily personal reasons. In such cases, it is reasonable to believe that the location decision was made on the basis of a cost calculation of the form PAC in figure 3. In most of these cases, firms chose to locate in Nairobi and Mombasa. Such location decisions could not have been influenced by any realistic level of government incentives.

Personal considerations were less important in the case of expatriate firms, in part because the top management of these firms often had their offices in Nairobi. However, most of the firms with head offices in Nairobi had factories located within 25 miles of Nairobi, primarily in Thika. Such locations were chosen in part so they would be easily accessible to the head office. These and other firms in the sample would seem to have calculated locational related costs of the form P'AC in figure 3. Such firms were generally concerned with a limited number of criteria (e.g. quality and compatibility of labor force, water and climate) in making location decisions. The first location found which satisfied these criteria, and has no overwhelmingly negative characteristics, was generally the one selected. Firms believed that once a location had been found which satisfied these particular criteria, it was not worth the time and expense of searching for other locations, since the possible advantages of such locations would be marginal.

It would seem that locational incentives offered by the government to such firms could be effective, particularly if alternative locations proposed by the government satisfy for the most part the key criteria perceived by firms to be important. Thus, an effective locational policy must include a component designed to meet the requirements of particular types of firms.

The unwillingness of firms to conduct extensive locational studies is also relevant to policy makers, and makes the work of organizations such as the Industrial Survey and Promotion Center absolutely critical in achieving the government's locational objectives. Once we have a good idea of the particular costs that potential investors are trying to minimize in selecting a location, the ISPC can conduct studies of the characteristics of particular regions and/or urban areas which at first glance seem as if they would be attractive to a particular investor or group of investors. Reliable estimates could be made of resource accessibility, site availability, cost and feasibilit

of adapting infrastructure to the needs of particular industries, characteristics of available labor, and cultural and personal amenities. Where particular bottlenecks are discovered which are likely to be deterrents to potential investors, the ISPC could act as a catalyst to removing these bottleneck. In doing this, particular care should be taken to distinguish between the absence of some feature as a bottleneck, and the reasons for the absence of the feature as a bottleneck.

In some cases, a bottleneck may prove to be insurmountable, such as the case of the problem of waste disposal in Nakuru, Gilgil, and Naivasha for industries producing relatively large amounts of effluents. In such cases, industries with low waste disposal requirements could be encouraged. In other cases, it may be feasible to remove a bottleneck, such as the case of water supplies in Mombasa.

In any case, the results of our interviews with firms suggest that the government can influence location decisions in situations where personal considerations are not the dominant locational factors. If an investor is presented with a convincing argument that an alternative location will satisfy his primary locational criteria, and if he is offered incentives to compensate him for increased costs, the investor will be very likely to choose that location, rather than be bothered with looking around for a marginally better one.

These rather general comments will serve as an introduction to the next two sections, which are concerned with the role of bargaining betweeen governmennt and private businesses in industrial location, and with tentative guidelines for the development of an effective industrial location policy.

5.0 Factors in industrial location: governmental

The Kenya government takes an active role in encouraging industrial developments in the less-developed regions of the country. Decentralized industrial development is viewed as a means of labor absorption in rural areas and intermediate sized towns, and as a catalyst to the overall modernization of rural economies. There are also political pressures for the promotion of industrial projects in particular areas, as discussed in 2.2.

The following will outline policies and governmental actions which may have an effect on industrial location, and give examples with reference to the textile industry. These governmental activities will be divided into two categories: those which provide fixed incentives for industrial location, and instances where the government negotiates with firms for locational objectives. Both types of incentives will be examined from the perspective of the bargaining model outlined in 2.3. To what extent are fixed incentives an effective bargaining strategy from the government's point of view, in negotiations with firms, does the government bargain in a rational manner for the most preferred cost-benefit ratio attainable? Does the government and/or firm make effective use of irrevocable commitments? Do participants in bargaining situations tend to coordinate expectations around prominent outcomes? What inherent advantages does each participant have in these bargaining situations? These are the types of questions that will be dealt with in this section. Our aim is to help improve the bargaining skill of government negotiators through a critical evaluation of bargaining encounters.

