

THE RURAL INFORMAL SECTOR IN KENYA: A STUDY OF  
MICRO-ENTERPRISES IN NYERI, MERU, UASIN GISHU  
AND SIAYA DISTRICTS

By

Njuguna Ng'ethe  
James G. Wahome  
with  
Gichiri Ndua

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INSTITUTE FOR DEVELOPMENT STUDIES  
UNIVERSITY OF NAIROBI  
P.O. BOX 30197  
NAIROBI, KENYA

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ABSTRACT

Like its urban counterpart, the rural informal sector is dominated by trade activities and without significant regional differences. Furthermore it appears that "trade" has the least potential for growth and therefore labour absorption.

The rural informal sector is in addition dominated by male "sole proprietors" with basically primary level education and no "further training" after graduating from school. This raises questions about their potential trainability, and the means of training them.

In designing policies for the rural informal sector, it would be good to keep in mind that the rural informal sector is not significantly different from the urban informal sector except perhaps in the positive public image that the rural informal sector seems to enjoy. Furthermore, except for few subtle differences which might lead to major difference in the future, no significant regional differences exist.

The degree to which the potential of this sector can be increased will depend on how well and how fast the constraints affecting productivity in this sector are overcome. Chief among the constraints are credit, skills and infrastructure. Initial education is only a constraint indirectly.

The demand for rural informal sector products, though not systematically covered in this study, could be a major constraint in that without increased incomes from agriculture this demand is likely to react positively to increased demand.

On the whole, it seems to us that the faith in the informal sector could be slightly misplaced given the overall potential of this sector as documented in this study. However, the evidence is mixed, showing as it does that, the faith in manufacturing and services sub-sectors is certainly more justified as it is cheaper to create more jobs in these sub-sectors.

In the long run, government policy should aim at transforming this sector from its current state of "high informality" to a more business like and self-evidently more formal sector. The potential for this transformation already exists, albeit at a fairly low degree.

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## 1. THE INFORMAL SECTOR: AN OVERVIEW

### 1.1 Overview

An enormous amount of literature has so far emerged on informal sector activities. While it is not our intention to exhaustively review this literature we feel that a few introductory comments on this literature are necessary in order to give this study some grounding. The literature can perhaps be classified into three distinct categories. The first category includes studies such as the famous I.L.O. report of 1972,<sup>1</sup> Kenneth King's<sup>2</sup> study of the African Artisans, and Mukui<sup>3</sup> et al. study of the Shoe-shine informal sector activities in Nairobi, to mention but a few. These studies mainly aim at outlining some of the most important characteristics of this sector. These researchers hope that by doing so, a concise and workable definition of what actually constitutes the informal sector activities will emerge. It is therefore customary to preface these studies by exhaustively discussing the definition of the sector. This approach is by itself quite indicative of the ambiguity surrounding the concept "informal sector".

In this respect, the most commonly used criteria in trying to provide a workable definition for this sector revolves around the amount of real capital invested, the socio-economic characteristics of the labour force involved and the working conditions in these enterprises. Along the same lines, other writers<sup>4</sup> have suggested a categorization based on the legality of the activities. This suggestion has emerged as a result of the perceived inadequacies of the other criteria in trying to define the "informal sector". This line of research therefore tends to view informal sector activities as those that are not protected by the existing laws, and whose existence in the economy is therefore illegal e.g. Chang'aa brewing, or some road side food vending.

These studies have also addressed themselves to the driving force behind the growth and proliferation of these activities, particularly in the major urban centres of Nairobi, Mombasa and Kisumu. A consensus seems to have emerged in these studies to the effect that informal sector activities are a consequence of the inability of the formal sector to provide gainful and productive employment opportunities for the urban labour force, a labour force that is swelling almost daily due to the influx of rural migrants. Along this line of reasoning it has been noted that there are further linkages between formal and informal activities. For instance, the informal sector depends on the formal sector for supply of many inputs such as scrap metal, and for supply of finished products such as domestic utensils. In addition, it has been suggested that formal sector wages have somehow determined the level of demand for informal sector products.

The debate about whether it is conceptually right to consider informal sector activities as a "sector" alongside the other sectors of the economy (i.e. industrial and the agricultural sector) has also been part of the research. This issue has not been conclusively resolved. Also unresolved is the question of the sector's potential for autonomous growth, the nature of such growth and the nature and overall consequences of its relationship with the formal sector. For example, is the relationship benign or exploitative? Though some progress has been made particularly in understanding the dynamics and heterogeneous characteristics of this sector, none of the above issues have been adequately resolved. In our opinion, this is partly a consequence of the difficulties associated with collecting relevant data, and partly the result of seeking an overall answer for the role of so diverse and heterogeneous a sector.

A second generation of studies has emerged in the last five to ten years. Examples of such studies are those conducted by

W.J. House,<sup>5</sup> Frank Child,<sup>6</sup> Njuguna Ng'ethe and Gichiri Ndua,<sup>7</sup> and more recently some follow-up studies by the I.L.O such as that by A.A. Aboagye.<sup>8</sup> These studies have concentrated on using conventional economic criteria in determining whether this sector is economically viable and hence worth of Government support. The principal economic concept used is that of partial efficiency in evaluating factor inputs, namely capital and labour. The studies seem to have concurred that this sector is an efficient user of capital, for example, and plays an important role in the overall process of capital formation. These studies have given the impression that the rate of return to invested capital in this sector compares favourably with the country's formal sector. It is further noted that this sector uses labour intensive techniques and that this is in line with the country's resource endowments.

Constraints that hinder the sector's development potential have also been identified. Such constraints include the lack of capital, management drawbacks, and lack of access to suitable infrastructural facilities, among others. On the basis of these findings, official policy efforts have therefore concentrated on lifting the perceived constraints by developing programmes in such areas as training entrepreneurs, improving management techniques and facilitating access to credit and other physical infrastructural requirements such as permanent workplaces, water and electricity.

This second generation of studies has also addressed itself to the perennial problem of categorising informal sector activities. In this respect, it is argued that the informal sector can be classified into two distinct categories. These are the "intermediate sector" and "the community of the poor".<sup>9</sup> According to this categorisation, in the intermediate sector, despite their typically small size, the firms provide a better than average income for their owners.

