THE POLITICAL ECONOMY OF FAMINE: ECOLOGY AND HISTORY IN MACHAKOS DISTRICT DURING THE COLONIAL ERA

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By:

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FEBRUARY, 1992
DECLARATION

THIS THESIS IS MY ORIGINAL WORK AND HAS NOT BEEN PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY.

R.M. MATHEKA

THIS THESIS HAS BEEN SUBMITTED FOR EXAMINATION WITH MY APPROVAL AS UNIVERSITY SUPERVISOR.

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<tr>
<td>ADC</td>
<td>African District Council</td>
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<td>AIM</td>
<td>Africa Inland Mission</td>
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<td>ALDEV</td>
<td>African Land Development Board</td>
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<td>ASLUB</td>
<td>African Settlement and Land Utilization Board</td>
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<tr>
<td>CD</td>
<td>Colonial Development (Fund)</td>
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<td>CD &amp; W</td>
<td>Colonial Development and Welfare (Fund)</td>
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<td>CP</td>
<td>Central Province</td>
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<tr>
<td>DAO</td>
<td>District Agricultural Officer</td>
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<td>DARA</td>
<td>Development and Reconstruction Authority</td>
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<tr>
<td>EALB</td>
<td>East African Literature Bureau</td>
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<td>EAP</td>
<td>East Africa Protectorate</td>
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<td>EAPH</td>
<td>East African Publishing House</td>
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<tr>
<td>EST</td>
<td>Eastern (Province)</td>
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<tr>
<td>HMSO</td>
<td>His Majesty's Stationary Office</td>
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<td>IBEA</td>
<td>Imperial British East Africa Company</td>
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<td>KAR</td>
<td>King's African Rifles</td>
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<td>Kiambu (District)</td>
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ABSTRACT

The study documents food problems in colonial Machakos in the context of the changes wrought by the development of capitalism in the area. The paradigm of articulation of modes of production is therefore applied to the analysis of food crises in their particular historical context. Each food crisis is examined in the light of social, political, economic and ecological changes emanating from the interaction between aspects of pre-capitalist Kamba system of production and the capitalist mode of production.

The process of articulation between the two modes of production was initiated by merchant capitalism in the late nineteenth century and intensified by colonial capitalism in the twentieth century. The basic concern of this study is the role of the colonial state (and therefore colonial capitalism) in the transformation of the Kamba society, and how that transformation featured in food problems. For example, land alienation caused overcrowding and overstocking which engendered over-cultivation, over-grazing and soil erosion. Land degradation was further aggravated by monetisation of the economy, which bred commodity production and wage labour. This socio-ecological transformation was not accompanied by technological advancement and therefore the society's margin of security against climatic variability was progressively reduced.
Thus, after the ecological disasters of the late 1890s, the Kamba economy recovered to the extent that the society was able to resist large scale 'proletarianisation' until about 1930. However, the impact of land alienation, drought and locust invasion in 1928-29, and the Great Depression (1929-35) greatly eroded the economy's dynamism. The 1930s therefore witnessed increased proletarianisation and ecological degradation, processes which culminated in severe food shortages during the Second World War. Despite its pervasion, the post-war development programme did not provide immediate solutions to environmental degradation and food crises. On the whole, the study asserts that climatic factors notwithstanding, the colonial state's policies on land, labour, taxation, public expenditure etc intensified the frequency and intensity of food crises in Machakos District.
For most of the colonial period, Machakos District was the scene of a complex agrarian problem. The problem, which came to be known as 'The Machakos Problem' in colonial circles, basically involved the inability of an increasing population to produce enough food from degrading land resources. As a result, food crises increased in frequency and intensity over the years, a phenomenon which not only disturbed the colonial administration but also affected the people of Machakos in various ways.

Like in most of pre-colonial Africa, food problems were not unknown in pre-colonial Machakos. However, colonialism changed their causes and nature. Through demands for land, labour, taxes, etc, colonialism set in motion processes which made the Akamba of Machakos District more and more vulnerable to environmental perturbations such as drought and locust invasions. It is in this perspective of changing circumstances that this study analyses the historical context of specific food crises in Machakos District during the colonial era.
Food crises in colonial Africa were not entirely due to colonialism. However, colonialism "drastically altered the social and ecological organisation of agriculture", a factor which undermined collective responses to food shortages and set the stage for the growth and recurrence of famine (Zeleza, 1989a: 58). Like pre-industrial societies elsewhere in the world, pre-colonial African societies were prone to such extremes in nature as prolonged droughts. Nevertheless, pre-colonial African societies had well-developed mechanisms and strategies for minimising the occurrence of food crises. For example, food production systems were chosen on the basis of a clear perception of the environment. Moreover, societies which inhabited marginal areas developed food trade relations with their more fortunate neighbours.

Even in societies where a ruling aristocracy extracted surplus from the rest of the society, there existed complex relationships and institutions which ensured redistribution of food-stuffs during shortages. For instance, the Tswana had 'royal' farms (Bhila, 1984) while the Hausa had 'royal' granaries (Shenton and Watts, 1979). In short, different societies had different methods of coping with the risks inherent
in their particular production system. But colonialism interfered with most of these features without introducing viable risk-coping mechanisms.

To understand food problems in a particular society during the colonial era, it is necessary to examine the impact of colonialism on that society. It is necessary, for example, to investigate the effects of commodity production on the society's social structure and how changes in the social structure were manifested in food shortages. Similarly, the impact of labour migration on food production needs to be looked into. For example, one observer said the following about the situation in Kenya in the 1920s:

Nowadays it is only in the years of special plenty that there is no food shortages before harvest. And it is absurd to pretend that the absence in agricultural tribes, of more than half the able-bodied male population is not the chief cause of this chronic scarcity (Leys, 1973:304).

Nor was the impact of colonialism confined to social transformation; it affected land-use as well. In Machakos District, for example, the effects of ecological degradation on food production were
underscored by the Agricultural Officer in 1944 when he said:

The lack of fertility of the soil has been the main cause of the succession of crop failures. Even in a year of average rainfall severe famine conditions have prevailed (KNA/DC/MKS 8/4: 254)

In sum, the gradual incorporation of Kenyan societies into the capitalist system through the colonial state progressively led to a crisis in pre-existing systems of production and distribution. This resulted in what Zeleza (1989a : 35) calls "the spasmodic development and underdevelopment of Kenya's peasantries". The impact of this transformation made a senior Agricultural Officer in Central Province in 1944 to lament:

Of old there was an agricultural system of a kind, a system that was in large measure effective in a somewhat primitive way. That system has collapsed, as it was bound to do under the strain of a new economy (KNA/DC/MKS 2/18/1:154).

1:1 Political Geography of Machakos District

Machakos District (Map 1) is in Eastern Province, Kenya. The district has an area of
Map 1: MACHAKOS DISTRICT

Inset: Location of the district in Kenya.
approximately 14,250 km² and extends some 275 km from north-west to south-east. It tapers from 125 km wide in the north to less than 20 km wide in the south. The district's neighbours are Kajiado District to the west, Taita-Taveta District to the south-east, Kitui District to the east, Embu to the north-east, Murang’a to the north and Kiambu District and Nairobi Province to the north-west (Kenya, 1989: 1).

From 1895 to 1902 the Machakos area together with Kitui formed Athi District in the Ukamba Province (Map 2) of the East Africa Protectorate. In 1902 Athi District was split into two and the Machakos area came to be known as Ulu District. It existed under that name until it was renamed Machakos District in 1920. Then in 1933 Ukamba Province amalgamated with Kikuyu Province to form Central Province (Munro, 1975: 54 n.3). Thenceforth, the district was part of Central Province until 1953 when, probably as a precaution against the spread of Mau Mau activities into Ukambani, Machakos

1. Initially, Ukamba Province was made up of three districts: Athi, which comprised Machakos and the surrounding Kamba territory; Kenia, which included lands inhabited by the Kikuyu and the Maasai; and Teita, which consisted of the Taita and Taveta people.
Map 2: UKAMBA PROVINCE, 1896

Source: KNA/PC/Coast 1/1/31:174.
and Kitui districts were severed from Central Province and joined to Kajiado and Narok districts in a new Southern Province. On the recommendation of the Regional Boundaries Commission of 1962, Machakos District became part of Eastern Province at independence in 1963 (Ojaný and Ogendo, 1972: 14-16). The other districts of Eastern Province are Kitui, Embu, Meru, Isiolo and Marsabit.

When the boundary of what came to be Machakos District was defined in 1911, it began at the railway bridge over Athi River (in the present-day Athi River township) and followed the course of the Athi to its junction with Tsavo River; from there it ran in a north-easterly direction through the Chyulu Hills to Emali railway station, whence it followed the railway line to Athi River. Except in the southern parts of the district where the boundary shifted several times during the colonial era, the rest of the boundary corresponded roughly to what is shown in Map 3.

From about 1908 the district comprised of three major land units under one administration. Two of these were the so-called Kamba Land Units or Reserves:
Map 3: MACHAKOS DISTRICT: LAND ALIENATION

- European forms
- Inhabited Kamba Land
- Uninhabited Kamba Land
- 'B.I.' Yatta Grazing Area
- KU Railway

Source: KNA/DC/MKS 8/3:5.
Kikumbulyu in the southern part of the district and Ulu (Machakos) in the northern part. The third land unit comprised European farms in the west and north-west of Ulu Reserve and south of Kikumbulyu Reserve (Map 3).

Unlike Kikumbulyu Reserve which was redefined several times, Ulu Reserve remained relatively stable. In 1934, 300 square miles of Yatta Plateau were added to Machakos Reserve as Class B1 land following a recommendation of the Kenya Land Commission (1933). However, this land, which is commonly referred to as Machakos Yatta, remained a relief grazing area until the late 1940s when settlement began on experimental basis. Similarly, North Yatta (Map 1), also called Kikuyu Yatta, was given to the Kikuyu by the Land Commission, but its rather dry environment attracted only a few Kikuyu settlers. By the early 1950s infiltration of the area by Kamba herdsmen had virtually made it an extension of the Kamba Land Unit.

Another important area in the agricultural history of Machakos District is Makueni. Though technically part of the Kamba Land Unit, Makueni
remained unoccupied until the late 1940s when the government started a settlement scheme there. Tsetse fly and wildlife infestation prohibited human habitation of the area until the government initiated reclamation measures with a view to facilitating a settlement scheme.

In very broad terms, the foregoing is the spatial context in which 'The Machakos Problem' originated and developed over time. The colonial state set up 'concrete walls' around the Akamba by designating land as shown in Table 1 and Map 3. Out of their small reserves the Machakos Akamba were expected to sustain themselves and produce tribute for a government which did very little to help them improve their means of production. The result was a rapid deterioration of land resources, a phenomenon which was blamed on the victims. Indeed, land degradation in the reserve was so advanced by 1925 that the District Commissioner (D.C.) accused the Akamba of "living on their capital - the land" by overstocking it (KNA/DC/MKS/1/1/15, 1925 : 6).

2. For details on the colonial practice of blaming peasants for over-exploiting the environment see Blaikie, 1985 : 53-70.
Table 1: LAND SITUATION IN MACHAKOS DISTRICT (1918)

Native Reserves: Ulu (Machakos) 1,650 sq. miles [4,274 km²]
Kikumbulyu 432 " " [1,119 " ]

Crown Land:
Alienated Area 725 " " [1,878 " ]
Unalienated Area 2,468 " " [6,392 " ]

Total 5,275 sq.miles [13,663 km²]

Sources: KNA/DC/MKS 1/1/10,1917 : 502; KNA/DC/MKS 1/4/6:143.

1:2 Statement of the Problem

'Why blame nature?' is a question often asked in serious analyses of agrarian crises. The object of the question being to underline the complexity of agrarian crises rather than to discount the role nature may play in generating such crises. In a nutshell, the argument is that what appears as nature-induced crises are usually socially-induced crises. Even in Machakos District where food crises have for long been blamed on nature, the social context of such crises did not escape the notice of the colonial administration. For example, in 1960, the Agricultural Officer observed:

The drought [sic] in fact is, to a large extent, self inflicted .... In this District one is very tempted to blame
nature - last year in Wamunyu nearly every shamba failed but in about a handful of cases some maize was harvested showing that it is man and not nature that prevented them from getting a crop (KNA/DC/MKS 1/102: 125).

The Agricultural Officer did not seek to unearth the socio-economic factors underlying the differential impact of drought on farmers sharing the same ecology. Consequently, he viewed the food shortage as self-inflicted. Had he investigated further he would have perhaps agreed with Copans (1983) that the super-exploitation of those who work the natural milieu provokes repercussion at the ecological level because they cannot adopt methods that are not detrimental to the environment. Thus, the exploited over-exploit the environment, thereby making it less productive and increasing their vulnerability to food crises.

All the same, agrarian crises such as famines are complex phenomena which are best understood in the specific historical context of the society in which they occur. This study therefore analyses the socio-ecological context of specific food crises in Machakos District in a historical perspective. In other words, the study attempts to explain why specific crises
occurred when they did. In details, what socio-ecological processes and events generated food crises in Machakos District during the colonial era? What impact did the crises have on the society? What influence did the crises have on government policy? How did the society react to government policies geared to prevention of the agrarian crises, and why? How effective were the measures taken by the government to solve the agrarian crises?

Specifically, the study outlines the Kamba food economy on the eve of colonisation, assesses the dynamics of that economy and shows how it was progressively altered by colonial capitalism. The impact of colonial practices (such as land alienation, demand for labour, taxation, quarantines etc.) on food production and acquisition are examined. Similarly, the role played by international crises like the two world wars, economic recessions and booms in intensifying the agrarian crises is analysed.

The study also shows and evaluates the various ways the Machakos Akamba responded to the agrarian crises. These responses included migration to areas outside the district, squatting on European farms and
migration of labour.

The effectiveness of the measures instituted by the colonial state to deal with agrarian crises is also discussed. Such measures included land reconditioning activities like planting of trees and grass, contour terracing and closure of denuded pasture land to livestock. Others were forced culling of livestock (destocking), initiation of settlement schemes and the introduction of cash crops.

Although most of the food crises which occurred in Machakos District during the colonial period did not result in heavy mortality, they nevertheless deserve to be called famines because of their adverse effects on the society. Thus the suffering these food shortages caused to the majority of the Akamba of Machakos made them such memorable events that they have specific names. Indeed, both the Akamba and the European officers who served in the district referred to these food crises as famines.

Generally, the Akamba used the term famine (Yua) to denote a general shortage of all types of food in the
society. In the early colonial period, for example, famine conditions existed when there was such a shortage of sorghum and millets that these food-stuffs had to be 'imported' from outside the community. But by 1940 maize had superseded these cereals and its scarcity constituted famine conditions. In short, any situation which necessitated large scale importation of food-stuffs into the district constituted a famine.

Depending on the specific conditions of each famine, the Akamba resorted to a variety of coping mechanisms. For example, during the late nineteenth century, coping strategies included: intra- and inter-community food trade; temporary and sometimes permanent migration to Mount Kenya and Mount Kilimanjaro regions; supplementing available grains with cattle blood, wild fruits/vegetables, game meat etc (Kaisa; Maingi, O.I. 1990). Similarly, reciprocal relationships between households inhabiting different ecological zones in the district, and even with families in other communities, became useful during food crises (Mbuva; Mutyanzau, O.I. 1990).

But with the gradual entrenchment of capitalism in the society, most of these survival strategies
became invalid. From about 1930, sale of livestock and wage labour became the chief sources of money for buying food in local shops. Other survival strategies during this period included transfer of livestock to neighbouring districts, squatting on European farms, sale of livestock products, sale of sugar cane/honey beer, sale of sisal and petty trade (Mbuvi; Mue, O. I. 1990). These and other strategies are discussed under specific famines in the study.

1:3 Research Premises

The study is based on the following premises:

1. On the eve of colonial rule the Akamba had developed a complex agro-pastoral economy which suited their ecology, satisfied most of their food needs and enabled them to acquire food from their neighbours in times of crises.

2. A variety of mechanisms initiated by the colonial state in an endeavour to promote colonial capitalism progressively undermined the foundations of Kamba food production, thereby increasing the
community's vulnerability to environmental perturbations.

3. The impact of colonialism on the Machakos Akamba varied from one area of the district to another and between the pastoral and agricultural sectors of the economy.

4. The nature of food crises in the district changed over time in line with social, political, economic and ecological changes.

1:4 Theoretical Framework

This study argues that food crises are best understood in the historical context of the society in which they occur. In other words, food crises are inseparable from a society's system of production and distribution. An inquiry into food crises in colonial Machakos therefore inevitably involves an investigation into the impact of colonial capitalism on Kamba society.

As Cliffe and Lawrence (1979: 1-3) argue, the impact of capitalism on African agricultural systems has been far-reaching. On the one hand, capitalism has altered African forms of production and the
superstructures on which they were built (property rights, division of labour, patterns of kinship etc). On the other hand, capitalism has adversely affected the interrelationship between African societies and their environments. In sum, the articulation of African modes of production with the capitalist mode of production has been detrimental to the former. It is in this connection that our study adopts the theoretical perspective of articulation of modes of production, a paradigm whose dynamism is useful in analysing food crises in the context of a changing society and ecology.

Theoretical interpretations of Africa's experience with capitalism fall into three broad perspectives. These are modernisation, underdevelopment (dependency) and articulation of modes of production. To some extent, these perspectives have historically succeeded one another. Thus, the dependency perspective arose as a critique of the modernisation perspective whereas articulation of modes of production is a critique of the underdevelopment perspective.

The paradigm of articulation of modes of production combines concepts of the dependency perspective (unequal exchange, the changing international
division of labour, unequal development etc) with Marxist concerns of accumulation within the sphere of production and the processes of class formation and class struggle. The paradigm is therefore an analytical approach within Marxist political economy. It is therefore explicitly historical, inter-disciplinary and inter-meshes the so-called political, economic and social factors of change in one on-going historical process (Gutkind and Wallerstein, 1976). But unlike classical Marxism, which treats capitalism as an implacable entity redefining social structures through its own requirements, articulation of modes of production emphasises Africans' response to capitalism (Cooper, 1981: 2).

The concept of articulation of modes of production therefore explains the process of penetration, interaction and conflict between the capitalist mode of production and pre-capitalist modes of production (Kinyanjui, 1979: 11). It also examines the role of the colonial state in the process of interaction between the capitalist mode and indigenous modes (Lonsdale and Berman, 1979; Berman and Lonsdale, 1980). In other words, the approach is suited to the study of
colonial capitalism.

According to the perspective, the introduction of the capitalist mode of production did not eliminate pre-capitalist modes but rather reshaped them. Thus, indigenous modes of production were progressively subordinated to the capitalist mode through a process of dissolution, conservation and transformation. In colonial Kenya, for example, land alienation, taxation and forced labour were some of the mechanisms used by the colonial state to erode or dissolve the 'self-sufficiency' of African economies. Yet some aspects of pre-capitalist African economies such as land tenure systems were left undisturbed so that these economies could reproduce cheap labour, thereby subsidising capital.

Indeed, attempts at dissolution and conservation of pre-capitalist social systems in order to serve the needs of the colonial system pervaded every sphere of social life. But such attempts were not always successful for they were usually resisted by the colonised. The following comments by a Machakos D.C. in 1952 illustrate some of the contradictions inherent in the articulation process:
The greatest weakness in the Government structure is the Headman and Sub-headmen (Asili). Considering their low wages - they start on Shs 28 a month or very much less than the cost of a manual labourer - it is surprising that we get services as good as we do. We are, of course, still tapping resources of the old indigenous Government, the Elders of the Motui [villages], but the springs are running dry. In this age of education and material needs, new standards are rising; age gets little respect in its own right, and all need money (KNA/DC/MKS 1/1/30, 1952: 3).

As much as the government wished to benefit from cheap administration at the low ranks it could only do so at the expense of efficiency. Thus, the administrative cadre perceived as a remnant of the indigenous form of government could only be made efficient through monetary incentives.

The articulation process was not confined to conservation and dissolution of indigenous social systems. In some cases it involved 'revival' or manipulation of ill-perceived 'traditional' practices in order to serve colonial objectives. This was common in times of crisis. For example, in the 1940s when land degradation threatened peasant production in Kenya, the colonial government revived communal
work-groups in an endeavour to promote soil conservation in the then Central Province. Likewise, group farming was instituted in the then Nyanza Province and organised around such institutions as the risaga communal work-groups in Kisii and Liguru clan elders in Buluyia. However, these efforts did not succeed because they were out of context. The colonial administration therefore decided to intensify 'individualism' by promoting individual land tenure, production of cash crops, etc (see Fearn, 1961: 199; Aseka, 1989: 346-52).

Nor was conservation, dissolution, revival and distortion of pre-colonial African practices confined to Kenya. It was a common practice in colonial Africa. For example, during the Second World War, the protectorate government in Botswana established 'warlands' where communal labour was applied in the production of food for the war effort. Ostensibly, the warlands system was based on a traditional practice whereby the ruling aristocracy extracted labour power through feudal obligations. These obligations included a system of regimental labour which cultivated tribute lands attached to the office of chieftainship. However, while traditional Tswana chiefs redistributed the grain from
tribute land to the poor, the colonial government mobilised the produce from the warlands to feed imperial armies in distant lands (Bhila, 1984).

These examples demonstrate not only the significant role of the colonial state in the process of articulation but also the diversity of pre-capitalist institutions involved. Therefore the articulation process should not be seen in narrow 'economist' terms. Furthermore, the pre-capitalist mode of production in question should be clearly specified for different pre-capitalist modes articulated differently with capitalism.

Generally, the colonial state intervened in the operation of the economy. In Kenya, for example, the colonial state facilitated the penetration of capitalism and growth of capitalist relations, and mediated the colony's external dependency right from conquest to the time of independence. Initially, the state acted as an instrument of primitive accumulation by mobilising African resources (land, labour, livestock etc.) for production in the European sector. Later, the state used more subtle mechanisms to promote settler production at the expense of African production.
Facilities such as transport networks, agricultural research, marketing, credit, extension services and even pricing mechanisms, were all biased against African production.

But the dominance of settler production did not hinder the growth of peasant production. Nor did the colonial state completely ignore the African sector. Under normal circumstances, peasant production was encouraged as an important tax base while in times of crises, such as the recession of the early 1920s and the Great Depression (1929-35), peasant production was encouraged in order to boost exports and therefore the colony's revenue. Similarly, when the British economy was in a crisis after the Second World War, bias towards the settler sector was abandoned in favour of an all-round development strategy which would serve wider imperial interests (Heyer, 1981; Smith, 1976).

African response to the state-managed economy varied in space and time, and influenced conditions within the African economies themselves as well as government policy. Depending on the economic opportunities open or available to them, Kenya Africans responded in a variety of ways. Some became wage-earners,
others produced cash crops, other became squatters on European farms, etc (see Van Zwanenberg, 1972). In other words, historically and geographically specific and varied modes of production in Kenya were diversely articulated to imperial capitalism through the agency of the colonial state. In fact, responses to colonial capitalism varied not only between different modes (systems) of production but also within them. As Berman and Lonsdale (1980: 60) state:

"The form of articulation varied according to the particular character of capitalist penetration, the nature of the indigenous modes of production, and the local ecology and resource endowment."

But what is a mode of production? As the primary tool of analysis in the concept of articulation, 'mode of production' is an abstraction which links the material realities of everyday life to the society in which they occur. A mode of production is therefore defined by a society's forces of production and the corresponding relations of production. Thus, the interrelationship between forces of production (labour and technology) and the social relations of production (extraction and distribution of surplus) make up a
society's mode of production or its economic structure. But the economic structure of a society is also intertwined with its social forms of thought or superstructure (law, politics, religion etc). Therefore the concept of 'mode of production' encompasses a society's economic structure as well as its superstructure (Crummey and Stewart, 1981).

However, the concrete object of analysis, the actual historical society or social formation, is rarely characterised by a single mode of production. Instead, a social formation exhibits a situation of interacting modes, though one of them dominates over the other(s). A social formation is therefore identified with its dominant mode although the other mode(s) should not be ignored altogether (Onimonde, 1985; Amin, 1974). In pre-colonial African formations, for example, the dominant modes of production were either feudal, tributary, slave or pastoral (Cliffe, 1977). Each of these modes was incorporated into international capitalism on different terms.

It should be noted that the above named African modes of production are broad categories and do not cover the diverse and complex historical reality of
Africa. For example, two social formations dominated by the lineage mode of production may exhibit different patterns of kinship ties (Zeleza, 1985). There is therefore a need for specification of the pre-capitalist mode in question, and adherence to elucidation of the problems of the generation and circulation of surplus rather than labelling of social formations. Once the dynamics of the particular social formation are known, it is easy to analyse its articulation with capitalism.

The capitalist mode of production is characterised by ownership of the means of production by an entrepreneur (capitalist), who hires 'free' labour and uses it to produce commodities. These commodities realise a profit (surplus value) when sold in the market. The principal law of motion of the mode is the necessity to earn profit, which is re-invested to produce more surplus. State intervention in this process during the colonial era engendered colonial capitalism.

In sum, the perspective of articulation of modes of production traces the process through which pre-capitalist societies were penetrated by the forces
of capitalist imperialism. This was generally a complex, conflict-ridden and unstable process. As Berman (1984: 414) stresses, articulation "was a partly deliberate and partly an unforseen and unintended process of uncertainty and struggle which ... rarely corresponded precisely with the intention or interests of the historical actors". Hence the need to appreciate the crucial and contradictory role of the colonial state in the process and the variable responses of African societies in resisting or embracing capitalism.

1:5 Review of Related Literature

The food crisis in Africa has been the object of scholarly attention for some time now. Scholars from a variety of disciplines have made their contributions to the study of the crisis by tracing its roots, analysing its present forms and even predicting its future. Consequently, a vast literature on the subject exists. The following is a review of some of the literature which is pertinent to this study in terms of content and theory.

One of the few historical studies of famine in a Kenyan community is by Ochieng' (1988). This brief
study of colonial famines in Luoland shows how colonial rule rendered the Luo community vulnerable to food shortages in spite of the favourable ecology of Luoland and a suitable mixed economy of seed culture and pastoral activity. The author blames the colonial state, whose policies were basically meant to support a settler economy, for turning Luoland into a reservoir of cheap labour through tax demands, forcible labour recruitment and conscription into the colonial army during the two world wars. The drain on labour, production of cash crops (cotton, simsim etc) and government acquisition of food-stuffs during the wars are cited as some of the factors behind famines in Luoland.

A similar study of famines among the Mijikenda in the 1880 - 1980 period has been done by Herlehy (1984). His findings challenge allegations by some scholars that the incorporation of East Africa into the world economy led to a definite rise in the material standards of the people. By examining specific famines, Herlehy establishes that during the period under review, the Mijikenda survived famines through their own initiatives rather than through dependence on the government for famine relief. He convincingly argues that the Mijikenda were resourceful in coping with
drought and famine, and that the colonial state increased their vulnerability through such measures as restrictions on a long established squatting system, prohibition against wine trade and the government's bias toward the settler community.

These two studies provide useful insights for our study as they show some of the ways the communities studied were affected by colonialism. However, both studies are not only brief but tend to generalise the effects of colonialism on the societies studied. In other words, the studies do not show the social structure that emerged from the process of articulation and how that transformation was reflected in food crises. This study of another community with a somewhat different socio-ecological background therefore augments the findings of the two cited studies.

Historical studies which touch on Machakos District have noted the significance of famines among the Kamba community in the past. Such studies include Ambler (1983), Cummings (1975), Jackson (1972 and 1976), Kimambo (1968), Lindblom (1920) and Tignor (1976). Although none of these works discusses famines in detail, they are nevertheless useful to this study as they
provide useful information for the study of food crises in the Kamba community. For example, Kimambo's study on the economic history of the Akamba from 1850-1950 "is an outline of the way the Kamba were continuously adapting themselves to new economic situations" (Kimambo, 1968: 79).

Perhaps the studies that have closest affinity to food problems in Machakos District are those by Owako (1969), Munro (1975) and Bowles (1979). Owako examines the land and population problems in the district up to 1966. His study basically examines the problem of adjustment between man and his environment. The study therefore identifies three basic problems: the problem of adjusting agricultural techniques not only to cope with a rapidly growing population but also with the vagaries of weather; the problem of adjusting land-use methods to a delicate environment; and the problem of adjusting population growth to available land. The study concludes that failure to strike a balance between the three 'problems' gave rise to environmental deterioration, population pressure and recurrent famines.

Owako's study does not discuss famines in detail. Moreover, he subscribes to the imperialist view that
"prior to the British intervention, nature had its own way and the environmental balance was maintained through epidemics, inter-tribal warfares and famines, which used to take tolls of many lives" (Owako, 1969: 78). He therefore attributes environmental deterioration to over-population and overstocking, which he thinks were consequences of the removal of human and livestock scourges by Pax Britannica. The study therefore does not identify the real basis of agrarian crises, though the author cites land alienation, neglect of African agriculture and quarantine regulations as some contributory factors.

Munro (1975) in a work on social change among the Machakos Akamba devotes a chapter to agrarian distress in the district prior to 1939. He also discusses the impact of the distress in terms of political activities resulting from forced culling of livestock (destocking) and land reconditioning measures. However, he does not discuss the impact of the distress in terms of food problems. He also subscribes to the notion of modernisation by claiming that

In the period 1900 to 1940 food supply and nutrition standards improved. The development of rail and road transport and the growth of a marketing system
brought new conditions to people who, inhabiting a marginal area of the highlands, had a long experience of periodic drought and dearth (Munro, 1975:192).

As the present study shows, improved transport and distribution networks were not a panacea for food problems. Furthermore, the views advanced by Owako and Munro to the effect that life in the nineteenth century was precarious and full of uncertainty have been questioned by historians (see Kuczynski, 1949; Koponen, 1988). The damage caused by the human and animal epidemics of the late pre-colonial period (most of which were new in the African environment) cannot be automatically projected backwards for the earlier pre-colonial period. It has also been shown that the early colonial period was marked by a decline in population, a situation which did not change until the 1920s (ibid). Moreover, the land-population problem was already manifest in Machakos District when the much popularised Western medicine and veterinary services were introduced on a small scale in the 1920s. Despite these shortcomings, the works by Munro and Owako are valuable resource material for this study.

Bowles' (1979) work on some ecological and dietary aspects of agricultural underdevelopment in colonial Kenya draws most of its illustrations from Ukambani (Machakos and Kitui). Although no specific crises are discussed in the work, the author convincingly argues that poor land-use, the major cause of erosion, "was a regression of technique forced upon peasants by the direct and indirect pressures of the colonial state."
(Bowles, 1979: 199). For instance, the colonial state's demand for a monetary tribute (tax), and the dominance of maize as a cash crop, forced peasants to abandon inter-cropping for maize mono-culture. The result was malnutrition and soil erosion as peasants reduced the range of crops they had been producing and concentrated on cultivating maize even in areas not suited to the crop.

Bowles also takes issue with some of the advice offered to peasants by agricultural officers. For example, he notes that "Poverty would have prevented the adoption of many of the most technically perfect devices for preventing soil erosion" (Bowles, 1979: 299). He concludes that ecological deterioration does not just occur but is a direct result of the pressures to increase and appropriate surplus.

Ecological change is a prominent concern in studies of food crises in Africa. Many scholars maintain that ecological change has been shaped by political, economic and social forces originating from colonial and post-colonial domination by the capitalist mode of production. On the whole, introduction of capitalism led to the breakdown of African systems of social and spatial organisation, a factor which not only made many Africans vulnerable to adverse weather conditions but also increased the risks of environmental damage (Bell, 1986: 196). For example, increasing commoditisation altered land-use patterns and impeded natural regenerative cycles (Schoepf, 1986: 201).
Sindiga (1981) has discussed the complex relationship between ecological, cultural and economic factors. His work shows how land alienation and other forms of colonial intervention in Maasai land-use patterns made that community vulnerable to drought and tsetse fly infestation. Sindiga maintains that resource degradation of the Maasai environment had its origins in British colonial policies. The degradation caused recurrent droughts, which resulted in loss of livestock and famine.

Another study by Deacon and Darkoh (1987) demonstrates that effects of drought such as starvation, poverty and ecological imbalance cannot be wholly blamed on nature. These scholars argue that such occurrences have their basis in colonial policies and post-independence initiatives or lack of them. Taking the Maasai and Kikuyu communities as case studies and through review of land tenure, colonial policies and practices, and post-independence initiatives and biases, the two scholars demonstrate that an impoverished population and environmental degradation cannot be blamed on natural factors.

Studies on other parts of Africa by Plange (1979), Van Alpeldoorn (1981), Kjekshus (1977) and Mascarenhas (1966) also indicate that the phenomenon of food shortages cannot be blamed on nature. Plange's study on the underdevelopment of northern Ghana in relation to the rest of that country dismisses as 'naturalistic fallacy' explanations solely based on natural conditions. He points out that anthropologists and historians
who use natural conditions (soil, climate etc) to explain the underdevelopment of northern Ghana forget that the region was the heart of trade routes and food production in the pre-colonial period. He further asserts that the region was turned into a labour reservoir for southern Ghana's cocoa and mining activities after the establishment of colonial rule.

Van Alpeldoorn's study is on drought and famine in Nigeria in the 1972-74 period. Paying special attention to the climatically 'difficult' northern region, he demonstrates that the Sahelian and Nigerian famines of the early 1970s were not essentially the small farmers' and pastoralists' fault as was commonly believed. He argues:

For a proper analysis of drought and famine we need to understand the international context of famine, the defences of the traditional systems against disasters, and the partial transformation of the economic and social system during the first three-quarters of this century (van Alpeldoorn, 1981: 3).

Van Alpeldoorn's sentiments are also shared by Shenton (1984) and Shenton and Watts (1979) whose works are also on northern Nigeria. Shenton (1986) uses the concept of historical materialism to examine the development of the forces and relations of production of northern Nigerian communities under colonial rule. He concludes that the incorporation of northern Nigeria into the world capitalist system, while seeking to preserve rather than to transform pre-existing forces and social relations of production, intensified the region's
age-old vulnerability to threats of famine through exposure of the society to new threats of capitalist crises. Shenton and Watts (1979) also look at the impact of colonialism on the incidence of famine. They examine in great detail mechanisms existent in pre-colonial societies for coping with food shortage, and how these mechanisms were eroded by colonial practices such as taxation, commoditisation and labour migrancy. The two scholars conclude that hunger is a social phenomenon that cannot be understood through recourse to weather or Malthusian political economy.

Kjekshus (1977) also takes issue with colonialism for being behind some of the famines that have occurred in East Africa in the past. He specifically cites the introduction of new human and animal diseases, and the way colonial rule was established (through policies of pacification, procurement of food-stuffs, and labour recruitment) as some of the factors which led to famines. He also abhors the introduction of "commercial virtues that removed the margin of surplus security of stock or storage that separated the East African peasant from famine and the eventuality of crop failure during the next planting season" (Kjekshus, 1977: 43).

After scrutinising some of the literature on food shortages, Mascarenhas (1966) feels that climatic aspects, especially hazards of the tropical environment, are too readily presented as explanations. This approach, he feels, tends to
make food shortages in the tropics totally an environmental problem, thereby brushing aside the cultural aspect of food shortages. He concludes that the imposition elements of colonial policy vis-a-vis traditional agricultural systems created a situation which inevitably had great impact on food supplies. He further states that the end of colonial status did not necessarily resolve these tensions and problems of the colonial past.

At the continental level are works by Ball (1976), Lofchie (1975), Lofchie and Commins (1982), Zeleza (1986), etc. Lofchie (1975) takes issue with those social scientists who take it for granted that the causes of African famines are natural and climatic. He blames them for overlooking political and economic factors, which he argues are at the root of the crisis. He goes on to say that policy prescriptions informed by a predominantly non-political view of the world tend to consist of technical and administrative recommendations. Such recommendations, he says, stress on the need for irrigation programmes, more modern and weather-resistant agricultural practices, and the introduction of high-yield varieties of seed. He further argues that these policies do not reflect on political and economic arrangements which, more than changes in climate and rainfall, are at the root of human suffering. He also blames Africa’s hunger on dualistic agricultural policies characterised by well-provided-for export sectors and impoverished food sectors.
Ball (1976) tries to correct the view that factors underlying drought are different from those causing famine. He tries to show why drought should be properly seen as resulting from a combination of social, political, economic and environmental factors. Citing the example of French colonial practice in West Africa, Ball demonstrates how attempts by colonial administrators to integrate peasants and herders into a monetised, commercialised economy led to ecological degradation through over-cultivation and over-grazing. The need to raise money for taxes and other purposes while maintaining consumption levels destroyed the environment and the overall result was that the usual amount of rainfall became less effective.

Lofchie and Commins (1982) not only decry the grim fact that one-third of Africa's people suffer from some form of malnutrition due to inadequate food supply but also point out Africa's deepening dependency on food imports. They also lament that Africa is not only unable to feed herself but is also experiencing environmental degradation even in areas of high rainfall such as Zaire, Zambia and the West African coast. Although they are of the view that pre-colonial African agricultural systems were not models of pristine harmony, they insist that these systems did work reasonably well when compared with much of what has occurred since the beginning of the colonial era. They maintain that "when calamities of deprivation did occur, they tended to be the result of natural
disaster rather than maldistribution in the economic system" (Lofchie and Commins, 198: 17). They therefore conclude that the extensive starvation that accompanies contemporary food shortages is a result of social structures characterised by wide gaps in wealth and poverty, something which was less common in pre-colonial Africa.

Zeleza (1986) seeks to demonstrate the complexity and contradictions inherent in Africa's agrarian crisis by looking at its historical and global context. He is of the view that Africa's hunger is rooted in deep social and economic problems and not in nature. He contends that although colonialism did not entirely transform African societies, it drastically affected their social and ecological organisation and responses to food problems. On the basis of massive statistical data, he concludes that Africa is agriculturally productive, but production for export is given more emphasis than production for domestic consumption.

From the reviewed literature, it is clear that the consolidation of once autonomous and discrete rural communities into states and the incorporation of these states into the world economic system through the colonial process altered the context of food crises in Africa. However, the impact of colonialism on African societies was more complex than some scholars have portrayed. Suret-Canale (1971: 297), for example, has argued:
The pre-colonial crop system, within the traditional social setting provided a complete and permanent equilibrium between man and nature. Compelled hereafter with means which were unchanged, to provide for his own subsistence and to furnish a surplus of export products as well, the peasant succeeded only in reducing this subsistence to a minimum, or even below .... Every year there was famine. Malnutrition became a permanent feature. Any natural or economic catastrophe, such as a bad harvest or falling prices naturally resulted in famine...

It is true that the impact of colonialism on African production systems was to a large extent debilitating, but a situation of permanent equilibrium between man and nature cannot be generalised even to the smallest of pre-colonial African villages.

Such generalisations conceal vast differences in the way various social systems were articulated to colonialism, the processes of social differentiation within specific modes of production, and the manifestation of these differences in food production and acquisition. The present study attempts to meet that challenge by tracing changes in the nature of food crises in a specific African community as the community was progressively articulated to capitalism.

1:6 Justification of the Study

Although the study of food problems in Africa has attracted scholars from different disciplines, the Kenyan scene has generally been neglected, especially by historians. This
is a serious omission for two reasons. First, food problems are known to have occurred in most Kenyan communities in the past (Ojany and Ogendo, 1975: 63-64; Van Zwanenberg with King, 1975: 6, 85-86). However, little research has been done on these famines. No wonder famine is viewed as the natural outcome of a hazardous Kenyan environment in the two cited documents. Indeed, some scholars have actually lamented the fact that "historians have undertaken little research on famine" (Van Zwanenberg with King, 1975: 85).

Secondly, the historical approach, which is both spatial and temporal, is suitable for understanding the processes that lead to and follow food crises. In fact, the historical approach offers a good starting point for assessing the impact of past 'development' strategies, such as those pursued by the colonial state. Such assessment can then be extended to current strategies; for as Ball (1976) argues, it will be impossible to reverse trends towards food scarcity until the causes of famines are examined and understood.

Machakos District, the geographical unit of this study, was chosen because of its complex agrarian problems in the past. In fact, during the colonial era, the district had the worst soil erosion problem in the colony. Consequently, 'overstocking' and food shortages were perpetual problems. For example, from 1943 to 1961, the district imported maize in 15 out of 19 years, and in 7 of these years there was severe famine (Porter, 1972: 35). However, the causes and nature of food crises varied from
one part of the district to the other depending on such factors as ecology and proximity to commodity markets. This study therefore contributes to historical knowledge by analysing the effects of colonial capitalism on Kamba society and its ecology.

1:7 Methodology

Primary data for this study was obtained from archival and oral sources. Archival sources at the Kenya National Archives (KNA) and the Ministry of Agriculture Library (at Kilimo House) included District and Provincial Annual Reports, Annual Reports of the Department of Agriculture, Political Record Books, Handing-Over Reports, Minutes of the Machakos Local Native Council, Memoranda on issues like soil erosion, etc.

Data from archival sources was cross-checked with and supplemented by data from oral interviews. The areas visited for the interviews are the six locations of the former Mbooni Division (Kibauni, Kisau, Kiteta, Mbooni, Muthetheni and Tulimani). Other areas visited were Kikumbulyu, Matungulu and Kangundo locations.

These particular areas of the district were chosen because of the following reasons: Mbooni Division provides a representative sample of the district's major agro-ecological zones and has areas that were the epitome of soil erosion in Machakos during the colonial era; Kikumbulyu location is one
area in Machakos District where the demands of White settlers constantly clashed with those of the local people; and Matungulu and Kangundo embraced commercial agriculture at an early date and therefore represent the so-called progressive areas. In short, the sampled areas reflect some important aspects of 'The Machakos Problem'.

Oral interviews comprised long sessions of in-depth interviewing of elderly men and women. These informants were identified with the help of local leaders (especially assistant chiefs). In most cases, interviews were conducted in the presence of someone known to both the interviewer and interviewee. This arrangement made interviews as informal as possible.

In all cases, information was recorded on cassettes. Interviewees did not object to the use of a tape-recorder for they were approached through someone known to them and the reasons for using the device were explained beforehand. The use of a tape-recorder made the interview sessions all the more informal as the interviewer did not have to waste time writing all of an informant's responses. The research questionnaire therefore remained a guide and not a fixed device. However, efforts were made to harness optimum information.

Transcription of recorded information was done as soon as conditions allowed. This ensured that the information was put in writing while the meaning the interviewee expressed was
still fresh in the interviewer's mind. Information obtained from one informant was then compared with that from other informants. This also enabled the interviewer to plan future interviews by assessing which areas of the data needed greater coverage.

The analysis of primary data was enhanced by information obtained from journals, books, government publications and unpublished papers, reports, theses and dissertations. These secondary sources were particularly useful for corroboration, comparison and theoretical interpretation of the primary information.

On the whole, this study attempts to integrate data and theory; for as Beckman (1980: 54) correctly argues:

Evidence on its own is neither here nor there. Its significance depends on the interpretation given to it, which again is determined by the theoretical position taken. Evidence is selected, ordered and interpreted from a given theoretical position.

The data harnessed was therefore analysed in a materialist perspective, a perspective which is explicitly historical, inter-disciplinary and critical. The perspective draws heavily on the work of Marx and his successors, and is concerned with the intersection of the organisation of production, the structure of political power, the nature of social structure and the significance of labour alienation and ideology.
Thus, the concept of modes of production is a logical historical method of analysis which draws heavily on Marx's methodology of historical materialism. Its philosophical outlook at nature and social phenomena is guided by the notion of dialectical materialism. Therefore, our method of analysis and interpretation is historically and dialectically derived in accordance with Marxist world view.