5.1 Fixed Incentives

In his budget speech of 12th June, 1975, the Minister for Finance and Planning restricted the 20% investment allowance for industrial buildings and manufacturing machinery to firms located outside of the municipalities of Nairobi and Mombasa. Most of the firms interviewed were aware of these new allowances, but no firm claimed that investment credit was a significant locational factor.[95]

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95. Aside from the apparent ineffectiveness of this incentive to the textile industry, it may also encourage firms to substitute capital for labor, which would conflict with the government's desire to increase employment. As a possible solution in this case, the government could introduce a new tax allowance linked to changes in employment. Firms which increased their employment would be granted tax rebates, while firms with decreased employment would be assessed tax premiums. Such a policy would discourage the substituion of capital for labor resulting from the investment allowance, which could in turn be continued as a possible incentive to firms to locate outside of Nairobi and Mombasa.

Variable minimum wage level policies are another example of a fixed incentive to encourage industrial dispersion. Minimum wage laws provide for three levels of wages: the highest wages (300/- per month minimum) are paid to workers in Nairobi and Mombasa, the next highest (275/- per month minimum) in intermediate sized towns such as Thika and Kisumu, and the lowest (175/- per month minimum) in all other regions.[96] Although there are some examples already discussed where a factory was located outside of Nairobi because of the differentials in official minimum wages, such firms tended to be located in the Nairobi peri-urban area rather than in one of the intermediate sized towns. In this way, firms could remain close to Nairobi for personal and administrative reasons, and yet still take advantage of the wage differential. Needless to say, the location of a firm just outside of the Nairobi city limits made an insignificant contribution to the government's goal of industrial dispersion throughout the country. Furthermore, as mentioned earlier, many firms could not take advantage of these differentials because they were locked into uniform wage contracts by the Textile Worker's and Tailor's Union.

5.2 Negotiable Incentives

Aside from incentives offered to all manufacturing firms, there are also incentives granted on an *ad hoc* basis, as a result of bargaining between businesses, financial partners, and government. Some of these incentives have a direct bearing on location decisions, while others may affect such decisions indirectly. Incentives generally represent promises that certain favors that will be granted after the investment and location decisions have been made. Sometimes explicit promises are made by government officials to firms. In other cases promises are implicit; that is, firms are led to believe that if they comply with government policy objectives such as locating outside of Nairobi and Mombasa they will be given favorable treatment by the government regarding negotiable issues such as protection. We will point out instances where the government has not lived up to promises made to firms, nor at least thought to be made as far as the firms are concerned. We will consider such instances a bargaining strategy of making false promises, and will evaluate the effectiveness

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96. GK, 1975, supplement no. 28, 26 May.

of such a strategy in achieving desired bargaining outcomes for the government. In a future paper, we will compare the government's effectiveness in achieving location objectives with its success in achieving other goals of industrial policy such as export promotion, selection of appropriate technology, non-exploitative management agreements, Kenyanization, and favorable corporate financial structures.

5.2.1 Case No. 1: Duty Remission

One upcountry knitwear firm was established by a local Asian family, and located in the community where the family had been involved in textile distribution and sales for the previous forty-five years.[97] Although there were personal reasons for selecting the location, there were economic reasons against it. A list of these disadvantages was presented to the Ministry of Commerce and Industry during the pre-investment negotiations. When the firm went into production, it was granted 50% duty remission on imported inputs. This duty remission was allowed to continue for eight years, after which it was revoked by the government[98] on the grounds that the firm was no longer an infant industry, and thus should be able to compete without remissions.

The firm appealed this order on the grounds that the order would create a cash flow problem, that competitors with relatively more capital intensive production processes were still receiving 50-100% remission, and that the order would jeopardize 80 current jobs and an expansion plan that would have resulted in up to 500 additional jobs. The firm also claimed that it had been persuaded by the government to locate upcountry, although the firm would have preferred to be in Nairobi. The firm believed that the duty remission had been offered as compensation for locational disadvantages, and should therefore be continued. An Industrial Protection Committee (I.P.C.) subcommittee prepared a lengthy evaluation of the merits of this appeal, and recommended that duty remission be reinstated for one year only. However, the I.P.C. as a whole decided to reject the appeal.