Also, the rate of return on invested capital exceeds that of the formal sector by a substantial margin. Furthermore, both the capital output and capital-labour ratios are low and that capital invested in the intermediate sector creates more employment than does an equivalent amount of capital in the formal sector. In addition wages in this sector exceed wages in commercial agriculture. The conclusion therefore is that, it is the "intermediate sector" of the informal sector, and not the "community of the poor" that is likely to play a vital role in the economy because it has the development potential identified by the I.L.O. Most, if not all, of the firms engaged in manufacturing are likely to belong to this category.

The "Community of the poor" on the other hand is described as composed of people who migrate to the city in order to gain entrance to the formal sector. They therefore view their current plight as only temporary and still have hope of admission to the formal sector. Members of this community, typically vegetable vendors and other petty traders, lack the motivation and perhaps the means to seek informal activities with growth potential or to re-invest in their current activities because they view their current predicaments as temporary. The policy implications of the dual conception of the informal sector is usually that the goals of development strategy should be to maximize the development of the intermediate sector and to minimise the size of the community of the poor.

The findings of these studies are useful in showing the dynamism of the informal sector in Kenya. The existence of the intermediate sector, if indeed it exists suggests potential for upward mobility of the technologically backward informal sector. Since the sector is therefore not static but dynamic it is capable of developing into a modern indigenous economic sector with adapted and appropriate technology. On the other hand, the findings also suggest the existence of a large non-productive part of the informal sector, the so-called "community of the poor" that calls for appropriate policy interventions.

Self-evidently, not everybody is optimistic when assessing the potential of the informal sector in development.<sup>10</sup> Some therefore regard it as a residual category consisting of all forms of wage employment which do not find their way into the labour census in urban and rural areas. The vast majority of wage workers in this sector are thus said to receive earnings that are generally lower than they are even in lower reaches of the formal sector. For these critics typified for example by Colin Leys,<sup>11</sup> the potential of the sector particularly in labour absorption is low. They argue that because of the low-income elasticity of demand for the products of these enterprises and because of the intense rivalry that exists between the formal and the informal sector, the latter's relative importance in terms of surplus labour absorption is bound to diminish overtime. Furthermore part of the sector's survival strategy can be explained by its ability to exploit labour through the evasion of minimum wage legislation. Therefore, attempts to legislate for it would inevitably lead to its death.

In summary, the critics argue that people go to the informal sector because the other options available to them are even worse, that is, the alternative uses of their labour power would yield an even lower rate of return per unit of labour time than does employment in the sector. The operators are, therefore, essentially poor entrepreneurs without much chance of upward mobility. Furthermore the sector's existence is essential for the profitable operations of the formal sector, because it provides cheap goods and services for the lowly paid in the formal sector. The links between the formal and the informal sectors are therefore not benign but exploitative and antagonistic while at the same time necessary. The informal sector therefore covers a system of very intense exploitation of labour with very low wages and often very long hours under-pinned by the constant pressure for work from the reserve army of jobseekers.<sup>12</sup>

## 1.2 Issues From the Urban Informal Sector

The controversy on the potentiality of the informal sector should not detract us from the fact that the sector is currently required to play a vital role in the development of Kenya. However, before the sector's developmental role can be fully appreciated a number of key questions will need to be answered as suggested by past research on the urban informal sector in Kenya. These include:

1. What is the sub-sectorial composition of the sector and do these sub-sectors have different characteristics?
2. In what ways can they be distinguished from the formal sector, if indeed such distinction is valid or even possible?
3. What explains the emergence, existence and proliferation of the sector?
4. What is the role of the informal sector in labour absorption and income generation?
5. What are the conditions, including constraints under which labour is being absorbed?
6. What impact does it have on income distribution and poverty alleviation?
7. What benefits does it generate for the urban economy?
8. What is the pattern of growth of this sector?
9. What is the nature of the relationship between the informal and formal sector?
10. Do the theorised characteristics of the sector actually exist?

These are some of the main questions which researchers of the informal sector have isolated and addressed themselves to. Although the principal concern of this study is the rural informal sector we hope to address ourselves to some of these issues and in particular those relevant to the focus of this study.

### 1.3 The Rural Informal Sector

Recently a new body of studies has begun to emerge dwelling on the role of the informal sector in the development of intermediate and small-sized urban centres. This new line of thinking has been necessitated by the phenomenal rise and concentration of population in a few urban centres on the one hand, and the growing regional imbalances on the other hand. The trends in urbanization would, however, not have been a major source of concern if jobs and income opportunities were also expanding at an equal pace as they did in the Western World during the nineteenth and the first half of the present century following the industrial revolution. It is of course obvious that this rise in urbanization is accompanied by rapid increases in the number of young job seekers, mostly with little education and skills. Most of them are also poor, and have no other means of generating income apart from their labour. Well paid jobs with good social security such as those in the formal sector are neither growing nor available in these centres. It has therefore consequently been argued that most of the new additions into these centres will have to seek employment in the informal sector activities; just like their counterparts in the larger urban centres.

The central thesis of these studies is that if suitable macro-economic support policies are initiated by the central Government in providing infrastructure and other support services, in the small urban centres, the informal sector activities will respond by

utilizing these services to create suitable employment and income generating activities. The overall implications of this essentially rural based development strategy is that population will in the long-run evenly spread itself over the various rural growth centres and hopefully stay there. This thesis also touches on the type of agricultural pricing policies that should be pursued so as to theoretically induce demand for the products of informal sector activities.

The importance of this generation of studies<sup>13</sup> is that it is beginning to focus our attention on the rural informal sector, a research area which upto now has been virtually ignored by both researchers and policy makers. In Kenya, one of the earliest responses to the I.L.O was Kenneth King's study. The study deals with education and the informal sector in Kenya. In addition it tries to provide a framework for analysing both urban (Nairobi) informal sector and rural informal sector at the village level. From this study, we hypothesise that informal sector activities in rural Kenya are not significantly different from informal sector activities in Nairobi and other urban centres such as Nakuru and Kisumu.