(Samoff, 1980: 5-6).
The assertion that geography is the crucible out of which history is made might be an overstatement, yet the complex interrelationship between the physical environment and human activity cannot be over-emphasised (Mazrui, 1986; Mwanzi, 1977; Ogot, 1979). Indeed, the relationship is such that:

If one wishes to understand a people and its development, one must have some knowledge of its milieu, the land it lives in and especially the climatic conditions (Lindblom, 1920: 22).

However, the natural environment is not static and changes in it effect changes on human activity, just as human activity causes changes in the natural milieu. In short, "man is a product of and a force in natural processes" (Sindiga, 1981: 28). History should therefore endeavour to explain the dialectical inter-change between humans and their natural environment (Sindiga, 1985).

But the relationship is not a mere man-nature equation. It is a question of the relationship between man and man in the process of production (Sheriff, 1985: 1). Therefore comprehension of environmentally-related problems, such as food crises, requires delving deep into man's relationship with nature and the
nature of human society. Hence, history should be both social and natural because "social relations are always relations of men and men, of men and nature" (Copans, 1983: 89).

In that connection, this chapter provides background information for the rest of this study. The first section presents an outline of the environmental potential and limitations of Machakos District while the rest of the chapter examines how the Akamba interacted with their environment in the late nineteenth century. The overall aim is to present and analyse the background against which agrarian crises in the colonial period occurred. Under colonialism, the Akamba did not interact freely with their environment; instead they responded to various stimuli by the colonial state. Their economic practices were therefore prescribed by official policy. Indeed, this was the midwifery role of the colonial state in the articulation between the capitalist mode of production and the traditional Kamba economy.

2:1 Physical Environment

Land in Machakos District rises from slightly below 600 m above sea level in the extreme south to 1,100 m in the north-east and 1,600 m in the north-west. In the centre of the district are hills and small plateaus such as Kangundo, Iveti, Mbooni, Mua and Kilungu (Map 4). These massifs rise to a height of 1,800 - 2,100 m and are surrounded by a large plateau which is elevated to about 1,700 m in the west and slopes down to 700 m
Map 4: MACHAKOS DISTRICT IN THE PRE-COLONIAL PERIOD

Source: Munro, 1975:13.
Both the hills and the surrounding plateau are of ancient basement rocks, mainly schists and gneisses. However, the basement system is broken in the north-west by the volcanic Ol Donyo Sabuk (2,144 m) and in the south-west by the volcanic Chyulu Hills. Similarly, the basement system is overlain by the volcanic outflow of the Yatta Plateau in the east. The Athi-Kapiti plains in the western and north-western parts of the district are also of volcanic origin (Kenya, 1989:1; Jaetzold and Schimidt, 1985:149).

Rainfall and temperatures are the two major climatic factors which influence agricultural activities in Machakos District. These two factors are in turn influenced by altitude, such that rainfall increases with rise in altitude while temperatures decrease with increase in altitude. Consequently, the hill masses are cooler and wetter than the surrounding lowlands. Agriculture is therefore more intensive in the hill areas than in the lowlands. However, crops mature faster and with less rain in the warmer climate of the lowlands than they do in the hills (KNA/DC/MKS 8/3:8).

The average annual rainfall ranges from slightly over 1,000 mm in some of the highlands to slightly below 500 mm in the low-lying southern and south-eastern parts of the district (Map 5; Table 2). This rain falls in two seasons: the 'short rains' start in October and continue through December while the
Map 5: MACHAKOS DISTRICT: MEAN ANNUAL RAINFALL AND REGIME

'long rains' begin in March and continue through May. The months of January, February, August and September are therefore hot and dry whereas June and July are cool and cloudy. On the whole the district has a mean annual temperature of about 25°C (Kivuto, 1972: 13-15).

Table 2: RAINFALL FIGURES FOR SOME STATIONS IN MACHAKOS DISTRICT

<table>
<thead>
<tr>
<th>Station</th>
<th>Number of Years of Recording</th>
<th>Average Yearly Total Rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inches</td>
</tr>
<tr>
<td>Machakos</td>
<td>65</td>
<td>35.50</td>
</tr>
<tr>
<td>Kangundo</td>
<td>21</td>
<td>37.19</td>
</tr>
<tr>
<td>Kilungu</td>
<td>22</td>
<td>39.09</td>
</tr>
<tr>
<td>Matiliku</td>
<td>20</td>
<td>31.76</td>
</tr>
<tr>
<td>Mwala</td>
<td>18</td>
<td>27.78</td>
</tr>
<tr>
<td>Sultan Hamud</td>
<td>16</td>
<td>30.72</td>
</tr>
<tr>
<td>Iveti</td>
<td>18</td>
<td>52.64</td>
</tr>
<tr>
<td>Makindu</td>
<td>56</td>
<td>23.86</td>
</tr>
<tr>
<td>Mtito Andei</td>
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<td>17.41</td>
</tr>
<tr>
<td>Makueni</td>
<td>12</td>
<td>30.80</td>
</tr>
<tr>
<td>Kiteta</td>
<td>15</td>
<td>26.40</td>
</tr>
<tr>
<td>Mbooni</td>
<td>18</td>
<td>42.94</td>
</tr>
<tr>
<td>Matungulu</td>
<td>19</td>
<td>36.72</td>
</tr>
<tr>
<td>Kibwezi</td>
<td>41</td>
<td>24.59</td>
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</tbody>
</table>


Soils in the district vary according to factors such as parent rock, relief and rainfall. Generally, red friable clay-loams predominate on the hills while brown sandy clay-loams, often with a laterite horizon, are common on the lower slopes.
of the hills and on the lowlands. As a result, the hill areas have more fertile and deeper soils than the surrounding lowlands (Owako, 1971:177-78).

The variations in rainfall and soils are equally reflected in the vegetation patterns, and ultimately in the ecological zones for vegetation is an integration of all climatic and soil factors. Areas higher than 1,364 m above sea level in the district belong to the Star Grass Zone and once supported forests and a variety of grasses. Immediately below the Star Grass Zone is the Grass Woodland Zone of the lower slopes of the hills (1,212 - 1,364 m). On the lowlands the Acacia-Combretus zone is predominant but gives way to Acacia-Commiphora bush in the southern parts of the district (Ominde, 1968: 44-46).

Rainfall is by far the most important factor in the Machakos environment. On the basis of average annual rainfall, the agricultural potential of the district falls into three broad categories (Map 6). The first is high potential land and consists of areas in the district which receive over 889 mm of rainfall in a year. This land is mainly within the hill masses and is about 10 per cent of the district's total area. Areas which receive 635 - 889 mm of rainfall in the district are classified as medium potential land. This category forms 54.2 per cent of the district's area and comprises the Eastern Plains, the Yatta Plateau, North Yatta Plains and parts of Kikumbulyu Plains. The rest of the district (35.8 per cent) receives less than 635 mm of rain in a year and is therefore low potential
Map 6: MACHAKOS DISTRICT: AGRICULTURAL POTENTIAL AND LAND CATEGORIES

This land is mainly rangeland and is made up of the Athi-Kapiti Plains and the greater part of Kikumbulyu Plains (Owako, 1971:80).

In terms of surface water resources, Machakos District is poorly endowed. Most of the district is drained by River Athi and its tributaries except for the northernmost parts which are drained by Tana and Thika rivers (Map 1). River Athi is the only major perennial river in the district, although some of the hill massifs have perennial streams whose flow is intermittent at low altitude. Some of the seasonal rivers also have sub-surface water in their sandy beds during the dry season (Kenya, 1981:1).

The above summary of the geography of Machakos District is the basis for understanding the challenges the natural resources of the area have posed to human activity in the past. For example, it is not possible to reconstruct the pre-colonial Kamba social formation without recourse to the environmental potential of the area, for the geography of an area does affect a people's way of life (Mwanzi, 1977: vii). Similarly, the environment without people is meaningless because 'nature' is not natural but is 'produced' by different social systems. The following section therefore examines the Kamba system of production in the late nineteenth century as a base for assessing the impact of colonialism on the society.
The pre-colonial history of the Akamba suggests a society whose development was closely linked to the environment. In the early sixteenth century, the Akamba were living on the plains around Mount Kilimanjaro, and were probably semi-nomadic. In this semi-arid area the Akamba kept livestock, hunted wildlife and collected edible plants and roots. They were probably organised in small kin-groups.

Towards the end of the sixteenth century, the Akamba began to move out of the Kilimanjaro Plains due to competition for resources with the Maasai and other groups (Jackson, 1976: Feddars, 1979). A northward movement led them to the Chyulu Hills. Unfortunately, the area was exceedingly rocky, poor in water resources and the higher reaches were impenetrable. They later moved on to Kibwezi Plains, but long seasonal droughts in the area forced them to move further north until they reached the Mbooni Hills in the mid-seventeenth century. Mbooni Hills, with their heavy forests, high rainfall, innumerable streams and fertile soils, accorded the Akamba the type of environment they had been looking for. However, the Mbooni environment did not hold them together for long.

By the early eighteenth century, signs of population pressure (such as soil depletion, diminishing natural resources, and border clashes between different sections of the community) had began to appear at Mbooni. Consequently, small groups of
migrants began to cross the Athi River into central Kitui as early as 1715 (Map 7). These migrations to Kitui intensified in the 1740-1780 period. At the same time, the Mbooni community started to expand into areas around Mbooni, such as Kaumoni and Kisau. By 1800, the Akamba were in the process of colonising Nzaui, Mbitini, Mukaa and Kilungu. Then followed the occupation of Muvuti and Iveti in around 1850, and Kangundo in the 1880s and 1890s. The last major population movement was the occupation of Matungulu in 1900 (Tignor, 1976:17; Map 8). In short, the Akamba were still colonising land in the Machakos area when British colonialism halted further expansion.

Indeed, territorial expansion was a dominant feature of the pre-colonial Kamba society right from its arrival at Mbooni Hills. The society's economy (based on shifting cultivation, pastoralism and hunting) required an ever-expanding frontier of settlement as natural resources tended to degenerate fast. This mode of life gave rise to social institutions which, though modified over time to suit changing circumstances, were characteristic of the whole society even after expansion from Mbooni. For example, social organisation tended to emphasise residence rather than clan ties. Consequently, Kamba society was fragmented into shallow lineages and small territorial organisations until the late nineteenth century.

1. Kikumbulyu was probably settled by people from Kitui in 1836 when a supposedly severe famine dislodged the Kamba communities from their homeland and led to establishment of Kamba colonies in places such as Kikotoni in Rabai (within the Coastal Mijikenda community).
Map 7: Kamba Migrations in the Pre-Colonial Era

Source: Jackson, 1976: 190, 204.
Map 8: MACHAKOS DISTRICT: ADMINISTRATIVE BOUNDARIES, 1925

Source: Munro, 1975: 59.
Outside the household, the most important kinship group was the lineage or Mbaa-group. Such a group was founded by an individual who moved into a new area and established a nuclear family, which grew into an extended family named after its founder. For instance Mbaa-Ngovu meant Ngovu's family. Such an extended family or lineage could congregate in the same area for up to four generations before some of its members hived off to found their own Mbaa-groups elsewhere. Elders in the group handled everyday matters of the group such as marriage negotiations, inheritance and general welfare.

The other important form of social organisation was the territorially-based utui group. Individual pioneers moved into virgin land (wetu) to establish their homesteads, and were joined by members of other clans who settled nearby. The new settlers together formed a territorially-defined settlement (utui pl. motui). To ensure peaceful and co-operative existence, the new settlers took the ndundu oath in which they swore to assist one another in everything.

Each utui was an independent unit. It had its own men's club (kisuka pl. isuka); a recreation ground (kituto pl. ituto); an administrative council (nzama) with its own bench of magistrates (asili sing. musili); its own warriors (anake sing. mwanake) and war leaders (athiani sing. muthiani). The utui also had its own place of sacrifice (ithembo pl. mathembo), where male and female elders of the utui sacrificed on behalf of the utui community (KNA/DC/MKS 7/1:8-9).
The area of the average utui was small. Its extent was determined by the physical features of the land. Thus, an utui was either a hill ridge, a hill outcrop or an area between two streams. However, for everyday matters of life, the utui was self-sufficient. For example, neighbours defended each other's property; the youth undertook work of mutual assistance (mwethya) such as hut-building and farm-work; and inter-marriage took place between the various lineages of the utui.

To prevent domination of utui affairs by any individual or family, gerontocracy was the form of political organisation in the utui. Thus, the general affairs of the utui were discussed by the men's club (kisuka) whose members were the married men (nthele) and elders (atumia sing. mutumia). Membership in the club was divided into six grades which were attainable after certain periods and after certain payments of livestock. Authority was therefore given to those with age and experience. On the whole, neighbourly co-operation was accompanied by egalitarian values which sought to maintain the status quo (Munro, 1975:14-15).

Several motui formed a larger territory, kivalo (pl. ivalo), which had institutions similar to those of the utui. However, the kivalo operated on special occasions when tasks considered too great for one utui were to be performed. For example, the kivalo council of elders (king'ole) met to discuss and sanction actions to be taken by the inhabitants of the

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2. Married women too had grades which defined their public roles. Only men and women of the highest grades participated in nzama councils and in sacrifice.
The other major form of social organisation amongst the pre-colonial Akamba was the family or household. This consisted of a man, his wife or wives and their children. In most cases, married sons and their families remained in their father's compound until they had their own grown-up children. Generally, the household was the basic unit of production and consumption. However, each wife had her own cultivated plot(s) of land, grain stores and milking stock, but the head of the household had the ultimate control over the household's resources.

The role of the above institutions in reproducing the pre-colonial Kamba social formation is perhaps best analysed under specific aspects of the society's system of production. The rest of this section therefore examines aspects of the Kamba system of production in the late nineteenth century.

2:2:1 Land Tenure

The initial settlements of the Akamba in Mbooni were clan-based. Each of the twenty-five Kamba clans inhabited a particular section of the Mbooni massif (KNA/DC/MKS 7/1:7). However, territorial expansion within Mbooni led to intermingling of clans to the extent that they lost their significance in respect of land tenure. Later dispersal from Mbooni scattered Kamba clans throughout Ukambani.

Pre-colonial Kamba system of land tenure derived from the
process of pioneering into an unclaimed area. An individual went into the commonage (weu) and marked out a piece of land for cultivation (ng'undu). The land so marked became a permanent and inheritable possession. The individual also delimited pasture land (kisesi pl. isesi), either around the homestead or some distance away from the homestead in a specially built cattle-post (kyengo pl. syengo). Unlike ng'undu rights which were permanent, kisesi rights existed as long as the land was being used. When abandoned, kisesi land reverted to weu and anybody could colonise it.

Generally, claims to land were agreed upon and regulated by utui elders. They could limit the amount of weu an individual appropriated or refuse to admit certain individuals into their utui (Penwill, 1951:33). Consequently, a prospective settler offered beer and a goat (mbui ya mathanzu) to older settlers. These items were used in a ceremony in which the new settler took the ndundu oath, thereby committing himself and his household to co-operation in utui affairs. Such co-operation was important for defending frontier settlements from raids and for reciprocal obligations, especially in labour.

However, matters of inheritance or sale of land were regulated by the Mbaa-group. By virtue of their common ancestry, members of a Mbaa-group owned land jointly. But each married woman in the lineage had absolute rights of use of her farm-plot (mbee), and passed it on to her sons for an inheritance. However, such land could not be sold without the sanction of
lineage elders. If the sale was absolutely necessary, the next of kin had the first priority. In short, everything was done to ensure that the land was not sold outside the lineage. On the contrary, land that had been taken from the weu was essentially in the hands of the occupier and kinsmen had no rights in it. The occupier could therefore dispose of such land without consulting his kinship group.

But the sale of land, land litigation and land tenancy were uncommon in pre-colonial Machakos. Indeed, it was a common practice for older sons to move out into the weu, thereby leaving the youngest son to look after their parents and inherit the family's farmlands (ng'undu). Except for some particularly rich patches of land, such as perpetually wet valleys (syanda sing. kyanda), land was rarely sold. Where sale of land did occur, a goat or two and beer were given in exchange. Similarly, the desire to stay among friends or relatives rather than go off to a distant and dangerous weu sometimes led to a form of tenancy. In such a case, an individual was allowed by another to reside on a piece of land temporarily (Penwill, 1951:48).

Although land had become a subject of dispute between the Akamba and the Maasai by the early nineteenth century, land accumulation at the individual level did not become necessary until the colonial period. As Gold (1985:182-83) notes, there were limits to the amount of land one man could control in nineteenth-century Kenya. Obstacles such as low level technology, scarcity of labour and a limited market for food-stuffs militated
against land accumulation by individuals. Moreover, livestock was the chief form of accumulation and grazing land was owned communally by the members of a utui. Consequently, land had no exchange value and was not viewed as a scarce resource. Its accumulation by individuals could therefore serve no purpose.

The fact that pre-colonial Kamba society was a land colonising one explains many of its features such as mobility, neighbourly co-operation, democracy and egalitarianism. At least upto the time of colonial rule, the Akamba were still expanding; "[they] broke new ground, formed new motui and ivalo, and made new social contacts" (Munro, 1975:16). Relative abundance of land therefore tended to counteract tendencies towards social differentiation in pre-colonial Machakos.

2:2:2 Crop Production

According to Jackson (1976:197), the first Kamba settlers in Mbooni practised a form of agriculture which closely approximated shifting cultivation. The practice did not require high labour input as land for growing crops was prepared by burning a section of the forest. Moreover, the only instrument of cultivation was the digging-stick. However, the settlers were able to raise crops such as yams, potatoes, dilicho beans and bananas. On the whole, the system of agriculture was rudimentary as the Akamba were at the time more committed to pastoralism and hunting than to crop culture.
However, by the early eighteenth century shifting cultivation began to give way to terrace cultivation or irrigation agriculture in some parts of Mbooni. Thus, shifting cultivation continued in the drier environments while terrace cultivation gained popularity in the western slopes of Mbooni. In the later zone, "Streams in the hills were dammed up to form large ponds, at the outlets of which Kamba villages built furrows or ditches to transport water" (Jackson, 1976:198). These irrigation works required a lot of labour power and with them arose temporary coalitions of labouring units in individual kin-groups within villages as well as across villages in a given area. In sum, the population pressure which led to expansion of the Akamba from Mbooni from the early eighteenth century onwards also resulted in intensive agriculture in Mbooni itself.

The dispersal of the Akamba from Mbooni Hills in the eighteenth and nineteenth centuries further diversified their agriculture as they came to inhabit a wider variety of environments. Although shifting cultivation continued to be the dominant form of crop production right into the twentieth century, the variety of crops increased with time. Thus, on the eve of colonial rule, the Akamba produced a variety of cereals, legumes, tubers, vegetables and fruits in a variety of ways. For example, in the early 1890s, Major J.R.L. Macdonald observed the following about Kibwezi:

The people live in scattered bush villages on the banks of Kibwezi and Kikumbuliu streams; they cultivate their land to a very fair extent,
and in favourable seasons produce a large supply of food for passing caravans ... (Macdonald, 1973:34).

Another European traveller, Captain F.D. Lugard, who passed through Kilungu in 1889, recorded in his diary:

On every side were herds of cattle and goats and fields of cultivation. The sugar cane is grown here, and fairly large, also cassava (mahogo), mapira (mtama), virombo (mahindi), maheje [sic] Bananas, kundi [sic] sweet potatoes, pojo, Dhal, pumpkins (mammonje), wimbi, and castor-oil (Perham and Bull, 1959:141).

When he reached the western side of Iveti Hills he recorded:

The plain in the dry weather looks parched and arid, but where it is intersected by mountain rills the bananas and crops grow luxuriantly. Here, for the first time in Africa, I saw a system of irrigation channels, most cleverly and effectively planned (Lugard, 1893:283).

In short, Kamba agriculture in the late nineteenth century was fairly diverse.

Among the cereals, finger millet and bulrush millet were the most important in Kamba agriculture. Unlike maize and sorghum, which are easily destroyed by weevils, millets could be stored for as long as three years, or even longer. Moreover, the relative low moisture demand of millets, and their short growing period (Table 3), made them suitable for the uncertain weather conditions of Machakos District.

It is not clear when each of these cereals was introduced
into Kamba agriculture, but the role played by finger millet in Kamba rituals suggests that it is among the earliest crops adopted. It is also possible that maize was first introduced to the Machakos area by coastal traders sometime around 1860 (Miracle, 1966:99). However, its cultivation did not spread far from the areas along the trade routes until the colonial period (Map 4). Indeed, people in the region east of Mbooni Hills told this researcher that maize and 'modern' beans are relatively new crops, and were initially grown on the sites of former homesteads (maanzoni sing. ianzoni). Such areas had the necessary fertility due to accumulated animal manure (Mbuva; Mbuvi; Nthiani, O.I. 1990). Similarly, most of those interviewed in this research asserted that bulrush millet was the chief buffer against famine in the Machakos region.

The major legumes were cow peas, pigeon peas and indigenous beans (nzavi/mbumbu). Each of these legumes has characteristics which made it special in the agricultural system. For example, ndamba cow peas and pigeon peas are perennial crops and served as insurance crops in case the second rains ('long rains') were not sufficient to enable other crops to mature. Another advantage of cow peas is that the leaves could be used as a vegetable just two weeks after planting.

Tubers such as cassava, sweet potatoes and arrowroots were mainly grown in the hills although the first two were also grown in the lowlands. These became handy during locust invasions or when cereals failed due to drought. Indeed, sweet
Table 3: 'KAMBA' CROPS AT THE TURN OF THE 20TH CENTURY

<table>
<thead>
<tr>
<th>Kikamba Name</th>
<th>Kiswahili</th>
<th>Length of Time Between Sowing and Reaping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nzuu</td>
<td>Mbaazi</td>
<td>Cajanus Indicus 11 months (1 crop in a year)</td>
</tr>
<tr>
<td>Muvya</td>
<td>Mtama</td>
<td>Holcus Sorghum 4 months (2 crops in a year)</td>
</tr>
<tr>
<td>Mbemba</td>
<td>Mahindi</td>
<td>Zea Mays 4 months (2 crops)</td>
</tr>
<tr>
<td>Mwee</td>
<td>Mawele</td>
<td>- 3 months (2 crops)</td>
</tr>
<tr>
<td>Uimbi</td>
<td>Wimbi</td>
<td>Eleusine Coracana 3 months (2 crops)</td>
</tr>
<tr>
<td>Kiwa</td>
<td>Miwa</td>
<td>Sugar-cane 2 years</td>
</tr>
<tr>
<td>Makwasi</td>
<td>Viazi</td>
<td>Sweet Potatoes 1 year</td>
</tr>
<tr>
<td>Mboso</td>
<td>Maharagwe</td>
<td>Beans 2 months (2 crops)</td>
</tr>
<tr>
<td>Manga</td>
<td>Muhogo</td>
<td>Manioc 1 year</td>
</tr>
<tr>
<td>Mbumbu</td>
<td>Fiwi</td>
<td>Beans 3 months (2 crops)</td>
</tr>
<tr>
<td>Malenge</td>
<td>Maboga</td>
<td>Pumpkins 1 year</td>
</tr>
<tr>
<td>Nthooko</td>
<td>Kunde</td>
<td>Big beans 3 months (2 crops)</td>
</tr>
<tr>
<td>Maiu</td>
<td>Ndizi</td>
<td>Bananas 2 years</td>
</tr>
<tr>
<td>Mongu</td>
<td>Mayungwa</td>
<td>Colocasia edulis 1 year</td>
</tr>
<tr>
<td>Ndulia</td>
<td>Not known</td>
<td>Red beans 3 months (2 crops)</td>
</tr>
<tr>
<td>Ngina</td>
<td>Pojo</td>
<td>Pulse (dhall) 3 months (2 crops)</td>
</tr>
<tr>
<td>Kikuu</td>
<td>Buyu</td>
<td>Calabash 1 year</td>
</tr>
</tbody>
</table>


Potatoes were grown in damp, sandy river-beds and along streams when a crop failure seemed imminent (Nyange, O.I. 1990). Similarly, pumpkins and mongu (an indigenous squash) added variety to the diet and also delayed the use of stored grains.
These two vegetables could not be stored for long and were therefore eaten during the harvest season or shortly afterwards. All in all, the diverse ecology occupied by the Akamba in the late nineteenth century provided them with a wide variety of crops (Table 3).

Except in the few areas where irrigation of crops such as sugar-cane, bananas and arrowroots was possible, Kamba agriculture in the late nineteenth century was basically rain-fed agriculture. Consequently, the techniques of shifting cultivation and inter-cropping were used in order to maximise yields from scarce labour and moisture. Describing this type of agriculture in the dry southern parts of Machakos District where annual average rainfall is less than 635 mm, Porter (1972:36) wrote:

The Mkamba here uses huge quantities of land on shifting cultivation basis. Land is owned, but not sold or inherited. Who would want his father's land? It is all used up and worthless. New bush is there for the taking. A multitude of crops, many of them quick-maturing, hardy and drought resistant, is sown in what appears to have been a fit of temporary insanity. Seed are all thrown together and worked into large dryland clearings that are virtually unmappable. Here is a list of crops from one field: maize, beans, cow peas, groundnuts, red millet, sorghum, castor, bulrush millet, cassava, pumpkins, calabashes, and pigeon peas. Six kinds of millet are grown here .... Care is taken to plant before or with the rains; indeed the second planting is done amongst standing unharvested crops from the grass rains [short rains].

According to Richards (1984:27), inter-cropping is "one of the greatest glories of African science", and has
numerous advantages. First, the dense vegetative cover the crops produce reduces the exposure of soil to erosive rainfall. Second, the vegetative cover smothers weeds and therefore reduces the burden of weeding. Third, available soil moisture and nutrients are maximised since different crops have different requirements and roots at different depths. Fourth, crop failure due to drought is minimised as farmers mix varieties and species of crops with different speeds of maturation and moisture requirements. Lastly, the mixture of different species of plants minimises the spread of pests and diseases (see De Wilde, 1967:88). In other words, pre-colonial Kamba communities, like most pre-colonial African societies, had a fair grasp of their environment due to their long association with the environment. It is the collapse of this aspect of traditional African agriculture under colonialism which Norman Humphrey, a senior Agricultural Officer in Kenya in the 1940s, lamented when he said:

Had the death of shifting cultivation been accompanied by the birth of a newer and better farming, we could have rejoiced unfeignedly but circumstances rendered that impossible (KNA/DC/MKS 2/18/1:165).

In general, pre-colonial Kamba agriculture was organised around the problem of risk. Perennial crops such as pigeon peas, ndamba peas, pumpkins, mongu (squash) and gourds were planted during the short rains in November. It was also during

3. Pre-colonial African societies chose their production systems on the basis of environmental perception. This 'folk science is called ethnoscience or ethnogeography (Sindiga, 1981: ch. 2; Watts, 1983).
this season that the bulk of the sorghum, bulrush and finger millet crops were grown. This ensured that the perennial crops survived the dry season in January and February, and produced a harvest after the long rains, while the millets avoided the cloudy and misty weather in June and July. Sometimes the sorghum planted in November was ratooned\(^4\) in January so as to produce a second crop in May. Failure of the short rains therefore had far-reaching implications for this was the more important of the two rainy seasons.

Rodney's (1976:254) observation that labour was the factor which was the very buttress of traditional African societies is quite true of pre-colonial Machakos. Indeed, pre-colonial Kamba society fits the description of a moral economy. According to Watts (1983:248), a moral economy is characterised by, among other things, risk aversion in agriculture ("safety first" ethic) and a tendency towards mutual support ("the norm of reciprocity"). Thus, through a variety of mechanisms, the pre-colonial Akamba arranged social life to facilitate production.

One such mechanism was labour reciprocity within the utui. This ensured that labour was available during critical periods in the production process, such as when weeding and thrashing were being done. As already mentioned, labour reciprocity within lineages and motui started in the eighteenth century when some communities in Mbooni began to intensify

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\(^4\) To ratoon a crop is to prune it in such a way that the old plants regenerate and produce a new crop.
their agriculture through irrigation. By the late nineteenth century, therefore, labour reciprocity was a characteristic feature of Kamba agriculture.

Communal work-groups (myethya sing. mwethya) were organised in the utui around gender or age depending on the particular task being performed. For example, men cleared and prepared land for cultivation and constructed food stores, while women weeded, harvested and prepared food for storage. However, the division of labour was not always clearly marked; sometimes different age-groups of both sex met to perform the same task. This was common with youth work-groups. Indeed, it was during such work that one could identify a prospective husband or wife for industry in agriculture was a vital quality looked for in prospective marriage partners (Nthiwa; Mukumbu; Nzuma, O.I. 1990).

On the whole, communal work was a joyful activity. In the 1910s, Lindblom described a typical girls' work-group as follows:

The fields present an animated aspect, often with a dozen girls in the same field, chattering and singing as they work. If there are no men about, they take their clothes off and toil away to their hearts' content. They go forward over the field in a row, like soldiers in a firing-line, and in that way no weeds escape them (Lindblom, 1920:503-04).

Youth work-groups performed various agricultural tasks for the families of their members in turns, and were governed
by strict rules and regulations. For example, a youth group could ostracise an errant member by placing a curse on any of its members who would associate with the offender. Ideologically, the consequences of such ostracism could, for example, cause a girl to fail to get a husband or become barren if she eventually married (Lindblom, 1920:184). At the practical level, the cursed member became an outcast among his age-mates and his family lost in terms of labour reciprocity. Consequently, the offender had to seek redress through his parents and pay a prescribed fine to the group.

To ensure reproduction of labour through recreation, as well as to minimise social conflict, the youth were allowed to meet for evening dances at the village recreation ground (kituto). However, such dances were subject to strict rules and regulations and any misbehaviour could elicit a curse from the elders (Masika, O.I. 1990). In that sense, elders had a firm control over the youth, the age-group that provided most labour in the pre-colonial Kamba society.

Before the advent of christianity, farm work among the Akamba was regulated by a set of rituals and customs. Communal (utui-based) rites were observed before planting and harvesting, and during other important events in the agricultural calendar (Mutea; Kioko; Mutiso, O.I. 1990). Before the onset of the rains parties of men went to the weu to fetch the hardwood from

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5. The Kamba have a saying: "Kikuyu kuisawa mwanake", which translates to: "The youth is the most (agriculturally) dependable age-grade in Kikuyuland". This spared Kamba youth to work hard.
which digging-sticks were made. Similarly, before the harvest work-groups went to the weu to fetch wood for construction of stores. In short, the agricultural calendar was organised communally through religious and other communal practices, although the farms and produce were owned individually. This ensured that most households carried out agricultural activities at the right time.

The common agricultural tool in pre-colonial Ukambani was the digging-stick. For men, it was a 1.8 to 2.7 m beam of wood (nthii) which was used for breaking the ground for a new farm. For women, it was a 1.0 to 1.8 m stick (muo) which was used for breaking the sods after the men had dug up the land. The muo was also used for weeding. However, digging was not always necessary for well-vegetated land was ready for sowing crops after the vegetation was burned down. The loose soil and ashes provided a suitable medium for sowing crops (Kanyau; Mwania, O.I. 1990).

At the household level, labour organisation was vital for the household's self-reproduction. Consequently, the chain of authority extended from the male head of the household through his wives, in order of seniority, through the eldest child to the youngest. Indeed, a married son did not set up his own homestead, and therefore own property until his first child was circumcised (at about the age of twelve years). Until then his labour, his wife's and that of their children
helped to reproduce the extended family (Nthiwa; Mukumbu, O.I. 1990). Lindblom summarises the authority of the head of the household as follows:

The mutumia, the paterfamilias, is the head of the family. He is the possessor of everything, and if a married son is living at home, he is considered to own even the latter's wife (Lindblom, 1920:446).

A mother had similar authority over her children and daughters-in-law. On the whole, parental authority rested on the ideology of parental curse and blessings. A parental curse was believed to be so potent that it ran through generations of the family of the person so cursed. Similarly, parental blessing was believed to bring prosperity to the person for whom it was invoked. In practice, parental authority carried the responsibility of ensuring the reproduction of the family. For example, the father (or the lineage) was responsible for acquiring a first wife for each son. Sometimes the livestock for the sons' dowry was acquired through dowry payments for their sisters. Therefore, family elders ensured both the material and biological reproduction of their lineages through what Sheriff (1985:9) calls "their control over the means of production, cattle and procreating women" (see also Meillassoux, 1973). Indeed, Munro (1975:26-27) thinks that increase in Kamba raiding activities in the late nineteenth century was partly due to a desire on the part of the Akamba to acquire cattle and women. Watt (1912:223), who was living in Machakos in the early 1890s, records that the Akamba "raided the great Masai clan, and carried off, not only their cattle, but also in many instances
their women and maidens".

Given the unpredictable rain pattern in most of Machakos District, the Akamba stored grains in large quantities. As recent as 1909 the District Commissioner observed:

Each native has 3 or 4 grain huts.... Sometimes a kind of platform is built under the roof of the dwelling House where grain is stored. As a rule natives of Ulu keep about 2 rains supply in hand over and above seed (KNA/DC/MKS 1/1/3:44).

Thus, food grain was stored in large wicker baskets (siinga sl. kiiinga) while seed grain was placed above the fire place so that it became sooty and unattractive to weevils. Similarly, the wicker baskets were properly plastered and sealed with cow-dung to keep off weevils.

However, periods of food shortage were not uncommon. During food shortages, enterprising households offered food in exchange for goats. For example, in 1908, a year of scarcity, a colonial administrator noted that people in areas which had no food were buying it "in other parts of the district from 3 to 4 loads for a goat" (KNA/DC/MKS 1/1/1:7)6. In turn, goats were exchanged for cattle, which was the highest form of investment in pre-colonial Kamba society.

2:2:3  Livestock

Cattle was the highest form of saving in the Kamba

6. One 'load' is the equivalent of 60 pounds (27.3kg).
economy and served social, economic, political and subsistence needs. At the subsistence level, cattle provided milk, and occasionally blood and meat. Cattle was especially significant during periods of food scarcity when blood for food was drawn from them, or, in case of severe famine, driven to Kikuyuland to be exchanged with grain.

Cattle also served as an insurance against crop failure because seasons of low rainfall did not always result in scarcity of pasture. Moreover, in times of drought cattle recovered fast after the onset of rains and provided milk and blood long before any crops could provide food. Even in the 1940s, when the government was still asking the Akamba to reduce their herds in spite of the frequency of food shortages, the Agricultural Officer observed that milk and the leaves of cow peas came to the people's help the earliest (KNA/DC/MKS 8/4:166).

Besides cattle, the Akamba also kept large flocks of goats and sheep, and chicken. These were by and large the chief forms of currency besides serving subsistence, ritual and even 'medicinal' purposes. Indeed, European travellers who passed through Ukambani in the late nineteenth century spoke glowingly of Kamba herds. In 1889, for example, Lugard (1893:261) recorded:

Here among the Ulu mountains the population was dense, and cultivation extended in every direction .... The excellent mountain grass was cropped short by the flocks and herds of the natives. The plague [rinderpest] had not
yet made its terrible visitation, and single herds of cattle numbered perhaps not less than 1,000 head.

In the early 1890s, Major J.R.L. Macdonald observed that the people of Kibwezi owned considerable flocks of sheep and goats but comparatively few cattle. He attributed this to Maasai presence in the surrounding area. But the actual reason may have been tsetse fly infestation of the area for even Muka people bordered the Maasai but kept large herds of cattle (Macdonald 1973:34-36).

The significance of livestock in the Kamba social system was well expressed in social institutions. For example, livestock was an important ingredient of bride-wealth. Thus, individuals used livestock to expand their lineages and to create allies or clients. For example, cattle loans enabled the rich to insure their herds against disease epidemics by sending parts of the herd to diverse places. Similarly, the poor settled around a wealthy stock-owner so that they could obtain milk from his compound (Musembi, O.I. 1990). In return they helped him with farm-work and in other activities.

However, expansion of one's lineage was the most common practice. As human and animal population in a utui increased, and grazing became scarce, individuals split their herds so that one part was taken to an outpost while the other part remained in the utui. Gradually the cattle-post was transformed into farmland by stationing one of a man's wives,
usually the youngest, at the cattle-post to establish a permanent homestead with cultivated fields. Increase in livestock wealth therefore led into acquisition of more wives, which in turn meant acquisition of more livestock and therefore a claim to more land through the establishment of cattle-posts and their gradual transformation to farmlands. This practice not only insured an individual's livestock against diseases, but also insured the extended family against food shortages as a local crop failure could be overcome by acquiring food-stuffs from another of the family's homesteads elsewhere (Mbuva; Nguta, O.I. 1990).

As already indicated, raiding for livestock and women, as well as for territorial expansion of 'Kambaland', seems to have been part of pre-colonial Kamba system of production. In fact, the institution of circumcision was used to inculcate in the minds of male initiates the sanctity of raiding (Manda; Musembi, O.I. 1990). But raiding was not only directed towards other ethnic groups such as the Maasai and the Kikuyu, it was also an intra-Kamba affair. For example, the Akamba of eastern Machakos raided those of Kitui while Kilungu Akamba raided other Machakos Akamba (Munro, 1975:16). However, inter-ethnic raids remained small-scale surprise attacks until the 1880s and 1890s when the Akamba intensified their raids on the Maasai and the Kikuyu. This was encouraged by factors such as a decline in Maasai military power due to human and animal epidemics, and succession disputes; a demand for cattle created by Swahili traders and which the Machakos Akamba endeavoured to
supply; and the emergence of centralising figures among the Akamba. These so-called New Men sought to build bases outside the Kamba political system by using wealth acquired from the trade with the coast to enlarge their lineages and clientele.

2:2:4 Trade

The other aspects of pre-colonial Kamba system of production were trade, hunting, bee-keeping and a wide variety of crafts. To a large extent, all these activities helped to augment the subsistence base of the society. More importantly, hunting, bee-keeping and traditional crafts enhanced Kamba trading activities. Consequently, trade had a significant impact on the Kamba society from its arrival in Mbooni to the time of British intervention (see Cummings, 1975; Lamphear, 1970).

According to Jackson (1976:201), the Akamba inhabited a variety of ecologies in Mbooni, and therefore had access to a wide range of resources. As a result, trade developed between and within Kamba settlements in Mbooni. The trade items included pottery, dyes, agricultural tools and hunting weapons. "Exchanging surpluses of food-stuffs accounted for another share of it" (ibid).

Dispersal from Mbooni in the eighteenth and nineteenth centuries further extended intra-Kamba trade, especially between lowland and highland communities. Lowlanders supplied highlanders with pigeon peas, grains and gourds in exchange for pottery,
This trade, which was mainly in the form of gift-exchange, was locally called kuthuua. However, in times of acute food shortages, the Akamba sought food in Kikuyuland where they obtained it in exchange with craft products such as arrows, arrow poison, snuff containers, ivory armlets, brass chains, etc.

To a large extent, both the intra-Kamba trade and the regional trade between the Akamba and the Mount Kenya peoples satisfied complementary needs of the communities involved. The trade satisfied needs for food, livestock and livestock products, implements for agriculture and warfare, and luxury items. On the whole, the trade was sporadic, irregular and seasonal. It was mainly a part-time activity and was therefore most intense during the dry season, when farm activity was lowest and during famines (Ndege, 1990: 123-24; Muriuki 1974: 107-08). Although the trade was primarily geared towards meeting food consumption and production strategies of households, it did lead to accumulation of wealth, especially livestock. Such livestock was converted to productive labour through acquisition of procreative women. On the other hand, livestock could be easily converted into grain whenever the need arose. In sum, intra- and inter-community trade helped to reproduce the Kamba social system.

From about 1830, the local and regional trade in eastern Kenya was progressively drawn into international commerce through the long-distance trade between the coast and
the interior. In this trade, the Akamba acted as middlemen between the Mount Kenya region and the coast, obtaining ivory from the interior in exchange for coastal goods such as beads, cowrie shells, copper wire, etc. However, by mid-nineteenth century, Kamba pre-eminence in the trade began to wane as both the Mount Kenya peoples and the coastal traders sought to trade directly with each other. This was due to a number of factors. First, the two groups wanted to increase their profits in the trade by eliminating the Kamba middlemen. Second, demand for ivory in the United States of America and Europe was increasing faster than could be supplied from the seasonal and irregular supplies from the interior of East Africa. Consequently, the coastal traders sought to regulate the supply by obtaining ivory from the source areas. Third, demand for slave labour in Zanzibar, Pemba and the Kenya Coast prompted coastal traders to move into the interior to look for slaves (Ndege, 1990:124).

Unlike the Kitui area, which was the centre of the trade with the coast, the Machakos area remained a commercial backwater until Swahili-Arab caravans began to traverse the area in big numbers in the 1870s. This at once made Machakos an area for supplying caravans with food, porters, cattle and ivory. Supply bases emerged along the trade routes (Map 4) from Kibwezi in the south to Masaku's (later Machakos) in the north.

Participation in this trade had a number of consequences on the Kamba society. First, the trade was in every sense unequal; it favoured the foreigners at the expense of the Akamba.
Thus, Kamba labour (porters), food and wealth (cattle) were exchanged for luxury items such as beads, shells and cloth. Unlike the local and regional trade, the trade with the coastal merchants did not meet the people's food consumption and production strategies; instead, the trade drew resources out of the Kamba economy. Lugard's experience in Kibwezi in 1889 is typical of the period. He recorded:

Arrived in camp we fire a couple of shots as signals; soon the Wakamba, men and women, begin to stream in with baskets or bags (beautifully woven of nkonge [sic] fibre) full of grain or flour (wimbi and mtama), with potatoes and fowls, and perhaps, a pot or two of honey .... After much haggling a standard is fixed, a small basket, holding perhaps two large cups of flour, is exchanged for a 'string' (about a foot long) of small beads (Lugard, 1893:274).

As the nineteenth century wore on, the number and size of caravans increased. Initially, it was the Swahili-Arab traders and their retinues of porters and slaves; then from 1889, caravans organised by the Imperial British East Africa Company (IBEA) and other European interest groups began to traverse the Machakos area. All these groups were supplied with food by the ornament-craving Wakamba. No wonder, after the Muvunga Famine (1898-99) the Watts could not get customers for their beads at Ngelani. The people had discovered that they had been cheated out of their food by exchanging it with 'worthless' ornaments. Indeed, Watt writes:

During the previous years beads and wire alone were in request, and we had just received a large
supply of these before the dearth came, and our storeroom was well stocked with the usual varieties. These lay there for two years unsought by a single native (Watt, 1912:313).

The trade also affected relationships between the Akamba and their neighbours. The demand for cattle and slaves created by the coastal traders prompted the Akamba to intensify their raiding activities on the Maasai and the Kikuyu (Munro, 1975:17-19; Muriuki, 1974:95). Some of the livestock and women captured in the raids helped to swell Kamba lineages while the rest were sold off to coastal traders. On the whole, the raids had negative effects on peaceful trade between the Akamba and the Kikuyu, a trade on which the former were very much dependent in times of food shortage.

Within the Kamba society, the trade with the coast intensified enmity between different sections of the community (Cummings, 1975:214). Before the coming of the Swahili and Arab traders, the community was fragmented in small utui groups. However, the coastal trade helped coalesce the community into ivalo sections and enhanced the power of the athiani (war leaders).

Traditionally, war leaders obtained sanction from the elders before mobilising warriors (anake) in their ivalo for raids. But when the trade with the coast started, the athiani began to mobilise warriors for cattle raids, elephant hunts or porterage in a bid to supply the needs of the coastal traders.
This gradually made the **athiani** wealthy individuals with large followings in their **ivalo**. Consequently, **ivalo**, rather than **motui**, became the foci of social organisation. As there were no councils for **ivalo**, the new form of organisation enhanced the power of **athiani** in relation to that of **utui** councils.