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97. Information on this and the following case study has been amassed from interviews with officials from the firms concerned, and from government officials involved in negotiations with the firms.

98. GK, 1975, supplement no. 20, Legal Notice no. 54 dated 25th April.

We have described above a series of bargaining encounters between the government and an upcountry textile firm. To what extent is there evidence in these encounters of bargaining skills on the part of the government in furthering its industrial goals?

First of all, the firm official interviewed claimed that the major reason for locating upcountry was the promise of duty remission by the government, and that otherwise the firm would have preferred to locate in Nairobi. This was also the position that the official took in his appeal to the I.P.C., basically arguing that the government had double-crossed him by revoking his duty remission.

Although it is obvious why he might say this in a bargaining situation, he was probably exaggerating. The same official admitted to me that his firm did not consider any other location except the one selected. Furthermore, since his family had lived and worked in that location for generations, it is likely that they would have set up this factory there with or without a promise of remission from the government.

As the years went by, the firm became, in the words of the official interviewed, "...far more successful than we ever anticipated". Part of the reason for this was certainly the duty remissions. As a result, the company presently has plans to increase its fabric and garment production, and to add a spinning department, which will increase the firm's labor force from between 300 and 900[99]. Because of space limitations at present site, the firm has acquired a new site in the same town to accomodate the present factory and proposed expansions. Although the firm has experienced great difficulty in doing business in this town[100], it has been decided not to move to Nairobi because of the high cost of moving and the presumed difficulty of recruiting and training new laborers there. Thus, the government has indirectly furthered its goal of

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99. The smaller figure is an estimate made by the firm to the government in 1975. The larger figure is the latest estimate given to me by the managing director in 1976. Business prospects must be good to cause such an escalation of investment plans.

100. e.g. Raw materials must come from Mombasa while 75% of all finished goods are sold in Nairobi. This combined situation creates abnormally high transport costs, according to firm officials. Additional disadvantages include comparatively low labor efficiency and difficulties in maintaining necessary contact with Nairobi based government officials.

upcountry employment creation by granting duty remission to this firm for an extended period, which in turn helped to make the firm profitable enough to contemplate a massive expansion. On the other hand, the revocation of this remission has not disrupted expansion plans, despite the complaints from management. Government negotiators have argued that although an upcountry location put the firm at a disadvantage in its initial stages, the firm was compensated for this by eight years of duty remissions, and should now be in a position to survive without such a subsidy.

In terms of the bargaining model described in 2.2, the government offered duty remisssion to this firm in exchange for employment creation in an upcountry town. However, after eight years, the government decided that the arrangement no longer worked to the government's advantage. Although the firm threatened that revocation of duty remission would jeopardize up to 900 jobs, the government was unmoved.

In terms of the bargaining model in Figure 4, (see page 36) the government was able to commit itself to B (eliminating duty remissions), thus forcing the firm to choose between aB (expansion, no remissions) and AB (no expansion, no remissions). The firm chose aB as a more desirable outcome than AB.

The government has a distinct bargaining advantage inherent in the duty remission system, because of the discretionary powers of government officials. Although there is no certainty that a firm will be granted duty remission if it is located outside of Nairobi and Mombasa, there is a good probability of it.[101] Thus, many firms are willing to gamble on a location desired by the government, and in return expect that the government will grant favors such as duty remission. However, the government is under no obligation to grant remission, and often does not. Thus the government can attain

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101. Duty remission may also be granted to firms located in Nairobi and Mombasa for other reasons such as export promotion. However, many firms believe that their requests for duty remission will be treated more favorably by the government if the firm selects an upcountry location favored by the government.

compliance with its locational objectives at less cost than if it had a fixed policy of automatic remission as a "reward" for locating in upcountry areas. Furthermore, the government can revoke duty remission on a selective basis, in contrast to other types of incentives such as tariffs which can only be revoked on an industry wide basis.[102] Thus, the government does not have to continue granting remission to particular firms indefinitely, long after the incentive value of the remission has been lost.[103] Firms are aware of the government's bargaining advantage in this regard. The Textile Manufacturer's Association has asked for the standardization of incentives,[104] but so far the government has been understandibly unwilling to give up its discretionary power.