In addition to King's study a few other individuals and institutions, including the Central Bureau of Statistics (C.B.S.), Ministry of Planning and Economic Development, have been collecting data on the rural informal sector though the results have yet to be fully analysed. As far as individuals are concerned, Frank Child's 1973 study<sup>14</sup> is worth mentioning. The main conclusions of this study were somewhat similar, in some respects, to those of William House discussed earlier. He for example concluded that wages earned by workers in his sample compared tolerably well with working class incomes in the modern sector. Furthermore, the wages exceed wages in modern agriculture. The only major problem with Child's findings was that they were based on a sample drawn from woodworking and

furniture making, perhaps the most common manufacturing informal activities in the rural areas. Thus, it is questionable whether the findings represent even the rural informal sector in Kenya as such. In addition, going by House's categorisation, Child's sample was drawn entirely from a sub-sector of the intermediate sector" which, as we have seen, perhaps "speaks" unduly well of the informal sector.

The C.B.S, on the other hand, conducts an annual survey of the urban informal sector. In the rural areas, it does not seem to have a programme specifically designed to collect data on the informal sector. However, the Integrated Rural Surveys (I & II) will hopefully yield data which is relevant to the study of rural informal sector, especially in its coverage of off-farm employment, an item which is central to this series of surveys. Overall then, neither C.B.S nor individual researchers have in the past raised questions which are specific to the rural informal sector. Whether such unique questions can indeed be generated is a methodological challenge which can only be overcome after several pilot studies of which this study is one. At the heart of the problem is whether the rural informal sector is indeed similar to the urban informal sector as has been claimed by the very few studies so far conducted and which have had some bearing on the rural informal sector.

## 2. RESEARCH OBJECTIVES AND METHODS

### 2.1 Research Objectives

This study has been conceived in the overall context of the current rural development strategy especially with respect to one aspect of the strategy namely, the role of small rural centres in supporting industrial, commercial and service activities in rural development. As such, this study has focussed on several

broad objectives and specific issues. The objectives were derived from consultations among the researches and consultations between the researchers and officials from the Ministry of Planning and National Development. We outline first the broad objectives, not necessarily in order of importance.

The first objective of the research has been to develop a concept of the term "rural informal sector". Attempts have therefore been made to answer the question: what exactly constitutes the rural informal sector activities? If in the case of large towns like Nairobi, Nakuru and Kisumu, the distinction between informal and formal sets of activities is not obvious as we have indicated, the distinction is even more difficult to make with respect to the rural informal sector and especially those located in very small rural centres where everything appears to be informal.

A related objective has been to provide a broad picture of the character of the rural informal sector activities. In this respect, the study aims at providing some insight into whether, for example, these enterprises have an in-built strength and dynamism of their own and whether they are economically viable and socially feasible, and hence worth of Government support. The importance of this objective can be seen by bearing in mind that the policy to promote these enterprises in small and intermediate sized rural towns will be based on the social and economic viability of the same.

Another objective is to identify some of the structural constraints in the development of these enterprises. The constraints are of two types. There are those that are internal to the enterprises and operate in their immediate environment (e.g. lack of capital, management problems and lack of skilled personnel), and there are those that are external or that seem to be macro-induced.

e.g. Administrative harassment by civic authorities and marketing problems.

The fourth objective is to explore the potential for expansion of this sector. To this effect efforts have been made to identify regional and local specific constraints e.g. land availability, poor infrastructure and the possible implications of Government support policies. Special attention has been paid to the issue of linkages with the agricultural sector. It is hypothesised that the existence or non-existence of these linkages will play a large part in determining whether these activities can expand in the future.

The fifth objective is to explain the emergence of the rural informal sector. Does the sector exist for example, as a consequence of the inability of the rural agricultural sector to absorb the growing labour force or/and the inability of the agricultural sector to provide sufficient income for the rural inhabitants? In this respect another relevant question is: are the enterprises essentially supplementary to agricultural activities? Other reasons that would explain the existence of the rural informal sector, for example, urban-rural migration, of the retired urban workers, rural-rural migration of the entrepreneurs and rural-urban migration have also been investigated where methodologically possible.

Finally it has been a prior objective of this study to propose viable policy interventions aimed at enhancing the productivity of this sector. In doing so, we have constantly reminded ourselves of the heterogeneous nature of this sector. The implications of this are obvious. A set of policy interventions good for particular types of activities might not be good for another type of activities.

In summary this study has sought to explore quite a number of related issues which we outline next. Within these broad issues several specific issues have been focussed on with an aim to testing specific hypothesis. The first of such issues relate to the nature and composition of the workforce engaged in this sector. In this respect we note that the sector is highly heterogeneous with respect to types of activities. In some activities individuals are engaged primarily in labour production and distribution of goods and services. In other activities the individuals e.g. petty traders are seemingly independent enterprises operating on their own account but in reality, they are no more than decentralised industrial workers since they have little or no freedom to make decisions as entrepreneurs over the pricing of the products they sell, and hence their labour returns. The heterogeneity of the sector could very well be reflected in the nature and composition of the workforce.

The second broad set of issues that have been investigated relates to the nature and patterns of links between the rural informal sector, on one hand, and the rural agricultural activities, on the other, and to a lesser extent the nature of the links between the rural informal sector and the formal sector in the rural areas and the large urban areas. The purpose of this investigation has been to provide a picture of the future trajectory of these enterprises. The link between formal and the informal sector can for example, be seen in the light of markets for inputs and final products while that between the informal and rural agricultural activities has been examined for example in terms of the magnitude and types of input supplies, and the types of products and purchases. In this respect, sources of initial capital, and destination of final products are important indices in the linkage.

The perennial question of equity versus efficiency in informal sector enterprises has also been examined. The basic question

that we have sought to answer is whether rural informal sector activities should be accorded support and promotion on efficiency grounds or whether there are other socio-political considerations that should be taken into account. In investigating this issue we shall also look beyond the employment output trade-off and consider the economic role rural informal sector enterprises play as a whole.

Another issue that has been examined in this study is the conditions under which employment and incomes in rural informal sector are generated. This issue perhaps needs no more than the observation that a majority of those employed in this sector are self-employed and may be only a small fraction of hired labour. The labour characteristics of the self employed and the wage workers is therefore important from a policy formulation point of view.

Income disparities within the rural informal sector will also form an important reference point for this study. This issue will be examined by identifying and analysing the economic and social factors that determine the levels of incomes in this sector. Such factors, in our opinion, include the quality and quantity of both physical and human capital investment, (including access to infra-structural facilities) and the favourable and/or unfavourable external environment in which these enterprises operate among others.