The new trade also benefited some **ivalo** more than others. For example, the **ivalo** along the trade routes benefited more from the trade than those located far from the routes. This generated jealousy and strife between different **ivalo** under the leadership of individual **athiani**. The overall result was the development of larger but antagonistic 'polities' among the Akamba society. This is the situation the British found when they came, a situation they took advantage of to institute the colonial state. This way the trade initiated structures on which the process of articulation between the capitalist mode of production and the traditional Kamba economy was generated and strengthened.

The **athiani** were not the only group which benefited from the Swahili-Arab infiltration. In fact, they needed the services of seers in their raiding activities. Seers like Masaku and Syokimau foretold the success of raids in return for a share of the booty. Being prominent people in their **ivalo**, seers also accorded hospitality to passing caravans for a fee. They also acted as trade brokers by playing the role of middlemen in the trade between the Akamba and the coastal traders.
Other individuals along the trade routes joined by mobilising anak as porters for a commission from the traders (Munro, 1975: 28). The process of articulation was therefore initiated by the interaction between the merchant capital of the coastal traders on the one hand and the Kamba traditional economy on the other.

Evidently, nineteenth-century Machakos was a favourite stop-over for Arab-Swahili traders on their journeys between the coast and the interior of Kenya. These agents of merchant capital made friends with prominent Akamba who guaranteed them security and supplied them with food and porters in return for gifts of clothes and bungles. However, the Swahili and Arabs were unscrupulous traders. Sometimes they turned their Kamba porters into slaves and even encouraged intra- and inter-community raids as a means of acquiring slaves (Somba, 1979:34-35). Therefore the trade had unsettling effects on the societies of eastern Kenya. On the whole, the Arab-Swahili merchants were the harbinger of the colonial state in the articulation process.

By way of conclusion, it is important to underscore the fact that irregularity of weather conditions is a distinguishing feature of Machakos District. The environmental factor is therefore important when analysing the impact of colonialism on the Kamba system of production. Through the process of articulation, the society's adaptation to environmental risks was greatly reduced. Kamba ethnoscience and social organisation, which had hitherto given the society a fair margin of security against environmental hazards, became obsolete in the face of
new pressures. For example, the pre-colonial society combined crop production and pastoralism in a set of agro-ecological strategies which assured it of a wide range of subsistence products. Similarly, social strategies such as labour reciprocity, hierarchical organisation within households, trade, methods of food storage, etc had heretofore helped to reproduce the Kamba society. In extreme situations (as was the case in the late 1890s) the society pawned women and children for food among the Mount Kenya peoples, or raided other communities for livestock.

On the whole, the pre-colonial Kamba system of production may be described as a natural economy (see Berstein, 1977:61). This involved a cycle of household production characterised by a simple integration of production and consumption within households (see Bryceson, 1980:262). Thus, nineteenth-century Kamba households were generally engaged in the production of use-values rather than exchange-values. But in the subsequent period, colonial political economy emphasised production of the latter. From the late nineteenth century, therefore, the policies of the colonial state gradually undermined the operations of the Kamba economy. The rest of this study therefore examines agrarian crises among the Akamba as the society changed under the influence of colonial capitalism.

7. Although Muriuki (1974:85) claims that pawning of women and children among Mount Kenya communities was a normal practice, other evidence shows that it was laden with conflict (KNA/DC/NYI 3/10).

8. Capitalism was initially in the form of merchant capital of the Swahili-Arab traders, but from 1889 imperialist expansion began to prepare the ground for colonial capitalism.
International commerce did not have a significant impact on the Akamba of Machakos until the 1870s when the area became a major supply base for Arab and Swahili caravans. Even then the impact of commercial capitalism on the society remained small until the Imperial British East Africa Company (IBEA) came on the scene in 1889. The company was not just a commercial enterprise, it was also an instrument of British imperialism. The company's arrival therefore heralded the penetration of Kenyan economies by colonial capitalism. Henceforth, capitalist penetration became linked with political penetration and indigenous systems of production were progressively relocated to suit the interests of colonial capitalism. This was the plight of the traditional Kamba economy.

As Gutkind et al (1978: 11) say, "the spread of capitalism, even to a peripheral zone, detaches man from his product, from his habitual environment, and from his right to dispose his labour power and his agricultural goods on his own right". That was the process initiated in Kenya by the IBEA and intensified by the colonial state during the 1895-1923 period. This initial phase of colonialism in Kenya not only witnessed the entrenchment of foreign rule but also the progressive articulation of indigenous modes of production with the capitalist mode of production. By and large, the opening up of indigenous modes of production to Western capitalism was a concomitant of the establishment of the colonial state in Kenya.
The turning-point of the articulation process in the country was the colonial state's decision to promote a settler economy. Indeed, in the first two decades of the twentieth century, resource mobilisation and allocation were geared almost exclusively to this goal. Through a process of primitive accumulation, the state appropriated African land, confiscated livestock, introduced taxation and institutionalised forced labour on behalf of the settlers. Public resources were also used to prop the settler sector by providing it with transport, marketing facilities and finance (Zeleza, 1989a:39). In sum, the state served as a medium for transferring the means of production from the African sector to the European sector during this formative period of the colonial social formation.

This chapter looks into the incorporation of the Akamba into the emerging colonial social formation prior to 1924. The various forms which the incorporation took, and the impact it had on the Kamba system of production and reproduction are analysed.

3:1 'Muvunga' Famine, 1898–99

The 1889–1899 decade marks an important transitional period in the history of the Machakos Akamba. The coming of the British in 1889, and a series of disasters in the 1890s, combined to chart a new path in the development of the Kamba society. Within that decade, the formerly fragmented but autonomous society lost its political and, to a large extent,
economic independence to a foreign power against a background of calamities. Indeed, many societies in East and Central Africa were affected in a similar manner (see Kjekshus, 1977; Ofcansky, 1981).

Central to the origins of the Muvunga Famine were European activities in Africa in general, and in Machakos in particular. A case in point is the outbreak of rinderpest in the East and Central African region in 1890-91. The disease spread into the region from two possible source areas. Either it came from Somalia, where it was introduced by infected cattle imported from India and Aden by the Italian Army for its Ethiopian campaign of 1889; or it came from Egypt, where contaminated cattle were imported by the British Army for the Nile Valley campaign of 1884-85 (Kjekshus, 1977:127; Ofcansky, 1981:31). Whichever was the source area, the disease undermined the economies of many societies. For example, F.D. Lugard who traversed Maasailand and Ukambani in late 1890 recorded:

Never before in the memory of man, or by voice of tradition, have the cattle died in such vast numbers (Quoted in Kuczynski, 1949:195).

The epidemic resulted in a severe famine among pastoralists (Ibid). The heavy livestock mortality may have been responsible for the intense inter-community raiding Europeans witnessed in East Africa in the 1890s. In a bid to
w-build their herds, East African communities intensified raids against one another and the incoming Europeans stepped in to 'pacify' them. In the process, the new-comers organised punitive expeditions which were nothing but glorified raids. "[The] Europeans and their allies drove off the enemy, fired their villages, looted their crops and seized their cattle and goats" (Sorrenson, 1968:271). As shown below, several such expeditions were sent against different sections of the Akamba with disastrous effects.

British colonial activities among the Akamba of Machakos started in January 1889 when Fredrick Jackson established an IBEA post at Nzaui. In the following August, Jackson established another post at Kaani in the Iveti Hills (Map 4) after signing a treaty with a local trade-broker, Mbole wa Mathambyo. The treaty reads in part:

Let it be known to all whom it may concern that Mболи [sic] Chief [sic] of Iвати [sic], Ukambani has placed himself and all his Territories, countries, peoples and subjects under the protection, rule and Government of the IBEA co., and has ceded to the said Co. all his sovereign rights and rights of government ... (KNA/DC/MKS 4/2:1).

Needless to say, Mbole was not a chief, and therefore had neither territories nor people to place under the company's protection. He probably mistook the treaty for a trade agreement between the new-comers and himself. All the same, the treaty became the legal basis for European intervention
in the Machakos area. Indeed, Mbole undertook to fly the company’s flag at Kaani.

However, the bastion of European colonialism in Ukambani was established at Masaku’s (Machakos) in March 1890. Following a peace treaty with the chief trade-broker in the area (Nzivu wa Mweu), F. D. Lugard of the IBEA went ahead and set up the first company fort in the interior. From here, European rule was progressively extended to the rest of Ukambani in the 1890s (see Maxon, 1980; Munro, 1975).

Kamba trade-brokers eagerly welcomed company officials just as another set of trading partners, but they soon discovered that the company had other designs. Unlike the itinerary Arab-Swahili merchants, company officials had come to stay and could enforce their demands. The first people to discover this were the inhabitants of Iveti. After a series of conflicts with the personnel of the Machakos Fort, Iveti people attacked the fort in 1891. The result was a shocking defeat of Iveti warriors and the burning of huts by the company soldiers. Henceforth, Iveti people not only paid tribute to the company but also joined its military campaigns against other Kamba groups.

The arrival of John Ainsworth as IBEA administrator at Machakos Fort hastened the conquest of Ukambani. Without

1. Masaku himself had died in about 1887 (Munro, 1975:35).
difficulties, Ainsworth not only got the people of Iveti to supply labour for construction work at the fort, but also forced them to contribute food-stuffs for the fort. In 1893, for example, Iveti people donated over 200,000 pounds (19,909 kg) of flour (Munro, 1975:37). However, this contribution was not voluntary. Stuart Watt, who was living in Ngelani (Map 4) in 1894, wrote:

He [Ainsworth] tells Wazungu [Europeans] that the people give him tons of flour to help him in the country but it is brought under the most terrible threats of burning houses and fighting and violence so that the people are living in continual dread and fear of him (Quoted in Maxon, 1980:35).

In other words, the under-capitalised company used its superior military power to exact tribute from the people living around the fort. As the company extended its rule in the 1890s, payment of food tribute was imposed on the rest of Machakos (Maingi; Muindi, O.I. 1990).

Besides the fear of the company's military strength in their area, Iveti people also co-operated with the new-comers so that they could be left alone to trade with passing caravans. In fact, trade-brokers, unlike athiani (war leaders) of the eastern and northern regions; were generally well disposed towards the company (Munro, 1975:39). Moreover, friendly relations with company officials gave Iveti people a measure of security against Maasai raids. Indeed, in 1894, Ainsworth trained and armed a 60-man Iveti militia to guard the western frontier from Maasai raids. However, by the end of 1895, Maasai raids had ceased due to civil war among the Maasai themselves. Subsequently, Ainsworth turned his Kamba militia against other Kamba groups.

Ainsworth's 'punitive' expeditions in Ukambani were
based on his commitment to end "Kamba 'domestic slave trade': the position of Maasai and Kikuyu women and children taken in war or purchased from the Kikuyu" (Munro, 1975:39). In 1893, Ainsworth persuaded the Iveti Akamba to yield their adopted members, and those who wished to return to their communities were allowed to do so. However, his attempts to force the people of the northern ivalo to follow Iveti's example were forcefully resisted by the people under the leadership of two athiani (war leaders), Mwatu wa Ngoma of Mwala and Mwana Muka of 'Kathome.

This sparked off a series of 'punitive' expeditions against the northern, eastern and southern parts of the district in the 1894-97 period (see Lonsdale, 1989:20). The attacks and counter-attacks greatly weakened the Akamba society and therefore made it vulnerable to ecological hazards. For instance, during one expedition to the northern ivalo in December 1895, "Many villages were burned, [and] over five hundred head of cattle and one thousand goats were taken ..." (Maxon, 1980:52). Six months later, the same section of the Akamba re-asserted its freedom of action by raiding a pro-British village near the Machakos Fort and by blocking the main road to Uganda at Lukenya (Map 4). C.R.W. Lane, the then Assistant District Officer at Machakos, recorded his response as follows:

I led an expedition consisting 150 Swahili and about 800 Maasai and 400 Wakikuyu against Kanjalu [sic], the rebels stronghold. We were again successful and took some 200 head of cattle and 800 goats ... (KNA/PC/Coast 1/1/31:54).

Pre-colonial raids had a self-limiting quality and only
became destructive during severe natural disasters when social control crumbled and survival was threatened (Lonsdale, 1989: 10; Muriuki, 1974:95). On the contrary, 'punitive' expeditions were quite destructive and were obviously not the civilising efforts they were claimed to be (see Munro, 1975:43-46). The use of guns and the purposes of such expeditions made them inherently destructive. First, the expeditions were meant to weaken indigenous economies in order to enforce submission to the foreign power. Second, the conquering power not only needed loot for rewarding its 'allies' but also for financing the budding colonial administration. Even the conquerors questioned the morality of their activities. For example, Charles Eliot, Kenya's Commissioner in 1901-04, said:

The point in our relations with natives which is most open to criticism is our fondness with little wars, generally called punitive expeditions (Quoted in Kuczynski, 1949:199).

That, in a nutshell, is the background against which the Muvunga Famine occurred. The 1890-91 rinderpest, Maasai civil wars, and British intervention in eastern Kenya are some of the factors which interacted to cause social instability in the region. Moreover, there were intermittent locust invasions during 1894-96 which adversely affected the Kikuyu and Akamba alike (Muriuki 1974: 155). There was also the sand-flea (jigger-flea) plague at about the same time. The insects, which arrived in West Africa from Latin America in
about 1872 (Kjekshus, 1977:134), and which had been moving eastwards across the continent, caused a lot of havoc in the Machakos region. Watt recorded the experience of the Ngelani Akamba:

In a short time hundreds of natives were so disabled by the plague of insects that they were unable to walk to their little cultivated patches in the wilds, and many of them lost their toes, while some died from the effects of this terrible plague (Watt, 1912:288).

In short, a multiplicity of factors preceded the occurrence of the famine.

The immediate causes of the famine were equally complex, although they were generally related to British empire-building activities. Apart from poor rains in most of Ukamba Province (Map 2) during 1896-98, intense procurement of food for various imperial activities and a rinderpest epidemic were the other major causes. In his plea for famine relief in April 1899, John Ainsworth, the Sub-Commissioner for Ukamba Province (1895-1906), informed his superiors:

[We] have not had any regular rainy season for about two and a half years, and these natives sold large supplies of their reserved food in 1897 and 1898 to the Uganda Relief Expedition, undoubtedly if it had not been for parting of such a quantity of food to the numerous Caravans and also selling to the natives of KITUI some of their reserved food during the same period, the present state of affairs would not have been nearly as serious, added to the drought and many consequent failures of Crops, came the Cattle Plague, if there had not been the great losses of cattle most of the people, who are
not in a position to do so would have been able to buy their food (KNA/PC/Coast 1/1/45:12).

The first major procurement of food was in late 1896, and was in connection with work on the Uganda Railway at Kibwezi. Following a request from the railway administration, the administrators of Ukamba Province supplied 1,500 men and the food to feed them. In spite of low food supplies in the province at the time, Kikuyuland supplied twenty tons of grain while Ukambani supplied a lesser amount (Curtis, 1986:37). But how this food was acquired is anybody's guess. The railway administration did not provide trade goods for buying the food, and the provincial administration had none. In fact, the provincial administration was operating on loans as Ainsworth recorded in September 1896:

To enable us to buy food supplies and keep things going at the stations the local Wazee [elders] here have arranged to lend us some 300 goats. This will ease matters for about another month (KNA/PC/Coast 1/1/31:100).

Another intense procurement of food was caused by the outbreak of the Sudanese Mutiny in Uganda in 1897. As part of British 'possessions' in East Africa at the time, Ukamba Province was called upon to supply food-stuffs for feeding the Indian troops sent to Uganda to quell the mutiny. According to evidence given to the Kenya Land Commission (1933) by a missionary who was in Kikuyuland at the time of the mutiny, "the Government commandeered the last crop prior to the drought
for the trip to Uganda" (Quoted in Kuczynski, 1949:199).
Indeed, the mutiny (a product of nineteenth-century British imperialism) also caused famine in Busoga and disrupted social life in parts of western Kenya (Nayenga, 1979:156; Aseka, 1989:163).

Besides procurement of food by the government, ordinary caravans also had to be fed. This food was not only exchanged for 'worthless' trinkets but evidence suggests that it was sometimes acquired forcibly. For example, in June 1896, the assistant D.O. at Machakos reported:

[Food] is getting scarce owing to lack of rain and in consequence of the small supply the Swahili [traders] have to go to the villages, and as long as this has to be done there will be quarrels between them and the Wakamba (KNA/PC/Coast 1/1/31:54).

Gregory (1968:82) also cites an incident in Kilungu in the early 1890s where the people tricked his caravan so as to have time "to remove all [food] supplies from the villages into hiding-places in the hills". This was in spite of the fact that the chief trade-broker in the area was obliged in a treaty to supply food to passing IBEA caravans. In short, caravans sometimes used extra-economic means to acquire food.

In spite of the increase in the demand for food in the 1890s, there is no evidence to suggest increased production of food among the Machakos Akamba. Merchant capital does not
seem to have stimulated the economy in a way that would have generated the production of more surplus food. Consequently, the people were induced (through economic and extra-economic mechanisms) to part with more than their 'normal' surplus of food. This contrasts with the situation in Tanzania where food trade induced some traders to abandon caravan trade in order to set up food plantations along trade routes (Bryceson, 1980:289).

Just when grain reserves were at their lowest level in most of Ukamba Province, rinderpest broke out in Nzauin in February 1898. This time the disease was introduced by oxen imported for railway-construction work. Ainsworth's attempts to prevent the disease from spreading from Nzauin were a dismal failure. Rinderpest is not only acutely contagious but had no cure at that time. Moreover, the colonial administration was not strong enough to impose an effective quarantine. In fact, Nzauin people in their desperation began exporting their cattle in spite of a quarantine station established there by Ainsworth. As a result, the disease spread into the surrounding areas of Sakai, South Kibauni and Kilala. By mid-1898 most of Ukamba Province was affected by the disease. In Machakos and Kitui, the disease killed off 50 per cent of the livestock population (KNA/PC/Coast 1/1/3:336-615).

The ecological diversity of Ukamba Province, and therefore the interdependence between the various production systems somehow lessened the impact of the food shortage.
By August 1898, the Taita and the Akamba of Kitui and Kikumbulyu had been suffering want of food for eighteen months. Then followed the Akamba of Machakos and the Kaptuei Maasai, and finally the Kikuyu. In the early stages of the famine therefore, the Akamba of Kitui and Kikumbulyu depended on Machakos for food. When reserves in Machakos were exhausted, the Akamba and the Maasai sought food in Kikuyuland. By March 1899, the food situation in the province had greatly deteriorated and Ainsworth appealed to Mombasa and England for famine relief assistance (KNA/PC/Coast 1/1/45:12).

Meanwhile in Machakos, Ainsworth raised 616.2 rupees (Rs) from government officers and local elders and set up a famine relief camp in April 1899. Initially, the camp catered for children turned adrift by their poverty-stricken parents as well as elderly and destitute women. In July 1899, external assistance became available and the camp was enlarge to cater for poor but able-bodied people who received food in return for labour. By August 1899 when the Machakos camp was catering for 500 people, it had received donations as illustrated in Table 4.

Table 4: DONATIONS TO THE MACHAKOS FAMINE RELIEF CAMP, 1899

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb</td>
<td>kg</td>
</tr>
<tr>
<td>Private contributions</td>
<td>7,047</td>
<td>3,203</td>
</tr>
<tr>
<td>Native Civil Administration</td>
<td>4,792</td>
<td>2,178</td>
</tr>
<tr>
<td>Mombasa Fund</td>
<td>11,545</td>
<td>5,248</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23,384</strong></td>
<td><strong>10,629</strong></td>
</tr>
</tbody>
</table>

Source: KNA/PC/Coast 1/1/45:131.

2. Mombasa was the headquarters of the East Africa Protectorate at that time.
The effectiveness of the relief programme was however hampered by lack of resources. At the height of the famine in October 1899, the maximum number of people in the camps was: Ndii (Taita) - 1,200; Kibwezi - 900; Machakos - 1,400; Nairobi - 600; Kiu - 120 (KNA/PC/Coast 1/45:220). The relief camps disbanded in November 1899. It is therefore apparent that the famine relief programme was not as great as is often claimed.

Even railway construction, the major industry of the time, could not offer employment to large numbers of people. The railway administration was averse to employment of local people for it claimed that their output was low. In 1896, the railway administration engaged 1,500 Kikuyu and Kamba workers at Kibwezi but they all deserted because of poor pay (low quality cloth) and generally poor working conditions (KNA/PC/Coast 1/1/31:336). Seemingly, the desertion helped to confirm the myth of 'the lazy native'. So when the famished Akamba went looking for railway work in 1899, the railway administration was unwilling to employ them.

However, the railway industry was significant in another sense. Indian Coolies engaged in railway construction exchanged rice (from which the word Muvunga is derived) for African livestock. In August 1899, Ainsworth reported that thousands of head of cattle had been sold out of Machakos in the preceding six months. Indeed, those who were wealthy in livestock not only

3. Machakos and Kibwezi camps catered for the Akamba of Kitui and Machakos.
escaped the famine but also assisted their less fortunate neighbours. In Ainsworth's words, "Several men of substantial means ... received destitute people into their villages". They also helped him put up huts for his Machakos famine relief camp and donated to the same cause (KNA/PC/Coast 1/1/45:36, 131).

In short, survival of the famine combined elements of modern transport and government with indigenous Kamba systems of patronage.

However, acts of brigandage made the famine more severe than it would otherwise have been. For example, marauding bands of Akamba interrupted the flow of food from Kikuyuland to Ukambani by way-laying Kikuyu food-traders and Akamba food-seekers. A detachment of twenty-five policemen stationed at Ol Donyo Sabuk in March 1899 could not contain the marauders (KNA/PC/Coast 1/1/45:37). Interruption of food trade therefore led to the starvation of many Akamba, especially those who had no cattle to bleed (Muthama; Ngao; Maingi, O.I. 1990).

The problem was further aggravated by a general breakdown of law and order in the province. Petty theft, intra- and inter-community raids, and other crimes became the order of the day (Goldsmith, 1955:46). In Kikuyuland, some warriors turned into a band of marauding brigands (locally known as thabari) which terrorised all and sundry (Muriuki, 1974:94-95). In southern Machakos bands of dacoits robbed railway posts where they stole food and killed Coolies. All this insecurity was to a large extent connected with the colonial situation which had
led to a collapse of indigenous mechanisms and sanctions for preservation of law and order. For example, the Kikuyu brigands were imitating the brutal activities of trade caravans⁴ while the Kamba attacks on railway posts were "a revenge by the natives on Coolies and others for stealing their goats and beating natives" when the railway was passing through Kikumbulyu in 1898 (KNA/PC/Coast 1/1/45:132). On the whole, imperial activities had bred lawlessness which the small police force could not control.

Closely allied to the famine was an outbreak of smallpox epidemic in July 1899. The disease came from Mombasa and infection first appeared in famine relief camps. Concentration of people in relief camps, increased human mobility on account of famine, and widespread malnutrition are some of the factors which favoured the spread of the disease. In spite of the availability of a smallpox vaccine, lack of personnel hindered its use. All in all, the famine and smallpox claimed about a quarter of the population of Machakos (KNA/PC/Coast 1/1/45:213,220).

The Muvunga Famine, and the concomitant calamities, had a variety of effects on the Kamba society. For example, the chaos and disorganisation engendered by the famine terminated military action against the British. As self-preservation became the overriding concern, Kamba leadership became disarrayed while the colonial administration used famine relief to increase the

⁴ Thabari was from the Kiswahili word Safari and meant trade caravan.
number of its Kamba allies. Indeed, by 1901 it was no longer necessary to keep troops at the Machakos Fort; the Akamba had already passed from independence to colonial subjugation (Munro, 1975:48). Henceforth, the colonial state became the nexus of all social relations. The state became "the ultimate unit both of economic reproduction, or accumulation and political reproduction or social control" (Lonsdale and Berman, 1979:489).

The famine also convinced the colonial administrators that Africans could not be relied upon to develop the country. Indeed, in July 1899, Ainsworth appealed to his superiors to consider introducing Indian cultivators to Ukamba Province. He reasoned that such cultivators would help the Akamba to improve their methods of irrigation, something which "even the severe lesson of famine with all its attendant terrors" had failed to teach them. In fact, he insisted that there was "enough land and to spare for anything in reason" (KNA/PC/Coast 1/1/45:92). The famine was therefore used as an excuse for advancing the cause of foreign settlement.

Furthermore, the famine led to a concentration of the Machakos Akamba in the hill areas. For example, Southern Yatta, which was under permanent occupation before the famine (Mutiso, 1979:131; Map 2), was abandoned when the famine struck. As a result, the land was not occupied in 1906 and was therefore declared Crown Land. Henceforth the Yatta Plateau could not be used without government consent. The calamities also led to
withdrawal of population from parts of Nzau (Ambler, 1983:95). In addition, reduction of livestock numbers by rinderpest led to the advancement of bush into former pasture land, thereby encouraging the spread of wildlife and tsetse fly into hitherto unaffected areas. Indeed, a 1933 investigation into the spread of tsetse fly into Makueni revealed that the fly first appeared in the area shortly after the Muvunga famine (KNA/DC/MKS 4/9:117). On the whole, the disasters of the 1890s created favourable conditions for alienation of land by both the colonial government and nature.

3:2 Land Alienation

The origins of land alienation in the Machakos area go back to 1891 when Charles Hobley suggested that parts of Kamba country were suitable for European settlement. In 1893, William Mackinnon, head of the IBEA and a firm believer in the civilizing influence of commerce and Christianity, made settlement a reality by allowing the East African Scottish Industrial Mission a free grant of 100 square miles of land at Kibwezi (Sorrenson, 1968). Although the missionaries' overtures were stubbornly resisted by the resident Akamba, their agricultural activities were quite successful. At Kibwezi the missionaries managed to grow the first coffee trees in Kenya (Kimambo, 1970:86). In 1898, the mission moved to Kikuyuland but retained its rights to the Kibwezi land. Subsequently, the mission rented the land

5. The mission was founded by Mackinnon and other directors of IBEA.
to European firms until the late 1940s when the government bought it for the Akamba at £19,400 (Kenya, 1962b: 50).

In another episode in 1893, Rachel and Stuart Watt established themselves as independent missionaries at Ngelani in the Iveti Hills. By entering into a blood-brotherhood relationship with a local elder (Ngungu wa Ngoli), the Watts acquired 100 acres of land for a mission station. However, they concentrated on fruit farming and in 1898 acquired a certificate for the land, which they converted into a freehold in 1905 (Kenya, 1933:1283). In the same year they acquired another 1,000-acre farm on the Mua Hills. In sum, the Watts' farming business was so successful that it was used to advertise White settlement in the protectorate at the turn of the century. In 1908, the Watts decided to leave the country and sold their Ngelani farm to Lord Delemare for £600 and the Mua Hills farm to Northrup McMillan for £1,000 (Curtis, 1986:33-34).

John Ainsworth's activities in Machakos are also noteworthy. During his stay in Machakoas (1892-99), Ainsworth not only experimented with all manner of European crops but also took interest in Kamba crops that seemed to be of commercial value. From 1895 onwards he propagated the cultivation of maize by distributing American maize seeds in the district (Maxon,


7. Another source, KNA/DC/MKS 10A/81:48, shows that the Mua Hills farm was acquired for less than £200 and sold for £1,300.
In 1896, Ainsworth sent samples of the oats, wheat and barley he had grown at his Machakos garden to London for inspection. The favourable report he received from "the best firms on Mark Lane Market" was no doubt used to attract White settlers to Machakos (KNA/PC/Coast 1/1/81:34). Maxon adds:

When the railway reached Ukamba, he [Ainsworth] suggested the establishment of plots of land near Muani, Machakos and Kikuyu to be sewn with wheat, barley and other grains (Maxon, 1980:75).

The activities of people like Mackinnon, the Watts and Ainsworth clearly confirm Arnold's (1974:35) assertion: "The Empire paid: that was its purpose". However, it was not until 1901 that the British Foreign Office began to encourage a policy of White settlement as a means of making the railway investment worthwhile as well as raising revenue for the protectorate (Bennett, 1963:7). The policy amounted to a strategy of development based on the settler mode of production (see Biermann and Kossler, 1980). In other words, the colonial state undertook to provide suitable conditions for the development of settler capital. Such conditions included land expropriation, regressive taxation and provision of cheap labour. Despite its obvious bias, the policy was ideologically supported by the assumption that growth of the European sector automatically benefited the Africans (see Zwanenberg, 1975; Brett, 1973).

8. The essence of the settler mode of production was the articulation of indigenous modes of production with capitalism under a quasi-capitalist situation mediated by the colonial state. This resulted in distorted capitalist transformation (see Mazrui, 1986:215; Shenton, 1989:xii).
All in all, White settlement helped to shape the pattern of Kenya's history for the rest of the colonial era.

Generally, colonial ideology envisaged African patterns of land-use (such as shifting cultivation and transhumant pastoralism) as wasteful. It was therefore argued that limiting the land available to Africans would induce them to adopt better farming methods. For example, in 1904, Ainsworth commented:

[The] very primitive methods adopted by practically all tribes in their systems of agriculture do not allow of their utilizing, by perhaps 50 per cent, the resources of the soil at their command (KNA/DC/MKS 26/3/1:56-57).

Ainsworth specifically criticised the Kikuyu system of cultivation where farms were scattered all over the country and land allowed to lie fallow after producing two or three crops. To him, this was proof that the community's "just and ample requirements [could] be met by their being restricted to much more limited areas" (ibid).

All the same, Ainsworth managed to convince his superiors that they had a 'moral duty' to reserve land for African communities as it was already under threat from settler encroachment. This was the origin of the 'reserves' policy which came into being in August 1904 (see Maxon, 1980; Sindiga, 1981). As a result of the policy, two Kamba reserves (Ulu and Kikumbulyu) were created in Machakos District.
As proclaimed in 1906, Ulu Reserve included Mua Hills which were inhabited by about 2,315 Akamba who owned 5,605 head of cattle. But in January 1908, a group of settlers who had established cattle ranches at the foot of the hills started to covet the fertile hills and to ask the government to move the Akamba to another part of the reserve. This initiated a hot debate in the ranks of the colonial administration. Generally, the provincial administration opposed the proposal while senior government officials supported it. For instance, F. Jackson, the then Acting Commissioner, recommended that the Akamba on the hills be induced to move because the land was not only suitable for White settlement but the Akamba were very rich, extremely lazy and indolent. Jackson was supported by J.T. Maclellan, the then Secretary for Native Affairs, who declared that the Kamba reserve was too big and the 50 square miles in question should be opened to White settlement (KNA/DC/MKS 10A/8/1). To the two officers, the land would be put to better use by settlers than by the Akamba.

An initial arrangement for the settlers to live among the Akamba gave the former the opportunity to pressurise the latter to leave the hills. For example, one Mkamba was fined Rs 70 and an ox by a settler after the former's cattle wandered into the latter's land (KNA/DC/MKS 10A/1/5). Under such pressure, some of the Akamba moved out of the hills voluntarily. Those who remained were forcibly removed by the administration and taken to Matungulu Hills which, though already occupied by other Akamba, were purported to be an exchange for Mua Hills.
Instead of going to Matungulu, some of the victims of the Mua eviction, under the leadership of chief Ntheketha wa Mung'ala, settled on unoccupied land in the Ol Donyo Sabuk area. This area was subsequently declared Crown Land and the people ordered to move to Matungulu. Refusal to move a second time led to imprisonment of chief Ntheketha and the forcible eviction of his people in 1912. As an expression of their bitterness, Matungulu people vowed never to trust the colonial administration (Somba, 1979:8). Another group of Mua victims under headman Makau Nzomo also tried to resist eviction by seeking squatter status in Mua. They were however removed to the reserve by the administration.

Moreover, the reserve boundaries gazetted in 1910 differed from those proclaimed in 1906. This led to alienation of land already occupied by the Akamba near Machakos Township and in parts of Mumandu, Mukaa and Kilungu. Consequently, some people had to be moved back to the reserve in these areas. Indeed, the boundary became a source of constant complaints on the part of the people affected. In response, the government, as was its argument in the Mua and Ol Donyo Sabuk evictions, maintained that "a great deal of the land was never permanently occupied ... because of the Masai" (KNA/DC/MKS 1/1/2, 1913:11). However, in 1913 the D.C. recognised the inconveniences caused by the reserve boundary to the people of Mukaa and Kilungu, but blamed the problem on increased cattle population. He said:
In the dry season with increased numbers of cattle it is quite possible that some difficulty is experienced but it would be impolitic weakness now to reopen the question and every inducement should be made to encourage the sale of stock (*ibid*).

Moreover, the Ulu Reserve boundaries excluded important Kamba pasture lands such as the Yatta Plateau, a factor which greatly inconvenienced people in the eastern locations.

The Kikumbulyu Reserve covered a largely barren area on either side of the railway line from Makindu to Kibwezi. After 1906, much of the land along the railway was rented to European firms engaged in the collection and processing of sanseviera fibre by the Scottish Mission. Since sanseviera fibre grew along the streams where the Akamba grew their crops, constant quarrels ensued between the Akamba and the fibre companies.

In 1908, the Provincial Commissioner (P.C.) for Ukamba Province suggested two solutions to the problem between the Akamba and the fibre firms. He suggested that either the Akamba should "make their shambas a few hundred yards farther back from the valleys" or a definite reserve should be created for them west of the railway line (KNA/DC/MKS 10A/8/1:13). In either case, the Akamba would be the losers for the land away from the streams was too dry for successful crop production while the area west of the railway line was mainly unweathered volcanic rock.

In 1909, two senior government officials toured
Kikimbulyu and suggested new boundaries which amounted to a reduction of the reserve by three-fifths. A.C. Hollis, the then Secretary for Native Affairs, pointed out that this would mean no hardship for the Akamba as most of the land was unoccupied and those on the fibre estates were to stay because they were required for labour (Sorrenson, 1968:211). As a result, some Kikumbulyu residents became squatters by signing contracts with lessees of Scottish Mission land. For example, in 1913, some thirty families signed the following contract with a settler:

We ... hereby agree to supply labour to Mr. Bargmann in return for being given certain shambas on his land in close proximity to his irrigation canal. We also agree to give him the first claim of our surplus produce at current market rates (Somba, 1979:13).

Apart from the European firms which took up more and more swamp land from Kikumbulyu people, their efforts to move to alternative land were constantly thwarted by the administration and the Game Department. The former tried to keep the people together for purposes of close administration (mainly collection of tax), while the latter alienated land for wildlife (Tinga; Mutie, O.I. 1990). For example, some families from Kyambiti who tried to settle on the upper waters of Tsavo at Ivosya Mwaki, Ndiani and Mzima in 1913, 1915 and 1918 were each time removed by the Game Department (KNA/DC/MKS 1/1/10, 1918-19:3).

9. The three place-names suggest well-watered land.
In about 1927, the Ngulia-Mukuku area was declared Crown Land and the people were removed so as to give room to a royal park in the area. The migrants went to Ngwata and the Chyulu Hills, which were also declared Crown Land in 1933. However, some people refused to leave the fertile Chyulu Hills for the dry Chale area "even at gun point" (Mbithi and Barnes, 1975: 128-34). All the same, the government declared the Chyulu Hills part of the Tsavo National Park in June 1948. The government's proclamation stated:

The magnificent 'million-dollar' view of Kilimanjaro from anywhere near the crest of the Chyulu will be a tremendous asset to the National Parks (KNA/DC/MKS 1/1/30, 1948:12).

In short, European interests not only deprived Kikumbulyu people of cultivable wet valleys but also tsetse fly-free hills where they kept their cattle (Lindblom, 1920:500). In addition, the numerous migrations initiated by the administration made settled agriculture difficult. These human factors combined with weather fluctuations and tsetse fly infestation to make Kikumbulyu the scene of recurrent food crises during the colonial era.

The settlers too were not satisfied with the boundaries. In 1908 they formed the Ulu Settlers Association, and their first request to the Director of Agriculture was that all Kamba cattle be moved to Yatta as a way of keeping settler cattle free from diseases. The director agreed with them but opposition from the Akamba forced the government to abandon the idea.
In 1913, the settlers requested the government to move the people of Iveti to Yatta so as to create more room for White settlement. This too proved impracticable and was abandoned. In October 1918, the settlers had discussions with Governor E. Northey and repeated their request for more land. In his reply, the Governor informed the settlers that the subject of land alienation had become extremely delicate due to humanitarian groups in Britain which "frankly accused the white colonists of exploiting the resources of Tropical Africa regardless of native rights" (KNA/DC/MKS 1/4/6:246).

Generally, the colonial state's commitment to economic development through European settlement engendered competition over land, the chief means of production for both Africans and settlers. Furthermore, the state, as the arbitrator in the competition, acted in favour of the supposedly progressive settler mode of production. This resulted in the confinement of African communities in reserves which were too small for their self-reproduction at their level of technology.

The drive for progress among the top colonial administrators was so great that warnings from the rank and file of the administration were often ignored. For example, during the Mua debate, F.W. Isaac, the then Acting P.C. for Ukamba Province pleaded:

Before deciding to limit the natives' access to land we must endeavour to ascertain what it will
eventually mean to them. The native population is increasing rapidly and the reserves will shortly overflow, we shall thus create by degrees a large native pauper population which if brought into existence will become a danger (KNA/DC/MKS 10A/1/5:20).

Neither this nor his plea that Africans be encouraged to produce cash crops instead of being forced to work for White settlers was heeded.

The impact of reserve boundaries on the Machakos Akamba was almost instantaneous; agrarian crises followed hard on the heels of land alienation. Moreover, the way land alienation was carried out in Machakos District, and subsequent settler demands, bred widespread mistrust of the colonial administration. This adversely affected the people's views on government-initiated agricultural reforms.

3:3 'Native' Authorities

Land without the labour to work on it was of little use to the settlers. Nor could general 'development' proceed without effective authority over the African population. There was therefore need for a system of 'native' administration not only to help with the collection of tax and to keep law and order, but also to procure cheap labour for public and settler requirements (Ochieng', 1985: 102-11). This was the essence of the Village Headmen Ordinance of 1902.

Introduction of colonial rule in the Machakos region was
mainly facilitated by certain prominent individuals, mainly trade-brokers, who were not members of councils of elders (nzama). Consequently, when the need to appoint chiefs arose, these people, and not nzama members, were appointed. This amounted not only to a disregard of the indigenous government structure but also to the appointment of people who had little following among the people they led (see O'Leary, 1984; Tignor, 1976).

This form of administration continued until 1910, when it was realised that rather than rallying the people behind the government, the chiefs had alienated them from it. In their bid to establish their authority over the people, chiefs, with the assistance of their retainers, had resorted to corruption and oppression. For example, one chief "possessed about 8,000 head of cattle though he had started life as a poor man. He owed his wealth and influence to the Colonial Government" (Somba, 1979:11)\(^7\).

The corruption of chiefs, and other colonial pressures such as taxation, forced the Akamba to reject the official authority system and to seek inspiration and leadership in religious figures. The result was the emergence of anti-government religious movements in 1910-11 (Munro, 1975:115-16). After crushing the movements, the colonial government decided

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10. However, a few chiefs did question the legitimacy of the colonial government. For example, in 1911 Mukeku Wa Ngwili of Mwala led his people in resisting the payment of hut-tax. There is also the case of Ntheketha wa Mung'ala and Makau wa Nzomo who led Mua evictees in resisting eviction.
to 'resuscitate' councils of elders (nzama) to work with the chiefs and therefore give the colonial administration some legitimacy among the people. The chiefs became the spokesmen of the councils whose responsibilities included arbitration in civil cases, collection of taxes, provision of labour for roads and porterage, enforcement of quarantines, preventing young men from drinking beer, preservation of their people's customs and control of human migrations (Omusule, 1974:55). In sum, the councils were being transformed from their traditional reconciliation role to agencies for mobilising Kamba resources for the colonial system.

Initially, the councils refused to comply with the administration's demands. This was mainly so in areas affected by land alienation. For instance, in 1913 the D.C. reported:

Elders from Muisune [Matungulu area] and Mukaa refused to come out to meet officers when on tour. The elders round the Ngelani Fruit Farm are perhaps amongst the most obstinate and difficile [sic] (KNA/DC/MKS 1/1/2, 1913:12).

To get round the obstacle, the colonial administration resorted to the administration of a traditional oath (muma), an exercise meant "to bind the Nzama and the Government in one common policy" (ibid). However, the elders remained reluctant to enforce unpopular measures such as yielding tax-defaulters, recruiting labour and conscripting carrier corps during the First World War. This reluctance partially emanated from the fact that elders' power was subject to social sanctions. For
example, they could be held responsible for the death of people they mobilised for the war effort. The reluctance was also a form of passive resistance to foreign rule.

Nevertheless, the new administrative structure of chiefs and councils of elders seems to have worked better than the previous one. After the inauguration of the system, the D.C. commented:

No longer do we need to contact our dealings with a sullen people through a man, whose sole object was to enrich himself at the expense of all parties and whose last thought was for the good of his people (KNA/DC/MKS 1/1/2, 1911:27).

However, the peoples' confidence in the councils was short-lived as the activities of the councils were constantly reshaped to serve wider colonial goals. By the early 1920s, a new form of 'native' authorities was necessary as the 1911 structure had failed to satisfy the requirements of either the Akamba or the British. In short, the contradictions inherent in the articulation process demanded a reconstitution of the administrative structures.

3:4 Social Transformation Before 1924

By 1923, the incorporation of Kenya's pre-capitalist modes of production with the colonial and ultimately the global economy was at an advanced stage. Through land alienation, taxation, commoditisation and other mechanisms the basic pattern of colonial society was now established. This section examines some aspects of the process of articulation among the Machakos Akamba prior to 1924.

One important role of the nascent colonial state in the
process of articulation was to encourage commoditisation among the Africans. Besides taxation, the government also encouraged commodity production through propaganda and support for Indian merchant capital. For instance, in a circular to District Officers (D.Os) in 1909, E.P.C. Girouard, the then Governor of Kenya, emphasised that it was "an important duty of District Officers to encourage trade by every means in their power" (KNA/DC/MKS 1/1/3, 1909;58). The D.Os were also expected to "do their utmost to promote road-making throughout the provinces" (ibid).

In addition to encouraging trade in existing products, D.Os also sought to improve the quality of the products brought to the market and introduced new crops. In Machakos, for example, the D.C. had a farm at his station from which 'better' maize and beans seeds, together with wheat, groundnuts and English potatoes, were "issued free to natives with the idea of promoting trade in graded produce for export" (KNA/DC/MKS 4/2:42). In addition, chiefs were induced to buy ploughs while headmen were given hoes (jembes) as part of their hut-tax commission. By 1910, the D.C. could report that chiefs and other 'progressive' Akamba were getting a "handsome return" from their plough investments although the bulk of the people still looked to stock for the production of wealth (ibid).

In sum, the colonial administration, with the help of Indian merchants who had set up shops at the Machakos Station as early as 1900, encouraged the Akamba to sell grains, ghee, hides and skins and tobacco. On the other hand, the Akamba
bought items such as blankets, sugar, beads and wire. However, the Indian traders exploited the Akamba in a bid to make super-profits. For example, in 1909, a year of food shortage, the D.C. observed:

In ordinary years Mahindi [maize] is about 50 cts a load [60 lb] ....The present price of Mahindi in Machakos is Rs 2/- to Rs 2/10 per load but some Indians are selling at Rs 2/50 and Rs 3/- per load (KNA/DC/MKS 1/1/3, 1909:9).