5.2.2. Case No. 2: Protection and Duty Rer:ssion

It has often been observed that when foreign investors are dependent on government for protection, they are often eager to secure to secure governmentparticipation in equity,[105] the presumption being that the government will then have something to lose if it fails to provide the requisite protection. A comparable observation can also be made regarding location: investors dependent on the government for protection will willingly locate in suboptimal locations in order to please the government, and thus be in a better position to ask for help. The extent to which a firm receives the help it expects is determinant on bargaining between firms and government officials.

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102. In cases where there is only one producer of products in a particular tariff category, such a tariff can be adjusted on a firm-selective basis. However, tariff categories regarding textiles in Kenya are broad, and generally affect goods manufactured by more than one producer.

103. Like any system whereby government officials are granted discretionary power this system is open to abuses, although I have not found any examples of such abuses.

104. Letter from Secretary, Textile Manufacturers' Association of Kenya (P.O. Box 47, Kisumu) to Dr. J.G. Kiano, Minister for Commerce and Industry, 17th May, 1975.

105. NB. Leys, 1975, pp. 128-35.

This process is evident in the case of a recently incorporated upcountry mill. In the early phases of the negotiations, the investors was asked by the government to locate in Nakuru. Officially, the reason for this was that it was one of the towns "having good access to the six ginneries in Western Kenya which produce two-thirds of the country's cotton".[105a] There were also obvious political reasons for the government's insistence on Nakuru. In any case, the investor conducted a detailed feasibility study based on Nakuru, and found it to be an ideal location.

Then, at the last minute, the International Finance Corporation (I.F.C., a branch of the World Bank), one of the financial partners in the investment, rejected Nakuru as a location. The reason given was the danger that such a project would represent to Lake Nakuru, and the requisite high cost of sewerage treatment.[106] Government officials initially argued that it was politically impossible to consider changing the location of the proposed factory. Shortly thereafter top officials all of a sudden had to devote most of their efforts to solving a major political crisis.[107] In the midst of this confusion, it was quietly decided to shift the location of the proposed factory to Eldoret.

There were political reasons for the choice of Eldoret. In addition, Eldoret was one of the towns recommended as a location for the mill by the Department of Physical Planning, Ministry of Lands and Settlement. This evaluation was made on the basis of three criteria: social need (e.g. projected excess hinterland population given the limited labour absorption capacity of the land),

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105a. ISPC project description: "Cotton Textile Manufacturing."

106. Ironically, shortly after the decision was made not to locate the textile mill in Nakuru, another group of investors decided to locate a chemical factory in Nakuru. A special interministerial committee commissioned to investigate the factory found that the factory was an environmental hazard to the local ecosystem, and should therefore be relocated. This recommendation was accepted by the Ministry of Finance and Planning, and for a while it was thought that the factory would be relocated. However, there wass disagreement among the relevant ministries as to who was responsible for ordering the company to relocated. As a result, the factory is still located in Nakuru, and has begun production. The Nation has been conducting an editorial campaign to have the factory relocated. The German government has suspended any further disbursements out of a loan of DM 4 million for the extension of the Nakuru water supply and sewerage schemes because of the factory. The World Wildlife Fund may rescind its agreement to finance the expansion of the Lake Nakuru National Park because of the factory.

107. This was the period immediately following the death of J.M. Kariuki.

infrastructure (existing capacity, including expansion schemes in an advanced design phase) and location economics (access to cotton growing areas). Nakuru was rejected as a location according to these, as well as environmental criteria. Yet the government had selected Nakuru for a location without consulting the Physical Planning Department, and would have kept with Nakuru had it not been for the insistence of the I.F.C. This case points out the weakness of the Physical Planning Department in the industrial location process. Although technically the director of this department should be a member of the New Projects Committee (an interministerial group that approves new investments) and thus involved in decisions on industrial location, in fact he is almost never invited to the meetings of this committee. The reason for this is apparently that industrial location is considered too politically sensitive an issue to be left to the objective constraints of regional and town planning.