On the basis of the above objectives and issues, specific hypothesis have been formulated and tested and the results reported in the relevant sections of this study.

## 2.2 Research Methods

### 2.2.1 Survey Areas

The study was designed to cover four districts in four provinces. These include Central, Rift Valley, Eastern and Nyanza

provinces. By using the province as the first stratum, we expected to capture some, if not most of the different economic and socio-cultural factors that might influence the development of informal sector activities. Within each province, one district was randomly selected. In each sampled district, the study areas were selected in such a manner as to include at least one urban centre as defined by population size of between 10,000 and 20,000 inhabitants. In order further to capture the rural nature of the enterprises, we went below the urban centres and sampled smaller centres where the population is less than 10,000 inhabitants. This yielded three or more additional study areas in each district. In sampling the study centres, care was taken to distribute them in such a way that each administrative division in the study district was represented in the sample, subject to some practical considerations. Table 1. lists the centres studied.

Table 1. Study Areas

Province	District	Centres	Status of Centre
Central	Nyeri	Karatina	Urban Centre
		Naromoro	" "
		Othaya	Rural Market Centre
		Chinga	" " "
		Aguthi	" " "
Eastern	Meru	Nkubu	Urban Centre
		Chuka	" "
		Maua	" "
		Timau	" "
		Egoji	" "
		Chogoria	" "
Rift Valley	Uasin-Gishu	Burnt Forest	Rural Centre
		Timboroa	Urban "
		Turbo	Rural "
		Ziwa	" "
		Moi's Bridge	Urban "
		Matunda	" "
		Moi-Ben	Rural "

Table 1.....cont'd

Province	District	Centres	Status of Centre
Nyanza	Siaya	Siaya Town	Urban Centre
		Yala	" "
		Bondo	" "
		Usenge	Rural Centre
		Ndori	" "
		Ugunja	" "
		Akala	" "
		Luanda	Urban Centre

#### 2.2.2 Survey Procedures

Before sampling the enterprises in each selected centre, we first established the universe of informal sector activities in each centre. This was done through an initial enumeration exercise of all informal sector activities in the sampled centres. The process of establishing the universe of informal sector activities also included mapping the lay out of the enterprises so that the sampled ones could easily be identified later. This was done by soliciting, in a short questionnaire, information on the type of informal sector enterprises, the postal address, if any, and the size of the enterprise as proxied by the number of people employed. Descriptive information was also sought of the exact location of the enterprise in terms of the geography of the selected centre, the type of structure from which the enterprise was operating and the name of the owner.

To distinguish informal sector activities from the other economic activities in each selected centre, the definition of enterprises employing less than 10 persons was used. In addition the nature of the business premise, i.e. whether fixed or variable location and whether permanent or temporary was used as an additional "helpful" criterion. We deliberately excluded the small "obviously" formal professional "main street activities" such as private health care services, lawyers, engineering etc. that employed less than 10 people.

The rural informal transport system (matatus) that communicate from one centre to the other were also excluded except such modes of transport as donkey carts and mkokoteni. The matatus were excluded because it was agreed that there is now a good body of knowledge on them and the Government is already providing policy interventions in this area. Illegal activities such as Chang'aa brewing and prostitution were also excluded for obvious methodological reasons. Informal shelter provision and informal agricultural activities were also excluded. We included open air markets in our definition of the informal activities. These were therefore enumerated, sampled and interviewed during the designated market days. Local council's market stalls were included in our survey. At this point we should add that in studying the informal sector one is often forced to use an intuitional "common sense" definition of what one wants to study due to the definitional problems discussed earlier. We sometimes found ourselves without much choice but to use the "common sense" - Jua Kali - definition of the sector.

Having obtained the universe, the enterprises were then classified according to the nature of activities e.g. shoemakers, cycle repairs, vegetable sellers, kiosks, carpenter, etc. From the cluster of activities, a sample of approximately 10% was randomly selected for study. The same enumerators who had carried out the initial baseline survey were used for the sample survey. Due to their accumulated knowledge of the enterprises, they could easily identify and locate the enterprises. The universe and the sample are presented in Table 2.

From Table 2. we note that the sample size does not exactly equal 10% of the population. The reason for this is that in the open air markets particularly in the high potential agricultural zones of Nyeri and Meru, a smaller than 10% sample of the population was selected for interview. It was felt that because of homogeneity of activities, interviewing a 10% sample would be a waste of time and duplication of information.

Table 2. Informal Sector Activities in Study Areas

District	Survey Centre	A Census	B Sample	B% of A
Nyeri	Karatina	1,432	48	3.35%
	Othaya	413	30	7.26
	Chinga	23	4	17.39
	Naro-moro	41	3	7.32
	Aguthi	40	5	12.5
Totals		1,949	90	4.62%
Meru	Nkubu	396	36	9.09%
	Chogoria	62	6	9.68
	Egoji	156	14	8.97
	Chuka	127	16	12.60
	Maua	233	24	10.30
Totals		1,005	99	9.85%
Uasin-Gishu	Moiben	48	5	10.42%
	Matunda	272	28	10.29
	Moi's bridge	188	18	9.57
	Ziwa	61	6	9.84
	Turbo	195	19	9.74
	Timboroa	87	8	9.20
	Burnt Forest	224	21	9.38
Siaya	Siaya Town	466	46	9.87%
	Bondo	315	30	9.52
	Yala	204	17	8.33
	Usenge	51	5	9.80
	Ndori	88	19	21.60
	Ugunja	185	11	5.95
	Akala	63	28	44.44
Totals		1,693	162	9.57%

After drawing the sample, enumerators collected specific information on the sampled enterprises using a standardized questionnaire. The owners of the enterprise were chosen as the informants and deliberate efforts were made to locate and interview them. In those very few cases where the owner was not available, the second

most responsible person in the enterprise was interviewed. We note here that the enumerators nearly always managed to locate and interview the owners of the sampled enterprises. Thus the interviewees were 95.5% owners and only 4.2% employees.