Inevitably, commodity production intensified social change. For example, in 1919, the D.C. reported:

The Akamba connected with A.I.M [Africa Inland Mission] are showing considerable progress in the way of better houses, intensive cultivation, and improved products. There is also a movement on foot amongst them ... to obtain individual titles to the tenure of their holdings (KNA/DC/MKS 1/10, 1918-19:13).

Thus, a rural capitalist class had emerged amongst the Machakos Akamba by 1920. This class was mainly made up of chiefs, teachers, traders and other rural innovators (see Iliffe, 1971; Zeleza, 1989a).

Besides government propaganda and the need to raise cash for buying elements of necessary consumption such as sugar, kerosene and clothing, commodity production was also intensified by taxation. For example, the First World War and the subsequent recession raised the tax burden for the Machakos Akamba from Rs 151,000 in 1914-15 to Rs 448,000 in 1920-21 (Munro,
1975:251). This tax burden is significant when viewed against deteriorating terms of trade (poor commodity prices against high prices for imports) and increased unemployment (KNA/DC/MKS 1/1/10, 1921:1). To meet the increased needs for money, the Akamba turned more and more to commodity production.

In addition to the sale of ghee and grains, money was also earned through the sale of chickens and eggs in Nairobi. Indeed, the Machakos Akamba supplied most of the chicken and eggs consumed in Nairobi and its environs in the early 1920s (KNA/DC/MKS 1/1/10, 1921:20). Another means of earning money was by selling sugar-cane beer. Consequently, beer-brewing enhanced trade in sugar-cane juice, a factor which had detrimental effects on food production. In 1921, the D.C. observed: "Natives are planting more and more sugar-cane under irrigation instead of growing useful crops" (KNA/DC/MKS 1/1/10, 1921:5). In short, monetisation of the economy not only deprived the Machakos Akamba of nutritive foods (such as eggs, chicken and ghee) but also reduced food surpluses through increased sale of grains and allocation of fertile land to the production of sugar-cane.

Moreover, the need to raise money through the sale of

11. Indeed 'native revenue' (taxation) rose from Rs 272,085 in 1919-20 to Rs 448,200 in 1920-21, an increase of 65 per cent (KNA/DC/MKS 1/1/10, 1920:21-1)

12. Prices for imports rose by 50-70 per cent in 1917-18 and by 1921 were almost unaffordable as prices for commodities continued to fall (KNA/DC/MKS 1/1/10, 1917-18:42). A proof of the hard economic conditions is the fact that in 1921 the Akamba voluntarily sought wage labour in settler farms in Machakos and Kiambu for the first time, but most of them could not get employment (KNA/DC/MKS 1/1/10, 1921:1).
beer combined with the frustrations emanating from the colonial situation to raise drunkenness to unprecedented levels. This resulted in increased malnutrition since "Alcoholism ... is a constant companion of undernutrition, the effect of which it aggravates" (Suret-Canale, 1971:400). However, attempts by the government to minimise beer-drinking in the district by banning the sale of sugar and jogree (jaggery) had little impact due to the high demand for cash (Kivati; Ndolo, O.I. 1990).

The impact of land alienation on the pastoral sector became manifest in 1909 when the Akamba were refused permission to graze outside the reserve in spite of a severe drought. As the cattle began to starve, East Coast fever spread among them and about 10,230 head of cattle died (KNA/DC/MKS 1/1/3, 1909:12). The highest mortality occurred in those areas which had lost access to pasture due to the imposition of reserve boundaries. These included the locations bordering the Yatta Plateau (Kithangathini, Mwala, Manyala, Kibauni and Kanthyoli) as well as the south-western parts of the district.

During the low rainfall period of 1913-15, the elders of Kiteta, Kibauni, Mwala, Manyala and Kithangathini once again approached the administration for permission to graze their cattle on the Yatta Plateau. This time they were allowed to graze about 19,000 head of cattle in a specified portion of Yatta for a period of three months after paying Rs 1,700 to the government (KNA/DC/MKS, 1/4/6:31-33). In 1917, the elders of the same locations once again approached the government for
permission to graze their livestock in Yatta. Initially the Governor refused to grant the request, but due to high livestock mortality the elders of the aforesaid locations were allowed to lease pasture in Yatta for six months at a rent of Rs 6,800 (KNA/DC/MKS 1/1/10, 1917-18:40).

On the contrary, the people of Mukaa and Kilungu found the "payment of 1 heifer per 10 head of cattle" as rent for grazing outside the reserve rather excessive (KNA/DC/MKS 1/1/10, 1918-19:52). Instead, they resorted to poaching for pasture in the neighbouring Crown Land, a practice for which they were heavily fined by the government. For example, "10 offenders [from Kilungu Location] were finally fined 95 head of female stock" after cash fines had proved ineffective (ibid).

The reserves policy therefore enhanced the state's goal of primitive accumulation while it impoverished the Akamba through loss of livestock by starvation and diseases, and through payment of grazing fees and fines. For example, due to starvation and diseases, 180 tons of hides were exported from Machakos and Kitui in 1918 alone (KNA/DC/KBU 1/11, 1917-18:43). The pasture-disease problem was made worse by inadequate veterinary services, an inoculation fee of shs 2/50 per animal13, and perpetual quarantine. Indeed, a prosperous cattle trade

13. The inoculation fee was so high that the Akamba regarded it as a second tax. Moreover, the rinderpest inoculation sometimes killed the inoculated animal (KNA/DC/MKS 1/1/10, 1922:3). All this retarded trade as only inoculated animals could be exported.
which attracted Chagga, Giriama, Nyamwezi, Somali and Swahili traders at the turn of the century collapsed in 1909 due to quarantine regulations (KNA/DC/MKS 1/1/3, 1909:9).

In a nutshell, a vicious circle was manifest in the livestock industry in Machakos District by 1920. Retardation in livestock trade and the reserves policy created a perpetual scarcity of pasture, even in seasons of adequate rainfall. This in turn led to overstocking and therefore soil erosion. In 1920, the D.C. warned:

The condition of the reserve in regard to pasturage is grave in the extreme .... [Unless] the question of re-afforestation and improvement of the land is dealt with on a comprehensive scale immediately, the country will be valueless in the very near future (KNA/DC/MKS 1/1/10, 1919-20:2).

Consequently, by 1922 "numbers of native cattle [died] annually, literally from starvation". The situation was aggravated by the government's fear that allowing the Akamba access to pasture facilities outside their reserve would encourage such demands in the future (KNA/DC/MKS 1/1/10, 1922:6-7). Thus, by 1923 signs of impoverishment of the society and the ecology were quite evident and the people's vulnerability to food crises was on the increase.

An outgrowth of the pasture problems discussed above was the emergence of Kamba squatters (land tenants) on settler farms. Squatting started in 1909 and involved the Akamba living in the locations which bordered on settler farms, such as Iveti, Mukaa
and Matungulu. Except in Kikumbulyu Reserve, the Machakos Akamba were mainly driven to settler farms by the need for pasture (see Kanogo, 1987:12).

Initially, the district administration tried to discourage squatting for two reasons. First, it claimed that squatting would spread livestock diseases from the reserve to settler farms (see Spencer, 1983). Second, the administration claimed that squatters would become 'detribalised'. However, the actual reason was that squatting militated against the primitive accumulation tendencies of the state. For example, in 1917, the Machakos D.C. banned the movement of Kamba squatters out of their district after he failed to obtain even a single ox for the war effort from 2,549 head of cattle owned by Kamba squatters residing in the Kekusi area of Murang'a District (KNA/DC/MKS 1/1/10, 1917-18:4-5). Although settlers collected taxes from squatters on behalf of the state, the administration nevertheless feared losing control over squatters.

The administration's opposition notwithstanding, the Director of Agriculture sanctioned squatting in Machakos District in 1913 due to settlers' demands for labour. Consequently, the number of Akamba families moving into settler farms on conditions agreed between them and individual settlers increased. This resulted in abuse of the system by settler farmers who exploited the situation by collecting rent in cash or kind from their tenants. For example, in 1917, a Mr. Jennings attempted "to carry on Kaffir farming pure and simple on the Yatta on farms
the grazing of which he was in the act of leasing from the Crown". He had invited 130 Akamba with their 3,000 head of cattle to set up cattle posts on the land (KNA/DC/MKS 1/1/10, 1917-18:4).

In spite of the 1918 Resident Native Labourers Ordinance, which converted the status of squatters from tenancy to labour contract, Kaffir farming was reported in the Ol Donyo Sabuk area in 1923. Settler farmers were disinclined to abandon the practice for it helped them amass stock, keep their pasture under control and gave them an income (Kanogo, 1987:16). In short, 'Kaffir farming', though a mutual agreement, was a form of primitive accumulation in which the cost of reproducing and maintaining human labour was transferred to the squatter family. Thus, the squatter family produced its own subsistence besides paying rent to the settler farmer (see Stichter, 1982:27; Van Zwanenberg, 1975: Ch.8).

Despite the above irregularities, squatting grew as indicated in Table 5. Some Machakos Akamba also became squatters outside their district. For instance, by 1917, European farms in Kekusi area, Murang'a District, had absorbed Kamba squatter families as follows: 14 in 1915, 13 in 1916 and 106 in 1917 (KNA/DC/MKS 1/1/10, 1917-18:4). However, by 1921 settler demands for squatter labour had begun to diminish and it was found necessary to strictly enforce the Resident Native Labourers Ordinance of 1918. Thus, squatters began to work for 180 days in a year and to keep ten head of cattle for every male worker.
These new regulations, especially reduction of stock, defeated the very purpose the Akamba had in becoming squatters (Ndolo, O.I. 1990).

Table 5: KAMBA SQUATTERS IN MACHAKOS DISTRICT (1921 & 1922)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Farms</th>
<th>Head of Families</th>
<th>Male Workers</th>
<th>Head of Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>37</td>
<td>596</td>
<td>1,195</td>
<td>12,146</td>
</tr>
<tr>
<td>1922</td>
<td>40</td>
<td>757</td>
<td>794</td>
<td>13,493</td>
</tr>
</tbody>
</table>

Source: KNA/DC/MKS 1/1/10, 1922:5.

Another important result of land alienation was the emergence of land litigation in the Machakos Reserve. By 1917, most of the land in the reserve had been claimed. In that year, the D.C. reported that there had been an extra-ordinary movement of population from the agricultural areas of the hills to the pastoral areas of Mwala, Manyala and Mbaikini since 1910 (KNA/DC/MKS 1/1/10, 1917-18:3). Though the movement was possibly a re-adjustment of the population to its level of expansion at the onset of the late nineteenth-century disasters, the D.C. attributed it to increase in cattle and scarcity of grass in the more agricultural areas. Whichever the case, land disputes between locations and individuals were evident as early as 1914.

In the early 1910s, the D.C. was often called upon to arbitrate in land disputes between headmen of different locations.
who were claiming certain unoccupied pieces of land for their people. One such dispute arose between the headmen of Mwala, Kithangathini and Manyala over an uninhabited piece of land near River Athi. A similar dispute occurred between the inhabitants of Mukaa and Nzaui. A third dispute involved common land around Kimutwa, which was shared by the people of Iveti, Muvuti, Kalama and Mbooni locations. In 1914, Chief Nthiw'a wa Tama of Muvuti was accused by the headmen of the other locations of encouraging his people to parcel out areas of the land for their own use, thereby preventing people from the other locations from grazing and cutting timber from the land as had been the practice. The D.C's verdict was that the land in dispute should be used in common by all the locations (KNA/DC/MKS 1/4/6:89).

Similarly, scarcity of pasture in the 1913-15 period led to the fencing in of pasture land by individuals to prevent neighbours from encroaching. The administration's response was an order to councils of elders to discourage the practice (KNA/DC/MKS 1/1/2, 1915-16:47). It is therefore evident that land alienation had aroused the need for individualisation of pasture land by the mid-1910s, a development which could have led to matching of individuals' herds to the carrying capacity of their land, thereby preventing soil erosion. However, the administration, possibly for fear that a landless class would emerge, encouraged communal ownership of land.

Superimposed upon the agrarian problems of the period
under review were the demands made by the colonial state in respect of the First World War (1914-18). The government not only procured large amounts of labour for service in the war (and in the protectorate) but also acquired large numbers of oxen for transport and for slaughter. As the P.C. for Ukamba Province put it, the government "asked without ceasing for two of the main assets and most cherished possessions of a native tribe - their young men and stock" (Quoted in Overton, 1989: 218). For example, in early 1917, when animal and mechanical transport for the East African Campaign failed due to tsetse fly, terrain and the climatic conditions of southern Tanzania, Machakos District was forced to surrender 77.15 per cent of her able-bodied men for the war effort (KNA/DC/KBU 11, 1917-18:64). Tables 6-8 summarise the extent of the war demands on the Machakos Akamba.

Table 6: LABOUR RECRUITMENT, MACHAKOS DISTRICT (1914-19)

<table>
<thead>
<tr>
<th>Type of Labour</th>
<th>1914-15</th>
<th>1915-16</th>
<th>1916-17</th>
<th>1917-18</th>
<th>1918-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered for work outside the District</td>
<td>1,411</td>
<td>3,115</td>
<td>4,095</td>
<td>4,369</td>
<td>91</td>
</tr>
<tr>
<td>Registered for work inside the District</td>
<td>150</td>
<td>450</td>
<td>413</td>
<td>660</td>
<td></td>
</tr>
<tr>
<td>Carrier Corps Labour</td>
<td>516</td>
<td>2,117</td>
<td>3,900</td>
<td>5,076</td>
<td></td>
</tr>
</tbody>
</table>

Table 7: CARRIER CORPS LABOUR, UKAMBA PROVINCE (1915-18)

<table>
<thead>
<tr>
<th>Station</th>
<th>1915-16</th>
<th>1916-17</th>
<th>1917-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi</td>
<td>747</td>
<td>832</td>
<td>1,345</td>
</tr>
<tr>
<td>Kikuyu</td>
<td>2,599</td>
<td>2,359</td>
<td>2,552</td>
</tr>
<tr>
<td>Machakos (Ulu)</td>
<td>2,117</td>
<td>3,900</td>
<td>5,076</td>
</tr>
<tr>
<td>Kitui</td>
<td>3,064</td>
<td>3,885</td>
<td>3,470</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,527</strong></td>
<td><strong>10,976</strong></td>
<td><strong>12,443</strong></td>
</tr>
</tbody>
</table>

Source: KNA/DC/KBU 1/11, 1917-18:64.

Table 8: OXEN FOR MILITARY PURPOSES, MACHAKOS DISTRICT (1915-19)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Price (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915-16</td>
<td>7,940</td>
<td>306,402</td>
</tr>
<tr>
<td>1916-17</td>
<td>12,538</td>
<td>406,953</td>
</tr>
<tr>
<td>1917-18</td>
<td>1,881</td>
<td>43,017</td>
</tr>
<tr>
<td>1918-19</td>
<td>1,431</td>
<td>49,617</td>
</tr>
</tbody>
</table>

Source: KNA/DC/MKS 1/1/10, 1918-19:52.

Besides the procurement cited above, the war intensified the impoverishment of the district in various ways. First, about 3,000 Carriers died in the war (KNA/DC/MKS 1/1/10, 1919-20:7). Second, the repatriates brought with them influenza which claimed about 8,000 people (KNA/DC/MKS 1/1/10, 1918-19: 25)\(^{14}\). Third, the average price of Rs 35 paid by the Military

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\(^{14}\) Oral informants alleged that the epidemic claimed more lives than officially estimated (Nzungi; Nguta, O.I. 1990). See also Were and Derek, 1972:242.
for an ox was below the market price of Rs 50 (KNA/DC/MKS 1/1/10, 1916-17:481). Finally, the wages paid to Carriers dropped from Rs 10 at the beginning of the war to Rs 5 at the end of it due to pressure from the settlers (Overton, 1989:205). The settlers opposed the higher wage offered by the Military because it affected their supply of labour.

Equally important were the corollaries of the war, increased tax burden and recession. From 1916, the protectorate had to contribute to the cost of the Imperial Campaign in East Africa at a time when sources of revenue were dwindling. As a result, the government increased African taxation from Rs 3 to Rs 5 in 1915, and then to Rs 8 in 1920\textsuperscript{15}. In 1921, the new tax had to be paid for a 9-month period instead of the usual 1-year period (Overton, 1989:208; Ochieng', 1985:112). Furthermore, problems of the recession, such as low prices for livestock, lack of market for hides, unemployment and reduced wages combined with a drought in 1921 to make many Akamba unable to raise tax money. This situation did not deter the administration from collecting the tax. Despite the low prices for livestock, "steps were taken to see that defaulting tax-payers took sufficient stock to Machakos [Town] to realise, when sold by Public Auction, the amount of their tax" (KNA/DC/MKS 1/1/10, 1921:3). In short, the war and its concomitants increased primitive accumulation to unprecedented levels.

\textsuperscript{15} A personal tax of Rs 1 for Africans was introduced in 1901. This rose to Rs 2 in 1903, Rs 3 in 1910, Rs 5 in 1915 and Rs 8 in 1920 before falling to Shs 12 (Rs 6) in 1925 (Brett, 1973:190; Buell, 1965:369).
levels. The overall impact of the war on the Kamba system of production cannot be over-estimated.

The war was also followed by currency changes in 1921 and again in 1922 (see Were and Derek, 1972:242-43). In both cases, many Akamba lost their savings in a variety of ways. First, many people did not exchange their rupees for florin coins in 1921. They were therefore left with worthless rupees when their use was discontinued. Second, when the shilling was introduced in 1922, and circulated with the florin, some people could not tell the difference in value of the two coins. Consequently, itinerant traders took "dishonest advantage of the situation to their own profit" (KNA/DC/MKS 1/1/10, 1922:7).

The fact that no major food crises occurred in Machakos during the period under review is an indication of the resilience of the pre-capitalist Kamba system of production. In addition to the problems created by the colonial situation, there were also periods of drought and epidemics, but these did not cause any major food shortage. However, by 1924 there were obvious indications of stress in the production system.

After the Muvunga Famine (1898-99), the next food crisis occurred in 1909 and is called Malakwe. The food shortage was a culmination of three years of poor rains and mainly affected Mukaa, parts of Kilungu, Mbitini and parts of

16. Malakwe is from the Kiswahili word Maharagwe (beans). The food shortage is called so because beans was the only food available in shops (Mutisya, O.I. 1990).
Nzaui. However, these areas were well off in livestock and were therefore able to buy food in other parts of the district. Attempts by some settlers to induce the affected Akamba to work for them in return for food did not succeed, not even with the help of government propaganda (KNA/DC/MKS 4/2:149). However, the food shortage led to the migration of some people from the said areas to Kikumbulyu, Taveta and Kilimanjaro (Somba, 1979: 7-8). The migrants were attracted to these areas by 'river-side' cultivation.

In 1913, an epidemic of menengitis affected the district for the first time. The disease which started in Kikuyu caused such confusion in Machakos that farm-work was adversely affected. Even then no food shortage occurred. However, the 1913-15 drought caused a food shortage in Kikumbulyu where, according to the D.C., "it had the satisfactory result of sending no inconsiderable number of young men out to work for the local planters there" (KNA/DC/MKS 1/1/2, 1914-15:396). Other areas affected by the drought drew upon their food reserves or sold stock to buy food (ibid).

Even the East African-wide famine of 1918 had little impact on the Machakos Akamba. The famine, whose origins are associated with the First World War and the accompanying crises (see Aseka, 1989; Ochieng, 1988), only affected Kikumbulyu. From July till December 1918, Kikumbulyu and Kitui people bought food at a famine relief depot established at Kibwezi (KNA/DC/KTI 1/7/1). In the rest of the district, food surpluses
sufficed in spite of heavy sales and two seasons of drought in the 1917-18 period. Indeed, the D.C. commented:

The Akamba, whatever their other failings as a tribe, show an excellent example of self-help by keeping sufficient stocks in hand to tide over a bad season (KNA/DC/MKS 1/1/10, 1918-19:54).

From the foregoing analysis, it is evident that up to about 1923 the Kamba system of production managed to hold out against environmental changes despite the heavy demands placed upon it by the colonial state. However, by 1920 signs of stress were already manifest. For example, in 1920, the D.C. lamented that there was nothing to report on the social conditions of the people because the "Government [had] made little or no effort to improve the conditions that [existed]"(KNA/DC/MKS 1/1/10, 1919-20:7). Two years later, the D.C. reported that the people were already demanding to be shown the returns for the heavy tax they were paying (KNA/DC/MKS 1/1/10, 1921:1). In sum, deteriorating economic conditions were already inducing the Akamba to question the transfer of resources from the African to the settler sector by 1923 (see Brett, 1973:190-203).

In fact, opposition to this transfer gave rise to politico-religious movements in 1910 and 1921. In both cases the leaders of the movements urged people not to pay taxes and also demanded an end to colonial rule. Interestingly, the movements emerged in the lowland areas which were prone to droughts, scarcity of pasture and food shortages. The 1910 movement was led by Kiamba wa Mutyeuvyu and Syotune wa Kathuke
(both of Muvuti Location), Chief Mukeku wa Ngwili of Mwala Location, and eleven spirit mediums from Kisau, Kiteta and Kibauni locations (Munro, 1975:114-16; Somba, 1979:15-22).

The 1921 movement was led by Ndonye wa Kauti of Kitoo in Lower Kilungu. Among other things, Kiamba claimed that after the Europeans left "Much rain [would] descend, and the springs [would] flow as they did of old, and every river [would] have water as of old" (KNA/DC/MKS 4/7:112). In other words, the Akamba could clearly see the linkage between colonialism and degradation of their ecology. This perception further alienated the people from the government. For example, in 1923, the D.C. reported:

[The] general impression prevalent among the elders of the tribe is that Government is a nuisance but must be tolerated (KNA/DC/MKS 1/1/15, 1923:1).

In this chapter we have attempted to show how the Kamba production system was progressively incorporated into the world capitalist system over the 1889-1923 period. Starting with the turbulent 1890s, through the imposition of colonial administration at the turn of the century, to the First World War and the resultant recession, the Akamba gradually became part of the world capitalist system through the colonial state. Booms and depressions, for example, could now be felt by most Kamba households through price fluctuations and changes in the labour market.

This initial phase of the process of articulation was therefore characterised by a disruption of the pre-capitalist
Kamba system of production. For example, land alienation caused some Akamba to become squatters while taxation forced others into wage labour. Thus, the 1921-23 recession increased the level of 'proletarianisation' from 7 per cent of the able-bodied men in 1921 to 15 per cent in 1923 (Stichter, 1982:58). Likewise some Akamba came to embrace commodity production both as a means of accumulating wealth as well as an escape from 'proletarianisation'. It is therefore evident that by 1923, colonial capitalism had already begun to reshape the pre-capitalist Kamba economy through the dual process of dissolution and conservation. This process of articulation continued in the subsequent decades as we demonstrate in the chapters which follow.
At the start of the 1920s, the colonial administration in Kenya was under pressure to change the economic structure it had hitherto fostered. Internally, mounting African protest, Asians' demands for equality with settlers, and criticism from the missionaries were some of the pressures the colonial state faced. Externally, there were protests from liberal humanitarians and capitalists in Britain. Furthermore, the 1921-23 recession greatly undermined the colony's revenue, thereby demonstrating the weaknesses of the settler mode of production. As a result of these factors, the British Government (through the Colonial Office) induced the colonial state to inaugurate the so-called Dual Policy in 1923\textsuperscript{1}. This policy provided the ideological basis for the articulation process in the 1920s and 1930s.

Ideally, the Dual Policy pledged the colonial state to parallel and complementary development of African and European areas in Kenya. This was in keeping with the doctrine of trusteeship which pledged imperial powers to a just treatment of the people they had colonised\textsuperscript{2}. However, the implementation


2. The doctrine of trusteeship has its origins in the Berlin Act of 1885 and was revived as Article 23 of the Covenant of the League of Nations (1919).
of the Dual Policy was marred by the colonial state's partisan approach to the colony's economy. Settler agriculture continued to command special attention in terms of resources and services while Africans were expected to assist in the development of the colony by either entering wage labour or producing for the market (but without the benefits offered to settlers). This chapter examines the impact of the Dual Policy on the Machakos Akamba.

The first official mention of the importance of African agriculture, and a policy to improve it, was contained in the Annual Report of the Department of Agriculture for 1920-21 (Clayton, 1964:6-7). In the document, the government expressed its wish to develop "highly fertile native areas" by encouraging production of exportable surpluses of maize, sorghum, millet, groundnuts, simsim, cotton, beans and peas. Such crops, it was claimed, were well-suited to the resources and facilities of the African and would not compete with European-grown crops for markets (Cone and Lipscomb, 1972: 43-44). As a consequence of the department's policy, less fertile areas, such as Machakos District, were overlooked in the distribution of government resources in the 1920s (Table 9).

4:1 Incipient Services for Development

Implementation of the Dual Policy seems to have started in Machakos in 1923 when, for the first time, an Agricultural Supervisor was posted to the district. In the following year, the veterinary staff increased from one Stock Inspector to one
may be said to have had representatives of the major departments by 1924. However, attempts by these officers to influence Kamba economy had little success.

First, the Agricultural Supervisor's attempt to introduce communal maize farming was a fiasco. The project was a distortion of the notion of communal ownership of land and communal work-groups. According to Owako (1969:97) the project was stimulated by the desire to save Kenya from bankruptcy. Indeed, similar farms were also started in Kisii and Pokot areas in the early 1920s (Bowles, 1979:200). Seemingly, this

### Table 9: RESOURCES FOR AFRICAN AGRICULTURE (1929-31)

<table>
<thead>
<tr>
<th>Province</th>
<th>Expenditure (£) - 1931</th>
<th>Personnel-1929</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>European</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agricultural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Officers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>African</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agricultural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructors</td>
</tr>
<tr>
<td>Kikuyu</td>
<td>8,483</td>
<td>4</td>
</tr>
<tr>
<td>Nyanza</td>
<td>7,283</td>
<td>2</td>
</tr>
<tr>
<td>Coast</td>
<td>2,669</td>
<td>1</td>
</tr>
<tr>
<td>Maasai</td>
<td>608</td>
<td>-</td>
</tr>
<tr>
<td>Ukamba</td>
<td>162</td>
<td>-</td>
</tr>
</tbody>
</table>

distortion of indigenous African practices did not appeal to the Akamba and the maize scheme was abandoned.

After the failure of the scheme, the D.C. assigned the Agricultural Supervisor to dam-making. But due to lack of knowledge of dam-construction, three of the six dams designed by the instructor burst with the first rains. These unsuccessful schemes made the D.C. reckon that it would become difficult for him to obtain communal labour for roads. Therefore, when the Agricultural Supervisor was transferred out of the district in 1924, the D.C. commented:

I do not consider an Agricultural Supervisor can be usefully employed meanwhile in this reserve and I was relieved when he was transferred (KNA/DC/MKS 1/1/15, 1924:22).

Possibly due to the D.C's negative attitude, an Assistant Agricultural Officer posted to the district in 1927 was transferred to Kisii the same year (KNA/DC/MKS 1/1/15, 1927:11). From then until 1932, the district had no agricultural personnel. It therefore seems the Agricultural Instructor had come to the district in 1923 specifically to encourage the production of maize, a crop that would be exported to tide the colony over the recession.

The activities of the increased veterinary staff in the reserve were mainly negative. On the whole, the officers came to the district to extend the quarantine system which had been set up to protect European-owned livestock from rinderpest.
The officers' insistence on maintaining the quarantine until all Kamba cattle had been inoculated proved counter-productive due to a number of factors. First, the veterinary staff was too small for the vast area and the large herds involved. Second, the inoculation fee of Shs 2/50 per animal, and sometimes death of animals due to inoculation\(^3\), discouraged stock-owners from getting their animals inoculated (Munro, 1975: 166). Thus, people sought the services of the department only when it was absolutely necessary to export stock out of the reserve, as in times of food shortage. The overall effect of the quarantine regulations therefore was the confinement of stock in the reserve. This resulted in overstocking and environmental degradation.

Moreover, the veterinary officers shared the view held by administration officers and settlers that the reserve was not only overstocked, but that 20-30 per cent of the livestock was old, maimed or useless (Munro, 1975:166). Consequently, they argued that pastoral improvement would be impossible until the excess stock was killed off to reduce overstocking. This pre-condition for livestock improvement was clearly stated by the D.C. in 1925:

> The problem [of overstocking] is of first importance and greatest urgency.[It] must be faced and tuckled without further delay, if we are to be true to our profession that are

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3. The so-called Double Inoculation for conferring immunity against rinderpest was risky as it entailed simultaneous injection of virulent rinderpest blood and anti-rinderpest serum into an animal (Tignor, 1976:36).
we are Trustees of Native interests (KNA/DC/MKS 1/1/15, 1925:6).

In other words, overstocking was perceived in terms of a cattle complex which had nothing to do with land alienation, quarantine measures or even a people's rational response to their environment (see Spencer, 1983; Van Zwanenberg with King, 1975).

The activities of the Forest Department in Machakos in the 1920s were mainly confined to setting up tree nurseries from which seedlings were issued to Kamba farmers. However, the efforts at afforestation could not keep pace with environmental degradation although the Akamba enthusiastically planted trees. It was not until the 1930s that the department set up its own forests in the reserve, a development which produced friction between the department and the land-hungry Akamba.

As was the case in other reserves in the 1920s, the Dual Policy had little positive impact in Machakos. Its failure was mainly due to settler pressure on the colonial government. Anxious about possible contraction in labour supply and competition from African producers, White farmers in the colony sought and got the support of Governor Edward Grigg (1925-31) and the Department of Agriculture. Consequently, central government initiatives in African reserves remained minimal. Instead, this task fell on the so-called Local Native Councils (LNCs).

The creation of LNCs in the early 1920s was the colonial state's response to escalating criticism levelled against its
allocation of resources in favour of the European sector. Thus, the formation of political associations by mission-educated Kikuyu, Luo and Abaluyia in the early 1920s awoke the administration to the realities of a changing social system (Omusule, 1974:91). The existing local authorities (chiefs and elders), which were designed to mobilise African resources for the European sector, were unlikely to function effectively under the changed social circumstances. Consequently, the government established LNCs in the early 1920s for two reasons. First, to secure the loyalties of the mission graduates who could prove dangerous if left outside the government (Munro, 1975:176). Second, to provide an agency through which African development could be initiated "without the resources for such development having to be derived from central government revenue" (Kitching, 1980:188).

The first reserve-wide local authority in Machakos District was instituted in 1922, but went into abeyance in 1923 because of what the D.C. called lack of independent ideas among the members, and their inability to "effectively represent native opinion throughout the reserve" (KNA/DC/MKS 1/15, 1924:5). However, a new LNC was founded in Machakos in mid-1925 possibly to arrest Kamba dissidence arising from high livestock mortality in late 1924. The death of 20,000 – 40,000 Kamba head of cattle after evacuation of the same from Yatta in July 1924 led to a series of indignation meetings in which the Akamba looked to Africa Inland Mission (AIM) missionaries for guidance (Munro, 1925:196). The government interpreted this to mean
not only enhanced prestige for the mission among the Akamba but also a disregard for the established government machinery by mission boys. As a result, the Akamba were allowed to return their cattle to Yatta in October 1924 and a LNC was established for them in June 1925.

The fact that the LNC was created as a means of co-opting dissidents into the colonial establishment was manifest in the membership of the 1925 LNC. Unlike the 1922 council, whose members were selected chiefs, headmen and representatives of mission churches, eight out of the twelve African members of the 1925 council were elected directly by the people (KNA/DC/MKS 1/1/15, 1925:3). Similarly, it is evident that the previous form of social organisation was no longer functional. In 1925, the D.C. wrote:

The tendency of Mission boys to regard themselves as outside Tribal Organization and to approach Government on political and social questions through Church Elders rather than through Headmen is a difficulty which exists and will increase (op.cit. p. 5).

The inauguration of the Machakos LNC in June 1925 marked a new phase in the political economy of the Machakos reserve. Under the chairmanship of the D.C., the council provided a forum in which issues pertaining to social and economic development of the reserve were discussed by the representatives of the Akamba and those of the colonial state. The council therefore served as a link between the Akamba and the colonial state, although the two sides did not always agree on the best way of mobilising
Kamba resources for development. Generally, the government sought to impose its will on Kamba resource management through the council while the Akamba used the council to seek some autonomy in managing their affairs. Among the regulations made by the council were those related to every conceivable aspect of farming and land-use. These included anti-soil erosion measures, improved method of cultivation and prevention of famine (see Cliffe, 1972).

Unlike European District Councils which were financed by direct grants from central government funds, LNCs raised local rates to finance their activities (Brett, 1973:195). Initially, the Machakos LNC collected a two-shilling rate from each adult male in Ulu and a one-shilling rate in Kikumbulyu. Smaller amounts of money were also realised from fees collected by Native Tribunals and rents on land in trading centres. However, the revenue was generally small, a factor which hampered the operations of the council.

In its early days, the council devoted 50 per cent of its revenue to land reconditioning activities while education and health shared the remainder. For example, in 1925, the council voted £2,500 for reconditioning activities such as afforestation, seed bulking, road construction and maintenance, and dam-making (KNA/DC/MKS 1/1/15, 1925:5, 12). The council was therefore the administration's agency for promoting rural change in the reserve.
Despite the general lack of assistance to African agriculture during this period, there was a marked expansion in crop production, both in terms of the crops grown and the area cultivated. This was especially the case in the western and northern locations where production of cash crops was on the increase. For example, by 1927 market gardeners in the Iveti Hills were supplying Europeans and Indians in Machakos Town with vegetables. Production of wheat and sugar-cane in the hills was also expanding, while plough-cultivation expanded on the lower slopes (KNA/DC/MKS 1/1/15, 1927:3). Similar changes were also occurring in Kangundo and Matungulu. In the rest of the reserve, pastoralism, rather than crop production, continued to be the chief source of cash income.

These changes, especially plough-cultivation, had important repercussions on both the ecology and the society. Ecologically the replacement of digging-sticks and iron hoes by ploughs increased the area an individual could cultivate. This new technology was not accompanied by a shift from shifting cultivation to a more intensive form of production. In 1930, the D.C. observed:

The shambas are cultivated in a very amateur manner, and the moment crops do not appear abundant enough, usually after a period of two years the land is abandoned and a fresh piece occupied (KNA/DC/MKS 1/1/22, 1930:43).

This practice not only exposed the land to agents of soil erosion but also affected the livestock industry for it was
the European economy. Finally, indigenous pastoralism was regarded as a direct threat to the success of a European cattle industry in Kenya. Consequently, the colonialists propagated a theory of human evolution which portrayed crop production as a more advanced form of production than pastoralism. But the pastoralist perceived pastoralism differently. As one Kamba elder told a colonial P.C. in 1931, "cows were indispensable in every way, they provided money for tax, butter, and food in time of famine" (KNA/DC/MKS 4/9:133).

But the Iveti case was not just a conflict between pastoral and agricultural interests; the elders were simply trying to exercise their traditional role of checking over-appropriation of common land by individuals. However, by 1927, plough-cultivation and tree planting had become means of appropriating land in some areas of the Machakos Reserve. This explains why the demand for title deeds to land was mainly among those who had build themselves good houses, planted trees and put several acres under the plough (KNA/PC/CP 4/2/3, 1931:6).

The significance of the plough in land appropriation was such that every household wished to own a plough. So great was this desire that the D.C., in what he misinterpreted as social change towards women liberation, reported:

[It] is said that many an unfortunate man now-a-days is driven by his wife's scolding tongue to invest in a plough (KNA/DC/MKS 1/1/25, 1931:8).
increasing concentration of land in the hands of a few accumulators. In fact, the administration's policy was:

The fact that virgin land is communally owned and a title to land is only acquired by cultivation simplifies the problem of the administration and makes the way easy to a system of individual tenure, which is the natural evolution as the size of holdings increases (KNA/PC/CP 4/2/3, 1931:6).

Thus, the administration tacitly encouraged competition over land at a time when utui elders had no power over land. Moreover, the method of land appropriation encouraged careless use of land. For example, in 1926, the D.C. reported:

The Reserve is a mass of hills and shambas made on their slopes without protective ditches become rapidly off-scored (KNA/DC/MKS 1/1/15, 1926:7).

Besides the impact of the plough, commoditisation had led to mono-cropping of maize by 1930. The Annual Report for that year records:

It is encouraging to observe that the area of land in the Reserve put under the plough increased considerably during the year especially in the locations of Iveti, Matungulu, Mbooni and Kalama. There was a welcome tendency also to more systematic planting of crops, the maize being properly lined in a number of shambas (KNA/DC/MKS 1/1/22, 1930:9).

These developments, though seen as progressive, became a major cause of soil erosion. While amateurish plough-cultivation exposed more and more land to agents of soil erosion, maize depleted soil nutrients and provided a poor vegetative cover to
While agriculture was expanding, pastoralism seems to have been regressing. After the heavy livestock mortality of 1924, the eastern locations were allowed to use the pasture in Yatta perpetually in exchange for grazing fees charged on individual stock-owners each year. This arrangement created two problems. First, the pasture facilities became the preserve of stock-owners who could afford the monthly grazing fee of 50 cents per head of cattle and 15 cents per goat/sheep (Kenya, 1933: 1285). Second, and related to the issue of grazing fees, stock-owners drove their livestock back to the reserve whenever they suspected that collection of grazing fees was about to start. Thus, the issue of grazing fees led to confinement of livestock in the reserve for most of the year, thereby causing environmental degradation.

Moreover, Yatta pasture was only available to the eastern locations and areas away from it, like Mukaa, continued to suffer from shortage of pasture. Even heavy fines could not discourage poaching of pasture in the alienated land bordering the western locations. Consequently, in 1925, the District Committee (the settlers' equivalent of the LNC) advised the government to auction all the Crown Land marked out for alienation for such land stood as a temptation to the Akamba (KNA/DC/MKS 1/1/15, 1925:15). In short, continued expansion of Kamba pastoral activities was viewed by settlers and administration officials as a threat to the reserves policy on which white settlement was
based. Soil erosion and overstocking were therefore exaggerated so as to induce the government to force the Akamba to reduce their herds.

The stock problem in the lowland areas was also intensified by movement of stock from the hills to the lowlands as population and cultivation in the hill areas expanded. For example, in 1926, the D.C. reported that it was possible to travel over large areas of Mbooni Hills, Iveti Hills and Kilungu Hills without seeing many cattle (KNA/DC/MKS 1/1/15, 1926:48). This simply means that people in the hills had moved their livestock elsewhere.

The problem was also compounded by an increased desire to invest in livestock and thus escape proletarianisation. In 1927, the D.C. recorded:

The Mkamba who leaves the Reserve to work for wages has a keen appreciation of the value of money, but invariably bases his calculation on the equivalent value of stock, and, on returning to the Reserve loses no time in converting his cash savings into cattle or goats (KNA/DC/MKS 1/1/15, 1927:3).

Under the colonial situation, livestock was not only a buffer against crop failures but also a protection against the exploitative colonial labour market (Tignor, 1976:338). This tendency to escape wage labour was often interpreted in terms of the 'lazy native'. For example, in 1931, the D.C. for Baringo wrote:
The Kamasia [sic] detest work and are producing their tax from stock and skins in an estounding quick time in order to save working for same (KNA/PC/RVP 6A/11/6).

Due to their livestock wealth, the Machakos Akamba paid their taxes and fines promptly and only extra-economic measures could force them to enter wage labour in large numbers in the mid-1920s (KNA/DC/MKS 1/1/15, 1924:5). But by 1931 the situation had changed and many Akamba were freely looking for wage labour. The Kakuti Famine (1928-29) analysed below was part of that transformation.

4:3

'Kakuti' Famine, 1928-29

After a record rainfall of 58.47 inches in 1927, failure of the long rains in 1928, followed by a locust invasion in 1928-29, plunged Machakos into a food crisis greater than any other since 1898-99. Thus, low rainfall in April 1928 resulted in total crop failure in Kiteta, Kisau, Kibauni and Kikumbulyu while the rest of the reserve realised only a small pigeon crop. A locust invasion later in the year exacerbated the food situation.

In spite of fair short rains in 1928, most people had little time to work on their farms as they were busy swatting locusts in Yatta and the Makindu area. But their efforts did not halt the advance of locusts into the reserve and by January 1929 heavy depredation had occurred in Kilungu, Mbooni.

5. The locusts caused famine in many parts of East and Central Africa (see Chipungu, 1986; Ochieng', 1988).
and Kalama. To make matters worse, the long rains of 1929 were poor. At the same time locusts spread into the rest of the district.

A number of factors made the food crisis the serious famine it was. First, the locust invasion affected the whole district, thereby eliminating interdependence between ecological zones as was usually the case during droughts. Second, the locusts destroyed both crops and pasture. This weakened the livestock industry on which the Akamba depended for milk and blood in periods of food scarcity. Lack of pasture not only made cattle too weak to bleed or sell but also caused a heavy mortality (Musembi; Ndolo, O.I. 1990). Conservative official estimates put the number of cattle which died, were killed or sold, during the famine at 60,000 (KNA/DC/MKS 14/3/2:14). Finally, the government, eager to see a reduction in the number of Kamba livestock, refused to offer any assistance and insisted that the Akamba had a lot of livestock which they could sell to get money for food (ibid).

Due to its nature the famine has several names. Kakuti is probably the most popular and describes the locusts' action of stripping the land of its vegetative cover. Next in popularity is Nzalukangye, which expresses the bewilderment the famine caused among the people. With their crops and livestock affected by the locust infestation, and the problem spread all over the district, people were left baffled at how best to counter the crisis. The third name of the famine, Nzamulangye, is common in Kikumbulyu and is either a variant of Nzalukangye or expressed
the act of swatting locust nymphs with leafy twigs.

Despite the general uncertainty, a variety of survival mechanisms were resorted to. The most common method of survival was searching for food in Kitui, Kikuyuland and Taveta. In the north, about 120 ox-carts regularly carried food-stuffs from Thika to Kangundo and Matungulu areas (KNA/DC/MKS 1/1/22, 1929:19). In the eastern locations of Kibauni, Kiteta and Kisau, part of the available livestock was exchanged for food in Kitui and Kikuyuland (Mbuvi; Kioko, O.I. 1990). In Kikumbulyu, some people sought food in Taveta (Kaesa; Mutie, O.I. 1990).

Unlike in the previous period, food could also be bought in Indian shops which were spread throughout the reserve by this time. Due to the development of lorry transport since 1925, about 150 bags of food-stuffs were imported into the district daily at the height of the famine (Kenya, 1929:29). People could now sell their livestock and purchase or barter food at markets that had been established at Miu, Syathani, Tawa and Mbiuni, among other places. However, these forms of modernisation had their limitations.

First, many people in the reserve could not afford to buy enough food. In 1929, the D.C. observed:

Some of the people of Kikumbuli were reduced to living on roots and in other locations wild berries were eaten to eke out grain and flour purchased at trading centres (KNA/DC/MKS 1/1/22, 1929:5).

The district administration was partly to blame for this
situation because in 1926, a period of plenty, the Chief Native Commissioner had instructed D.Cs to induce their LNCs to set up a famine relief fund, but the fund was not set up in Machakos. Instead, the Machakos D.C. reported:

The Akamba have very large supplies of meat and money and there is no real danger of famine. If food shortage occurs, it is organization and not money that is required (KNA/DC/MKS 25/3/2:297).

This assertion overlooked the unequal distribution of wealth among the people, and therefore prevented the establishment of a famine fund from general taxation. Such a fund would have benefited the poor.