In any case, firm officials have encountered serious problems as a result of their locating in Eldoret. The town council has not been able to supply water and effluent facilities in accordance with the agreed upon timetable. A generator had to be imported because of delays in hooking up the regular electricity supply. Problems have been encountered in obtaining competant laborers. Skilled laborers such as carpenters, electricians, and accountants are particularly scarce. Never the less, the firm is confident that it can make a profit, despite these and other disadvantages, as long as the government provides the requisite protection.

The firm has requested various types of protection which can be placed in two categories. First of all, the firm has asked for increased levels of protection for the entire industry. Quotas should be placed on fabric imports, on imports of both new and second hand clothing. Imports of prints and

fabrics below the CIF value of 10/- per sq. meter should be stopped.[108]

A second category of protection sought by the firm would protect it from domestic competitors with lower depreciation costs and a more experienced labor force. This protection would include duty remission on imported machinery, and on all raw materials for eight years from the date of start of production. The firm also asked for an eight year exemption from the Kshs. -/30 per sq. meter excise duty charged to other local textile producers.

Since the firm is not yet into production, it has not been officially given remission on imported raw materials, although both firm and government officials forsee no problems in obtaining it. The matter of import quotas is up in the air at the moment, although firm officials are confident that the requisite quotas will be enacted. The government officials interviewed all said that an excise tax exemption for the firm was out of the question.

However, the firm has been exempted from fiscal entry, import duty and suspended fiscal entry on materials used in the construction and operation of the mill. This includes all "building and processing materials, equipment, machinery, spare parts, and fuel which, in the opinion of the Commissioner General of Customs and Excise, are not

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108. The firm asked the government to limit imports and East African Community transfers of fabrics to 12 million meters per annum (cf. in 1974, almost 28 million meters were imported or transferred according to official statistics, which probably understates actual levels of imports) Imports of ready made garments should not exceed Kshs. 40 million CIF (cf in 1974 garments were imported worth Kshs. 108 million CIF including duty) and imports of second hand clothing should be limited to Kshs. 10 million (Cf. in 1974 second hand clothing imports were worth Kshs. 44 million CIF including duty). The firm asked for a complete ban on imports of prints, and fabrics below a CIF value of 10/- per square meter. The latter is a particularly sensitive issue to this and other textile firms in Kenya. Due to the dispressed condition of the world textile market, these has been considerable dumping of textiles in Kenya at prices below the cost of raw materials. For example, during June, 1975 over 3 million units (meters/yards) of cloth officially entered Kenya at a CIF value of between Kshs. 2/13 and 5/60 per unit. There has also been a large quantity of cloth smuggled in from Tanzania and Uganda at comparable prices.

produced in sufficient quantity or quality in Kenya.[109] The remission order as published in the Gazette stated that comparable remission had been granted to all textile manufacturers on 11th June 1975. However, there is no mention of such remission in the Gazette on that date. Thus, it appears that the firm has been offered a substantial incentive by the government which has not been offered to other firms.[110]

5.3 Conclusion

On the basis of our admittedly limited sample, what can we conclude about the role of government in industrial location?

In section 4, we concluded that location decisions in the Kenyan textile industry are based on limited criteria which are viewed as location related. Firms generally select the first location found which satisfies these criteria. On this basis, a number of textile firms have decided to locate outside of Nairobi and Mombasa, generally in one of the intermediate sized towns. These firms have all been able to compete successfully with firms based in Nairobi and Mombasa. Many of them have expanded their operations, or are planning an expansion.

Thus, if the government desires to influence location decisions, it should determine the critical locational criteria of potential investors, make the investor aware of potential locations which satisfy these criteria, and apply pressure in bargaining with firms to see that the location is selected.

We have suggested that pressure applied by the government on firms during negotiations has had more influence on locational decisions than fixed incentives such as investment credit. We have given examples of two cases in which the government successfully influenced location decisions during such negotiations. In the first case, the location was initially selected by the firm, but the viability of the firm and its subsequent expansion was insured

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109. GK 1975 legal notice No. 29 dated 6th February.