The questionnaires sought three types of information. The first type was on the general characteristics of the enterprises. This included information on the nature and number of activities undertaken by the enterprise, the type of ownership, availability of essential services such as electricity, water and postal addresses the type structure where the enterprise was operating from etc. The second type of information was on the social economic characteristics of the entrepreneurs themselves. This included sex, age, number of dependents, educational attainment, information on whether the entrepreneurs were migrants to these centres or not etc. The third type of information sought was enterprise specific. This included information such as the incomes obtained from the enterprises, expenditures on raw material inputs, nature and number of people employed, the amount and source(s) of initial and fixed capital utilized, and the problems associated with business expansion. Supplementary information was also sought on the distances of the survey centres from the main urban centre in the district, the type of infrastructure in the centres e.g. water and electricity, the county - council by-law that tend to infringe on the development of informal sector activities, etc. This type of information has proved to be useful background information in analysing the data.

#### 2.2.3 Data Analysis

The information gathered through the questionnaire has yielded two types of data: the soft data and the hard data. Both types of data have been analysed to yield both descriptive and

explanatory statistics. Most of the soft data has yielded such descriptive statistics as frequency distribution and cross-tabulations. On the other hand the hard variables have been used to construct explanatory models using primarily regression analysis. The rest of this report presents the findings of the study. The report begins with a brief background of the study districts. This is followed by sections dealing with specific aspects of the study. In presenting the findings the format used is that of inter-sectoral and inter-district comparisons. As we point out in Chapter IV, this is on account of both time and analytical manageability.

#### 2.2.4 Data Limitations

In interpreting data contained in this report, we have to bear in mind that data collected from the informal sector have one serious limitation in that the informal sector operators rarely keep any records. Therefore they have to rely on memory for information. Due to this limitation we have sometimes restrained ourselves from "pushing" the data too far. However, we do believe that given the existing knowledge of this sector and the data gathering methods so far developed for this sector, the data contained in this report have a high degree of reliability. Where doubtful about the reliability of the data we point out the fact and try to explain.

### 3. DISTRICT PROFILES

#### 3.1 Uasin Gishu

The district measuring 3784 km<sup>2</sup> is bordered by five districts, namely, Trans Nzoia, Keiyo Marakwet, Nakuru, Nandi and Kakamega. It is a highland plateau with an altitude ranging between 1500 - 2100 m. Climatically, the district enjoys reliable rainfall, and fertile soils with over half the total land area (2354 km<sup>2</sup>) being high potential and 1430 km<sup>2</sup> being medium potential.

According to the 1979 Census, the district had a population of 300,766 people with a growth rate of 4.65% between 1969-1979, well above the national average of 3.8%. This rapid growth has been attributed to an influx of people in search of resettlement and the rapid industrial sector growth registered by Eldoret since the 1979/83 Development Plan. In 1982, 295,979 people were living in the rural areas. By 1988 this figure is projected to be 390,951, an increase of 32%. This population is however unevenly distributed ranging from 44 persons per km<sup>2</sup> in Timboroa location to 92 persons in Ainakboi and Kaptagat in 1979. The district's average population density in the same period was 87 persons per km<sup>2</sup>. By 1986 the population was projected at 428,095 persons with the figure rising to 498,479 by 1987. The pattern of migration in the district has largely been influenced by the resettlement plans since independence and by the high productive capacity of land. Most of the in-migrants (30%) come from Rift Valley province with the rest hailing from Western, Central and Nyanza in descending order. In-migration is estimated to account for 48.8% of the district's total population while out-migration accounts for 9.6%. It is further estimated that for every 113 male in-migrants there are 100 females. Females constitute the greater proportion of out-migrants. According to 1979 Census, out of the total population of 300,766, 145,930 (48.51%) were female with 51.48% being male. Of the total population, 53% consists of dependents.

Agriculture is the backbone of the district's economy and the principal income earner on which 85% of the population derive their livelihood. Prior to independence, the district land tenure system was mainly characterised by large-scale farms owned by Europeans. However, after independence, government resettlement policies has led to change of ownership. Land is now owned by the Government, cooperatives, land buying companies, partnerships and private individuals. Mixed farming mainly of maize, wheat, dairying and beef cattle

rearing is practised. Other economic activities include forestry, and retail and other commercial business. Gazetted forests cover 53,000 ha. and provide employment - both seasonal and permanent to several thousand workers.

Administratively, the district is divided into 2 divisions namely Ainakboi and Moiben and 15 locations.

### 3.2 Siaya District

The district covers an area of 3528 km<sup>2</sup>. Out of the above total area, 1005 km<sup>2</sup> is under the waters of Lake Sari, Kanyabali and part of Lake Victoria. The district is bordered by four other districts, namely Kakamega, Kisumu, Busia and South Nyanza as well as by Lake Victoria. It lies between 1140-1300 m. In the north and North-Eastern part of the district, there are some instances of hills rising to between 1420-1500 m. especially in Yala division.

Rainfall distribution is determined mainly by altitude and wind. Hence rainfall decreases as one moves from the Northern higher areas to the lower southern and western parts along the lake shore. The highest rainfall averages 1500 mm while the lowest average 935 mm. annually.

Only 52,275 ha. (31.8%) of the district's land area is high potential agricultural land with potential for two crop seasons annually. The rest of the land area has unreliable rainfall and hence has only one crop season. Crops grown in the high potential zone (Yala and the northern parts of Ukwala divisions) include sugar-cane, maize, cotton, oil seeds, pulses, groundnuts, root crops, millet and sorghum while in the drier parts of the lake shore, fishing is an important economic activity as well as mixed subsistence farming. This area however has potential for irrigated rice, cotton and vegetable growing.

In terms of natural resources, the district has no gazetted forest, no substantial mineral resources except for some small economically viable gold deposits in Bondo division. Land which is a major resource is however underutilized mainly due to lack of financial resources for investment in modern high technology farming. Fishing which is an important economic activity registers an annual tonnage catch of 6,000 metric tons.

According to the 1979 Census, there were 474,516 people in the district, an increase of 24% from the 1969 figure of 91,000 people and an average population density of 188 persons per square km. The population growth rate for 1984/88 is estimated at 3.12% which is below the national average of 3.8%. By 1987 therefore, the district population is expected to reach 721,400 putting the population density at 276 persons per sq km. In 1988 it is expected to be 286 persons sq km. The highest population in 1979 - was recorded in Bondo division (140,300).