Another problem was the overcharging for food-stuffs in Indian shops. In this regard, the D.C. wrote:

At most Trading Centres attempts were made by Indian traders to take advantage of the position by charging exorbitant prices to natives, in some cases maize flour being sold at 2 or 2½ lbs for the shilling when the legitimate price was 6 lb.... Another method of cheating adopted by Indians was the use of pishi [tin] measures with false bottoms (KNA/DC/MKS 1/1/22, 1929:18).

On the whole, Indian traders sold a 60-pound bag of maize at Shs 10 when the legal price was Shs 4/50 (KNA/DC/MKS 5/1/2:150). Unfortunately, most people were not aware of this unequal exchange. Many informants told us that the sale of food in shops revolutionised the phenomenon of food shortages. For example, one informant said:
Muvunga was the last famine. Those that came after it were just periods of hunger. After the establishment of shops by Indians we conquered hunger. We could now sell livestock and buy food (Muthama, O.I. 1990).

Perhaps the most significant role during the famine was played by the Machakos LNC. At the first signs of an impending food crisis in 1928, the council banned the export of food-stuffs from the reserve. It also drew the attention of the administration to overcharging for food-stuffs by Indian traders. The council also undertook to supply food-stuffs from Thika using its own lorry (KNA/DC/MKS 5/1/2:139, 150). Furthermore, the council provided employment to numerous people in a variety of reconditioning activities. However, the council's activities were greatly impeded by inadequacy of resources (KNA/DC/MKS 1/1/22, 1928:8).

The effects of Kakuti Famine on the Machakos Akamba were quite diverse. Generally, the famine ended after heavy rains in 1930 (50.52 inches). These rains, popularly known as Mambo Leo Rains in the Kangundo area, resulted in the worst soil erosion in living memory (Mwania; Mumo, O.I. 1990). This was mainly due to extensive cultivation in the previous period, the destruction of vegetation by locusts, and subsequent trampling of the soil by livestock.

The famine also struck a heavy blow at the self-sufficiency of the Machakos Akamba (see Gupta, 1973). This fact is best illustrated by the number of Akamba seeking wage employment by 1930. While there were only 2,581 people working
outside the district in 1926, the number grew to a monthly average of 6,730 in October 1928 and 8,501 in October 1929 (KNA/DC/MKS 1/1/22, 1929:19). Although it had been necessary to apply the provisions of the Native Authority Ordinance to obtain 500 men for work on the Thika-Nyeri railway line in 1925 (KNA/DC/MKS 1/1/15, 1925:18), in 1929 recruiters of 'free' labour in Machakos "obtained considerable numbers of men for work outside the district" (KNA/DC/MKS 1/1/22, 1929:19). Similarly, European sisal estates in Kiambu and Thika, which were renown for their oppressive labour conditions, had enough Kamba casual labourers in 1929 (Tignor, 1976:178).

Increase in labour migrancy was a reflection of worsening conditions in the reserve. But to the colonial administration, this was a welcome development. The D.C. recorded:

The lack of food consequent on drought has done something to cause them to seek employment away from home and only economic causes will result in Akamba going out in large numbers as the Kavirondo [sic] and Kikuyu (KNA/DC/MKS 1/1/22, 1928:5).

But just when the Akamba were beginning to enter wage labour as a solution to their economic problems, the Great Depression set in and some of them were declared redundant. Thus, the number of Machakos Akamba labourers in European farms was reduced from 6,739 in 1930 to 4,651 in 1931 (KNA/PC/CP 4/2/3, 1931:6), and those who remained had their wages reduced by 15 per cent
In short, the Akamba, who for a long time had been blamed for the colony's labour problems because of 'their indolence' and hiring of Kikuyu labour, could not get employment when they needed it most (KNA/PC/CP 16/1/1).

The increase in the number of people seeking wage labour also affected the conditions for squatting. From 1926, the demand for squatting facilities in Machakos was greater than the European farms in the district could provide. Consequently, settlers began agitating for the implementation of a 270-day working year and the reduction of stock from 12 to 5 head of cattle for every male squatter. In short, the 1928-29 food and pasture shortage led to abundance of cheap labour and therefore the need to tighten squatting conditions. The D.C. enthusiastically reported:

The shortage of food in the Reserve brought out both more casual and squatter labour for work on the farms. An endeavour has been made to tighten up the provisions of the Resident Native Labourers' Ordinance (KNA/DC/MKA 1/1/22, 1929:16).

Unable to obtain grazing facilities within the district, the Akamba looked farther a field. Some became squatters in European farms in Kiambu and Thika, where partly due to the depression and partly due to the high demand for pasture, Kaffir

6. According to Kanogo (1980:116, 126), average African wages were reduced from Shs 14 to Shs 8 a month in the 1929-32 period while employment fell from 125,885 to 106,875 people between 1929 and 1933.
farming was rampant. Others migrated to Mwea in Embu but some of them were later evacuated. Population movement emanating from the food crisis nearly led to the formation of a political association in Kangundo. The influx of people from other locations into Kangundo Location motivated the people to form an association whose goal was to question colonial land policies. However, the association was nipped in the bud by the administration operating through 'native authorities' (KNA/DC/MKS 1/1/22, 1929: 12).

It is abundantly clear that drought and a locust invasion triggered the 1928-29 food crisis, but was the famine inevitable? To some extent the famine need not have occurred. For example, the famine was a manifestation of intensive commoditisation in Machakos District. Two facts attest to this claim. First, both Machakos and Kitui had good rains in 1927, and were equally affected by the locust invasion in 1928-29. But during the famine, Kitui Akamba had surpluses of bulrush millet and nzavi beans, which they sold to their Machakos cousins (Mbuva; Mbuvi, 0.I. 1990). Second, after a record harvest in most of the reserve in 1930 most people started selling their food immediately7. For example, Kikumbulyu people, who were always on the border-line of starvation, applied for the ban on exportation of food-stuffs to be lifted. In fact, the elders of Matungulu, an area of commercialised agriculture, sought permission

7. Many informants said that the harvest, especially of pigeon peas, was plentiful.
to limit the export of food-stuffs from their location since they felt that the prices obtainable would not compensate the producers if another shortage occurred (KNA/DC/MKS 1/1/22, 1930:748). In other words, commodity production (an outgrowth of colonial tax policies) had greatly reduced the margin of subsistence security for most households in Machakos by 1930.

Interestingly, the Akamba did not benefit much from this extraction of surplus which not only weakened their economy but also their ecology. The farthest the central government went in initiating development in the reserve in the 1920s was to invite the Director of Irrigation of the Union of South Africa to investigate possibilities of irrigation in the Reserve in 1925. However, his estimate that irrigation of the Mwala area, using the upper waters of Athi River, would require about £100,000 was seen by the administration as outside "the range of practical politics" and "altogether out of question for the Akamba in their present state of development" (KNA/DC/MKS 4/7:102-109). In short, the director's recommendations, which were clearly influenced by settlers' opinions and his South African background, were not implemented (Spencer, 1983:130).

The only significant expenditure in the district was on administration. For example, in 1926, the Akamba contributed Shs 871,517 out of the district's revenue of Shs 965,000. The district's expenditure for that year was Shs 68,142 and most of it was on administration (KNA/DC/MKS 1/1/15, 1926:App.3). The other major form of expenditure was on roads. But even here
the disparity between the European settled area and the reserve was alarming. For example, in 1925, the Public Works Department allotted £1,568 to the European areas in the district and £300 to the reserve. In 1926, the grants were £3,500 and £300 respectively. This disparity forced the D.C. to comment:

The population of the District is nearly 200,000 of whom nineteen-twentieths live in the Native Reserve, so that I am not sure that the proportion observed in allocation of funds from General Revenue is defensible from all points of view (KNA/DC/MKS 1/1/15, 1925:26).8

Needless to say, expenditure on administration and roads enhanced extraction of surplus through efficient collection of taxes and commoditisation respectively. Neglect of the Kamba economy and excessive extraction of surplus were therefore contributory factors in the Kakuti Famine.

On the whole, the 1920s had little positive effects on the Machakos Akamba. The decade was marked by increasing commoditisation, and therefore the twin processes of peasant accumulation and peasant pauperisation. In fact, by 1930, some

8. According to Van Zwanenberg (1972:24), Kenya Africans were responsible for 75–85 per cent of the colony's tax revenue during the 1923–1929 period, but received very little in return. This disparity persisted in the 1930s. Indeed, Smith (1976:118) says that during 1929–1935, European farmers received government assistance of £286,000 and another £306,000 from a Land Bank which was set up specially to help settlers who were not commercially credit-worthy. There is no evidence of similar assistance to African farmers.
As a result of the depression, prices for primary commodities fell to such levels that settler agriculture was adversely affected. Generally, settlers required such profits as gave them a standard of living befitting their supposedly superior racial station. The fall in prices therefore increased their costs of production as well as their dependence on state assistance. On the contrary, peasant production was less affected by the fall in prices\(^\text{10}\). The Department of Agriculture therefore increased its attention to African production, but without abandoning its pro-settler stance (Kanogo, 1989).

Thus, in an attempt to maintain government revenue, the state launched a drive for increased peasant production while concentrating public resources on the settler sector. To a large extent, the role of the Department of Agriculture in the reserves was limited to establishment of seed farms and demonstration plots. Indeed, most of these projects depended on LNC finances (Clayton, 1967:8). Increased production in the reserves was therefore achieved through extensive rather than intensive farming.

Furthermore, the programme was launched against a background of increasing population pressure in African areas. During the 1921-31 decade, Kenya African population had reached an annual average growth rate of 1.5 percent (Thurston, 1989:5-6).

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10. In what he calls simple reproduction 'squeeze', Bernstein (1977) argues that peasants respond to falling prices by reducing consumption levels or intensifying commodity production or both simultaneously.
Signs of pressure on traditional land-use systems and continued protests about land alienation therefore led to the establishment of the Kenya Land Commission (1932-33). But the commission did little to minimise population pressure in African areas. Influenced by settler claims that Africans were wasteful in their land-use practices, the commission concluded that Africans had enough land and only needed to adopt better methods of farming (Anderson, 1984:323; Munro, 1975:213)\textsuperscript{11}. In short, the commission's recommendations amounted to a rationalisation of existing boundaries and whatever additions were made to African reserves were mainly of uninhabitable land. Consequently, the expansion in production created problems such as land litigations, disinheritance/dispossession of the landless, soil erosion and overstocking in African areas (Kanogo, 1989:126-27).

Some of these problems were already manifest in the Machakos Reserve by 1930, and continued unabated throughout the 1930s. The central government departments which had left the reserve in the mid-1920s were brought back by the depression, but their determination to alter the economy of the reserve had little impact. Nor did the provision of additional land to the reserve by the Land Commission correct the imbalance between human needs and the ecology. Hence, land reconditioning rather than 'development' remained the government's priority throughout the 1930s. This concern was echoed by the Governor in July 1937

\textsuperscript{11}. In the pre-1939 period, settlers (in collaboration with the colonial state) ensured their dominance in the colonial economy by influencing every commission of inquiry in the colony (Brett, 1973:181-84; Van Zwanenberg, 1972:28-30).
when he said of the reserve:

I am so deeply concerned about its condition and need for immediate steps to restore its fertility that all other considerations and forms of progress must take second place (KNA/DC/MKS 4/9:140).

Despite the emphasis on reconditioning as a pre-condition for the economic development of the Machakos Reserve, some efforts were made to change the economy in the early 1930s. For example, the Agricultural Officer posted to district in 1932 set up a 40-acre seed farm near Machakos Town using LNC funds. The objectives of the project were: to improve local crops by selection; to experiment on new crops; to produce improved seeds for distribution; and to demonstrate improved methods of production (KNA/DC/MKS 1/1/25, 1932:8). Other smaller seed farms were also set up at Masii, Matiliku and Kibwezi for production of seeds suitable to the respective ecological zones. However, attempts to extend seed farms, poultry-keeping and hide-drying sheds to every school (for purposes of demonstrating modern methods of production to communities around the schools) did not succeed due to financial constraints. Only poultry-keeping got established in some of the schools.

The Agricultural Department also established a model smallholding farm in Muvuti Location using LNC funds. Here, crop rotation, planting of fodder crops and the use of manure were demonstrated. But only a few farmers in Kangundo, Matungulu and Iveti copied the model smallholding. Majority of the people in the reserve remained unconvinced of its benefits.
(Munro, 1975:179). Definitely, the new farming method required more intensive labour than the extensive system of production the people were used to. Moreover, the low commodity prices caused by the depression tended to encourage extensive rather than intensive production. Indeed, maize prices fell by 50 per cent, beans by 20 per cent and hides by 16 per cent between 1928 and 1932 (ibid).

Ignorance of local conditions and practices, and a tendency to use compulsion in inducing change, also tended to alienate farmers from the agricultural officers. For instance, in 1932 the Agricultural Officer realised that stalk-borer was a serious pest in maize, sorghum and millets throughout the reserve. He associated the pest with "the fact that natives do not burn their trash after harvesting and allow mtama and millet to ratoon a crop the following season" (KNA/DC/MKS 1/1/25, 1932:44). Without taking time to discover the rationale behind the practice, the officer acted thus:

With administrative assistance all natives of Iveti Location were compelled to burn their old stalks and it is hoped to extend this order to other locations next year (ibid).

In the following year, the officer discovered that the advantages of retaining trash in farms outweighed the damage caused by stalk-borer. He discovered that allowing sorghum and millet to ratoon a new crop ensured at least a small harvest in case of poor rains. In addition, standing stalks protected young seedlings from the sun while dead trash served as mulch
(reducing evaporation and run-off, and adding fertility to the soil when it decayed). The officer therefore allowed the practice to continue. But in 1935 the department decided that old stalks should be removed from the fields to decompose in compost pits (Munro, 1975:179). Not only did this directive increase the farmer's work-load but the department's inconsistency undermined farmers' confidence in agricultural experts.

At the same time, there was increased use of plough and other ox-drawn implements in the northern and western locations. In response to the hardships caused by the depression, owners of plough teams hired casual labour to enable them to cultivate more land, thereby expanding production\footnote{On the contrary, farmers in Western Province increased production of maize by forming ploughing companies of 4-12 farmers. This practice started in 1929 and by 1939 one such company had 600 acres under cultivation (Aseka, 1989:293).}. In 1934, it was estimated that 600 ploughs were in use in the reserve (Kitching, 1980:94). Unfortunately, this expansion in cultivation was at the expense of the environment and the D.C. aptly warned:

There is a danger that the increased use of ploughs may lead to cultivation of more land than can be properly managed and it is desirable to encourage natives to make more intensive use of small shambas rather than 'ranch' large ones (KNA/DC/MKS 1/1/25, 1934:29).

Changes in the pastoral sector were less spectacular. However, the quarantine restrictions imposed in December 1917 with regard to rinderpest in the reserve were revoked in November, 1932. Similarly, grazing fees in Yatta were reduced from 50
cents to 25 cent per head of cattle and from 25 cents to 10 cents per head of sheep/goat per month (KNA/DC/MKS 1/1/25, 1933:13). Nevertheless, the depression and inadequate veterinary services militated against positive development of the livestock sector. In 1934, the D.C. summarised the problem the sector was facing as follows:

Stock prices remain low and demand is not great.... The natives have on several occasions asked for easier outlet for their slaughter stock than through Machakos Quarantine [Station]. It is a pity inoculating centres cannot be established on all main routes from the reserve as such a measure would undoubtedly encourage more traders from Kikuyu Reserve... (KNA/DC/MKS 1/1/25, 1934:35).

Thus, trade in livestock in the 1930s was controlled by the Veterinary Department. The department issued permits to stock traders and ensured that only inoculated livestock were moved out of the reserve. However, insufficiency of the department's services, coupled with the scarcity of money for inoculation fees due to the depression, undermined trade in livestock. Hence, overstocking and soil erosion escalated and the quality of stock deteriorated with time.

Surprisingly, the fall in stock prices during the depression was applauded as a "blessing in disguise" by the administration "because it [tended] to dispel the illusion often cherished by natives to the high value of their stock; and also because it [necessitated] a greater number of animals being sold to obtain a given sum of money, thus helping to reduce numbers" (KNA/DC/MKS 1/1/25, 1933:28). Needless to say, the low prices
for stock impoverished the Akamba, but that did not solve the problem of overstocking. Instead, the price crisis intensified their desire to accumulate more livestock in readiness for future capitalist crises and normal subsistence needs. This struggle for survival in a harsh economic and ecological environment was interpreted in terms of 'cattle complex' by the colonialists.

Although the colonial administration was convinced that reduction of livestock numbers was the ultimate solution to the reserve's problems, it nevertheless encouraged land reconditioning activities. In the early 1930s, reconditioning demonstration was started on eroded land in Mbooni, Muvuti and Kiteta locations. Three plots of sixty, one hundred and two hundred acres respectively were established in these areas to demonstrate how eroded land could be reclaimed. However, the scheme suffered many set-backs. For example, the cost of reclaiming one acre of land was as high as eight shillings (Maher, 1937:16) and the LNC did not have much money. Second, erratic rains killed tree seedlings when they failed or eroded ploughed land when they came in thunderstorms. Third, the European officers in charge of the project relied on trial and error methods, which caused more harm than good. For instance, in 1935, the D.C. lamented of an "Impracticable and injurious scheme...started by the Assistant Reconditioning Officer entailing complete bush clearing and subsequent ploughing up of the whole area so cleared" (KNA/DC/MKS 1/1/25, 1935:7). In short, the reconditioning projects had little positive impact.
Against this background of a deteriorating ecology, depression and insufficient agricultural services were other problems such as drought and locust invasions. This interplay of factors was largely responsible for the food shortage analysed below.

4:5
'Mavindi' Famine, 1935

The famine was a culmination of a series of problems. In 1931, locusts caused considerable damage to crops and pasture in the reserve. Although the invasion did not lead to an open food scarcity, reports by medical authorities show that people in the low-lying locations were already experiencing diet deficiency in 1932. Then in 1934, both rains failed after food reserves had been offered to the Kikuyu who had invaded the reserve early in the year "purchasing or begging for food from Akamba acquaintances" (KNA/DC/MKS 1/1/25, 1934:13). In addition, red locusts invaded Kilungu, Mukaa, Nzau and Mbitini locations. Superimposed on these problems were the concomitants of the depression such as unemployment, low prices for livestock and unrelenting tax demands.

The food shortage started in the locations cited above. By December 1934, 600 men from these locations were in employment on the Nziu-Makindu road at the rate of two shillings or 6-8 pounds of maize per man per week. In April 1935, relief work was extended to Kikumbulyu, Lower Mbooni and the riverine locations of Mwala, Kiteta, Kisau and Kibauni. By the time the
famine ended (in late 1935), the LNC had spent about Shs 22,057 on relief work. This included expenditure on a water furrow from Kiboko River for the irrigation of 200 acres in the Chale area of Kikimbulyu (KNA/DC/MKS 5/1/3:346).

The famine is called *Mavindi* (bones) because some people collected and sold bones to earn money for food (Ngundo; Musya, O.I. 1990). This was mainly done in Kikumbulyu where, according to the D.C., some people had resorted to eating baobab fruits. Despite their proximity to the Kibwezi railway station, Kikumbulyu people had not yet conquered hunger due to poverty caused by land problems in the area. By the end of 1935, the D.C. was only "hoping that fair crops will be reaped and do something to alleviate the wretched conditions under which the Kikumbulyu natives have recently existed" (KNA/DC/MKS 1/1/25, 1935:13).

In most of the reserve, people sold livestock to earn money for buying food. In spite of the low prices, large numbers of stock were sold and local markets experienced a minor boom. Table 10 shows licensed exports of livestock from the reserve during the 1934-37 period.

**Table 10: LIVESTOCK EXPORTS, 1934-37**

<table>
<thead>
<tr>
<th></th>
<th>1934</th>
<th>1935</th>
<th>1936</th>
<th>1937</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>3,524</td>
<td>9,512</td>
<td>10,520</td>
<td>7,832</td>
</tr>
<tr>
<td>Sheep/Goats</td>
<td>37,235</td>
<td>76,062</td>
<td>49,243</td>
<td>27,881</td>
</tr>
</tbody>
</table>

*Source: KNA/MKS 1/1/27, 1937:28.*
Needless to say, not everybody had livestock. Indeed, difficulties in collecting tax during the food shortage awoke the D.C. to some of the realities of the colonial situation. He observed:

The present arbitrary system of taxing a native on the number of huts occupied by his female dependants, irrespective of his actual wealth tends to produce a pauper class and to concentrate the wealth of the tribe among a few stock-owners who are not taxed in proportion to their capacity to pay and who increase their property at the expense of the poorer members of the tribe, a state of affairs which tends to prevail to an even greater extent each year until the labour market returns to normal and increased results are obtained from cultivation (KNA/DC/MKS 1/1/25, 1934:22).

The D.C. may have been basically concerned with the regressive nature of the colonial tax system, but his observation also highlights other sources of social differentiation during the colonial era. First, continued existence of communal grazing tended to favour wealthy stock-owners. Second, polygamy was no longer a means of creating wealth or the 'authorship' of a man's wealth. Instead, it had become a liability, especially during periods of drought when the wives' labour power could not be harnessed on the farm. Finally, the creation of a proletariat through various mechanisms had made many people vulnerable to capitalist crises such as the depression.

An important consequence of the food shortage was an outbreak of Cerebro Spinal Meningitis in Kilungu, Mukaa, Mbitini and Nzaui. The epidemic, which killed 50 people in Ndolo's Valley in September 1935, was, according to the D.C., related to the food shortage. The D.C. recorded:
The habitual ill health of the African was much accentuated by lack of nourishment due to the widespread failure of crops. The way was therefore clear for an epidemic which duly arrived in August in the form of Cerebro Spinal Meningitis (KNA/DC/MKS 1/1/25, 1935:34).

Medical evidence supports the D.C's observation. According to Say (1974: 237), undernutrition appears to be associated with reduced resistance to bacterial infections, a factor which may explain some of the septicaemic and meningitis cases caused by organisms such as *Salmonella* species. However, ill health had not always been a characteristic of Kamba life. Watt (1912:244), who was living in Ngelani before the Muvunga famine, wrote: "The natives are extremely healthy, and suffer from very few diseases. One never sees a decrepit or deformed figure..." She added that if a hundred men were randomly picked from the healthiest areas of Europe and North America and compared to a similar number of Akamba or Maasai, "the naked savages would be indefinitely superior [in health] to the inhabitants of Europe" (Watt, 1912:225).

Evidence therefore suggests that undernutrition and malnutrition increased during the colonial period. According to Iliffe (1987:160), these had become the chief problems of subsistence in Africa by the middle of the colonial era\(^\text{13}\). Colonial demands, especially the demand for taxes reduced the amount of food available to the people through commoditisation of their production systems. In Kenya, the increase in

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13. For details on the connection between colonialism and food-deficiency diseases see Rodney (1972:257-61) and Suret-Canale (1971: 125-34).
deficiency diseases was accompanied by a reduction of medical services due to the depression (Beck, 1974:96).

All in all, the Mavindi Famine impoverished the Kamba society and made it more susceptible to similar crises. The D.C. noted:

The semi-famine conditions have involved the utilization of funds and stock to a great extent for the purchase of food and have inevitably resulted in a large increase in the pauper class (KNA/DC/MKS 1/1/25, 1935:27).

Alarmed by the frequency of food shortages in the low-lying locations, and also eager to promote the production of cash crops, the government decided to introduce cotton growing in Mukaa, Mbitini, Nzaui, Kaumoni, Ukia, Kisau and Kibauni in 1935. The administration argued that cotton would provide a more regular cash income than livestock surpluses. Consequently, a team of 38 cotton instructors was deployed in the areas to force farmers to buy and plant cotton seed. However, a number of factors militated against the scheme. First, compulsion bred apathy to the extent that the farmers "regarded the cotton instructors as interfering bullies and engaged in passive resistance, planting, weeding and harvesting only under protest" (Munro, 1975:180-81). Second, prices were as low as 11-16 cents per pound of grade A seed cotton and 2-5 cents per pound of grade B. There was also the problem of cotton-stainer. But most important, cotton, unlike maize, could not be used as food in an emergency. Therefore the decision to abandon the scheme in 1941 was acclaimed by both farmers and instructors.
Other crops introduced to these areas were cassava, groundnuts and simsim. There was a marked interest in promoting 'commercial' rather than 'subsistence' crops during this period. For example, in 1935 seed issues from seed farms were 330 bags of maize, 160 bags of beans, 60 bags of green grams, 20 bags of English potatoes and only 8 bags of sorghum (KNA/DC/MKS 1/1/25, 1935:37). All these were market-oriented crops. The seed-bulking programme of the early 1930s was therefore meant to intensify the incorporation of the Akamba into the market economy. No wonder drought-resistant crops like millets were not part of the programme.

The 1934-35 food shortage may not have greatly shaken the colonial authorities, but the increasing drought conditions and soil erosion did. Concern with environmental degradation, which was exacerbated by the international alarm generated by the catastrophic experiences of the southern plains of the U.S.A. in the Dust Bowl, prompted the colonial government to seek a quick solution to the Machakos problem. As a result, the second half of the 1930s was marked by stringent government measures aimed at arresting environmental degradation in Machakos District.

Anti-Soil Erosion Campaign, 1935-39

The campaign, which included intensive reconditioning measures and forced culling of livestock, was the first major response to a series of recommendations by commissions and commissions and

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14. The Dust Bowl catastrophe was at its height in 1935 and greatly influenced concern for the environment within the British Empire (see Anderson, 1984).
individuals on how the problems of the reserve could be solved. As early as 1919, Governor Northey offered cheap land to any meat canning company willing to set up a factory in Machakos. None came forward (Spencer, 1983:121). This was followed by the Crop Production and Livestock Ordinance (1926) which specified the type of cattle the Akamba were to cull. In 1929, the Agricultural Commission recommended, among other things, the establishment of a meat factory to facilitate the reduction of Kamba livestock (Kenya, 1929). Then in 1933, the Kenya Land Commission recommended the addition of 300 square miles of the Yatta Plateau to the Machakos Reserve on condition that the Akamba undertook to recondition the reserve (HMSO, 1934:204-219). Furthermore, an investigation into the Makueni area by the district administration in 1933 revealed that the area had agricultural potential if it were cleared of tsetse fly.

However, a variety of factors militated against any large scale reconditioning until the late 1930s. First, the Yatta Plateau was already occupied by Kamba livestock when the Land Commission gave it to the Akamba. Only heavy expenditure on additional water resources could raise the carrying capacity of the plateau. Second, the administration believed that opening new land for settlement by the Akamba would simply extend the problem of soil erosion to a larger area. Thus, the tsetse fly zone was left unclaimed although it was expanding and displacing people in the neighbouring locations, thereby limiting the arable land in the reserve even further. Third, the administration’s insistence on reduction of stock before any
By 1935, the urgency for reconditioning was such that the work could not wait until a meat factory was built. Consequently, the P.C. appointed a special reconditioning committee for the reserve in 1935. The committee was headed by the Provincial Agricultural Officer. Its other members were the D.C., the Veterinary Officer, the Forest Department Officer, two White settlers and two Kamba representatives.

The committee's main task was to co-ordinate the reconditioning efforts of the various departments and to draw a long range reconditioning policy. In its first meeting in December 1935, the committee devised a policy for reconditioning pasture and arable land. Depending on the stage of erosion, pasture land would be closed to grazing, trenched, encircled with sisal hedges, provided with stock routes or improved through provision of water supplies. Eroded land on hill-slopes would be taken over by the Forest Department for tree planting. On the other hand, arable land would be subjected to contour terracing, planted with strips of sisal or napier grass, grown with fodder crops or planted with couch grass (ikoka) when fallow. In short, a combination of reconditioning activities were to be applied on land depending on its use, state of erosion and the ecological zone.
The committee also decided to promote reconditioning through compulsion if necessary. Individuals would be held responsible for their own land while the inhabitants of a utui would be responsible for reconditioning communal pasture land. On the whole, the committee encouraged individuals to fence in their land in order to facilitate reconditioning (KNA/DC/MKS 1/1/25, 1935:9-10).

Initially, the government insisted that the committee's activities be paid for with LNC funds. It was only after the committee emphasised the government's responsibility in the matter, and the inadequacy of LNC funds, that the government sought help from the Colonial Office. As a result, in January 1938, the government secured £34,000 from the Colonial Development (CD) funds for the committee. Of this money, £24,000 was a loan to the LNC and £10,000 was a grant (KNA/DC/MKS 12/2/2:17).

Meanwhile, the problem of soil erosion in the Machakos reserve continued to draw attention from the colonial and imperial governments. For example, in February 1937, Colin Maher, later head of the Soil Conservation Unit in the colony, compiled a report in which he advocated the expenditure of £120,000 (over a period of four years) so as to reverse the situation. He argued that the expenditure was small when compared to the £40,000 - £50,000 paid annually as tax by the inhabitants of the reserve (Maher, 1937).
Maher singled out maize monoculture and cotton growing as the major causes of soil erosion. Not only were maize-growers mining the soil in order to build better houses but in some cases the maize was grown on very steep hill-sides. He commented:

The more go-ahead natives with large shambas have check-rowed their maize and this custom increases wash....The mixed planting practised by primitive natives undoubtedly helps to control wash to some extent (Maher, 1937:18).

Maher also highlighted the relationship between taxation and increasing social differentiation. He stated:

I am informed that the more well-off natives are now buying land rights from poor natives who require to raise their tax money (Maher, 1937:33).

In sum, Maher warned the government of a deteriorating social and ecological situation which would require massive resources to reverse if it was not arrested in time.

In the same month, Sir Frankdale, Agricultural Advisor to the Colonial Office, toured the reserve and admitted that conditions had deteriorated from what he had seen in 1933. Then from May to July 1937, R.O. Barnes, Soil Engineer in the colony's Department of Agriculture, conducted a research which revealed that recovery of the reserve would require about £250,000 (KNA/DC/MKS 10A/29/1). This was followed by Professor I.B. Pole-Evan's tour in June 1938. In his report, this South African agriculturalist commented:
The reserve as shown to me was a most distressing sight. It was a shambles — the result of land mismanagement and misuse (Pole-Evans, 1939:4).

Barnes' report, perhaps the most comprehensive of all, blamed ecological degradation in the reserve on pastoral and arable activities instigated by commercialisation of agriculture without due regard for land resources. He therefore recommended careful and gradual development, backed by adequate staff and safeguards, to ensure that increased production of crop and animal products did not lead to the destruction of the land. As for reconditioning, he advised:

There is no hope of improved conditions without a vast expansion of effort and failing this the result must bring a standing reproach to England's Colonial Policy, which would be intolerable in view of Empire and Foreign conditions, quite apart from any moral issue (KNA/DC/MKS 10A/1:25).

In short, Barnes recommended either a ceasure of taxation or provision of adequate extension services to Kamba agriculture. But in the colonial set-up the two were contradictory. The colonial state was bent on extracting tribute without incurring any expenditure (see Bowles, 1976).

The alarming reports from the 'experts', the availability of CD funds, and the completion of the meat factory at Athi River in 1937, made reconditioning work in 1938 more serious than ever before. In January 1938, three Area Supervisors and one Assistant Supervisor were engaged to supervise reconditioning work in the reserve under R.O. Barnes. One Area
Supervisor and the Assistant Supervisor were posted to Kangundo-Matungulu area where £10,000 of Colonial Development fund was to be spent. According to Barnes, this disparity was due to the fact that "Five-sixths of the maize and beans exported from the district are from here and so it is very desirable to protect this valuable region from further deterioration" (KNA/DC/MKS 10A/29/1:12)15.

The second Area Supervisor was assigned to Iveti, Masii, Mwala, Kiteta, Kalama and Lower Mbooni, locations which had some of the worst eroded areas in the reserve. The third Area Supervisor served the rest of the reserve. From the distribution of resources, it appears as if the programme was meant to promote extraction of surplus resources from peasants rather than promote reconditioning as such.

Perhaps the most interesting aspect of the reconditioning drive was compulsory destocking. The details of the destocking campaign are outside the purview of this study, but some facts are of interest16. For example, the destocking campaign had its origin in over-estimated cattle census. Indeed, Newman (1974:7) suggests that the figures in use before 1938 over-estimated the number of stock in the reserve by 150,000. Second, official statistics show that population growth outstripped the increase

15. By 1936, Machakos Reserve exported about 40,000 bags of maize annually. This was also the best quality African-grown maize in Central Province (Kenya, 1937).

in livestock during the 1926-1938 period. In other words, the average Kamba farmer became poorer in livestock during this period (Munro, 1975:216-23). Third, a high proportion of the confiscated stock were not 'dud' stock as claimed by the administration. Out of the total confiscated stock, 2,169 were oxen, 7,401 bulls, 3,064 old cows, 2,526 cows and 3,664 heifers (KNA/DC/MKS 1/1/27, 1938:31). Fourth, the prices offered by the meat company (Liebig's) was a quarter of the market prices (Van Zwanenberg with King, 1970:101).

In short, the programme was meant to benefit the buyer at the expense of the seller. As table 11 shows, European settlers and Liebig's were the chief beneficiaries of the scheme. The settlers bought Kamba cattle at very low prices and later sold them to the Liebig's Meat Company at high profits. The scheme was therefore a form of primitive accumulation in which the state mobilised Kamba cattle for European capital.

As Swainson (1980:30) argues, the active role of the state in this project reflected the closeness between the colonial state and the settlers. Indeed, the government of Kenya not only provided loan capital for setting up the meat factory but also guaranteed the company a consistent throughput of cattle at the company's declared prices (Rosberg and Nottingham, 1966:168). At the same time, the project would provide settlers with a reliable outlet for their chilled beef exports while 'lower grade' African cattle would be canned to subsidise the cost of settler production. No wonder the Akamba regarded the programme as an assault on their
wealth, a machination to turn them into a community of paupers (Nzungi; Nguta; Muthama, O.I. 1990).

Table 11: PARTICULARS OF THE DE STOCKING SALES (1938)

<table>
<thead>
<tr>
<th>Buyer</th>
<th>Head of Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Farmers</td>
<td>8,773</td>
</tr>
<tr>
<td>Liebig's Meat Company</td>
<td>7,246</td>
</tr>
<tr>
<td>Indians</td>
<td>2,401</td>
</tr>
<tr>
<td>Somali</td>
<td>2,244</td>
</tr>
<tr>
<td>Arabs</td>
<td>1,677</td>
</tr>
<tr>
<td>Akamba</td>
<td>171</td>
</tr>
<tr>
<td>Total</td>
<td>22,512</td>
</tr>
</tbody>
</table>

Source: KNA/DC/MKS 1/1/27, 1938:38.

Inevitably, the destocking campaign had far-reaching consequences on reconditioning activities. Resistance to destocking not only culminated in a 6-week sit-in protest in Nairobi by about 2,000 men, women and children from Ngelani, Matungulu and Kangundo, but also led to the formation of Ukamba Members Association (UMA). The protest was led by rural capitalists opposed to government intervention in agriculture. In 1939, the D.C. recorded:

Perhaps 75 per cent of the Protestant Akamba in the district are members of UMA, and it is strange how these people, who are supposed to have acquired some intelligence, should be the most reactionary members of the community. The objects of this Association are to encourage disloyalty to Government in every possible manner, and to hamper all steps taken to improve agriculture and soil erosion (KNA/DC/MKS 1/1/29, 1939:1).
Thus, the Kamba capitalist class nurtured by the colonial situation was not ready to allow the government to interfere with the process of accumulation.

The effects of UMA propaganda is illustrated by events in Ngelani area. In 1940, Ngelani people became stubbornly unruly with regard to regulations governing soil conservation. They pulled out contour pegs placed on their farms by agricultural personnel and refused to demarcate their landholdings with sisal plants. Furthermore, they defied their headmen (and other forms of native authority), whom they regarded as traitors because of their role in assigning livestock quotas during the destocking campaign. "Barazas addressed by the P.C. and the D.C. had no effect, and a climax was reached when about 500 women ... commenced to riot" (KNA/DC/MKS 1/1/29, 1940:1). 'Law and Order' was only achieved in Ngelani by keeping a contingent of 30 policemen in the area from July to December 1940 (ibid).

In the rest of the reserve, people refused to co-operate in reconditioning activities. Only a few yards of mechanical bench terracing were created by the reconditioning team in Kilungu, Mbooni and Iveti hills. Due to lack of co-operation, the work of the soil conservation service supported by the Colonial Development fund was confined to combating soil erosion instead of educating the Akamba to appreciate the necessity for maintaining and increasing the fertility of the soil (KNA/DC/ MKS 1/1/27, 1938:25).

After the failure of forced destocking, the Department
of Agriculture decided to encourage mixed farming in consolidated smallholdings. That way it was hoped to create a class of farmers who would recognise the carrying capacity of their holdings and voluntarily reduce their stock accordingly. The department therefore decided to promote a class of peasant farmers even "at the expense of increasing the already numerous landless class" (KNA/DC/MK1/49:151-53).

Consequently, the Senior Agricultural Officer for Central Province moved his headquarters from Nyeri to Machakos in November 1938 in order to oversee the fencing of individual holdings. Throughout 1939, the agricultural personnel in the reserve was engaged in this work. By the end of the year, most land-owners in the reserve had defined their boundaries with sisal (in the lowlands) or trees in the higher altitudes (KNA/DC/MKS 1/1/29, 1939:1).

This step did not solve the problem of overstocking. The problem was not the matching of available pasture to the size of herds but rather the matching of the size of herds to people's needs. As long as the people's needs for cash and subsistence outstripped the sizes of their herds, overstocking persisted.

Promotion of mixed farming was also hindered by the outbreak of the Second World War in 1939. At the outbreak of the war, most of the agricultural staff was mobilised for the war effort. Consequently, the administration resorted to closing
eroded areas to grazing and cultivation. Chiefs, headmen and grazing guards were made responsible for enforcing reconditioning measures, a responsibility they used to enrich themselves by exorting bribes and arbitrary fines (KNA/MKS 5/1/3:458). Then in June 1941, CD funds ceased and reconditioning activities had to be kept going by a government grant of £750 per annum and £250 from the LNC.

After the failure of the destocking campaign, the government also began to look for possibilities of making more land available to the Akafuba of Machakos. Efforts to persuade White settlers in the district to allow the Akamba to lease unoccupied land in the White Highlands for a period of ten years were however unsuccessful. The settlers pointed out that they had been warning the government of the stock problem for nearly twenty years and had not been listened to. They therefore said they did not see why they should sacrifice their land to save the government from its mistakes. They further argued that the Akamba would not only ruin any additional land given to them but may eventually refuse to move out. Indeed, one settler lamented that settlers had given up the Yatta Plateau and were now being asked to surrender another 60 square miles of their land (KNA/DC/MKS 12/4/1). In short, the administration's request renewed the fear the settlers had held all along: that Kamba livestock was a threat to the land held by settlers in the district. It is because of this fear that the settlers had been urging the government to reduce Kamba livestock since 1918 (Kenya, 1933:1270).

17. Many informants told of widespread corruption involving confiscation of stock and closure of land to cultivation.
The administration also became interested in the Makueni area. In December 1938, a team made up of a senior agricultural officer, a geologist, an entomologist, a water engineer and an assistant agricultural officer conducted a one-week study of the area with a view to preparing a report on the possibilities of tsetse fly eradication and improvement of water facilities. This would enable the government to plan a comprehensive scheme and apply for the necessary funds from the CD fund. However, the outbreak of the war in 1939 postponed the development of the area until funds became available after the war. But how had this area become uninhabitable?

4:7 Tsetse Fly and Wildlife Menace

The connection between bush, tsetse fly and wildlife in Africa has been the object of much study (see Deshler, 1972; Ford 1975; Kjekshus, 1977; Sindiga, 1981; Vail, 1977). It is generally believed that bush provides a suitable habitat for both tsetse fly and wildlife. In turn, wildlife provides sustenance to tsetse fly and acts as a reservoir of trypanosomiasis, a disease which is transmitted by tsetse fly to livestock and human beings. On the whole, the spread of trypanosomiasis in Africa is a form of ecological collapse traced back to the ecological catastrophes of the late nineteenth century and reinforced by subsequent colonial policies.

Tsetse fly first appeared in the Makueni area in about 1900; that is, after the human and animal epidemics of the late nineteenth century. Thereafter, prohibitions against the hunting
of wildlife and burning of bush encouraged the expansion of the wildlife-tsetse fly zone. This expansion was mainly at the expense of human habitation. For example, in 1933, the elders of Kaumoni Location appealed to the administration to grant them land in Mbitini Location because half their land had been rendered unfit for livestock by tsetse fly. It was then discovered that expansion of the wildlife-tsetse fly zone had been causing depopulation in parts of Nzau, Kisau and Kibauni locations, thereby causing concentration of human and livestock populations into smaller and smaller areas of these locations (KNA/DC/MKS 1/4/9:118; Ngao, O.I. 1990).

Besides serving as a reservoir for trypanosomiasis, wildlife is also known to spread diseases such as rinderpest, foot and mouth disease and East Coast fever to livestock. Indeed, people living on the fringes of the tsetse fly-wildlife zone in the 1930s associated a disease they called Amila with buffalo ticks (KNA/DC/MKS 1/4/9:118). Moreover, the carnivores attacked livestock while herbivores destroyed crops, thereby making agriculture in the areas bordering the zone a risky undertaking. Interestingly, the government did little to protect the people and their stock from the menace. In 1943, the D.C. observed:

Either the big game must go, or the people must go. In this District for the last few decades it has been the people who have been giving way....The Akamba think that the Government preserves the big game in this area which is easily accessible and conviniently near Nairobi for hunting parties at their expense

18. The tsetse fly in southern Machakos was mainly Glossina longipennis and very few Glossina Pallidipes, and did not spread human trypanosomiasis (KNA/DC/MKS 1/1/30, 1952:29).
It is therefore not surprising that the southern locations were often short of food and many animals died annually from diseases. To make matters worse, livestock was only protected against rinderpest. Even then, due to the destocking campaign, it was government policy from 1931 that "only fit and fine animals would receive inoculation [against rinderpest]" (KNA/DC/MKS 4/9: 131). Consequently, the reserve lost large numbers of livestock from disease and starvation in the 1930s (Table 12). All in all, one wonders whether the claim that Kamba livestock had increased during the colonial era, due to western veterinary services, was not a coverup for unequal distribution of land between the Akamba and White settlers in the district.

Table 12: OFFICIAL EXPORTS OF HIDES AND SKINS, 1934-37

<table>
<thead>
<tr>
<th></th>
<th>1934</th>
<th>1935</th>
<th>1936</th>
<th>1937</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hides</td>
<td>9,272</td>
<td>13,613</td>
<td>27,160</td>
<td>32,482</td>
</tr>
<tr>
<td>Skins</td>
<td>4,280</td>
<td>8,914</td>
<td>24,690</td>
<td>48,530</td>
</tr>
</tbody>
</table>


It was not until 1939 that some protection of crops against wildlife started. It was then reported:

Elephants caused much damage to crops in Kikumbuliu, and the Game Department found it necessary to have some of them shot. Rhino were also a nuisance in Nzaui (KNA/DC/MKS 1/1/29, 1939:12).
Needless to say, such services were sporadic for the Game Department, like other departments, was grossly understaffed. Most of the staff consisted of scouts who arrested poachers but had no authority to kill marauding animals. Thus, wildlife was well protected but the people's property was not.