110. Admittedly, the 10% tariff on capital equipment only came into effect on 12th June, 1975, and hence did not affect the firm's competitors up to that time.

by duty remissions. In the second case, the location was selected by the government, and the firm was "rewarded" for agreeing to locate there by duty remissions.

We do not mean to imply here that duty remissions in particular should be offered to firms which locate outside of Nairobi and Mombasa. Duty remissions may create distortions in the economy which outweigh any possible benefits. They tend to encourage the establishment of firms relying on imported inputs which in turn act to discourage the production of local inputs, and create a drain on scarce foreign exchange.

However, there are other incentives which may be granted to firms on a negotiated basis, including foreign investment protection local credit from commercial or governmental sources, equity participation, export incentives, work permits for expatriates, etc. Firms are likely to accept reasonable suggestions from the government concerning location, in return for favorable treatment regarding negotiated incentives.

The government might also consider setting up an industrial licensing system, by which it could influence the location both of new firms and of expansions of existing firms. Currently, an investor may set up a new factory and/or expand an existing one anywhere he pleases (subject to local community regulations and to registration by the Registrar of Companies, Office of the Attorney General if a new firm) without notifying the Ministry of Commerce and Industry, Ministry of Finance and Planning, and Department of Physical Planning. Thus, the agencies of government responsible for industrial planning may have no knowledge of or influence over the location of certain major investments until the particulars of the investment are publicly announced as a fait accompli. Granted, any investor desiring protection, duty remission, government equity and loan participation, and other such negotiable incentives must obtain the approval of one or more of the interministerial committees. In such cases, government planners can influence location decisions, as explained in 5.2.

However, a carefully designed and managed industrial licensing system could allow government planners to influence and

monitor location decisions concerning all major industrial investments.

Finally, we must emphasize again the significant role that has been and should continue to be played by the Industrial Survey and Promotion Centre in facilitating the location of new industrial projects in the intermediate sized towns. Many of the firm officials interviewed mentioned the invaluable assistance of this center in facilitating location outside of Nairobi.

6.0 Conclusion

At the midpoint of this research protect, all of our preliminary findings must be treated with a healthy skepticism. Never the less, by way of summary, it is useful to list these tentative conclusions.

First of all, the government had exerted a powerful influence over the location of textile firms. This influence is primarily the result not of explicit locational incentives, but rather of a situation whereby firms are dependent on the government for certain concessions, particularly regarding duty remission and protection. Such firms are willing to locate in suboptimal locations in order to please the government, and thus be in a better position to ask for help. We expect to find the same behavior in other protected industries, and/or in industries dependent on imported inputs.

Second, in a small developing country, the difference to a firm whose products are sold in a protected market between an optimal location and sub-optimal location is often slight. Admittedly, there may be disadvantages to an upcountry location such as increased transport costs, inadequate infrastructure and difficulties in communication with Nairobi based government officials. However, the fact that many of the firms in our sample are currently undergoing or contemplating expansion indicates that the locational disadvantages are not severe.

Futrthermore, we have shown that firms tend to select the first location found which satisfied certain minimal criteria. Firms believe that once such a location has been found, it is not worth the time and expense of searching for other locations, since the possible advantages of such a location would be marginal. In all cases examined where the government has suggested such a location, the concerned firm has gone along with the suggestion, both in order to please the government as mentioned above, and to save itself the bother of finding a marginally better location.

Thus, the government has a potentially strong bargaining positio from which to attain locational objectives. Aside from the fact that the firms interviewed were anxious to please the government by selecting a recommended location which may have been marginally sub-optimal, the government's objective of industrial location outside of Nairobi and Mombasa is, in bargaining terms, a prominent, distinguishable outcome. That is, since the government's broad locational objective is unambiguous, and since nost firms have no comparably clear cut locational criteria, the government is in strong position to enforce its will.

The question which remians is given the fact that textile firms have successfully located in intermediate sized towns on their own volition and/or at the prodding , of the government, why are there so few other firms that have done so? Why is it that employment opportunities are proportionately increasing in Nairobi and Thika but decreasing in other towns, despite the government's expressed intention of industrial decentralization?