The 1979/83 District Development Plan put the total urban and rural centres population in the district in 1979 at 6320. This represented 1.33% of the district's total population. By 1987 this figure will have risen by a mere 1.87% in 8 years at a growth rate of 0.54%. In terms of sex, 45.3% of the population was male with 54.7 being female while according to the 1983 population projections, the proportion of dependents was 54.90% putting the dependency ratio at 1:1.2 i.e. one working adult for every 1.2 dependents.

Land distribution in the district varies from one division to another. According to the 1984/88 Development Plan estimates, the average size of farm holdings range from 1.20 hectares in Bondo division to 1-4 ha. in Yala, 1-6 hectares in Ukwala and 1-9 hectares in Boro. The average land holding is therefore 1-9.5 ha. Only in the northern high potential parts of the district is there a more intensified use of land especially in Yala division where cash crop

growing takes place on a large scale. In the other parts of the district only a small portion of the land is utilised and much of the land remains unutilised. There is generalised keeping of at least a zebu type cow per household for milk while dairy farming is practised in Ukwala and Yala divisions.

In 1982 according to District Data Sheet records, the average income from crop earning was Kshs 616/78. The vital crops that contributed towards this were sugar cane, maize, beans and sorghum.

Administratively, the district is divided into 4 divisions, namely Bondo, Yala, Boro, Ukwala and 18 locations. The district headquarters is in Siaya town.

### 3.3 Nyeri District

The district covers an area of 3284 km<sup>2</sup>. It is bordered by four districts namely Meru and Kirinyaga to the East, Nyandarua to the West, Laikipia to the North and Muranga to the South.

The land can be divided into three categories excluding the forested area; high potential 78,927 ha., medium potential 144,500 ha. and marginal land 29,802 ha. This means that the major part of the district's non-forested land is good agricultural land.

According to the 1979 Census, the population of the district was 486,477 while the annual growth rate between 1980/90 has been estimated at 3.65%, a little below the national figure. Thus by 1988, the district population will be 695,902. The average population density according to the 1979 Census was 148 people per km<sup>2</sup>. Out of this population, 252,072 (51.81%) were female while 234,405 (48.18%) were males. The productive age group (15-59 yrs) accounted for 41.7% of the total population giving a dependency ratio of nearly 1:1.3 while children of upto the ages of 14 years accounted

for 51.71%. The growth rate of the urban population is estimated to be higher than that of the rural population mainly due to greater rural-urban migration. The migrants are pre-dominantly males in search of jobs.

The district is mainly an agricultural area and the greater part of the productive population is involved in farming activities. One major feature of land holding in the district is the fact that it is mainly a smallholder farming area. The size of holdings range between 0.4 to 8 hectares. It is estimated that out of 62,545 households in Nyeri, 61,025 are smallholders with smallholdings totalling 119,162 ha. This means that the average holding for small holding households is 1.95 ha. According to the I.L.O. report (1972), rural households in the district had less than 2 acres of land. This has resulted in a high rate of out-migration both to new agricultural settlements and to large urban centres. Mixed farming is practised with the main commercial crops being Coffee, Tea, Pyrethrum, Wheat, Barley, Dairy farming with a well developed ranching is estimated to occupy 1000 ha. with 11,000 cattle and 4000 goats according to the 1984/88 District Development Plan. Subsistence crops include maize, pulses, bananas, Irish potatoes, sweet potatoes and cocoyams.

Commercial activities such as wholesale and retail trade are also an important economic activity though most of the business are small-scale. The current industries in the district are mainly light industries and include Mt. Kenya Bottling Co., Highlands Mineral Water Plant, Kenya Industrial Estates, etc.

The informal sector also plays a vital role with participants ranging from hawkers, handicraftsmen, charcoal dealers, motor-vehicle mechanics, barbers, and motor vehicle operators. The hotel industry is also well developed with some hotels being of international standards.

Administratively, the district is divided into 6 divisions namely Kieni East, Kieni West, Mukurweni, Mathira, Tetu, Othaya and 21 locations. Nyeri town is the district as well as the provincial headquarters.

### 3.4 Meru District

The district covers an area of 9922 sq km and is bordered by Embu in the south, Laikipia to the west, Kitui and Tana River districts to the south east, Isiolo to the north and North East and Nyeri and Kirinyaga to the west.

Topographically, the district falls between Mt. Kenya to the west and Nyambene Hills to the north east while the Eastern part is mainly a rocky Plateau. The Topography has a major impact on the climate and consequently agricultural potential of the district. Thus, the southern and south-eastern slopes of Mt. Kenya receive between 1250-2250 mm of rain annually while the Eastern and Northern lowlands receive 380-1000 mm. In general, rainfall distribution is characterised by two main features. Rainfall decreases as one goes north of Mt. Kenya and N.W. of Nyambene range. The Eastern and South Eastern parts are marginal and arid due to low altitudes and high temperatures hence not suitable for agriculture. In general however, the district enjoys both short and long rains.

The district has a total agricultural land area of 597,184 hectares classified as follows: high potential 155,800 ha. (20.8%), rangeland 67,200 ha. (11.2%) and irrigated zone 189 ha. (0.03%). Crops grown in high potential areas include tea, coffee, potatoes, and maize. In the medium and marginal areas cotton, tomatoes, sunflower, sorghum and millet are grown while grade cattle do well in both zones. Native cows are bred in marginal and semi-arid areas. The remaining part of the district covering 1579 sq km consists of forest reserves and parks with the parks covering 17.2% of the District's land area.

The 1979 Census put the district's population at 830,179 from 596,506 in 1969, an increase of 39.2% and an annual increase of 3.92%. In sex terms, 421,583 (50.78%) were males and 49.21% females. The labour force constituted 46% of the population i.e. 370,154 with the remaining 460,022 (55.4%) being those considered as dependents. Children at the age of 15 and under constituted 50.8% of the population. The annual population growth rate for the district between 1980-1990 is projected at 3.9% which is slightly above the national figure of 3.8%. The population projection for 1983 was 998,905 and 1,214,950 for 1988.