An officer who toured the tsetse fly zone in 1933 noted that in spite of its agricultural potential, the only economic activity in practice there was bee-keeping. He observed that the region had ample water resources and that farms on the fringes of the zone had twice as heavy crops as those in the rest of the reserve. But his recommendation was:

Until the fly infestation is removed it [the area] is not likely to be settled by natives, and it is doubtful whether such settlement is to be desired until native methods of agriculture and animal husbandry have been improved (KNA/DC/MKS 4/9:120).

The administration therefore regarded the tsetse fly and wildlife infestation as a blessing in disguise as it protected the land from the 'predatory' agricultural practices of the Akamba. However, by the early 1940s, the administration had began to appreciate the negative impact colonial policies had had on the Kamba land-use system. In 1943, the Agricultural Officer warned:

[Such] land as is available is steadily decreasing owing to the spread into occupied areas of thorn bush belt with tsetse fly, big game and other pests which follow in its wake. In addition to the spread of the main thorn bush belts many overgrazed areas have to a serious extent, turned over from grass to bush land (KNA/DAO/MKS 1/59).
By 1939, the consequences of the articulation process in Machakos were already manifest. Besides population pressure (emanating from land alienation and expansion of the tsetse fly-wildlife zone), the dual policy pursued by the colonial state in the 1920s and 1930s accelerated land degradation. Basically, the policy required Kenya Africans to contribute to the development of the colony by either working for wages or by producing marketable crops and livestock/livestock products (KNA/DC/MKS 25/3/2:272). But the Akamba, like most Kenya Africans, were averse to wage labour and preferred to raise money for various needs through commodity production. This resulted in extensive plough-cultivation, maize monoculture and overstocking, all of which accelerated environmental degradation.

Thus, government intervention in Kamba agriculture in the 1920s and 1930s centred on land reconditioning measures instead of agricultural development. The attempt to enforce compulsory culling of livestock was vehemently resisted by the Akamba for various reasons. First, it was a negation to a growing desire to accumulate wealth. Second, the prices offered for the stock amounted to primitive accumulation in favour of European capital. Above all, reduction of stock threatened the economic and subsistence bases of the community as livestock was the last buffer against famine in the existent level of technology. Interestingly, failure of the destocking campaign led to the 'dissolution' of communal grazing and promotion of individual land tenure. This development had diverse effects on the community as chapter 5 shows.
The 1939-47 period appears to have been the climax of agrarian problems in colonial Machakos. During those eight years the reserve experienced a perpetual food crisis due to a number of interrelated factors. These factors were mainly related to ecological degradation and the situation created by the Second World War.

On one hand, the ecological degradation which had been going on since the imposition of reserve boundaries now reached crisis proportions. This was manifested by scarcity of pasture for livestock and recurrent crop failures due to soil exhaustion. On the other hand, conditions created by the war, such as withdrawal of labour and other resources from the Kamba economy increased the society's vulnerability to fluctuations in rainfall. This was the state of affairs in 1944 when the Agricultural Officer commented:

Famine conditions are becoming a more normal than abnormal state for Machakos and are likely to continue so until the people and stock conditions can be relieved, and until the people have adopted good farming methods (KNA/DC/MKS 8/4:26).

This chapter therefore highlights the factors which made famine a way of life in the Machakos Reserve in the 1940s. First, the state of Kamba agriculture at the time is analysed. Second,
two famines which occurred in that period are discussed. Finally, the impact of the agrarian crises on government policy and the response of the Akamba to the policy are examined.

5:1 Agrarian Change, 1939-46

In general terms, Kamba agriculture in the 1940s was deteriorating fast. One clear indication of the problem was an increase in migration of people and their stock to places outside the reserve. In fact, by 1944, one could talk of a 'diaspora' of Machakos Akamba in Kitui, Mwea, Taveta, Kajiado, Meru and Mukuu (on the slopes of Mount Kilimanjaro in Tanzania).

In most of these areas, the migrants acquired land for grazing and cultivation through secret arrangements with the local communities. For example, numerous families from Mwala, Kibauni, Kiteta, Kisau and Masii locations which settled in Migwani, Matinyani and Mutonguni locations of west Kitui between 1938 and 1944 paid 'rent' to the host chiefs (KNA/DC/MKS 15/1:37). Those who migrated to the Kinna area of Meru District also paid money "to the local chiefs in order to achieve their rebirth into the Meru tribe" (KNA/DC/MKS 1/1/33, 1956:7). Likewise, Kamba migrants in Kajiado acquired land for cultivation and pasture in return for work done for their Maasai hosts (KNA/DC/MKS 15/1:282). In short, shortage of agricultural land in the Machakos Reserve and the deterioration of squatting conditions in neighbouring European farms led to the emergence of Kamba squatter communities in neighbouring districts.
However, these migrations caused a lot of concern to the district administrators of the host areas. In almost all cases, the migrations had been halted by 1944 and the migrants were being pushed out. The Kitui case, which involved hundreds of Machakos Kamba families with about 20,000 head of cattle, was the most notable. Fearing that the immigrants would extent the problem of soil erosion into his district, the Kitui D.C. stopped the movement in 1944 and threatened to evict the migrants and their stock. This sparked off a heated debate between the Kitui D.C. and his Machakos counterpart about the provisions of the Kenya Land Commission Report (1934) in respect to the movement of people of the same 'tribe' across reserve boundaries. Eventually, the P.C. for Central Province ended the debate by ruling out that all post-1940 migrants and their livestock be repatriated to Machakos. This resulted in the repatriation of 299 families and their 2,767 head of cattle, 5,589 goats and 1,668 sheep at a time when the Machakos LNC was renting pasture from the Kikuyu in Yatta B1 (KNA/DC/MKS 15/1:88-148).

Although emigration of Machakos Akamba had been going on at a small scale before the mid-1930s, several factors accelerated the movement in the subsequent period. First, the enclosure movement encouraged by the Agricultural Department from 1936 denied many landless stock-owners access to pasture. Paradoxically, most owners of large herds of stock were salaried people who invested their savings in livestock though they did not own land. Thus, uninhabited land (weu) had disappeared in most of the reserve by 1938 and land in Iveti, Kangundo and Matungulu sold
for Shs 50 or more per acre (Munro, 1975:203). Second, the enclosure movement resulted in cases of appropriation of common land by enterprising individuals. Consequently, some individuals lost their rights to pasture land (Mumo; Nzungi, O.I. 1990). Third, the destocking campaign of 1938 forced people to look for areas where they could take their 'excess' stock instead of losing it through forced sale. Finally, the general scarcity of pasture in the reserve, and the closing of denuded pasture land by grazing guards forced people to seek pasture elsewhere.

Another indication of a crisis in Kamba agriculture in the early 1940s was the problem of recurrent crop failures. To some extent, crop failures were not caused by poor rains. For example, in 1944, the Agricultural Officer lamented:

The effects of soil exhaustion have been most apparent, as on the rare occasions when a crop has been sown on new land, or on manured land there are excellent stands of maize whereas on the other areas it is stunted and beginning to wilt (KNA/DC/MKS 1/1/29, 1944:6).

Not only had cultivable virgin land become scarce but cultivation of such land had to be sanctioned by agricultural instructors after they were satisfied that it was properly terraced. The consequence was over-cultivation of fields, which resulted in stunted crops. Even hardy crops like millet and pigeon peas failed due to soil exhaustion (Kitua; Mbuva, O.I. 1990). The seeds germinated well and young plants grew perfectly and satisfactorily, but on reaching a height of two
to three feet, growth ceased and withering set in. Maize was particularly affected in this way (KNA/DC/MKS 8/4:258).

The use of manure could have eased the effects of over-cultivation, but its use was associated with a higher incidence of weeds in the crop fields, and therefore increased labour time (Mutiso, O.I. 1990). On the other hand, widespread use of manure was handicapped by the practice of keeping the bulk of the livestock in distant pasture lands (such as Yatta), a practice which was accentuated by the expansion of the area under cultivation in the reserve. By the early 1940s therefore only unusually good rains could produce a reasonable harvest.

As stated above, soil exhaustion affected maize more than any other crop. This situation, according to Miracle (1966:11-14), can be explained by three factors. First, maize exhausts the soil faster than any other cereal because of its large vegetative growth. It therefore requires a frequently fertilised seed-bed. Second, maize requires a deep and well prepared seed-bed. Finally, the crop has to be kept free of weeds throughout the growing period. All these practices are labour-intensive and most households in Machakos were still practising extensive agriculture in the 1940s. Consequently, widespread cultivation of maize and scarcity of virgin land increased the chances of crop failure. For example, in 1946, the Agricultural Officer reported:

Hundreds of acres of stunted and shrivelled maize plants may be seen throughout the district, with the exception of small areas in Kangundo, Mbooni,
Iveti and Kilungu complete desiccation has been widespread (KNA/DAO/MKS 1/58:186).

Surprisingly, incessant failure of the maize crop and vigorous anti-maize campaign by the Department of Agriculture did not reduce the desire to grow maize. A number of factors explain this anomaly. First, maize was a more saleable crop than other cereals (Bowles, 1979:202). It was not only in great demand for feeding African labour (in settler farms and elsewhere), but was sometimes exported out of the colony. Consequently, administrative encouragement in the pre-1942 period made maize more popular than any other cereal. Second, maize is more productive per unit area than other cereals (Miracle, 1966:207). Third, maize does not require bird-scaring as do most varieties of sorghum and millet. Nor does it require as much labour as do the other cereals during the threshing and food-preparation stages (KNA/DC/MKS 14/3/2:256). In short, the use of maize as food and a cash crop made it more attractive than other cereals.

Research in many Kenyan communities has shown that pre-European maize was small, low-yielding and not widely cultivated (Bowles, 1979:200). Where some maize was cultivated before colonialism, the colonial administration replaced it with white maize, which had a potential for export (KNA/DC/MKS 25/3/1:124). Under favourable condition, white maize was more productive than the older variety, but more susceptible to low rainfall. This is what the Machakos Akamba had come to realise by 1946 when the Agricultural Officer recorded:
There is an increasing desire amongst the people to change from white to yellow or even their old coloured maize which they declare rarely failed them (KNA/DC/MKS 1/1/30, 1946:168).

But the solution to the maize problem was not so easy. The Akamba needed money for tax, school fees and other needs. With a declining pastoral economy, maize seemed the only viable alternative, albeit a risky one.

Besides the problems of land degradation and over-reliance on maize mono-cropping, Kamba agriculture was also adversely affected by the Second World War. Perhaps the most demanding aspect was the withdrawal of labour from Kamba agriculture for service in the King's African Rifles (KAR) and for other forms of employment (see Zeleza, 1989b:147-50; Ochieng', 1988:30-31). For example, in 1945 there were 15,000 Machakos Akamba in civilian employment, a similar number in the KAR, and 821 conscript labourers in sisal farms in Thika. In short, over 50 per cent of the reserve's able-bodied men were out at work at any one time in the early 1940s (KNA/DC/MKS 1/1/29, 1945:5).

Undoubtedly, some of the recruits remitted some of their earnings to the reserve, and the money was used to purchase food-stuffs during the food shortages, but the absence of such labour power hindered the development of agriculture in the reserve. Indeed, this fact was lamented by the Agricultural Officer in 1943. He said:

This district more than most has been steadily bled for the military during the past three years of its
most active, energetic and often intelligent elements of the male population. [These] men are missed from the community especially where mixed farming development is needed (KNA/DC/ MKS 8/4:388).

Table 13 clearly indicates the situation of labour in the reserve by August 1945. The high percentages of medical rejects are an indication that there were generally few men for conscription in the reserve. Even the few who were available were unfit for work, possibly due to malnutrition. According to Throup (1988:67), 90 per cent of Kikuyu recruits during the war were rejected because of malnutrition.

Table 13: CONSCRIPT LABOUR, AUGUST 1945

<table>
<thead>
<tr>
<th>Location</th>
<th>No. Sent In</th>
<th>Medical Rejects</th>
<th>No. Accepted</th>
<th>% of Rejects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masii</td>
<td>137</td>
<td>72</td>
<td>65</td>
<td>52</td>
</tr>
<tr>
<td>Mwala</td>
<td>60</td>
<td>37</td>
<td>23</td>
<td>62</td>
</tr>
</tbody>
</table>

Source: KNA/DC/MKS 2/1/1:36.

The war also led to a partial suspension of the land reconditioning drive initiated in 1939. With large numbers of men out at work and most of the agricultural staff helping with the war effort, it was found necessary to suspend large scale reconditioning until after the war. Only closure of denuded land to stock and cultivation was widely practised during the war.

Communal terracing was introduced in the reserve in 1944 but this exercise proved unpopular. Not only was the work difficult but the reserve was also experiencing many agrarian
problems. Consequently, the government resorted to use of coercion as a means of inducing co-operation in soil conservation programmes. In 1944 the D.C. reported:

> Pressure has been applied in Iveti and Mbooni on terracing. The Ngelani people of Iveti have been slack, in consequence of which issue of [famine] relief was suspended. On Kilima Kimwe it was also found necessary to suspend relief for a week in order to stimulate work (KNA/DC/MKS 2/1/1:47).

The use of food as a tool for enforcing terracing at a time when food scarcity in the colony had made the government the sole distributor of food-stuffs undoubtedly alienated the people from the reconditioning drive. Similarly, closure of pasture land to stock without providing an alternative, and the resultant court cases and fines, caused a lot of resentment against the colonial establishment. Consequently, any form of government interference in land-use was viewed with distaste.

Concern with production of food-stuffs for the war effort, backed by the administration's belief that white farmers were more efficient producers than Africans, led to a concentration of productive resources in the settler sector (see Zeleza, 1989b: 148-50). As already stated, the colonial state used war time regulations to conscript labour for White farmers and other employers. In the Machakos Reserve, the state went further and concentrated veterinary services on the few white farmers in the district so that they could produce milk for the Nairobi market. This is ironical since the reserve contributed large numbers of livestock for the war effort at quasi-market prices (KNA/DC/MKS 8/
Indeed, the underdevelopment of the livestock industry in the Machakos reserve seems to have been deliberate. For example, in 1945, the D.C. commented:

Interest is being taken in dipping as carried out in Nyeri, but my own view is that stock improvement measures are useless until the essential requirements for proper stock maintenance - reasonable grazing has been met (KNA/DC/MKS 1/1/29, 1945:9).

Such views led to the neglect of the local veterinary school which could have produced veterinary instructors for the reserve. The very low wages paid to the graduates of the school made it unattractive to would-be students. Hence, the Veterinary Department remained grossly understaffed in spite of the significance of livestock in the economy of the reserve. Similarly, seed selection in experimental farms was neglected during the war due to "the great increase in special duties in connection with the Defence Regulations" (KNA/DC/MKS 8/4:391).

In spite of the general lack of state assistance to Kamba agriculture, some areas of the reserve achieved considerable progress. For example, in the Kangundo-Matungulu area some farmers not only started using manure in their farms but also paddocked their land and grew fodder crops. Some farmers in the area also began producing lucrative 'Indian' crops such as Bengal gram and Coriander. This shift from maize mono-culture to other 'cash' crops is perhaps explained by two factors. First, a 200-lb bag of Bengal gram sold at Shs 100 in 1944 (KNA/DC/MKS
compared to about Shs. 10 for the same quantity of African grown maize (Zeleza, 1989b:149). Second, the depletion of soil fertility by maize, and the consequent need to use manure to restore the fertility, required that farmers grew remunerative crops in order to compensate for the extra effort. Thus, at the height of the famine in 1944, the two locations sold 2,980 bags of Bengal gram (KNA/DC/MKS 8/4:202).

Similarly, production of fruits and vegetables was intensified during this period. In Iveti and Makindu, a variety of vegetables and fruits were grown under irrigation. Indeed, Iveti not only became the main supplier of straw-berries to Nairobi and the Kenya Orchard's fruit factory at Machakos but also exported straw-berries to Eldoret. In addition, large quantities of tomatoes, carrots, onions, guavas, grenadillas, brinjals, pawpaws, okra and chillies were exported daily from Machakos and Makindu at the height of the food crisis in 1944. By 1947, Matungulu Vegetable Company had won a contract to supply the army base at Mackinnon Road (KNA/DC/MKS 8/4:263). In sum, commercial agriculture expanded during the war period.

The adoption of intensive agriculture in the said areas shows a positive response to market incentives. However, production of cash crops tended to adversely affect the overall food position. Due to scarcity of cereals in the colony, and government restrictions on free trade in food-stuffs, producers of cash crops could not meet their food requirements through market mechanisms (see Bryceson, 1980).
Hence the food crises in the 1940s were most acute in the cash crop producing areas. The Agricultural Officer recorded:

The majority of food shortage complaints come from the more sophisticated areas.... A meeting of about 200 natives from near Machakos [Iveti] was held on 30th April [1943] complaining of food shortage and asking the D.C. to arrange for assistance (KNA/DC/MKS 8/4:38).  

Thus, food crises in Machakos District in the 1940s occurred within the context of a deteriorating ecology, war time conditions, and increasing commoditisation. These were accompanied by restrictions on trade in food commodities.

5:2 'Makovo' Famine, 1939-41

The famine, which started in earnest in September 1939 and ended in April 1941, was attributed to low rainfall in the 1938-40 period and an invasion of army worms in 1940. The most affected areas were "all the low-lying, eroded locations" (KNA/DC/MKS 1/1/29, 1940:2). These included Kaumoni, Kibauni, Kisau, Lower Mbooni, Nzaui and Kikumbulyu. However, by the end of 1940 famine conditions existed in most of the reserve.

Majority of the people relied on their livestock for survival. On the basis of the hides sold in 1939, it was estimated that 17,000 head of cattle were slaughtered for food or died of starvation in the reserve. About the same number were

1. 'Food assistance', like 'famine relief', generally meant provision of food by the government at cost price and not free food.
sold or found their way to Kikuyuland and other adjoining districts (KNA/DC/MKS 1/1/29, 1939:2). Although some of this stock moved out of the reserve on account of the destocking campaign, the greater number was sold because of the food shortage. The D.C. recorded:

People who had no ready cash sold cattle and goats in order to obtain money for buying maize, while many of these animals were slaughtered for food (ibid).

It is important to note that the figures cited above do not include sheep and goats, which were more readily sold or eaten during food shortages than was cattle. This fact notwithstanding, the official figures clearly demonstrate the society's reliance on livestock during food shortages. Despite the fact that livestock was causing environmental degradation, vulnerability to recurrent droughts made every family desire to have some stock (see Van Zwanenberg with King, 1975: Ch.5). Thus, the destocking policy was a paradox as the production system had not reached a stage where livestock herds could be dispensed with.

Prior to the famine, the reserve had been exporting food-stuff until July 1939 when exportation was prohibited. By December 1939, the district administration and local Indian traders were importing an average of 500 bags of maize daily for sale in the reserve. According to the D.C., the imported food cost the Machakos Akamba £8,000 a month (KNA/DC/MKS 1/1/29, 1940:2). However, some people could not afford to buy food and by January 1940 some 380 destitutes from Kaumoni, Kibauni, Kisau and Lower Mbooni were receiving 7 lb of food-stuffs per person per
week at the expense of the LNC. At the end of the famine the LNC had spent about Shs. 20,000 on famine relief (KNA/DC/MKS 1/71:16).

The effects of the famine on the population were diverse. At least two people had died from the famine in Nzaui by December 1939. By the same date, the famine was not only severe in Makindu but some people there did not have the means for buying food. Furthermore, the Machakos Medical Officer reported poor health among children in the eastern locations in April 1940 (KNA/DC/MKS 1/71:16:17). These difficulties notwithstanding, the D.C's comments at the end of the famine were:

It is difficult to understand how the Akamba continued to carry on without appealing to Government for assistance. I know of no other tribe ... which could have survived the lack of food so successfully and so cheerfully (KNA/DC/MKS 1/1/29, 1941:1).

Despite 'their problems', the Machakos Akamba fully played their role in the war effort. In 1940 alone, 'native' money subscriptions to the War Fund amounted to Shs 9,654; 3,282 slaughter oxen were obtained for the Supply Board; and the LNC 'enthusiastically' voted £2,500 towards the purchase of a fighter aeroplane. In addition, about 6,000 young men voluntarily joined the KAR (KNA/DC/MKS 1/1/29, 1940:2).

But by the end of the war the Akamba could no longer overlook the dissonance of the colonial situation. They bitterly questioned the morality of a government that expected their
co-operation but ignored their problems. The following extract about a councillor's address to a 1946 LNC meeting attended by the P.C. for Central Province is an example:

He [Chief Kalovoto Seke] said that the Wakamba, who had recently been asked to assist to fight a war of freedom, were now little better than slaves and were continually being fined and punished for trespass on land they rightly considered they could claim. He suggested Government should bring down [sic] cannon to shoot them as this would be preferable to living in continued slavery (KNA/DC/MKS 5/1/4:89).

One significant aspect of the Makovo Famine was the number of young men who voluntarily joined the KAR and other forms of employment during this period. While conscription was the common method of recruitment in other areas of the colony, most Machakos Akamba joined the KAR voluntarily. Economic conditions in the reserve had become so difficult that by the end of 1941, 12,000 young men were in some form of military employment (KNA/DC/MKS 1/1/29, 1941:4). In fact, the word Makovo means soldiers and therefore underlines the connection between the employment opportunities created by the war and the concurrent food shortage.

Besides military work, another 12,151 men were in civilian employment in 1941 (ibid). In a bid to escape a famine, the Akamba may be said to have caused the possibility of another food shortage by creating a shortage of agricultural labour in their reserve. But as the following discussion shows, the situation was not a simple vicious circle.
This is not only the longest recorded food crisis in Machakos District but is also unique in many ways. For example, unlike in previous cases when famine started in the low-lying areas, this one started in the cash-crop producing areas of Kangundo, Matungulu and Iveti. People in these location, and in most areas of the reserve, had been induced to sell most of their surplus food by high war-time prices when the short rains of 1942 failed. This excessive sale of food-stuffs occurred in spite of the Agricultural Officer's advice against exportation of large quantities of produce from the reserve because of what he called a general impoverished condition of the land and "shortage of native man-power owing to extensive recruitment for military and civil production" (KNA/DC/MKS 8/4:408).

Therefore, after three seasons of adequate rainfall (in 1941 and 1942), the failure of the short rains in November 1942 plunged the reserve into a food shortage from which it did not recover until April 1947. For the whole of that period, food imports fluctuated with seasons, declining during 'harvest' time and rising in the intermediate periods.

Initially, the government was unable to supply adequate food mainly due to food scarcity in the colony. The only food-stuffs the government offered in the early stages of the famine was cassava flour, but the people were reluctant to accept it. The Akamba do eat raw or boiled cassava tubers but not porridge made from cassava flour. Apparently such porridge caused its consumers various digestive disorders. Consequently the flour was nicknamed mututukya, Mukua-ikuthu, Munyoloko-pesi etc. In Kangundo-Matungulu area the famine is known as Munyoloko-pesi.
Consequently, the search for food within the reserve began in early 1943. People travelled great distances to remote markets to buy such food-stuffs as beans, pumpkins and pigeon peas. Some people bought as much food as they could carry and sold some of it in their home markets. As a result, prices of food became exceedingly high although food was still available in practically every market by April 1943 (KNA/DC/MKS 8/4:362). In other words, the profit motive intensified the scarcity of food as those with low incomes found the prices too high to afford.

By May 1943, some people had began searching for food outside the reserve. Generally, people in the eastern locations sought food in Kitui while those in the southern and northern locations sought it in Taveta and Kikuyuland respectively. But why these areas? Definitely, Kikuyuland has more favourable climate than Machakos and Taveta is better endowed with irrigation land (marshes) than Machakos, but Kitui is not superior to Machakos in either way. Yet, Machakos people often sought food in Kitui during the colonial era. This anomaly was mainly a creation of colonial capitalism. For example, Kitui people were not subjected to stringent quarantine like their Machakos neighbours who shared a border with European settlers (Spencer, 1983: 119). Consequently, Kitui people were able to export livestock all the time and their land did not suffer excessive degradation as happened in Machakos.

Kitui District was also less affected by land alienation than Machakos. Hence the district was less affected by population
pressure and some of her people were able to practise shifting cultivation even in the 1940s (Kitua; Manda, O.I. 1990). For instance, people of Kya-inyia, Mandongoi, Ithookwe and Ilika (in southern Kitui) 'shifted' their crop fields every third season, thereby avoiding the problem of over-cultivation and stunted crops (Kanyau, O.I. 1990). Indeed, some people who migrated from Kibauni to southern Kitui (Musesya) due to the agrarian crises of the 1940s accumulated large herds of goats by selling food produced from virgin land (ibid).

Moreover, agriculture in Kitui was less affected by maize mono-culture than was the case in Machakos. In southern Kitui, hardy and fast-growing crops like bulrush millet and cow peas were the specialities. Even those people who sought food in the central highlands of Kitui told us that the food consisted of bulrush millet, nzavi beans, cow peas, sorghum and some maize and cassava (Mbuva; Mbuvi, O.I. 1990). In short, agriculture in Kitui was less influenced by settler capitalism and monetisation and her people could hold food stocks longer than their Machakos neighbours.

The general scarcity of food in the colony in 1943 had adverse effects on the Machakos Akamba. For instance, the Kikuyu and Kitui Akamba took advantage of the food shortage in Machakos by charging exorbitant prices. According to the Machakos D.C., a bag of maize was sold at Shs 60-120 in the two areas although the official price was Shs 10/80. The administration therefore reckoned that the Machakos Akamba were spending £10,000 on food
every month in 1943 (KNA/DC/MKS 1/1/29, 1943:1).

However, the issue of exorbitant food prices is a vexed question. Some of the people interviewed in this study were among those who sought food in the two areas and told us that food prices were fair. In most cases, food was not paid for in cash but was exchanged for labour or livestock. One informant who sought food in Murang'a during the famine told us that farm-work included digging and arranging maize stalks along contour lines to form terraces or *misonzo* (Mbuvi, O.I. 1990). In fact, the Agricultural Officer's report for 1943 reads:

> Wakamba go to Kikuyu and help in harvesting and cultivating and get maize in return for their work (KNA/DC/MKS 8/4:351).

The issue of prices aside, the government was not able to supply enough food to the reserve until December 1943. Inadequacy of food supplies therefore disturbed life in the reserve for most of 1943. As early as July, it was reported that many people in the reserve had been reduced to "foraging for the fruit of the indigenous trees, and the Masai custom of bleeding cattle [was] increasingly practised" (KNA/DC/MKS 8/4:355). Similarly, the search for food outside the reserve greatly affected agriculture in the reserve. The D.C. recorded:

> In a district like Machakos where the bulk of the able-bodied men are out in the Army or at work, the many thousands of people who are daily on the road fetching food from Kikuyu naturally resulted in the preparation of land for planting being unduly late (KNA/DC/MKS 1/1/29, 1943:2).
Thus, lack of vitality among the people and concern with the food shortage reduced the society's ability to recover from the food crisis. The use of imported maize as seed further affected recovery. Due to unavailability of local maize seed, most of the maize planted in November 1943 was the high moisture-demanding varieties grown in Kikuyuland and Nyanza. Consequently, the maize crop failed and the food shortage continued into 1944.

Sporadic army worm and locust infestations combined with problems already existent in the reserve to make 1944 "a shockingly bad year, probably the worst in living memory" (KNA/DC/MKS 8/4: 316-17). Bad conditions continued into 1945 and 1946 when crop failures were blamed on soil exhaustion, poor farming methods and maize mono-culture. For example, in January 1945 the D.C. lamented:

Notwithstanding the good rains crops are disappointing, and it is painfully clear that in most areas soil exhaustion has reached a pitch that it is no longer possible to grow reasonable crops (KNA/DC/MKS 2/1/1: 30).

On the whole, Machakos reserve was dependent on imported food from May 1943 to April 1947. Even in the best crop year, the reserve could not produce more than 25 per cent of its annual food requirements. Thus, 118,413 bags of food-stuffs were imported in 1943; 241,823 in 1944; 190,753 in 1945; 247,983 in 1946 and 31,558 in 1946 (KNA/DC/MKS 8/1:4; 8/4:7; 14/3/2:154). This food was delivered at locational centres by army lorries

3. Note that each bag weighed 200 lb (90 kg) and these figures are for official imports only.
and then chiefs, headmen and asili elders rationed it out to households. Indeed, the famine derives its name from the act of queueing (for rations).

Depending on the availability of food in the colony, food-stuffs such as maize, maize flour, cassava flour, finger millet, wheat, Irish potatoes and beans were supplied. However, the food-stuffs were usually of poor quality and gave the people digestive troubles. For example, a type of beans nicknamed Mbulung’ä, which was supplied in 1946, hardly cooked and caused diarrhoea (Mbuvi; Ngao; Ngundo, O.I. 1990). Some people therefore ignored the imported food-stuffs and sought better food elsewhere.

Notably, no free food was issued during the famine. But in late 1943 the government and the LNC started subsidising food imports. Henceforth, a 200-lb bag of maize or millet sold at Shs 10/50 in the reserve. In 1943, for example, food imports cost £83,082 which included government and LNC subsidies of £14,000 and £2,000 respectively (KNA/DC/MKS 1/1/29, 1943:7).

However, government subsidy for food was a fictitious claim. In reality, the people contributed livestock for the war effort and were supplied with food in return. Even then, evidence suggests that this arrangement amounted to unequal exchange imposed on the people by the colonial state. For example, the Agricultural Officer’s report for 1946 stated:

We do at present levy a contribution for Livestock Control of 50,000 sheep/goats a year and any
default is usually adjusted by threatening to reduce famine relief issue (KNA/DC/MKS 1/72:2).

The benefits of this primitive accumulation to the colonial state were manifested by the administration's insistence on collecting the levy even after the war had ended. This became a source of conflict between the LNC and the administration, especially in 1946. The administration argued that through the levy the Akamba supplied other parts of the colony with meat and received grain in return. But the Akamba were against this government-mediated exchange. They asked to be allowed to sell and buy in the open market. Indeed, members of the LNC cited instances when animals levied from the Akamba were sold to butchers in Nairobi and elsewhere at very high profits (KNA/DC/MKS 5/1/4:96). Despite vehement opposition, the government collected the levy until December 1946.

The levy was not only a form of unequal exchange but punished the poorest households. This was caused by a condition which required every household to pay its livestock quota before it was allowed to buy imported food. Thus, families without livestock were forced to buy goats at high market prices in order to meet this obligation (Mbathe; Mutyanzau; Nguta, O.I. 1990). In short, the government used the famine situation to acquire Kamba livestock at quasi-market prices, thereby impoverishing the society further.

Remittances to the reserve by the people in wage

4. The livestock quota was called King'ethu.
employment provided a useful income for buying food. O'Leary's (1984:43) observation that influx of military remittances into Kitui helped the people to survive famines in the 1940s equally applies to Machakos. Indeed, income from military sources alone exceeded the amount of money spent on food. For example, military remittances in 1944 amounted to £160,000 while the money spent on official food imports was £125,000 (KNA/DC/MKS 1/1/29, 1944:2,8). No wonder the D.C. commented: "Had it not been for military remittances the Akamba would be a tribe of paupers" (op. cit. p.5).

Nevertheless, the war time income was at the expense of the long term development of the reserve. On the whole, agriculture in the reserve deteriorated due to lack of labour. Moreover, majority of the soldiers were demobilised at the end of the war and returned to the reserve without any savings. Most of the soldiers had spent their incomes on the subsistence needs of their families and so returned to the reserve as unemployed people, while the few who had some savings invested in shops and transport businesses. In other words, the war time income did not break the vicious circle of poverty the Akamba were running away from when they joined the KAR in large numbers in the early 1940s. Hardly a year after demobilisation, most ex-soldiers were already seeking re-engagement and other forms of employment (KNA/DC/MKS 1/1/30, 1946:12).

An outstanding feature of the Mwolyo Famine was insufficiency of food supplies to the Machakos Reserve. This
was most acute in 1943 and 1946. As representatives of the Akamba told the Food Shortage Commission of Inquiry (1943), the prevailing food crisis was more acute than previous ones because of government restrictions on trade in food-stuffs. The representatives therefore appealed to the government to allow free trade in food-stuffs (East Africa Standard: August 2, 1943). Conversely, the government intensified its control on the movement of food-stuffs, a measure which precipitated another acute shortage of food supplies in 1946.

In a nutshell, government control over the marketing of African produce started with the enactment of the Native Produce Act in 1935, and was intensified after the creation of Maize and Produce Control in May 1942 (Fearn, 1961:156-66). As an exigency of the war, government intervention in food trade through Maize Control greatly distorted the trade. This occurred because Maize Control overtaxed African producers through collection of Agricultural Betterment Funds and Maize Export Cess (Munro, 1973:182). For example, in 1946, contributions to Betterment Funds reduced prices of African produce by 25 per cent while the same produce raised half of the total Maize Export Cess (op. cit. p. 42).

On the contrary, prices for European maize producers rose by 34 per cent at the beginning of the war. Then in 1942 and 1943, the level of support to them was boosted by another 23 and 38 per cent respectively (Miracle, 1966:142-43). This differential treatment of African and European maize producers
producers in food surplus areas prevented it from getting enough food-stuffs for distribution in deficit areas. The later areas therefore maintained their food supplies by buying it at black market prices. This is what happened between the Kikuyu and the Akamba. As a result of government intervention, a black market organised on the basis of the late nineteenth-century trade continued underground throughout the colonial era (Throup, 1988: 65-66).

It is important to note that the Second World War affected the settler and African sectors differently. Generally, the former prospered while the latter regressed. According to the Director of Agriculture, the productive capacity of the average acre in African areas fell by not less than 50 per cent during the war (Kenya, 1947: 37). In contrast, settler agriculture had its hey-day during the war. As an exigency of the war, the colonial state provided settler agriculture with credit, fertilizer, farm machinery, fixed prices in assured markets and conscript labour (Van Zwanenberg with King, 1975; Zeleza, 1989b). Prosperity of settler agriculture further affected African agriculture as mechanisation and closer European settlement led to the removal of squatters from the White Highlands (Heyer, 1981). All in all, the war had a profound impact on agriculture in African areas.

5:4 Post-War Agricultural Policies

By 1943, the colonial administration could no longer ignore the state of African agriculture. After many years of
neglect in the allocation of government resources, agriculture in African areas was now in a crisis. In addition to food shortages, population pressure and land degradation were quite evident everywhere. One observer said of the situation:

[British] trusteeship for the Africans had so far showed itself a lamentable, almost criminal, failure. The basis of African life and welfare was the land. If the productivity of the land was destroyed all must perish. Yet we had stood by and seen destruction proceed ... until widespread hardship and misery was inevitable ... (V. Liversage, quoted in Thurston, 1987:19).

The crisis was not only breeding misery in African areas but was also a threat to White settlement, and therefore the colonial system. In 1943, Colin Maher warned:

I cannot conceive of the existence of a complacent little island of Whites maintaining its integrity and prosperity should it be surrounded by ten million half-starved Africans (KNA/DAO/MKS 1/59).

In short, the agrarian crisis was now a 'national issue' and required an urgent solution.

Generally, the agrarian crisis in African areas was in two related forms. On the one hand, neglect of African agriculture and lack of land for expansion had led to over-population in the reserves. On the other hand, rural capitalism had created a landless class which was also dependent on agriculture. In Machakos District, for example, about 13 per cent of the population was landless in 1944 (KNA/DC/MKS 1/58:70) while over-population was estimated at 200,000 people in 1945 (Thurston, 1987:21).
Naturally, such a huge surplus population in a predominantly agricultural economy posed a big problem to the administration.

In the government's view, the crisis owed its origins to "the spread of individualism at the expense of the communal solidarities of pre-colonial Africa" (Throup, 1988:68). Consequently, the solutions proposed were resettlement of surplus population and restoration of communal feelings among Africans. In pursuance of the latter goal, the myth of an egalitarian 'Merrie Africa' was used in an attempt to reverse the process of social differentiation in African reserves. Thus, a so-called Bantu System of Work was applied in terracing programmes in Central Province (KNA/DC/MKS 2/18/1:199) while 'Group Farming' was started in Nyanza (Fearn, 1961:199-206). On the whole, a number of proposals were put forward in an attempt to solve the agrarian crisis, some of which antagonised the African populations.

In Machakos, the proposals for ameliorating the appalling conditions in the reserve intensified mistrust of government intentions to unprecedented levels. In general, the proposals engendered such insecurity among the population that it became almost impossible to implement the post-war development programme. Fearing that they would lose their land to White settlers, the people vehemently opposed overtures for agricultural development. By 1946, the situation was so complex that Sir Frank Engledow proposed forcible implementation of the development programme.

6. The Kikuyu too feared that their land would be given to European settlers under the Soldier Settlement Scheme after it was terraced (Throup, 1988:15). Similar fears were also expressed by Tanzanians (Iliffe, 1971:34).
failing which a red revolution would arise from poverty and hunger (KNA/DC/MKS 14/3/2:27).

Although group farming was never implemented in Machakos District, the Agricultural Officer proposed it in July 1944. He suggested the formation of group farms of 500-1,000 acres in the lowlands and 50-500 acres in the highlands. In December the same year, Governor Sir Philip Mitchell made an inspection tour of the reserve and later spoke in a radio broadcast. In the broadcast he not only declared January 1, 1946 the 'D Day' for reconditioning work in Machakos District but also said:

[The] Africans we are dealing with have not yet got far enough to be able to be full individual owners of land, with all that that implies. They have got to be tenants, so to speak, of some person or body who will have the duty of seeing that they use the land without destroying it; they are in fact today tenants of their own tribe collectively and we have got to base on that relationship an effective means of teaching them it no longer suffices to be a Mkamba in order to have the right to cultivate a piece of Ukamba (KNA/DAO/MKS 1/59).

To a people with a long history of individual system of land tenure, and who in 1936-39 had been encouraged to sub-divide communal pasture land, the proposals by the Agricultural Officer and the Governor were shocking. Consequently, two rumours emerged. First, it was said that the government intended to erect a barbed wire around each utui on the lines of Public Works Department camps. Second, it was said that on 'D Day' the Akamba were to be turned out of their reserve and the land given out to settlers.
The latter fear was given credence by the Governor's failure to specify the land authority to which the Akamba were to become tenants. The situation was aggravated by letters sent to the East African Standard by a section of the settler community. These stated that the only remedy to agrarian problems in Machakos was to move large numbers of the Akamba (minus their stock) to European farms (KNA/DC/MKS 14/2:26). Indeed, the D.C. was forced to appeal to the paper to stop publishing irresponsible articles (KNA/DC/MKS 1/59).

The idea of resettlement also generated a lot of insecurity. At a meeting of the Native Welfare Committee in April 1943, the government decided to redistribute population from over-populated areas. The Director of Agriculture therefore instructed Agricultural Officers to submit proposals on the number of people to be moved from congested areas of their districts in order to allow reconditioning of the land. In his proposal, the Agricultural Officer for Machakos proposed the removal of 17,000 people out of a population of 114,840 inhabiting three badly eroded regions of the reserve. These areas were a strip of 100 square miles from Kabaa to Kibauni, an area of 30 square miles in Muvuti location, and an area of 50 square miles in Mukaa and Mbitini locations. The surplus population in these areas was to be moved to Yatta and Makueni. This resulted in the fear that Makueni was to be given out to White settlers and the

7. The land authorities the Governor referred to were traditional land authorities such as utui elders (Ukambani), Muhiriga elders (Kikuyu), Njuri Njeke (Meru) or Liguru (Buluuya).
Akamba would go there as labourers. Consequently, it was remoured that any youth taking an identity card (Kipande) in 1945 had 'Makueni' entered in his 'tribal' particulars (KNA/DC/MKS 2/1/1:1).

Another source of insecurity was the huge sum of money the government proposed to spend in the post-war development programme. In March 1945, Colin Maher and R.O. Barnes estimated that the cost of reconditioning the reserve over a period of five years would be £596,478 (KNA/DAO/MKS 1/59). This money scared the LNC (later ADC) councillors who thought that the money would be a loan to the Machakos Akamba like the CD funds. In spite of assurances by the P.C. and the D.C. to the contrary, the councillors insisted that the Akamba be allowed to recondition their land using their own resources. They cited past cases where government officers had asked for land to be lent temporarily for alleged purposes of improvement but when the owners asked for the land they were told they could not have it back (KNA/DC/MKS 5/1:4:95-97). In short, the councillors and other 'leaders' feared that the government would take over the land after spending money on it. They therefore advised the people not to allow the government to recondition the land for them (Mumo; Nzungi, O.I. 1990).

The fear the people had for their land was demonstrated in Kalama in 1946. Due to lack of funds and manpower, the government did not implement the 'D Day' as scheduled. Instead the government established a gang of paid labourers to
demonstrate reconditioning methods to the people. The gang was put under the District Labour Officer and sent to Mumandu in Kalama Location, but old men and women defied it to dig terraces over their prostrate bodies (KNA/DC/MKS 1/130, 1947:2). The D.C. responded by suspending a similar programme for Matungulu Location, put the gang (Works Company) on road work, and recommended suspension of Betterment Schemes in the reserve and provision of famine relief at market prices (KNA/DC/MKS 14/3/2:27).

The Mumandu episode raises a number of important questions. For example, why was Mumandu chosen for the initiation of the scheme? Why was the gang led by the Labour Officer and not the Agricultural Officer? How committed was the D.C. to the reconditioning drive? Why did the people behave the way they did? The available information does not offer answers to these questions but the episode suggests a designed plan.

To begin with, Mumandu had been an area of dispute between the colonial establishment and the local people for a long time. For example, in 1920 Ulu Settlers Association claimed that part of Mumandu was their land according to a 1910 boundary adjustment between the reserve and the settled area (KNA/DC/MKS 1/4/6:244). In 1935, there were boundary disputes between the Forest Department and the local people. In protest, the people sent a deputation to the LNC complaining that they had been unjustly deprived of their land after they had been asked to plant trees on it (KNA/DC/MKS 5/1/3:348-49). It is therefore obvious that Mumandu people would be suspicious of a land-related
programme that had not been seen elsewhere in the reserve.

There are two possible reasons for starting the programme in Mumandu. On the one hand, the D.C. may have been aware of the possible reaction of the people, and so chose the area in order to demonstrate to his superiors that the Akamba were against the reconditioning drive. On the other hand, the LNC, which was staging a passive resistance with a view to forcing the government to provide the Akamba with additional land, may have been behind the issue. It is possible the LNC advised the people on how to treat the gang and then tricked the D.C. into sending the gang to that particular area.

In 1945 and 1946, the LNC was on the war-path for extra land concessions from the government. For example, in August 1945, the driest year on record (19.09 inches), the LNC sent appeals to the Governor for the provision of extra land. When he failed to respond, a deputation of LNC elders travelled to Nairobi to present their case before him. Similarly, the P.C. and the D.C. found it impossible to defend government land policy in LNC debates. LNC councillors, including chiefs, openly declared that they were tired of being told that the difficulties of the Akamba were on account of famine and lack of rain. They demanded to know why the government had not provided additional land, which to them was the sole solution to population pressure and recurrent famine (KNA/DC/MKS 2/1/1:32-37; KNA/DC/MKS 5/1/4:89).

In spite of the agrarian distress, the Akamba were not ready to accept additional land on government's terms. This was
made clear in a memorandum presented to Creech Jones (Under-Secretary for Colonies) in August 1946. Through their LNC spokesman, the Akamba said:

We object the imposition of rules in the planned areas for Africans. This is contrary to African customs and land tenures and we feel that this is an illustration of oppression. We welcome advice, of course, but resent controlled settlement schemes (KNA/DAO/MKS 1/39).