There are a number of possible explanations that appear to be valid at this point, and that will be subject to further testing during the remainder of this research project:

1) Increasing employment imbalances between Nairobi and Thika on the one hand and other towns on the other can be partially explained by the expansion of existing factories in Nairobi and Thika, and by the development of new firms as a result of backward and forward linkages with existing firms in these towns.

2) Although the government's goal of industrial decentralization is "prominent and distinguishable" in particular bargaining encounters, there is no detailed statement of this policy and its implications for the day to day operations of each ministry. Thus, there is no explicit set of procedures for applying systematic pressure on investors to locate in less developed towns. Such pressure might be most effectively applied form an office of industrial location, situated either in the Ministry of Commerce & Industry or the Ministry of Finance & Planning[111]. Because of the absence of a clearly spelled out locational policy, many firms are effectively left to their own devices concerning location. Most of these firms end up locating in Nairobi and the peri-urban area or Thika, because of personal considerations, the ready market, developed infrastructure and/or the need for maintaining contacts with government officials.

3) Although the stated government policy has been to give priority in the allocation of development funds from the national treasury for services and infrastructure to intermediate sized towns which are designated as growth centers, a disproportionately

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111. A model for such an office could be the Kenyanization Bureau, Ministry of Labour, which has effectively put pressure on firms to hire an increasing proportion of Kenyans.

large share (42.7%) of projected public investments in "urban main infrastructure" for 1974/78 is allocated to Nairobi[112]. This unwillingness to commit such funds to the intermediate sized towns retards the growth of existing industries in these towns, and is an obstacle to the location of new industries.[113]

4) Although the government has been successful in attracting textile firms to upcountry locations, there is little indication that the firms have generated significant backward or forward linkanges in their respective regions. Granted, the presence of large textile mills in relatively small towns has necessitated some improvements in banking and municipal services. However, there is little evidence of the growth of activities that one would expect to find associated with large textile factories such as engineering services, and machinery repair on the one hand and clothing manufacturing on the other.[114] The reasons for this situation are complex, ranging from problems common to most developing countries such as the shortage of technical expertise, to problems peculiar to Kenya such as a political economy which tends to favor large as opposed to small industrial projects. The result of this situation is that although the government has been successful in attracting large textile projects to intermediate sized towns, these projects have achieved much less than might be expected towards alleviating the highly uneven pattern of modernization in Kenya. If we can discover with greater

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112. GK, 1974, Vol. 1, p. 123. As additional evidence of expenditure imbalance, 51.5% of projected expenditures on infrastructure for the six largest towns (Nairobi, Mombasa, Kisumu, Nakuru, Eldoret and Thisa) is allocated to Nairobi.

113. One of the textile firms interviewed was promised water and sewarage facilities by a certain date. However, none of the governmental parties involved - the municipal council and the relevant ministries - would agree to finance it. The result was considerable delay and aggravation. This type of problem appears to be a common one outside of Nairobi, Mombasa and Thika.

114. For example, one upcountry firm told us that theirweaving operating had not been profitable. They have tried to promote the system here which exists in some parts of India, whereby cloth is produced in small (20-40 loom) mills located in rural areas, under the overall supervision of roving technical consultants. They claim that they have tried to interest the Kenya government in backing such an undertaking, but without success. The same firm pointed out that there was a need for better machine shops. Local machine shops are allegedly so inefficient and poorly organized that it is faster and cheaper for the firm to air freight such work to Europe.

Another upcountry firm said that it has tried to interest the government and/or a local entrepreneur in starting up a small($\frac{1}{2}$ million Kshs.) trouser factory in the same town, which would use suiting material produced by the firm. The firm has offered to provide free techinical assistance, but so far there have been no takers.

precision the extent to which this problem exists regarding textile and other large industrial projects, and the reasons for it, we will be in a better position to explain existing employment imbalances in Kenya.

In a future paper, all four of these explanations will be examined with a view towards recommending appropriate policies to redress employment imbalances.

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