Given an area of 9922 sq km, the average population density for the district stood at 84 persons per sq km in 1979. When the forests and parks are excluded it stands at 111 for 1979 and 134 persons for 1983. The lowest density for 1979 was that of Tharaka division (34 persons per sq km) and the highest was that of Imenti division (264 persons). The 1983 projections put the figures at 49 and 387 respectively. The 1979 Census put Meru municipality population at 72,049 with a density of 563 persons per km<sup>2</sup>. This was 8.67% of the population. The population size has however fallen as a result of reduction in the boundary of the Municipality. The total population of the four urban centres Nkubu, Chogoria, Maua and Chuka according to a 1981 Census was 14,346. The urban population was estimated to be growing at an annual rate of 4%. However, due to lack of a significant industrial growth the urban population has remained low.

The district has not experienced any major in and out-migration though there is a movement from rural to urban areas and from high potential areas to the less productive areas with lower population densities. Migrants are mainly school leavers in search of wage employments. The district is mainly an agricultural district. Cultivated crops include, coffee, tea, tobacco, pyrethrum, wheat, cotton, miraa, maize, millet, and bananas, the last four being mainly for subsistence. Livestock keeping, mainly cattle, goats and sheep is a major feature

in the drier parts of the district. The size of small holdings has an inverse relationship with agricultural potential of land. The average size for smallholding for the district is 4.93 ha., but for North Imenti division which is the smallest the size is 2.60 ha. In the semi-arid Tharaka, where we have the largest smallholdings, the average size is 14.95 ha.

By 1984 there were 15,173 permanent non-family workers in the district and 28,722 casual non-family workers at peak periods. Other sources of employment are the industrial, commercial, and public sectors. The informal sector plays an important role of employment, but no systematic data exists.

Administratively, the district is divided into 6 divisions, namely: North Imenti, South Imenti, Tigania, Tharaka and Igembe and 27 locations. The headquarters is Meru town.

### 3.5 Conclusion

The socio-economic features of these districts therefore differ, and in certain cases are generally similar. Whereas, Meru, Nyeri, and Uasin Gishu are by virtue of their geographical locations generally high potential agricultural zones, a large part of Siaya district is not, mainly due to topographical, climatic and other socio-economic factors, the former two having major influences on rainfall reliability and therefore productivity of land. In Siaya, production unlike in other districts is mainly subsistence oriented. The other three districts possess relatively suitable land for commercial farming but also have in the case of Nyeri and Uasin Gishu fast growing industrial and urban centres as well as related commercial activities. This has in turn given impetus to the development of physical infrastructure especially in Meru, Nyeri and Uasin Gishu.

Demographically, Siaya district has the highest population density at 188 persons per km<sup>2</sup> though with a higher acreage per person.

Nyeri district on the other hand registers the highest land pressure leading to landlessness. However all the districts share certain Demographic characteristics. Dependents are notably higher than the respective labour forces with Nyeri registering the highest level of dependency. In nearly all the districts, females constitute the greater percentage of the populations except for Uasin Gishu due to a high rate of male in-migrants from outside the district. In general therefore, there seems to be a greater socio-economic basis for comparing Meru, Uasin Gishu and Nyeri then with Siaya though certain demographic characteristics are common to all.

#### 4. THE ENTERPRISES

##### 4.1 Composition and Distribution

One of the findings of this study is that the types of informal sector activities existing in the rural areas are very similar to informal sector activities that have been identified and studied in the large urban areas. Thus 34 main types of activities were identified. A 30% random sample of these types of activities yields the following: retail shops, vegetable, charcoal and, timber sellers, carpenters, shoemakers, radio and T.V. repairers, mechanics garage, handcrafts, key cutters and tinsmiths. As we can see, these are essentially the same types of activities one finds in the large urban centres.

For reasons of time and analytical manageability it proved virtually impossible to analyse the data on the basis of the 34 extremely disaggregated "business types". Therefore the data was aggregated into the three economic categories of manufacturing, services and trade. For the same reasons, the data is presented on the basis of inter-district comparisons rather than on the basis of the more disaggregated and more time consuming "inter-centres" comparisons. However, an inter-centres comparison is implied in Table 4.1 which presents the results of the first phase of the survey during which informal activities were enumerated.

Table 3 Type Distribution of Informal Activities in Study Centres

District	Survey Centre	Percent of Activities			Total No. of Activities
		Manufacturing	Trade	Services	
Nyeri	Karatina	6.6	84.1	9.3	1432
	Othaya	11.6	79.0	9.4	413
	Chinga	26.1	52.2	21.7	23
	Naro-moru	9.8	56.1	34.1	41
	Aguthi	20.0	77.5	2.5	40
Meru	Egoji	12.8	76.3	10.9	156
	Chogoria	25.8	43.5	30.6	62
	Nkubu	8.6	84.1	6.8	396
	Chuka	18.9	59.1	22.0	127
	Timau	6.3	75.0	18.8	32
	Maua	13.3	69.1	16.3	233
Siaya	Siaya Town	19.1	64.9	15.0	462
	Bondo	13.7	77.6	8.6	322
	Yala	19.1	70.6	10.4	204
	Usenge	15.7	70.6	13.7	51
	Ndori	17.1	72.7	10.2	88
	Ugunja	-	-	-	185
	Akala	17.5	74.6	7.9	63
	Luanda	21.7	67.7	10.6	322
Uasin Gishu	Moiben	27.1	62.5	10.4	48
	Matunda	12.6	70.6	13.6	272
	Moi's Bridge	22.3	53.2	15.9	188
	Ziwa	13.1	75.4	8.2	61
	Turbo	17.4	69.7	8.7	195
	Timboroa	25.3	67.8	5.8	87
	Burnt Forest	16.9	75.5	16.2	224
Mean		15.7	69.2	14.9	

From Table 3 and our own field observations it seems that the size of the informal sector in a centre, as measured by the total number of activities could be determined by several factors. The first factor is the population size of the centre and therefore the demand for the activities. In this respect, such relatively large centres as Karatina, Siaya and Nkubu registered relatively more activities. Unfortunately it was not possible to test this hypothesis more systematically because most of the centres were not C.B.S enumeration centres. Thus their actual populations were not known not even by local authority officials.