On Makueni Settlement Scheme, the memorandum declared that the government wanted to send Africans to the tsetse fly infested area in order to impede their progress. The memorandum therefore appealed to the government to buy out settlers and redistribute land fairly (ibid).

The stalemate between the Akamba and the government ended in 1947 after heavy rains in November 1946 ameliorated the agraria crisis that had existed for about eight years. But good weather conditions were not the sole cause of improved relations. The government also embarked on a large scale reconditioning drive involving improvement of water resources in the reserve. The government also started reclamation of land contiguous to the reserve for settlement and grazing schemes.

In retrospect, the 1940s were the climax of 'The Machakos Problem'. By 1940, there was no more virgin land in the reserve and opportunities for agricultural pursuits outside the reserve had come to an end. The consequence was over-cultivation and over-grazing, which resulted in recurrent crop failures and a dwindling pastoral economy.
Compounding the problem of a declining food economy were the excessive demands of the Second World War. The war not only mobilised Kamba resources (labour and livestock) for the war effort but also interrupted the channels through which the Akamba revamped their food supplies in times of shortage. Thus, government control over the movement of food-stuffs interfered with the free flow of food into Machakos at a time when such a flow was most necessary.

On the whole, the agrarian crises awoke the government to the social instability engendered by the articulation process. The now manifest landlessness and over-population in African areas was solely blamed on the capitalist class that had emerged in African reserves. Consequently, the government initiated measures such as communal agriculture in a bid to dislodge the growing capitalist class. However, the attempts to reverse the process of rural accumulation by 'reviving' some aspects of pre-capitalist agriculture did not succeed. On the contrary, government proposals for communal agriculture intensified the 'land question', a subject of increasing importance in post-war politics. The initiation of the post-war development programme somehow eased the tension in Machakos District for it provided additional land and left the rural capitalists undisturbed.
Agrarian policies in post-war Kenya were largely a product of the situation in the colony in particular and in the British Empire in general. Internally, there was an urgent need to stem over-population, scramble for land and general poverty in African areas in order to avert civil strife (Heyer, 1981: 100-101). Externally, Britain's desire to compete economically with America intensified Britain's interest in her colonies as areas of investment, markets for her products and sources of raw material/food-stuffs (see Cowen, 1982; Zeleza, 1985). The interaction between these two exigencies shaped Kenya's post-war development programme. Inevitably, the programme intensified the articulation of the Kamba economy with the expanding capitalist economy.

In a nutshell, the needs of the British economy in the post-war era raised her intervention in colonial economies to unprecedented levels (Aseka, 1989:385). Through the agency of the Colonial Development and Welfare (CD&W) fund, the British government initiated a variety of programmes which were supposedly for the welfare of the colonised people. In Kenya, for example, the Colonial Office allocated £3 million to the Development and Reconstruction Authority (DARA) for helping African reserves to recover from the land degradation they suffered during the Second World War (Odingo, 1971:166). This was the essence of the Ten
Year Development Plan (1946-55) in Kenya, a plan whose thrust was resettlement of surplus African population and reconditioning of damaged land.

As initially conceived, the post-war development programme in Kenya tended to interfere with the economic autonomy of African peasants without offering them commensurate benefits. Consequently some aspects of the programme such as controlled settlement schemes, group farming and communal terracing were vehemently resisted. For example, an attempt to settle landless Akamba in Makueni in groups of 20 families for group cultivation proved unpopular and the method was abandoned (Kenya, 1962b:40). Similarly, attempts to induce the Kikuyu to adopt group farming in the 1940s were a dismal failure (Clayton, 1964:28). Even the planned group farms set up in some of the densely populated areas of Nyanza Province in 1948 had almost disappeared by 1953 after the government withdrew support to them in 1949 (Aseka, 1989:351-52; Fearn, 1961:206).

Generally, opposition to the development programme proved to the colonial administration that Kenya Africans were not ready to adopt unprofitable agricultural practices. Consequently, the myth that"the African is essentially a community worker, with the advancement of his clan rather than his own personal gain at heart" had vanished from official thinking by 1950 (KNA/DAO/MKS 1/59). Hence, the Swynnerton Plan was inaugurated in April 1954 to encourage African production through economic incentives. In Swynnerton's words, every acre in Kenya was to be made productive for wealth was "urgently needed from
the African districts of Kenya" (Quoted in Bowles, 1976:127).
In other words, development meant intensification of commodity
production and therefore increase in taxable income.

The features of British agricultural policy in the post-war era were not unique to Kenya. In Tanganyika (Tanzania), the first phase of the policy emphasised the principle of soil erosion. This phase lasted until the mid-1950s when opposition to the policy led to the abandonment of most of the agricultural schemes. "[Unable] to stabilise the old African agricultural systems in the face of economic change", the government of Tanganyika "decided to throw them wide open to the forces of the market, so that they could be 'integrated into the world economy' to the fullest extent" (Iliffe, 1971:38).

On the whole, the post-war development programme was so pervasive that some historians have designated the era 'the second colonial occupation' of Africa. This era was marked by "a massive assault on the partial autonomy of the [African] cultivator" (Cooper, 1981:36). In that connection, this chapter analyses post-war food crises in Machakos District in the light of the changes engendered by the development programme. Specifically, the chapter assesses the impact of the programme on 'The Machakos Problem'.

6:1:0 Post-War Development Programme in Machakos District, 1947-63

As stated above, the DARA scheme in Kenya was initially concerned with the establishment of settlement schemes and the
reconditioning of land in African reserves. To implement the programme, a committee called African Settlement Board was set up in 1945. In 1946, the committee was renamed African Settlement and Land Utilization Board (ASLUB). Then in 1953 the committee's name changed to African Land Development Board (ALDEV). In all, the committee's name changed seven times before 1963. Each change of name emphasised a change in the committee's perception of the agrarian crisis in African areas and therefore a shift in the committee's approach to the problem. For example, by 1953 it had become abundantly clear that large scale resettlement of the African population was impossible due to lack of suitable land and other resources for establishing settlement schemes. Consequently, the Board changed its strategy from establishment of expensive settlement schemes to promotion of intensive use of the land already occupied by Africans (Cone and Lipscomb, 1972:91-96).

As Table 14 shows, Machakos was the greatest beneficiary of the ALDEV programme in Southern Province. In fact, the district was the greatest beneficiary of the programme in the colony (Odingo, 1971:168). However, the programme did not provide an immediate solution to the district's agrarian problems as we will see.

By 1947, the post-war development strategies for Machakos had crystallised into a clear policy. Both the idea of removing people from large areas in order to allow natural regeneration of the land and the introduction of communal
farming had been abandoned (KNA/PC/EST 2/1/14:49,78). It was now clear that the estimated surplus population of 200,000 people could not be easily resettled elsewhere (Thurston, 1987:21). It had also become officially accepted that it would not be easy to enforce communal methods of farming in the reserve for individual land tenure was already entrenched (KNA/PC/EST 2/1/14:49). Consequently, a new policy which incorporated these factors was formulated.

Table 14: ALDEV EXPENDITURE IN SOUTHERN PROVINCE, 1946-62

<table>
<thead>
<tr>
<th>District</th>
<th>Grant (£)</th>
<th>Loan to ADC (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machakos</td>
<td>1,414,039</td>
<td>41,000</td>
</tr>
<tr>
<td>Kitui</td>
<td>259,940</td>
<td>49,000</td>
</tr>
<tr>
<td>Narok</td>
<td>49,609</td>
<td>18,500</td>
</tr>
<tr>
<td>Kajiado</td>
<td>70,556</td>
<td>10,900</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,799,144</strong></td>
<td><strong>119,700</strong></td>
</tr>
</tbody>
</table>

*Source: Odingo, 1971:168*

The new policy had two basic objectives. First, the policy aimed at restoring the fertility of the inhabited areas and developing sound farming methods. In this regard, activities such as communal terracing, grass planting, closure of denuded land to livestock, tree planting, dam construction and the use of manure were promoted. The second objective aimed at opening up all uninhabited areas contiguous to the Machakos Reserve for permanent settlement by the Akamba. This involved the eradication of tsetse fly, provision of water resources and construction of roads in the
hitherto uninhabited areas of Makueni, Yatta Plateau, North Yatta and the southern parts of the district. All these projects made up what was generally known as the Machakos Betterment Scheme (KNA/DC/MKS 8/14:102-04).

The essence of the scheme was the mobilisation of resources by both the government and the ADC for the agricultural development of the district. For example, a Five-Year Plan approved by ALDEV in 1951 proposed the expenditure of £50,000 in 1952 and some £20,000 in each of the subsequent years. This plan included a mechanical unit of two D6 and three D7 tractors for reconditioning work, eleven Reconditioning Assistants and an agricultural field staff of 570 people (KNA/DC/MKS 1/1/30, 1952:14, 20, 25). In short, implementation of the plan in 1952 amounted to the climax of 'the second colonial occupation' in Machakos District. Unlike in the previous period, Machakos had more agricultural officers than any other district in Central Province. While Embu, Murang'a, Kiambu, Meru and Kitui had ten, five, four, three and two European agriculturalists respectively, Machakos had eleven (Throup, 1988:215).

Consequently, from 1947 to 1959, most of the district was subjected to enforced agricultural change. The large supervisory staff deployed by the government teamed up with chiefs, utui councils and locational councils to enforce land reconditioning rules enacted by the ADC. In 1958 the D.C. reviewed the development programme thus:

The reconditioning of this once devastated district has inevitably impinged on the individual rights of
the Kamba peasant who has willingly contributed his time and money to clan development projects on schools, roads, bush clearing and soil conservation; he has limited his stock on his pastures; he has dedicated hill-top grazing to ADC afforestation schemes. The benefits of these efforts can be seen everywhere in improved harvests and pastures and in the increased volume of permanent water in springs and streams (KNA/ DC/MKS 1/1/34, 1958:1).

As demonstrated hereafter, the Kamba peasant did not make the said contributions voluntarily, nor were the benefits as great as alleged. In fact, a variety of mechanisms were used to control every aspect of peasant agriculture. Consequently, prospects of political independence in the early 1960s caused the peasantry to abandon some of the introduced agricultural practices. From 1959, passive resistance to enforced agricultural practices turned into active resistance, a transformation which was widely misinterpreted by the colonialists as an indication that Africans expected political independence to bring them free things.

6:1:1 Mechanisms of the Development Programme

Among the mechanisms for controlling the peasantry were ADC resolutions. The once combatant Machakos ADC had now become collaborative and passed a series of resolutions which made Kamba peasants open to government pressure. For example, in 1947 the ADC resolved that no land would be cultivated before it had been terraced. The ADC also empowered Native Tribunal Courts to impose fines on those peasants who refused to carry out terracing work. A first offender paid a fine of Shs 10 while second and

1. The ADC had either accepted enforced agricultural transformation or the resolutions were imposed on it by the administration (see Cliffe, 1972).
third offenders were fined Shs 15 and Shs 30-100 respectively. In addition, the ADC ordered chiefs to keep rotas on reconditioning work in their locations (KNA/DC/MKS 5/1/4:15). Then in 1953 the ADC passed a soil conservation by-law to the effect that "nobody should plant more than half his arable with maize, or allow his cattle to graze out of their stalls during the four dry months of the year" (KNA/DC/MKS 1/1/31, 1953:22). In sum, ADC by-laws pervaded every aspect of agriculture in the reserve.

Another mechanism which resulted in a closer control of the peasantry was the decentralisation of administration. Both the so-called Native Authorities and the district administration were expanded to include sectional councils in case of the former and District Officers (D.Os) in case of the latter. A sectional council consisted of one elder from each utui in a section, and its role was to assist and advise the headman or musili. Similarly, a locational council consisted of one elder from each section in a location. It assisted and advised the chief.

While proposing the new structure of 'native authorities' to the ADC in December 1948, the D.C. counselled that the new councils would "give the people a greater voice in their [own] affairs" (KNA/DC/MKS 5/1/5:50). However, the new councils turned out to be instruments of the colonial administration rather than embodiments of the people's will. Through the councils, most of the goals of the administration were realised to the extent that in 1954 the D.C. wondered how the administration of the district had been possible without these wonderful institutions. According to him, the most progressive locational councils did not hesitate
to issue instructions which a European Officer thought over three times. For example, some councils told peasants, "unless you plant your eroded land with trees next rains, we shall take it off you and give it to the ADC who will do it for your" (KNA/DC/MKS 1/1/32, 1954:5).

To a large extent, the locational councils became the executive arm of both the ADC and the government. For instance, in 1954 the ADC passed a by-law in which locational councils, with the advice of locational agricultural officers, could give each land-owner in a location a written order stipulating how many cattle, sheep or goats he could keep in his holding. Hailing this as an important development, the D.C. commented: "Stock limitation must be done through the Kamba themselves, or it will not get done at all" (KNA/DC/MKS 1/1/32, 1954:4). As expected, the ADC stock limitation by-law received the approval of the Minister for Local Government in 1955. It read in part:

[No] occupier of agricultural land shall keep on his holding a greater number of cattle than the Locational Council considers the holding can carry without detriment to its well-being and fertility (KNA/DC/MKS 1/1/33, 1955:2).

The significance of locational councils in enforcing government measures becomes very clear when it is considered that the councils were led by chiefs, people who were under administrative pressure to enforce reconditioning measures. According to Thurston (1987:28) and Throup (1988:144-64), the efficiency of chiefs and headmen in Murang'a District in the 1940s was judged by the amount of soil conservation the people
under them performed within a specified period of time. The same is true of Machakos District. For example, in 1947, the most illustrious chiefs (according to the D.C.) were Mutinda of Masii, Uku Mukima of Matungulu, Muthoka of Kisau, Mukonzo of Kilungu and Ndivo of Kibauni. These were the locations which led in reconditioning activities (KNA/DC/MKS 1/1/30, 1947:5).

In 1950, chiefs Jonathan Kala of Kangundo and Mutuku of Nzaui were forced to resign due to what was described as "absence of reconditioning work" in their areas (KNA/DC/MKS 1/1/30, 1950:7). At the same time, Uku Mukima received a Certificate of Honour from the Chief Native Commissioner for his outstanding performance in reconditioning activities (ibid). It is therefore likely that the chiefs pressurised the locational councils to make decisions that favoured the administration's objectives on reconditioning. These objectives were not necessarily for the people's welfare.

The other major form of administrative control was the establishment of sub-stations or divisions under district officers. Indeed, the administrative structure of divisions in Kenya started in Machakos in September 1951 when Jim Pedraza was posted to Kangundo as a District Officer. By the end of the year, three other sub-stations had been set up in Kithimani (Yatta), Iveti and Makueni (Thurston, 1987:67). The following comments made by the P.C. for Central Province in 1952 leave no doubts about the objectives of this new administrative structure.

There is no doubt that the policy has paid handsome dividends, as a glance round the agricultural work will show, not to mention the improvement in law
and order and the generally cheerful co-operative spirit of the people (Quoted in Thurston, 1987:68).

The Machakos D.C. was even more emphatic when he said:

The results of the sub-station system are almost magical - rather like uncorking a small bottle and watching a small genii [sic] come rushing out. In security, in agrarian betterment, in education, in almost every sphere we have seen the sudden surge of progress that comes when officers are placed in close contact with the people, and a mutual confidence and good will exists between them (KNA/DC/MKS 1/1/32, 1954:15).

According to Huxley (1961:190-91), decentralised administration proved so successful in Machakos that it was adopted in Kikuyuland after the outbreak of the Mau Mau movement.

A more subtle mechanism of control was through propagation of social welfare or community development activities. Starting in a small way in 1947, the programme expanded to embrace a full-scale team of social workers under an Assistant D.O. (John Malinda) in 1954. Although the team was meant to change the people's whole way of life, its activities were biased towards reconditioning work.

Through appeals to communal efforts, the team led the people in grass planting, paddocking, planning of holdings and homesteads, cleaning up of markets, making latrines, building cattle sheds and bench terracing. More significantly, the team preceeded the mechanical unit as a means of preparing the people of a particular area to accept the unit in their area. This was necessary because some people viewed the mechanical unit as the
thin edge of the wedge of White settlement. Some people feared that if they allowed their land to be reconditioned by the mechanical unit, the land would be taken from them and handed over to White settlers. The community development programme therefore served as an ideological weapon for the reconditioning drive.

On the whole, the post-war development programme had its ideological basis in Social Darwinism. This was clearly spelt out by the Machakos D.C. when he said:

[Our] object...is to carry the Kamba from their primitive poverty to a way of life, social behaviour, and moral standards based on those set by the migrant community (KNA/DC/MKS 1/1/32, 1954:3).

However, the administration's belief that it knew what was best for the Akamba led to conflicts which hindered the success of the programme.

6:1:2 Obstacles to the Development Programme

Perhaps the most successful aspect of the reconditioning work was the input of the mechanical unit. After a brief period of suspicion, the unit became accepted and constructed numerous dams in the district and also carried out bench demonstrations. However, most of the reconditioning work was done by the people through communal effort.

Communal reconditioning work started in 1944 and was intensified in 1947 after the formation of utui councils. These
village-based councils were charged with the duty of safeguarding the land by sponsoring communal terracing. But the attempts by the colonial administration to use indigenous Kamba institutions such as Mwethya work-groups and utui councils of elders in perverted contexts were not very successful. For example, in 1949, it was reported that utui councils of elders were non-existent in the 'more sophisticated' northern locations where the voice of the elders was drowned in the clamours of educated youths (KNA/DC/MKS 1/1/30, 1949:8).

Even in areas where there was less interference from insurgent youths, communal work was not popular. This was mainly because the traditional institutions on which it was based had been emptied of their social and cultural meaning in order to serve colonial objectives (see Zeleza, 1989a:51). Traditionally, mwethya was a work-group for people of the same age-group or sex, and participation was voluntary. On the contrary, the communal work organised by the colonial administration for reconditioning activities forced parents to work alongside their grown-up children and even in-laws. Sometimes people were coerced by the supervisors in the presence of their children and people they respected, thereby feeling humiliated (Kanyau, O.I. 1990). Similarly, in the traditional setting elders resolved conflict among the people and had no business in organising communal work let alone using coercion to enforce participation in such work.

Attempts to organise communal work along clan lines were also unsuccessful. While one was willing to participate in communal terracing before his land was terraced, he lost interest
in the work once his land was terraced (Huxley, 1961:197-98).
In short, communal work was based on a misplaced idea.
Consequently, the government resorted to coercion so as to keep communal work going.

However, communal work and coercion were not always necessary for adoption of new agricultural techniques. As early as 1947, it was noted that farmers in 'cash crop' producing areas were already advanced in their agricultural husbandry. Even forms of production that were very demanding in terms of labour (such as bench terracing) were easily adopted in areas where the returns were worthwhile. For example, in 1952, the Agricultural Officer reported:

Onion is a cash crop of increasing export value, and much favoured by the growing band of bench enthusiasts. Some Kangundo growers made impressive profits during the year (KNA/DC/MKS 1/1/30, 1952:16).

Thus, areas like Kangundo, Matungulu, Masii and Kalama intensified their farming methods long before the official introduction of cash crops in 1953. Prior to that date, proximity to markets and favourable climate induced farmers in these areas to adopt new agricultural techniques in the production of vegetables and maize. Conversely, majority of the farmers in the reserve stuck to the old methods of production. In 1951, the D.C. noted:

The Northern Locations of the district - notably Kangundo and Matungulu - are generally advanced in standard husbandry ... The people in the less favoured areas are apathetic and backward because
they see no future in industrious working of land which appears to be unable to give them a living (KNA/DC/MKS 1/1/30, 1951:17).

The introduction of economic incentives in 1953 as a means of intensifying African farming accentuated the regional difference existent in Machakos District. The production of lucrative cash crops such as coffee, provision of credit and extension services to farmers, and the formation of co-operative societies were started in the northern locations and other hill areas in 1953 (KNA/DC/ MKS 1/1/31, 1953:26). At the same time, private companies such as Thika Canners Limited and Kenya Orchards Limited moved into the northern locations to encourage production of green beans, pineapples and a wide variety of vegetables and fruits for their industries (KNA/DC/MKS 1/1/32, 1954:4). Since no lucrative cash crop was available for the lowlands, the package of economic incentives was not extended to these areas and agricultural development there remained slow.

Lack of incentives also hampered change in the pastoral sector. For example, attempts to induce farmers to stall-feed their livestock was not very successful. Indeed, over 1000 silage pits and fodder Shambas in use in the northern locations in 1950 had all disappeared by 1954 (KNA/DC/MKS 1/1/33, 1955:23). Even after this discovery, the Department of Agriculture did not allow African farmers to keep grade cattle. Despite insistent demands, grade cattle were not introduced in the reserve until 1959 when 18 Sahiwals were supplied to approved farmers (KNA/DC/MKS 1/1/ 34, 1959:18). In other words, the pace of agricultural transformation was controlled by the initiators and the recipients
had no say in the matter.

In spite of the refusal to allow farmers to keep more productive livestock, the government continued to urge them to paddock their land, clear the bush and produce fodder, jobs which could not be rewarded by reduced herds of indigenous cattle (KNA/DC/MKS 1/133, 1955:23). Moreover, the government remained adamant in enforcing ADC by-laws on stock limitation and stall-feeding during the four dry months. This led to a bitter struggle between the administration and the people, especially in the lowland areas where herds were larger and scarcity of fodder during the dry months made stall-feeding impossible (Muindi; Munguti, O.I. 1990).

In the eastern locations, a D.O. called Nottingham (nicknamed Kanyenze) used the two ADC by-laws to seize and auction livestock (Manda, O.I. 1990). These activities generated a lot of heat in pre-independence politics. In 1959, the D.C. commented the following in respect of ADC agricultural by-laws:

During the year there has been widespread attack on this self-imposed discipline by would-be Kamba leaders - who have attacked government servants carrying out unpopular but necessary policies. Native Authorities - ADC, Locational Councils etc. were the object of attacks by politicians (KNA/DC/ MKS 1/1/35, 1959:1).

As colonial rule drew to a close, chiefs, agricultural field officers and others who had zealously enforced reconditioning measures became the object of intimidation. For example, Chief James Mutua of Kiteta Location, who, in 1954, had
been praised by the administration for "ruling with an iron hand", and therefore achieving much in reconditioning work, was physically assaulted in 1960 (KNA/DC/MKS 1/1/32, 1954:42; KNA/PC/SP 1/3/7, 1960:1). Even the ADC abandoned its earlier position and began to support the people in disobeying the by-laws. In 1960, for example, the ADC supported the people in Yatta in their refusal to pay grazing fees and arbitrarily reduced water rates in Makueni from Shs 30 to Shs 20 (KNA/PC/SP 1/3/7, 1960:12, 15). In other words, the native authorities had come to realise, albeit late, that those who supported the second colonial occupation automatically became the enemies of the people (see Throup, 1988:72; Vail, 1977:152).

Like the agricultural programme in the reserve, the settlement and grazing schemes were not very successful. Makueni, one of the most ambitious settlement schemes in the colony, had absorbed only 2,187 families at an average cost of £148 per family by 1960 (Odingo, 1971:169). This was only a small fraction of those who needed land. In fact, some 70 Kamba families who could not be accommodated in Makueni took up residence in Shimba Hills in Kwale District in 1958 (KNA/DC/MKS 1/1/34, 1958:3). Similarly, grazing schemes did not absorb as much stock as expected in spite of improved water facilities. All the same, the settlement and grazing schemes were useful in absorbing returning squatters and their stock.

Initially, Makueni Settlement Scheme was not only meant to resettle as many people as possible but also to serve as a model for improved farming. Would-be settlers were therefore
required to assent to a number of rules designed to operate the scheme. These involved stock limitation, restricted size of arable land, eviction of settlers, prohibition on fragmentation of holdings on the death of a landholder, size of holdings, crop mixtures, system of rotation etc. (KNA/DC/MKS 1/1/30, 1951:20). Since these regulations contradicted Kamba customs and traditions, the ADC refused to approve them even after they had been re-drafted three times. The council, which was supported by Jomo Kenyatta, then a member of ASLUB, and Eliud Mathu, a member of the Legislative Council, described the rules as harsh (KNA/DC/MKS 1/1/30, 1947:6). But the government, which had imposed similar cultivation rules in Olenguruone, refused to allow settlement without rules (Throup, 1988:126, 204). Eventually, the ADC allowed those willing to take up residence to do so. By the end of 1947, the scheme had 60 settlers.

Generally, the scheme remained unpopular in spite of the material support new settlers were given. Nevertheless, Makueni became an important destination for Akamba returnees and their livestock. Some of the squatters evicted from Nairobi and Thika settled areas following 'close settlement' and the decision to destock squatters ended up in Makueni. For example, in 1949, the D.C. reported:

2. New settlers and their families got free rations (food) until they became established. They also enjoyed free tractor ploughing. However, this policy changed in 1957 when a settlement fee of £5 and ploughing fee of £10 per new settler were introduced (Kenya, 1962b:42-43).
If Makueni had not been available to absorb some of the landless evictees and had not grazing been allowed in the south there might as well have been political trouble (KNA/DC/MKS 1/1/30, 1949:1) 

Similarly, 450 Kamba families repatriated from Kinna in Meru in 1955 settled at Makueni (KNA/DC/MKS 1/1/33, 1956:7).

Besides the unpleasant rules of the settlement, ecological factors also discouraged would-be settlers. Low rainfall, poor soils and trypanosomiasis made farming in Makueni a real struggle. Bush regeneration, which was encouraged by such factors as large holdings per family, the incidence of absentee landlords and the tropical climate, made eradication of tsetse fly almost impossible. By 1958, a drug-resistant trypanosome had appeared in the settlement area and some of the farmers had to do without manure despite the sporadic rainfall and predominantly sandy soils (KNA/DC/MKS 1/1/34, 1958:17). Settlers with over 20-acre holdings were therefore advised to sub-divide them and re-allocate the land to friends or relatives. In short, the initial situation made it impossible for settlers to control bush regeneration and at the same time practise sound farming methods  

There was also the problem of high taxation. On top of government and ADC tax rates, Makueni residents were also paying a water rate of Shs 30 each by 1960 (KNA/PC/SP 1/3/7, 1960:15).

3. The standard holding for a family of five was a 20-acre plot split up into 5 acres arable, 5 acres grazing, 5 acres fodder crops and 5 acres homestead. Except for the homestead, the other activities involved a 3-year rotation system and the grazing field was split into 1/4-acre paddocks (KNA/DC/MKS 8/14:102).
Although other areas of the reserve were also paying water rates for repaying ALDEV loans incurred by the ADC through improvement of water resources, the water rates were highest in Makueni. In fact, by 1957, the Machakos ADC was carrying more loan charges (in relation to its income) than any other ADC in the colony. As a result, Machakos people were also heavily taxed (KNA/DC/MKS 14/3/2:163). But the Makueni case was special because of the marginal nature of the area and the absence of a viable cash crop at that time. Commenting on the predicament of the Makueni peasant in 1959, the D.C. said:

The future will disclose whether the Kamba peasant farming in the settlement has sufficient energy and determination to face up to the struggle; even now settlers have thrown in their hand and moved elsewhere. Some have applied to return to the Kinna area in Meru (KNA/DC/MKS 1/1/34, 1959:16).

The other schemes in Yatta Plateau, North Yatta, Lower Makueni and Simba-Emali were mainly for grazing. However, ex-squatters preferred moving into the first two areas. Similarly, small groups of families from the reserve were allowed to settle on the Yatta Plateau on experimental basis. By 1953, 141 families had been settled near Matuu in 14 groups of ten families each. Each family was allowed 30 head of cattle and 21 goats in addition to six acres for homesteads and cultivation (KNA/DC/MKS 14/3/2:75). Although regulations in Yatta were not very strict, the people were "resentful of all forms of control and discipline, hence unco-operative" (KNA/DC/MKS 1/1/35, 1959:16).

4. Loan charges in 1957 were £107,550 and the tax rate was Shs 23 per adult male.
The grazing schemes were mainly supported by grazing fees collected from the beneficiaries by the ADC. For example, a grazing fee of 50 cents per head of cattle per month was instituted in Yatta in 1949 (KNA/DC/MKS 1/1/30, 1949:17). Only in Lower Makueni was £46,000 from Swynnerton Plan funds used to open up 180,000 acres to grazing over the 1954–56 period (KNA/DC/MKS 1/1/32, 1954:42). However, a widespread incidence of tsetse fly in Yatta and throughout the southern parts of the district severely limited the planned development of these areas. In fact, a grazing scheme in Makindu was abandoned in 1959 on the advice of the Chief Zoologist after the emergence of drug-resistant trypanosomes (KNA/DC/MKS 1/1/35, 1959:20–21).

Clearly, a lot of effort was expended on the post-war development programme in Machakos District, but the results were not as impressive. One explanation for this anomaly is that the efforts were palliative rather than developmental. In other words, most of the effort went into repairing the damage caused in the previous period of neglect. For example, a report on a tour of the district by Creech Jones in 1946 stated:

He drove mile after mile through hillsides and plains swept bare in many places to the solid rock, through areas where there was no vestige of grass, through acre after acre of dead and wilted maize... (Huxley, 1961:188–89).

Success of the programme was therefore measured in miles of narrow-base terraces, acres of bench terraces and acres of land closed to livestock rather than in higher volumes of production.

Moreover, the methods applied in implementing the program...
greatly impaired its utility as a forum for inculcating improved methods of farming in the Kamba peasantry. As Coulson (1977:76) observed about Tanzania, the staff of the Department of Agriculture were effectively turned into 'an army of policemen', inspecting farms and prosecuting offenders. Consequently, there was no reciprocity between the agent of change and its recipient as the new practices were imposed on the people without adequate explanations (see McLoughlin, 1970:12-16). This not only bred mistrust but also resulted in the use of expensive and ineffective methods while more effective alternatives existed. For example, it was not until 1954 that bush burning and some form of shifting cultivation were allowed as methods of countering bush regeneration in Makueni. This was done after expensive methods of bush clearing had been in use for many years. By the time burning was allowed as a method of dealing with the spread of the bush, tsetse fly had become a big problem in all the grazing schemes. In sum, most of the new agricultural techniques were irrelevant to the African context while the relevant ones were poorly introduced. It is therefore not surprising that nationalist politicians were able to gain massive support from the oppressed peasantry.

All the same, the post-war development programme succeeded in its goal of drawing the Kamba peasantry deeper into the circuit of international capital. Through the introduction of crops such as coffee, pineapples and green beans, highland Akamba began to produce for international markets. The Akamba also became tied to international capital through the loans given to the Machakos ADC by the government. As a result, the
Kamba peasant was staggering under tax burdens by 1960. It is against this background of 'changeless development' that post-war food crises in Machakos District are analysed.

6:2 'Njaa Ya Mkonje' Famine, 1949-51

After three recurrent reasonable harvests in 1947 and 1948, it became necessary to import food into the Machakos Reserve in mid-1949. By October 1949, the whole district was dependent on food imports, a situation which degenerated into famine conditions in 1950. Generally, the food shortage was attributed to low short rains in November 1948 and widespread drought conditions in 1949. However, there were other equally important factors.

One of these factors was increased cultivation of maize at the expense of other cereals. Cultivation of maize was implicated in the food shortage in several ways. First, maize had by now become a significant cash crop and attempts to hold surplus maize within the reserve were of little avail. For example, after good harvests in March 1947, the northern locations and parts of Iveti and Masii began to export maize illegally to Donyo Sabuk and Thika areas. "Some [people] were caught and prosecuted but the profits were worth the risk" (KNA/DC/MKS 1/1/30, 1947:2). The Maize Control Board, which could have bought and stored the maize in the district for future use, could not get

5. *Njaa Ya Mkonje* is the Kiswahili version of 'Famine of Sisal'. Sisal fibre was the chief source of income during the famine, hence the name. The Kikamba term is Yua ya Ngonge.
access to the maize because it offered lower prices than those offered in the black market (KNA/DC/MKS 8/4:232). Thus, "In spite of Tribal Police posts at Kangundo and Tala, a good deal of maize slipped out of this end of the district into the clutches of Black Marketeers" (KNA/DC/MKS 1/1/30, 1947:9).

Second, maize could only be stored for four to six months, even with the aid of Gammexane Dusting. In fact, some 7,000 bags which the Maize Board bought and stored in Machakos in 1947 was later exported to the United Kingdom as animal feed due to damage caused by weevils (ibid). Therefore, farmers with huge surpluses, such as one large landholder in Kiteta Location who produced a surplus of 200 bags of maize apart from other crops in 1947, were forced to sell their produce immediately after harvest to avoid loss through damage (KNA/DC/MKS 2/1/1:117).

Finally, cultivation of maize persisted in spite of its susceptibility to low rainfall. Its popularity therefore increased the rate of crop failure. For example, while beans, pigeon peas, millet and sorghum produced some harvest in the southern locations in May 1949, maize failed in most of the reserve. In short, the popularity of maize as a cash crop, its susceptibility to low rainfall, and its susceptibility to damage by weevils combined with the activities of the Maize and Produce Board to deny the Machakos Akamba food reserves in the late 1940s.

Interestingly, the connection between production of maize and famines in Machakos District was at this time a subject of great concern. For instance, in 1948 the ADC passed a resolution
which obliged every landholder to set aside a quarter acre for cultivation of famine reserve crops such as cassava and sweet potatoes (KNA/DC/MKS 1/1/30, 1948:9). The government also appealed to the ADC to persuade the Akamba to grow other crops instead of maize. For example, in August 1949, the Provincial Agricultural Officer for Central Province (J.T. Moon) and the Maize Controller (C.C. Swain) asked the ADC to advise the people against cultivating maize. J.T. Moon told the council that maize was introduced to this country as a cash crop but was now insignificant. On his part, C.C. Swain promised the Akamba that he would find markets for their indigenous crops. Then in July 1950 the Deputy Director of Agriculture (R.E.T. Hobbs) urged the Akamba not only to grow traditional crops but also to abandon the use of imported maize seed (KNA/DC/MKS 5/3/1:98-99).

However, the government's efforts had little effect. On the one hand, cassava was not a popular reserve crop. Indeed, the Agricultural Officer noted in 1948 that the cassava produced at the Machakos Seed Farm found a poor demand in the Machakos market. It was also impossible to get the people to accept cassava cuttings even free of charge. On the other hand, little had been done to provide crops that could compete with maize either as cash crops or food crops. In 1948, the Agricultural Officer observed:

There is a wide range of suitable crops available for the conditions of this district, with a wide variation in type and quality. Selection, improvement and implementation would be clearly worthwhile when services to enable this are made available (KNA/DC/MKS 8/4:104).
Apart from the maize dilemma, livestock diseases and an army worm infestation in 1949-50 aggravated the drought problem. In July 1949, squatter cattle evicted from Thika and Nairobi areas introduced pleuro-pneumonia into the northern locations. This led to imposition of quarantine in the region at a time when pasture was scarce. As a result, appeals by the people for grazing facilities in the unoccupied European farms in the Koma Rock area were rebuffed as this would spread the disease to neighbouring European farms. The people in turn refused to take their animals for inoculation, arguing that there was no need to inoculate cattle that would eventually starve to death (KNA/DC/MKS 8/4:238, 252, 260). This impasse led to the death of hundreds of head of cattle. According to the D.C. "a stage was reached when bottling up of starving stock in these areas appeared almost a greater evil than the slight risk of spreading disease in relaxation of the quarantine" (KNA/DC/MKS 1/1/30, 1949:1).

Then at the end of 1949, rinderpest broke out in the south-western locations. But fear of creating a situation similar to the one created in the northern locations led to the imposition of a lax quarantine. Movement of livestock in the reserve was allowed because of poor rains and depletion of pasture by army worms. By August 1950, rinderpest was widespread in the reserve, thereby necessitating the imposition of a reserve-wide quarantine for cattle, sheep and goats. This led to bottling up of stock at a time when it was never more necessary to export it, both in respect of famine and soil erosion. However, at the end of the year the quarantine on sheep and goats had been lifted and
inoculated cattle could be exported (KNA/DC/MKS 1/1/30, 1950:2). Table 15 shows the number of stock utilised during the food shortage.

Table 15: LIVESTOCK EXPORTED OR SLAUGHTERED IN 1950-51

<table>
<thead>
<tr>
<th>Period</th>
<th>Exported</th>
<th>Slaughtered in the Reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Head of Cattle</td>
<td>Sheep/Goats</td>
</tr>
<tr>
<td>Jan-Dec., 1950</td>
<td>12,911</td>
<td>40,650</td>
</tr>
<tr>
<td>Jan-July, 1951</td>
<td>7,138</td>
<td>25,294</td>
</tr>
<tr>
<td>Total</td>
<td>20,049</td>
<td>65,954</td>
</tr>
</tbody>
</table>

Source: KNA/DC/MKS 2/18/8:314.

One of the early indicators of the food shortage was a steep rise in the price of maize in the reserve. In May 1949, producers in the reserve were selling a 200-lb (90 kg) bag of maize for Shs 15-20 while the Maize Board offered them Shs 13. By July the black market price for maize had risen to over Shs 30. Consequently, the district administration began importing food-stuffs from the Maize Board for sale in the reserve at Shs 28 per bag of maize and Shs 30 per bag of maize flour. Although these prices were increased by Shs 2 in October 1949, food imports rose steadily from 19,827 bags per month in October 1949 to 26,766 in January 1940 (KNA/DC/MKS 8/4:236-78).

Generally, official prices of food were higher than in
the black market. This was mainly due to an ADC cess imposed on African produce in most reserves. Since the cess was collected by the Maize and Produce Board, it lowered prices for the producer and raised those of the consumer. Hence, it was to the advantage of both the producer and the consumer to avoid the official market. This encouraged the development of a black market for maize as was the case between Ukambani and the Mount Kenya region. For example, in 1950, only 1,400 bags of maize out of an estimated surplus of 30,000 bags in Murang'a was delivered to the Maize Board. The rest went to the black market in Ukambani as did the greater portion of 150,000 bags of maize produced in Embu. Indeed, the P.C. estimated that the Murang'a and Embu ADCs lost £4,000 and £17,000 respectively due to the black market.

Similarly, the Machakos and Kitui ADCs lost the substantial revenue they would have earned if the food had been sold to the Akamba by the Maize Board. The P.C. summarised the situation thus:

[The] demand in Ukambani, coupled with the low prices paid by Maize Control, is too easy a chance for quick profits to be missed by Kikuyu and Indian traders. Indeed, so great was the export drive that by the end of the year some of the higher locations in Fort Hall [Murang'a] found themselves short of food. Many Wakamba were thereby enabled to buy food at less than Control prices (KNA/DC/MKS 1/2/1, 1950:20-21).

The food-stuffs supplied by the Control Board were not only expensive but were also of poor quality (Mbuvi, O.I. 1990). In fact, the importation of poor maize into Machakos reserve was harshly condemned by the ADC in 1949 (KNA/DC/MKS 5/3/1:99).
However, the problem of 'rotten' food-stuffs was not unique to Machakos; Cohen and Atieno-Odhiambo (1989:64) record about it in Siaya in 1953. All in all, the activities of the Maize Board encouraged 'illegal' food imports in head-loads and lorries despite police surveillance (Throup, 1988:66).

Supplies of food-stuffs from the Maize Board were also irregular. For example, in March 1950 there were long delays in getting maize owing to lack of wagon space. Increased demand for food supplies in some parts of Kenya, Tanganyika and Zanzibar reduced the number of railway trucks available for transporting maize from Nakuru. As a result, Machakos could not get enough food supplies in spite of abundant maize supplies in western Kenya and the Rift Valley (KNA/DC/MKS 2/18; 8). Such delays led to escalation of food prices at a time when the administration had banned women from trading in food-stuffs (Mue, O.I. 1990). The ban was no doubt meant to give the Maize Board a monopoly in food trade.

Apart from livestock, the people also sold green beans, hides and skins, and sisal to get money for buying food. Remittances from people working outside the reserve were also important. For example, official military remittances between January and July 1951 amounted to £9,014. ADC and ALDEV projects also provided work (KNA/DC/MKS 1/1/30, 1951:6). In ADC road projects, the rate was Shs 22 per person per month, while in ALDEV projects such as bush-clearing, dam-construction or road-making, the rate was 3 lb of maize/maize flour or 50 cents per day. Thus, ALDEV spent £10,744 and £4,866 on relief work in
1950 and 1951 respectively (KNA/DC/MKS 2/18/8:314). In addition to this paid labour, every adult was expected to put in two days of communal work per week. On the whole, it was the government's policy that people should buy food at market prices or work for it.

A novel method of acquiring money for buying food was by selling sisal fibre to European sisal estates. Sisal was first planted on a large scale in the reserve in 1936-39 period when the Department of Agriculture forced landholders to fence in their holdings as a way of checking over-grazing. However, in June 1950, a trade in sisal started when European estates began to buy sisal from the reserve in order to boost their exports. Appraising the trade in 1950, the P.C. for Central Province said:

So universally profitable did this trade become, owing to the steep rise in the world price, that it gave its name to the food shortage - now known as 'Njaa ya Mkonge' (KNA/DC/MKS 1/2/1, 1950:1).

However, the trade tended to benefit sisal traders at the expense of the producers. For example, African traders bought a pound of hand-decorticated sisal fibre at 20-25 cents and sold it to European estates at 50 cents. The estates then sold off the fibre at more than 90 cents a pound. Despite the trade boom therefore, the sisal producers (mainly poor women and children) received very low returns. In this regard, the P.C. commented:

The temptation to join the rush proved too great even for respectable artisans and specialist traders who abandoned their callings in the hope of getting rich quickly. As in all times of 'easy money' demoralising influence crept in; spivs and rackets abounded... (KNA/DC/MKS 1/2/1, 1950:1).
The low returns notwithstanding, the sisal trade brought in substantial income to the reserve. Besides the income earned by the populace (Table 16), the ADC earned a tax revenue of £16,000 in 1950 alone (KNA/DC/MKS 1/1/30, 1950:1). In realisation of the significance of the sisal industry to the reserve, the government began to streamline it in 1951. However, the boom was short-lived.

Table 16: SISAL TRADE DURING THE NGONCE FAMINE

<table>
<thead>
<tr>
<th>Period</th>
<th>Tons</th>
<th>lb</th>
<th>Shs</th>
<th>Cts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug-Dec., 1950</td>
<td>1,421</td>
<td>739</td>
<td>318,377</td>
<td>90</td>
</tr>
<tr>
<td>Jan-July, 1951</td>
<td>2,146</td>
<td>313</td>
<td>480,735</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,567</td>
<td>1,052⁶</td>
<td>799,113</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: KNA/DC/MKS 2/18/8:314

In spite of the many ways of surviving the food shortage, many people, especially in the low-lying eastern and central locations, suffered untold hardships. This was especially so before the sisal boom came to their aid. For example, in January 1950, the D.C. noted a resurgence of the 'gathering economy'. He reported widespread use of the leaves of herbs such as woa, ndulu and Kikowe as food (KNA/DC/MKS 8/4:285).

The situation was complicated by drought and scarcity of pasture. This made the cattle so thin that Kikuyu traders were

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6. One 'long' ton is equivalent to 2,240lb (pounds).
reluctant to buy them for they could not survive the long export routes. This explains why the people resorted to the less favourable alternative of slaughtering their animals for food.

Despite the general misery, the government adamantly refused to subsidise imported food. According to the official mind, "the Kamba clan (mbai) is most virile and has much value as a form of Friendly Society" (KNA/DC/MKS 1/1/30, 1951:26). So the government expected families and clans to look after the sick and the old in accordance with the so-called Bantu Custom. However, under the changed social circumstances of the early 1950s kinship ties were no longer significant. All the same, the government used such ties as a smoke-screen to absolve itself from its social obligation. At the end of the famine, the D.C's pride was:

The clans have looked after the poor and aged and sick so well that it has not been necessary to issue free food whatsoever (KNA/DC/MKS 2/18/8).

Another significant outcome of the food shortage was a steep increase in labour migration. As a result of the food shortage, many young men left the reserve in search of labour in the nearby settler farms and elsewhere. The administration (through the Machakos Labour Exchange) also placed numerous Kamba

7. Livestock trade routes between Ukambani and Kikuyuland were planned to avoid contact with settler farms between the two areas. This made the routes unnecessarily long.

8. H.K. Schneider (1977:202) observes that "Most East Africans like to eat meat, but will seldom kill livestock... to obtain meat; the animals have greater value for exchange".
youths in employment in such firms as M/S Tanganyika Packers of Dar-es-salaam, Kenya Tea Packers of Kericho, Nandi Tea Estates, etc (KNA/DC/MKS 8/4:316). Unlike most European enterprises, tea estates had not mechanised some of their operations like tea picking. Consequently, their demand for labour was insatiable at this time when "Settler agriculture had never had it so good" (Zeleza, 1989b:150).

The food crisis was not solely responsible for the increase in labour migration. O'Leary (1984:43) cites forced communal work as one of the factors which contributed to increase in labour migrancy in post-war Kitui. The same is possible for Machakos where some chiefs enforced communal terracing with an iron hand. All in all, the food shortage was a fundamental factor in labour migration.

Viewed in the context of the agrarian crisis in Machakos District, increased proletarianisation of the Akamba may have been a welcome development. But in the context of colonial capitalism it was not; the labourers were paid 'individual' wages instead of 'family' wages. Indeed, the Machakos D.C. noted in November 1949 that the increase in food prices (from Shs 28 to Shs 30 and Shs 32 for a bag of maize and flour respectively) placed the new prices on par with a labourer's monthly wage. The D.C. also calculated that this food could support only four people in a month (KNA/DC/MKS 8/4:45). But it is doubtful if White farmers paid such a high wage. In fact, an ADC request to the administration, in January 1950, to raise daily wages for famine relief workers from 50 cents to Sh 1, was rejected by the
administration on the grounds that the rate was equal to what was paid in nearby farms (KNA/DC/MKS 2/18/8:102). It is therefore evident that labour migration involved a large element of exploitation.

By the end of 1950, thirty thousand out of forty thousand able-bodied men in Machakos District were in wage labour. The withdrawal of such a huge amount of labour had important repercussions on the reserve. For example, in 1953, the D.O. for Southern Area reported the following about Kibauni Location:

Things there are very hard. 2,590 men out of 3,434 have left the location. Of these 1,187 are known to be in Nairobi or Kericho tea estates, in Kitui or other places, and some of these are sending money, but a total of 1,404 have just vanished (KNA/DC/MKS 2/18/8:346).

This situation was common in the low-lying areas and demonstrates the fallacy of the official view that the able-bodied helped their destitute relatives.

Furthermore, labour migration affected the important work of reconditioning the land, work which could have reduced the people's vulnerability to food shortages. In the Kibauni case, for example, the D.O. recommended the termination of communal work. He observed:

[It] is flogging a very tired horse to stick to the present 'target' figures [of terracing work] with 75 per cent of the population missing. It is bad for morale apart from anything else (KNA/DC/MKS 2/18/8:346).

Unlike in previous droughts and food shortages, the Akamba
could not obtain pasture outside the reserve. Attempts to move into unoccupied farms in the White Highlands were thwarted by a new wave of land alienation emanating from the success of settler agriculture in the post-war period. The decision by the European Settlement Board to increase the density of settlement and the intensity of land-use in the White Highlands from 1948 also led to expulsion of Kamba squatters (see Smith, 1976:122). All this led to concentration of livestock in the already denuded reserve, a factor which resulted in high livestock mortality and starvation of the people.

Interestingly, the administration continued to refer to the problems the Akamba were facing as 'their problems'. As Maddox (1986:33) notes, British administration in Africa was characterised by the attitude that Africans were duty-bound to deal with 'their own' problems, such as food shortages. This attitude is clearly portrayed in the Machakos D.C's report for 1950. He said:

> With all these misfortunes crowding in upon the district - drought, famine, cattle diseases...it is remarkable how the Akamba maintained their fortitude without untoward incident and pressed forward in the spirit of 'The past is a story told; The future may be writ in Gold' (KNA/DC/ MKS 1/1/30, 1950).

Unfortunately, the future was not written in gold. The structural instability of the Kamba system of production was now so high that a single season's drought precipitated an acute food shortage. This is what happened during the 1953-55 period.
The 1953-55 Food Crisis

Njaa ya Mkonge or Ngonge Famine came to an end in mid-1951 following heavy rains that year. In fact, the 1951 rains, which are popularly known as Mbuia ya Kavisi, are the heaviest on record. This in effect terminated a food crisis which had resulted in official imports of 81,822 bags of food-stuffs in 1949, 241,696 in 1950 and 96,639 in 1951 (KNA/DC/MKS 1/1/30 1951:14).

However, it did not take long for another food shortage to occur. The 1953-55 shortage had no proper name though Cummings (1975:342) calls it Mau Mau Famine. The lack of a proper name is perhaps an indication of the mild nature of the crisis.

Compared with previous crises, the 1953-55 one was not very acute because only 118,728 bags of food-stuffs were imported into the reserve in 1953, 70,949 in 1954 and 79,893 in 1955. Nevertheless, the crisis had characteristics which make it important.

To begin with, rainfall was not a significant contributory factor. While 1952 and 1953 had low rainfall, 1954 and 1955 had 'adequate' rainfall. Some oral informants attributed this crisis to poor agricultural methods (Mulinge, E.; Mulinge, S. D. 1990). According to informants, areas such as Masii, Matungulu and Kangundo (which had 'modernized' their agriculture by this time) not only absorbed migrant labourers from the

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9. It is said that before the rains a boy who had the unique habit of sweating profusely even when it was cold travelled widely in the reserve foretelling the impending rains (Kitua, O.I. 1990). The rains are also called Mbuia ya Ndovoi (Nthiani, O.I. 1990). Machakos Forest Station recorded 84.84 inches of rain that year.
lowlands but also 'exported' food-stuffs (Mbuvi; Mutyanzau, O.I. 1990). For example, one lowland informant who worked in Kangundo during the crisis told us: "The reason why Kangundo people had food was because of favourable climate and also because their agricultural practices were much more advanced than ours" (Mulinge, S. O.I. 1990). In short, the crisis afflicted the low-lying locations which were not only drier but also 'backward' in terms of agriculture.

With incomes from cash crops, Kangundo and Matungulu farmers were able to hire labour and therefore expand their production of both cash crops and food crops10. Improved farming methods to a large extent minimised crop failure in these areas. Even when crops failed, income earned from cash crops was resorted to. The situation in the lowlands was different as there were no cash crops except sisal.

In the lowlands maize continued to be the dominant crop. Thus, when low rainfall made a food shortage immanent in 1953, the Agricultural Officer could not hide his antipathy. He remarked:

I have no deep sympathy with most of these people, however, as they persistently plant maize and more maize in the face of our constant advice to the contrary (KNA/DC/MKS 2/18/8:339).

In realisation of the danger posed by over-dependence on maize production, the ADC passed a resolution in 1953 to prevent land-

10. Having been settled earlier than Kangundo and Matungulu, the other hill areas had higher population densities and therefore did not increase production significantly after the introduction of cash crops.
owners from planting more than half their arable land with maize (KNA/DC/MKS 1/1/31, 1953:22). But this did not solve the problem for an alternative cash crop for the lowlands had not yet been found.

Sisal—which had been hoped would "be for the Kamba what coffee is to the Chagga; a cash crop strengthening the economic basis of their existence, and providing funds for agrarian and social betterment"—was already in a price crisis. The world market price for a ton of sisal fibre fell from £230 to £90 in 1952 before plunging to £69 in 1954 and £65 in 1956. In the later year, a crisis in the Suez Canal raised freight rates by £2 per ton, thereby necessitating reduction of the producer price from 30 to 28 to 27 and finally 25 cents in a single year11.

The price instability was a big blow to the ADC and the government, and ultimately to the Kamba sisal producer. Before the prices began to decline, the ADC had established the Machakos African Sisal Scheme (MAS) to enable the council to export sisal abroad like European estates. This led to the spending of £50,500, of which £20,000 was a government loan (KNA/DC/MKS 2/18/8:340). For a while, the scheme was a success for the MAS mark was on the wanted list. However, when the prices began to fall it became difficult for the scheme to acquire enough fibre to keep it in operation. Thus, large scale production of sisal fibre was restricted to periods of food shortage when those without alternative means of earning money supplied fibre to the scheme. To keep the scheme running during periods of low production, the

council acquired more loans and the cost of the scheme was ultimately passed to the producer through low prices.

In spite of the enormous problems the scheme was undergoing the government remained committed to it. In the government's view, the scheme "was the most sensible and economic way to help the Kamba; certainly far better than subsidizing food or giving true 'famine relief' "(KNA/DC/MKS 2/18/8:340). In fact, one of the many conditions for issue of free food during the food shortage was that food should not be given in an area where sisal for decortication was available. Castor oil, another cash crop in the lowlands, also suffered from low prices like sisal. But in 1956, floods in Indian and political disturbance in Hungary led to high prices of 50 cents per pound of castor oil seed. On the whole, the effects of price fluctuations demonstrate the extent to which Kamba households had become integrated into the world economy.

Even the livestock industry was in a crisis. The state of emergency engendered by the Mau Mau movement virtually closed markets in Kikuyu and restricted the free movement of Kikuyu livestock traders. The Akamba were therefore cut off from their sources of grain and cash. At the same time, the Meat Commission at Athi River was swamped with cattle from European farms. The

12. Candidates for free famine relief during this food shortage had to appear before a panel consisting of the area D.O., Agricultural Field Officer, a representative of the Medical Officer of Health, the local Chief and Headman. Successful candidates were either sick or aged, with no property and no relatives (KNA/DC/MKS 2/18/8:365).
Commission's agent, African Livestock Marketing Organisation (ALMO), therefore refused to buy Kamba cattle on the pretext that "there was little or no markets for meat of the grade that native areas produced" (KNA/DC/MKS 1/1/31, 1953:34). The Akamba were therefore forced to slaughter their livestock for meat.

The fall in prices of sisal, the closure of Kikuyu grain markets, and the absence of a market for livestock were significant factors when considered in the light of increased food prices. In November 1952, the Machakos D.C., exercising powers conferred to him by Defence Regulations (1945), pronounced Order No. 4/1952 which put food prices at Shs 50/82 for maize and Shs 53/42 for posho (KNA/DC/MKS 2/18/8:333). This price increase, which was probably meant to raise funds for government's efforts in suppressing the Mau Mau movement, was not matched by a rise in wages. Consequently, at the outbreak of the food crisis in mid-1953 the D.C. made the following observation in his appeal to the government for a loan to enable Machakos Sisal Scheme to buy sisal:

The Kamba need money to buy food — everyone who can go to work is going, but a bag of maize meal for a family costs Shs 52 and few farmers want to pay that to their labourers as well as food and housing. It is vital that we help the Kamba to help themselves with their only cash crop (KNA/DC/MKS 2/18/8:340).

In fact, the inability of Kamba labourers to provide sufficient food for their dependants elicited the sympathy of their settler employers. On February 3, 1954, the Thika
Production and Manpower Committee held a meeting to seek solutions to the problem. The committee requested the Board of Agriculture to reduce the price of the sacks in which food was sold from Shs. 5 to Shs. 3, and also to convert the Shs 4 Betterment Fund raised through the sale of a bag of famine food into famine relief. In short, the committee requested the government to reduce the price of a bag of famine food by Shs 7 (KNA/DC/MKS 2/18/8:397).

It is not clear whether the committee's proposals were implemented. In his reaction to their suggestions, the Machakos D.C. welcomed the idea in principle but expressed doubts about its implementation by the government. He also took the opportunity to blame the settlers for not keeping farm wages in step with the prices of farm products. Generally, the committee's proposals were out of self-interest rather than a genuine desire to assist the Akamba. The committee was of the opinion that if the Akamba were helped to acquire cheap food they would be reluctant to join the Mau Mau movement (KNA/DC/MKS 2/18/8:388).

However, the problem of low wages was short-lived, at least for those working in Nairobi. The Mau Mau phenomenon, which had exacerbated the food crisis in 1953, led to a labour boom for the Akamba in 1954 (see Kanogo, 1987:148;152). The removal of thousand of Kikuyu, Embu and Meru from Nairobi through operations 'Anvil' and 'Broom' created a labour vacuum which was temporarily filled by the Akamba, Luo, Abaluyia etc. A similar vacuum was also created in the White Highlands. The demand for
labour was so great that monthly wages rose from Shs 40 with house and food to Shs 75 with house and food (KNA/DC/MKS 1/1/32, 1954:70-71). It is likely that some of this money filtered into the Machakos Reserve and helped to alleviate the pangs of hunger.

The labour boom intensified the labour migrancy which stood at an average of 60 per cent of the reserve's able-bodied male in 1953. In fact, it was estimated that 70 per cent of the male population in Muvuti Location was out at work in 1955 (KNA/DC/MKS 1/1/33, 1955:48). No doubt this enormous withdrawal of labour had considerable negative effects on the economy of the reserve. After the Mau Mau crisis most of this labour became unemployed and returned to the undeveloped reserve.

In sum, the 1953-55 food crisis was aggravated by the conditions of the emergency and the world prices for sisal. Conditions created by these two phenomena combined with drought conditions to further weaken the economy of the reserve, thereby making the people more susceptible to climatic fluctuations. However, the impact of the food shortage varied between the lowlands and the highlands.

6:4 'Mafriko' or 'Ndeke' Famine, 1960-61

The last food crisis to occur in colonial Machakos was in 1960-61. To a large extent, the crisis was due to a series of disasters which reinforced one another. The first of these disasters was a drought which led to crop failure in 1959. As
a result, importation of food-stuffs into the reserve started in September 1959. Then in April 1961, army worms caused considerable damage to crops and pasture in a relatively dry year. Finally, torrential rains in late 1961 created flood conditions in the reserve. The floods disorganised road transport in the reserve to the extent that food had to be distributed by air, hence the famine's two names: Mafriko, which means floods in Kiswahili and Ndeke, which means aeroplane in Kikamba.

The food crisis occurred in a situation of increasing poverty, especially in the drier lowlands. Although exportation of livestock was not restricted, there was widespread scarcity of money in the reserve due to failure of cereal crops and widespread unemployment. Former migrant labourers and squatters had hardly established themselves in the reserve when the series of disaster began (KNA/DC/MKS 1/1/35, 1959:36). Furthermore, the tax burden had reached a crushing point for most people. In 1959, for example, the basic government tax was Shs 25 per male adult while the ADC tax was Shs 31. Moreover, there were special water rates varying from Shs 2 to Shs 24 per household. No wonder the D.C. commented:

[The] ever increasing poll rate together with Government taxation has reached a total which is beyond the peasant cultivator in the drier areas of the district where valuable cash crops cannot be obtained (KNA/DC/MKS 1/1/35, 1959:14).

Thus, the minimum tax burden of Shs 58 per adult male, plus other cash demands such as school fees, not doubt affected the ability of many households to buy maize at Shs 54 per bag.
In fact, court cases related with tax-default were on the increase. Before the government stopped prosecuting tax-defaulters in mid-1959, court cases connected with tax had increased from 1,458 in 1956 to 5,487 in 1957 to 5,980 in 1958 and then 5,340 in June 1959 (op. cit. p. 38).

Another indication of increased poverty was the phenomenon of severe malnutrition amongst children and the aged in 1959. As a result of this problem, the government and the ADC provided small funds for feeding children and the aged in Kibauni and Muvuti locations (KNA/DC/MKS 1/1/35, 1959:15). However, the government remained rigid on its rules regarding free famine relief. For example, in 1960, when the food shortage was so intense that a total of 172,740 bags of food-stuffs was imported, only 50 people in the whole reserve were receiving free food. The rest paid for their food through sale of livestock and sisal fibre. Moreover, no famine relief work was offered except in Kibauni Location where people worked in sub-surface dams. The overall result was a sharp increase in malnutrition and malnutrition-related diseases as was reported in the reserve in 1960 (KNA/PC/SP 1/3/7, 1960:11, 24).

To exonerate itself from any responsibility for the welfare of the people, the government urged famine victims to decorticate sisal or seek help from their clansmen. The following extract from a letter written by the District Agricultural Officer to the D.O. (Eastern Area) in reply to the D.O's request for famine relief for some families in Kisau Location is typical of the 'official mind' in 1960:
Have none of these 90 families any stock at all? Have they no relations nearby with stock? Surely they must have relatives nearby, especially in Kisau where the old customs are still present. They live in an overgrazed area and they must therefore have much stock there.... It is a clan law that members must stand by each other and if someone is in need the clan should allow that person to go and cut sisal that is not being used by another man in the same clan (KNA/DAO/MKS 1/102:125).

Kisau might have been overstocked alright, but that had nothing to do with feeding the hungry. Ownership of livestock and other property in the society was highly stratified by this time, and that is probably why some people were unable to feed themselves. Similarly, there was no clan law compelling clansmen to feed one another. The Assistant Agricultural Officer (Kangundo) illuminated this social reality in November 1960 when he recorded:

There are a number of old people who are thin and obviously not getting enough food, but this is the lot forced on them by their irresponsible relations and they suffer every year. The clans have shirked their responsibilities and in a recent meeting of the 'Amutei' clan the decision was reached that the clan was not responsible for these ancients but that the direct relatives would feed them where possible (KNA/DAO/MKS 1/99:205).

Recommending twenty people for free famine relief, the Assistant Agricultural Officer reported: "These invariably are landless and living a long way from their clansmen on borrowed land. They have been in need every year since they became too old to work" (ibid). It is therefore evident that the old security systems of abundant land for all, and the obligations of kinsmen to one another, had vanished and had not been replaced by
modern ones such as a famine relief fund financed from general taxation. This adds weight to the observation that the colonial state was "concerned with famine only to the extent of requiring that famine relief should not be paid for by exchequer funds" (Van Zwanenberg, 1972:28).

A third manifestation of the extent of poverty in the reserve during the food crisis was the extent of sisal decortication. It should be noted that decortication of sisal by hand is an onerous task, especially when the reward is small. For this reason, the Machakos Sisal Scheme had to close down in 1957 due to lack of sisal fibre as food was then plentiful. However, in 1959, the D.C. reported:

The food shortage encouraged the widespread decortication of fibre for sale to the brushing and baling factory even at 20 cts per pound of fibre (KNA/DC/MKS 1/1/35, 1959:21).

Consequently, sisal production rose from 463 tons in 1959 to 4,250 tons in 1960 and then to 5,508 tons in 1961 before falling to 1,314 tons in 1962. Indeed, the food shortage made sisal decortication the leading industry in the district in terms of income and employment. For example, in 1960, sisal accounted for 45 per cent of the district's revenue of £623,337 while livestock, coffee, hides/skins and vegetables accounted for 19, 9, 8 and 7 per cent respectively. In all, the industry earned the district £290,000 in 1960 and £440,640 in 1961 (KNA/PC/SP 1/3/7, 1960:12, 15; KNA/DC/MKS 1/1/36, 1962:10). However, part of this income went into repayment of the loans the sisal scheme had acquired. This situation exacerbated the problem of low
prices for sisal fibre, thereby forcing the people to decorticate more sisal in order to earn enough money for food.

In this situation of poverty and continued drought, "offers of assistance from America" in March 1961 could never have been more timely. According to the D.C., the American offer met "what was obviously a growing state of distress" (KNA/PC/EST 1/1/17, 1961:1). Apart from milk powder, meat powder, biltong, vitamin oil and maize meal, America also offered maize, which was distributed alongside commercial imports as shown in Table 17. By the time famine relief issues ceased (in March 1962), American maize relief had reached 31,000 bags a month.

Table 17: MAIZE IMPORTS: MACHAKOS DISTRICT, 1961 (200-lb BAGS)

<table>
<thead>
<tr>
<th>Month</th>
<th>Commercial</th>
<th>Famine Relief</th>
<th>Total Monthly Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>18,000</td>
<td></td>
<td>18,000</td>
</tr>
<tr>
<td>February</td>
<td>14,521</td>
<td></td>
<td>14,521</td>
</tr>
<tr>
<td>March</td>
<td>19,277</td>
<td>2,442</td>
<td>21,719</td>
</tr>
<tr>
<td>April</td>
<td>24,406</td>
<td>4,095</td>
<td>28,501</td>
</tr>
<tr>
<td>May</td>
<td>30,500</td>
<td>7,877</td>
<td>38,377</td>
</tr>
<tr>
<td>June</td>
<td>31,148</td>
<td>10,105</td>
<td>41,253</td>
</tr>
<tr>
<td>July</td>
<td>18,173</td>
<td>8,924</td>
<td>27,637</td>
</tr>
<tr>
<td>August</td>
<td>18,200</td>
<td>16,738</td>
<td>34,938</td>
</tr>
<tr>
<td>September</td>
<td>19,500</td>
<td>20,449</td>
<td>39,949</td>
</tr>
<tr>
<td>October</td>
<td>9,750</td>
<td>24,520</td>
<td>34,270</td>
</tr>
<tr>
<td>November</td>
<td>13,500</td>
<td>21,855</td>
<td>35,355</td>
</tr>
<tr>
<td>December</td>
<td>12,123</td>
<td>30,287</td>
<td>42,410</td>
</tr>
</tbody>
</table>

Initially, food-stuffs were distributed throughout the reserve by Indian and African lorry-owners organised into a transport pool. Later, a fleet of 20 King's African Rifles (KAR) lorries joined private transporters in an endeavour to distribute 1,000 bags of food-stuffs a day in the sprawling Machakos District. However, heavy rains in October and November 1961 disrupted road transport throughout the district. For days on end, the district headquarters remained cut off from Nairobi, the rest of the reserve, and the railway station at Konza. In the last resort, Royal Air Force transport planes were used to deliver food in locations isolated by torrential streams and flooded rivers. It became a matter of feeding the whole population as normal trade channels were paralysed by lack of transport (Kenya, 1962a).

In the locations, famine relief was organised in three ways. First, over 200 soup kitchens offered weekly or bi-weekly protein supplement meals to about 50,000 children. These kitchens were run by Community Development personnel and the Maendeleo Ya Wanawake Organisation under the supervision of two Red Cross officers. Second, the old and infirm received a weekly ration of seven pounds of maize or maize meal. Finally, poor and able-bodied people worked on public projects in return for food. On the whole, weekly meetings between the Medical Officer of Health, the Red Cross officials, visiting health officers and the district administration kept the situation under close surveillance (KNA/PC/EST 1/1/17, 1961:1, 10).

However, the relief programme was not free of problems.
Besides the already mentioned one of transportation of foodstuffs to areas of need, there were lots of complaints from the public. It is said that politicians complained about maladministration of the programme, issue of food to the wrong people, inadequacy of food supplies, deaths from starvation, and chiefs who feathered their nests by selling famine relief food. Famine relief workers also grumbled about having to work for food. In turn, the administration complained of difficulties in identifying genuine cases for recruitment into famine relief projects (KNA/PC/EST 1/1/17, 1961:1-2). These accusations and counter-accusations between the public and the administration are best understood in the light of pre-independence politics. The protagonists accused each other in an attempt to score a political point. The administration tried to show the 'immaturity' of the African politician while the Africans tried to reveal the short-comings of the colonial administration.

Another problem related to the food shortage was an increase in the incidence of diseases. A predominantly maize diet led to an outbreak of pellagra among some families in Kikumbulyu Location in 1961. However, the disease was soon controlled through issue of vitamin pills. Similarly, the excessive rains towards the end of 1961 led to a high incidence of malaria among a populace whose resistance to diseases had already been weakened by the food shortage. The problem of disease was aggravated by scarcity of health services due to the ADC's poor financial position. By 1961, the council was unable to provide basic services due to the failure of 85 per cent of the tax-payers to pay their taxes because of the food
crisis. The council was also overburdened by loan commitments to the government. Indeed, the council had to curtail its services by laying off 250 untrained teachers and numerous employees in the departments of roads, community development and health (KNA/PC/EST 1/1/17, 1961:3, 18).

Scarcity of pasture was another big problem. Cumulative over-grazing due to low rainfall since 1959 turned demands for additional grazing from a grumble to a scream in 1961. The situation was accentuated by an army worm infestation in April 1961. Consequently, there was large scale invasion of European farms, Kitui, Yatta, Simba-Emali area and Lower Makueni by herdsmen. The police had to be used to keep frustrated Kamba herdsmen off the White Highlands. However, reliance on livestock as a buffer against famine had greatly fallen due to a fall in overall livestock numbers. For example, livestock earned the district £166,612 in 1960 and £216,768 in 1961 compared to a total revenue of £623,337 and £797,452 in the two respective years.

Despite the chaos engendered by the drought and famine, there were a few positive changes. For example, the total value of exports from the district increased from £399,502 in 1959 to £623,337 in 1960, and then rose to £797,452 in 1961 before falling to £563,938 in 1962. Although the increase in revenue in 1960 and 1961 is attributed to the need to sell sisal and livestock in order to raise money for food, the difference

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13. See appendices in the respective annual reports.
between the revenue for 1959 and 1962 is a clear indication that the district's economy expanded over the famine period. This fact supports the thesis that different sections of a community are affected differently by crises (Raikes, 1988:1). In fact, it was observed that even in the dry areas of the district better farmers obtained adequate harvests in 1960 (KNA/PC/SP 1/3/7, 1960:11).

Another significant development of the period was in the fields of agricultural research and farmer training. Katumani Research Station, which was set up by the Department of Agriculture in 1955 as the Southern Province Research Centre, was by 1960 experimenting on various aspects of 'dry-land farming'. One such experiments was with Taboran maize. This was in an attempt to provide a variety of maize suitable for the lowland areas. It had been realised that campaigning against maize and advocating traditional crops in a changed socio-economic situation would not solve the problem of crop failures. The station also served as a farmer training centre and offered courses in agriculture, health and hygiene. By 1962, the centre was handling 600 farmers annually although the demand for its courses was higher than that (KNA/DC/MKS 1/1/36, 1962:1).

Mafriko Famine is significant in many ways. First, the famine and floods, which affected many areas in Kenya (Kenya, 1962a; Ojany and Ogendo, 1973:63-64), were a clear manifestation of the underdevelopment perpetrated by colonialism. To illustrate, no part of Machakos District is susceptible to floods in the sense of villages getting submerged in water, as
sometimes happens in low-lying areas around Lake Victoria and in the Lower Tana Basin. What actually happened is that perpetual rain in October and November 1961 made earth roads impassable because of mud and flooded rivers. Lack of all-weather roads in the district therefore made distribution of food difficult, thereby intensifying the food crisis.

The issue of poor transport systems is interesting when it is considered that shortfalls in tax collection, even in years of famine, were compensated for immediately the famine was over. For example, in 1947 the Machakos D.C. reported:

Collections of Native Poll Tax in 1946 were very slow due to famine conditions and at the end of the year Shs 24,000 was outstanding. These arrears were collected in 1947 plus an additional over collection of Shs 31,424 in respect of 1947 (KNA/DC/MKS 1/1/30, 1947:8).

Very little of the revenue from taxation benefited the tax-payer. Indeed, the pride of a colonial D.C. was in reporting a sizeable surplus over expenditure in his district. Meanwhile, food problems were blamed on other factors. For example, the Commission which investigated the 1960-61 crisis reported:

[Seventy] years of Pax Britannica has led to the control over the ravages of diseases and inter-tribal warfare, which has brought about an increase in population to a point where the people cannot be supported by their traditional way of life (Kenya, 1962a:6).

Another manifestation of underdevelopment is the extent of poverty in the Machakos Reserve by 1960. Despite the ideology of development and welfare pursued by the colonial state in the
post-war period, poverty was actually on the increase. This was clearly manifested by escalating malnutrition, unemployment and landlessness.

Another peculiarity of the crisis is the role played by America in combating the crisis. Was the crisis too great for Great Britain to handle, or was it America's way of establishing links with the nation-to-be? America's offer of assistance at the dawn of Kenya's independence to some extent translates into diplomatic overtures. This seems so because America's assistance started in March 1961, long before the colonial administration had found it necessary to issue free or subsidised food at a significant scale. The assistance also came before the food shortage was complicated by floods. It therefore seems reasonable to conclude that the assistance was a means of promoting America's foreign interests as explained in Public Law 480 of 1954 (see Lofchie and Commins, 1982). Among the provisions of the law is the use of food aid to promote America's foreign interests.

In retrospect, Britain's post-war policy in Kenya was a synthesis of Kenya's post-war agrarian problems and Britain's imperial needs. However, the policy was not operating in a vacuum and was largely shaped by post-war African politics. On the whole, the post-war development programme intensified Kenya's incorporation into the world economy through intensification of commodity production. This in turn intensified social differentiation, thereby increasing the population's vulnerability to food shortages as manifested by the Mafriko Famine.
To a large extent, post-war food crises in Machakos were
clear manifestation of the nature of peripheral capitalism.
Despite the success of the settler sector in the post-war period,
settlers hardly paid a living wage. Consequently, most workers
could not feed their families adequately. Moreover, infiltration
of the rural sector by capitalism was now generating more labour
than the wage sector could absorb. All this resulted in
unemployment and malnutrition. On the other hand, an under-
developed system of distribution, coupled with government support
for the Maize and Produce Board hampered the smooth distribution
of food-stuffs. Surprisingly, the colonial administration, in
spite of its advocacy of social welfare, continued to urge
clans and extended families to support their destitute members.
This is another indication that the colonial state endeavoured
to use pre-colonial African institutions to promote its goals
in spite of the social transformation engendered by the
articulation process.
CONCLUSION

This study analyses food problems in Machakos District during the colonial period. The basic premise of the study asserts that the incorporation of the pre-colonial Kamba system of production into the world economy progressively undermined the society's capacity to cope with food shortages. Using the perspective of articulation of modes of production, as discussed in chapter one, the study demonstrates how food crises in Machakos ceased to be within the confines of the Kamba society and its natural milieu since the onset of the articulation process in the late nineteenth century.

Thus, the progressive penetration of the pre-capitalist Kamba mode of production by global capitalism altered the nature of food crises in the Kamba society. The adverse effects of the socio-ecological transformation engendered by the process of articulation are demonstrated in all the food crises discussed in the study. Even the Muvunga Famine (1898-99) was to a large extent the result of the impact of Swahili-Arab merchant capital and British imperial activities in Machakos and in the rest of East Africa at that time.

As outlined in the study, the articulation process was initiated in Machakos in the late nineteenth century by Swahili and Arab traders. Though this form of capitalism had little impact on Kamba ecology, it created rival sections of the Akamba under the leadership of powerful individuals. Since British
imperialism was introduced through these antagonistic Kamba social institutions, the study contents that Swahili-Arab capital paved the way for British imperialism in general and colonial capitalism in particular. The thrust of this study is therefore on the effects of colonial capitalism on food production in colonial Machakos.

Chapter two validates the premise that late nineteenth-century Kamba society was in relative harmony with its physical environment. In fact, some accounts indicate that some rivers in Machakos District were perennial and Swahili-Arab caravans used to fish in them (KNA/DC/MKS 10A/29/1:18). Rachel Watt, who settled in Ngelani in 1893, adds that the agricultural practices of the Akamba were not detrimental to the environment. She wrote:

The natives do not remain long on one site, but remove their habitation every year or two .... These huts of the natives are so secluded among jungle growth, and the few isolated plots which have been cultivated in the bush are so insignificant, compared with the surrounding forest and open glade, that an unexperienced traveller may pass through the country and think it uninhabited (Watt, 1912:232).

But as chapter three shows, the rivers had dried up by 1920 and the once forested areas were severely eroded. In fact, the D.C. proposed the institution of a re-afforestation programme in 1919 (KNA/DC/MKS 1/1/10, 1919-20:2). By the late 1930s, environmental degradation had began to impoverish the bulk of population. Colin Maher's observation in 1937 is noteworthy:
[Every] phase of misuse of land is vividly and poignantly displayed in the reserve, the inhabitants of which are rapidly drifting to a state of hopeless and miserable poverty and their land to a parching desert of rocks, stones and sand (Quoted in Rosberg and Nottingham, 1966:167).

Chapter four therefore discusses this dual impoverishment of the ecology and the society, a trend which made famine a way of life in Machakos in the 1940s as documented in chapter five. As chapter six explains, the post-war development programme did not provide an immediate solution to food crises because it focused on the repair of existing environmental damage. The question which emerges from this review is: what upset the balance between the Akamba and their environment?

Some scholars have attributed this socio-ecological imbalance to population growth. For instance, Clayton says the following about colonial Kenya:

The humane impulses of colonial government put an end to the harsh Malthusian factors - tribal wars, disease and famine which, heretofore, had maintained a population balance. In due course, population increase brought about pressure on land, over-cropping and, in consequence, soil erosion (Clayton, 1964:143).

This view suggests that pre-colonial African populations were static. But on the contrary, chapter two of this study demonstrates that the Akamba not only expanded from Mbooni into the rest of Machakos and Kitui but were still expanding when the British came and halted further expansion. The crucial issue therefore is not population growth per se but the circumstances
in which the population grew.

According to Owako (1971:182), the population of Machakos grew as follows:

<table>
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<tr>
<th>Year</th>
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<tr>
<td>1902</td>
<td>102,000</td>
</tr>
<tr>
<td>1918</td>
<td>125,197</td>
</tr>
<tr>
<td>1932</td>
<td>283,910</td>
</tr>
<tr>
<td>1948</td>
<td>356,245</td>
</tr>
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Although the pre-1948 figures are mere estimates, the overall pattern shows a rapidly growing population. However, population pressure or over-population is a relative situation. This is what makes the colonial situation a significant factor in the analysis of food problems in colonial Machakos.

In this study, there is evidence to support the premise that colonial capitalism had numerous negative effects on the Kamba system of production. First, land alienation, which was meant to provide land for European settlers and to force the Akamba into wage labour, delimited the land available to the community. Second, the introduction of taxation as a means of raising revenue for the state and coercing Africans into wage labour engendered monetisation of the Kamba economy. This led to commodity production as individuals sought to escape proletarianisation by accumulating wealth. Third, the proximity of the Machakos Akamba to settler farms led to perpetual quarantines, a factor which adversely affected their livestock industry. All these aspects of colonial capitalism operated in
progressively eroded, food crises escalated. In short, climatic variability ceased to be the crucial factor in the genesis of food problems.

However, the articulation process was complex and full of contradictions. Hence, the premise that colonialism had diverse effects on the Machakos Akamba. Although the process impoverished the bulk of the society it also nurtured a rural capitalist class. These so-called progressive Akamba emerged mainly in the northern and western locations, areas which were best suited to commodity production. One such accumulator said the following about his life in 1934:

I had many helpers: some to push carts, other to assist in shops and when I bought a vehicle I hired a driver and with him a turnboy [sic] .... I had a large farm and two ploughs and harrows (Elijah Mutambuki, quoted in Newman, 1974:13).

This is the class which organised protests against state intervention in the process of accumulation. The class sponsored the 1938 protests against forcible destocking and also campaigned against the introduction of 'group farming' and communal terracing in the 1940s. In the early 1950s, the colonial state started to incorporate these progressive farmers into the colonial establishment by allowing them to grow lucrative cash crops and by providing them with loans and extension services. In short, the colonial situation intensified social differentiation among the Machakos Akamba, a phenomenon which manifested itself through differential impact of food shortages on regions and households.
Perhaps it is important to note here that the claim that scourges like famine, disease and war were the lot for pre-colonial Africa does not withstand scrutiny. Apart from the late nineteenth-century catastrophes, which were largely the result of European intervention, evidence suggests that colonialism actually intensified food problems. The allegation about a scourge-ridden pre-colonial Africa was therefore an ideological weapon for justifying colonialism.

As this study has demonstrated, it is incorrect to postulate that communities which inhabited dry environments were always desperate. Indeed, such communities organised their production systems to accommodate environmental perturbations such as drought. Such communities were probably better prepared to withstand serious crop failures than communities in more favourable environments. In other words, people did not settle in a particular environment unmindful of the risks involved, rather they adapted their socio-economic systems in ways that transformed seeming disadvantage into advantage. But colonialism upset these delicate socio-ecological balances, not through the introduction of meagre medical and veterinary services but through confiscation of land, control of labour and extraction of surplus income.

The perspective of articulation of modes of production has a lot to recommend it. For example, it is not schematic like the modernisation theory which is based on the stages of capitalist development in Western countries. On the contrary, the articulation perspective examines the actual process of
capitalist development in the so-called Third World societies. The perspective therefore enables the researcher to trace changes in the society under study as the society was progressively affected by colonialism. It is thus possible to analyse the dialectical relationship between a society and its environment against the background of colonial policies. These policies were largely the product of changes in the global economy but were also influenced by the reactions of the colonised communities. This study has therefore tried to avoid the structuralist version of articulation by elucidating the experience of the Akamba under colonialism as a process instead of trying to fit that experience into a schematic development of capitalism.

To minimise methodological problems in our study, a sample of nine out of the thirty-six locations that form Machakos District was taken. This sample comprised areas whose experience under colonialism is important in understanding food problems in the district. Information gathered through oral interviews conducted in the sample locations was supplemented by information from colonial records and published works. All in all, an effort was made to analyse the complex aspects of food crises in the district from 1889 to 1963.
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B: ARCHIVAL SOURCES

KNA/DAO/MKS 1/58: Development in the Reserve (Dev/1-F1)
KNA/DAO/MKS 1/59: Post-War Development, Machakos (Dev/2-F2)
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Part I

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<td>A Note on Native Land Problems in Machakos District with Particular Reference to Reconditioning (1945), by H.E. Lambert (Sr D.C.)</td>
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<td>KNA/DC/MKS 8/1</td>
<td>Machakos Reserve: Some Facts and Figures (1945), by J.L.R. Thorp (D.C.)</td>
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<td>Reconditioning: Some Problems of the Machakos Reserve (1946), by G.S. Cowley (Agricultural Officer)</td>
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<td>Report on Machakos District (1943), by G. Hopkins (D.C.)</td>
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<td>Department of Agriculture: Annual Reports, 1941-47</td>
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<td>KNA/DC/MKS 8/14</td>
<td>District Team Meetings, 1949-52</td>
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<td>Ukamba Province: Land File for 1906 (Part 2)</td>
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KNA/DC/MKS/10A/8/1 Ukamba Province File: Mua Hills, 1908
KNA/DC/MKS 10A/29/1 Memorandum on Soil Erosion in Ukamba Reserve (1937), by R.O. Barnes
KNA/DC/MKS 10A/15/1 Destocking Campaign and General Correspondence on Political Affairs, 1938-39
KNA/DC/MKS 12/2/2 Minutes of the Reconditioning Committee, 1936-37
KNA/DC/MKS 12/4/1 Minutes of the District Committee, 1927-44
KNA/DC/MKS 14/3/2 Machakos District Agricultural Gazetteer, 1959
KNA/DC/MKS 15/1 Movement of Natives: Akamba in Other Districts, 1938-52
KNA/DC/MKS 25/3/1 Chief Native Commissioner's Circulars, 1921-24
KNA/DC/MKS 25/3/2 Chief Native Commissioner's Circulars, 1925-28
KNA/DC/MKS 26/3/1 John Ainsworth's Memorandum for the Land Committee, 1904
KNA/PC/Coast 1/1/31 Sub-Commissioner, Ukamba, Inward, 1896-1900
KNA/PC/Coast 1/1/45 Commissioner, Ukamba, Inward, 1899
KNA/PC/Coast 1/2/6 Famine, 1918
KNA/PC/Coast 1/4/114 Food Shortage
KNA/PC/CP 1/4/1 Kikuyu District Political Records
KNA/PC/CP 1/5/1 Embu District Record Book
KNA/PC/CP 4/2/3 Ukamba Province: Annual Reports, 1925-32
KNA/PC/CP 16/1/1 Native Reserves: Natives in Reserves other than their own
KNA/PC/EST 1/1/17 Machakos District: Annual Report, 1961
KNA/PC/EST 1/2/10 National Disaster Correspondence, 1948-62
KNA/PC/EST 2/1/14 Machakos District Team: Agenda and Meetings, 1947-54
KNA/PC/RV 6A/11/6 Agriculture: Crop Production: Famine, 1931-34
C. PAPERS, REPORTS AND GOVERNMENT PUBLICATIONS


____________. 1937. "Memorandum on Native Agricultural Development in the Native Reserves".


D : UNPUBLISHED THESES AND DISSERTATIONS


E : ARTICLES


Watt, R.S. 1912. *In the Heart of Savagedom.* London: Pickering Inglis.

## APPENDIX I

### ANNUAL RAINFALL STATISTICS, MACHAKOS STATION, 1909-1962

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<tr>
<th>Year</th>
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<th>Year</th>
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*Source: Annual Reports for the respective years.*
APPENDIX 2

SAMPLE QUESTIONNAIRE

Part 1

1. (a) Informant's name____________________ (b) Age________
2. (a) Location _____________ (b) Sub-Location________________
3. Date of Interview___________

Part 2: Food Economy

A: General

1. What were the various ways of obtaining food on the eve of colonialism?
2. What was the order of importance of these activities?
3. Which was the social unit of production and consumption?
4. How was labour shared within the social unit?

B: Land

1. When was this area settled?
2. Where did the settlers come from?
3. What prompted this movement?
4. How was land acquired in the pre-colonial period?
5. What was the pattern of land ownership on the eve of colonialism?
6. How did this pattern of land ownership/use change over time?
7. What caused the change(s)?
8. What were the results of the change(s)?

C: Crop Production

1. What crops were in existence on the eve of colonial rule?
2. Did these crops vary from one area of Ukambani to another?
3. Were there different varieties of the same crop?
4. Were there special tasks for men/women/youth/children?
5. How did people minimise the risks of crop failure?
6. How was soil fertility maintained?
7. Why did soil erosion become a problem during the colonial period?
8. What use was harvested food put to?
9. Who was responsible for storage/disposal of surplus food?
10. How was damage to stored food minimised?
11. How was seed for the next planting preserved?
12. What crops were introduced during the colonial period?
13. Were they adopted by all the people?
14. How did the new crops affect the existing arrangements of food production?

D: Technology

1. What implements were in use in the pre-colonial period?
2. How did these implements influence the amount of land cultivated and division of labour in society?
3. What implements were introduced during the colonial era?
4. Were these new implements accessible to everybody?
5. What changes did the new implements bring?
E: Livestock

1. What forms of livestock were kept in the pre-colonial era?
2. Were the same animals reared all over Ukambani?
3. What was the order of importance of the various forms of stock?
4. What purposes did livestock serve?
5. Were livestock rearing and crop production interdependent?
6. Did everybody own stock?
7. How did livestock-owners relate with people who had no stock?
8. How was livestock acquired?
9. How did colonial policies on land, livestock diseases, etc affect the livestock industry?
10. Why were people opposed to forced culling of stock?

D: Labour

1. Did any form of labour organisation exist outside the household?
2. How could a household augment its labour force?
3. How did people earn money during the colonial era?
4. How did individuals invest their surplus incomes?
5. How did the colonial administration acquire labor for various activities?

Part 3: Specific Famines

1. What is the famine called?
2. Why is it called so?
3. When did the famine occur?
4. What caused the famine?
5. Did the famine affect the whole of Ukambani?
6. How did people acquire food during the famine?
7. What were the effects of the famine on the community?
8. How did the famine differ from previous ones?