The second factor in determining the absolute number of informal activities could be the history and therefore nature of the centre. Thus we noticed for example that some centres such as Burnt Forest, and to some extent Timboroa, and Matunda, are largely "informal towns". Burnt Forest is the best example of this. It has grown out of the long-distance trucking business between Mombasa and Rwanda and therefore the entire centre seems temporary and informal, very much like Mai Mahiu near Longonot. A third factor which one should take into account in explaining the "size" of the informal sector in each centre is the location of the centre in relation to the major truck roads in the district. This seems to explain Karatina, Matunda, Moi's bridge, Burnt Forest, Luanda, Yala, Nkubu, Egoji all of which are located on major highways.. Matunda and Karatina seem to offer the best examples of this. Moiben was the best example of the opposite. It was removed from the main highways. Matundas "pavement trade" carried along the Kenya-Uganda highway is particularly striking.

A fourth factor affecting the informal sector size could be the distance from the district headquarters or the largest town in the district which serves as the primary source of raw materials. Thus, one could hypothesize that the further the centre is from the largest town in the district, the smaller the size of the informal sector. This hypothesis needs testing using probably more cases than we surveyed.

Finally, the immediate hinterland of the town seems to have some kind of effect on the size of the informal sector. Thus where the immediate hinterland is agriculturally well endowed and the population was dense, for example, Othaya, Karatina and Maua, the informal sector appears to be large. This is to be contrasted with such a centre as Usenge in Siaya which we studied and Chiakariga in Tharaka Meru, which we did not survey but visited and noticed that the informal sector was very small.

What the above observations amount to is a call for a more regional oriented study of the informal activities in these or some other rural centres. We believe that such a study would yield extremely interesting and perhaps more explanatory inter-centre comparisons of the informal sector in the centres. Such a regional oriented study should also seek to increase more centres in the sample in order to facilitate meaningful statistical manipulation of the data. This particular study was more "enterprise-centric" than anything else.

The sub-sectoral composition of the informal sector in the surveyed areas does not seem to reveal any unexpected pattern. Thus in all centres, trade dominates. In the majority of centres, i.e. 18 out of 26 centres, manufacturing is the second most important category followed lastly by services in 8 centres. Only in three centres out of 26 namely, Chinga, Chogoria and Timboroa do manufacturing activities constitute more than 25% of the total. Services on the other hand constitute more than 25% of the total in only two centres.

It seems to us then, that like the size of the informal sector, the sub-sectoral composition of the informal sector might require a detailed regional and "centre-centric" analysis before it can be fully explained. This kind of analysis would for example, take a more detailed account of the kind of infrastructure available in

the centres. In this respect we noted that most of the centres have the necessary infrastructure such as electricity, water, all weather roads, telephones etc. Availability of these therefore, cannot offer the full explanation of the sub-sectoral composition. Further explanation would have to be sought in enterprise specific characteristics such as whether the entrepreneur has access to these infra-structural inputs, the skills he possesses the amount of initial capital he had etc. Data related to these issues is analysed and presented in the relevant sections of this report and this chapter, albeit on the basis of inter-district comparisons and aggregate inter-sectoral comparisons. We begin with an inter-district analysis of the type and composition of informal activities in the districts studied. This is summarised in Table 4.

Table 4. Type and Size Distribution of Informal Activities in Study Districts.

Survey District	Manufac-turing		Trade		Services		Total	
	No.	%	No.	%	No.	%	No.	%
Nyeri	289	14.8	1359	69.7	301	15.4	1949	34.2
Meru	149	14.8	683	67.9	174	17.3	1006	17.6
Siaya	252	15.0	1191	71.0	234	14.0	1677	29.4
Uasin Gishu	206	19.2	729	67.8	140	13.0	1075	18.8
TOTAL	896	15.7	3962	69.4	849	14.9	5707	100

Of the 1949 rural informal sector activities carried out in Nyeri District, 14.3 per cent i.e. 289 activities were in manufacturing while 1359 activities which constituted 69.7 per cent were in the trade sub-sector. The remainder (15.4 per cent) were in services sub-sector. It is generally expected that manufacturing undertakings are more capital intensive than enterprises in the other sub-sectors which, however, need not always be necessarily the case. For instance, a

trader may hold up a lot of capital in the form of stock such that his total capital investment may exceed that of a manufacturer who may be owning one or two sewing machines and a small stock of a combination of two or three types of school uniforms of the nearby schools. However the holding up of huge amount of stock with low turnover is not a rationally expected behaviour because no proprietor would keep holding up valuable capital in the form of stock because of the high opportunity cost of such capital especially in this sector where the majority of the actors tend to face problems of inadequate capital. One would therefore, on average, expect that capital investments in the manufacturing sub-sector to be higher than in the other two sub-sectors, which would largely explain the small relative share of manufacturing.

The manufacturing and services sub-sectors are almost equal at 14.8 and 15.4 per cent respectively. One would expect that as this sector continues to grow, the relative share measured in number of activities of these two sub-sectors would continue to grow. In this respect we would like to point out that generally the informal sector tends to display a very curious feature in that one finds that the majority of the operators start from trade and services sub-sectors which is due to the "simple" nature which these two sub-sectors display on the outset to the would-be-entrants. Whether some of the older entrants who initially enter as traders and providers of services eventually become manufacturers requires further investigation using time series data. At any rate it is hoped that the services sub-sector would grow with growth in the informal sector manufacturing to facilitate sectoral intra-dependence.

In Meru District, almost a similar distribution pattern of these informal sector activities to that witnessed in Nyeri was evident even though a slightly higher percentage for services was reported. However, the absolute numbers for Meru District were far much below

those in Nyeri District on account of the relatively large share of Karatina. In addition, other factors such as those outlined earlier could be at play. In Siaya District, the sub-sectoral means are not significantly different from those observed for the universe and the entire sample. In terms of absolute numbers Siaya ranks second to Nyeri District. This is due to the fact that Siaya town, Bondo and Luanda constitute relatively large centres and therefore have many informal activities. In addition, Siaya town is a district headquarters, the only one studied.

Uasin Gishu ranks third in terms of the size of the informal sector even though second in terms of district sizes. The district is however a wealthy district and in a large sample than we had would offer a good case for testing the hypothesis that the size of the informal sector will vary with sizes in district.

The percentage values for the respective district sub-sectors tend to confirm that the rural informal sector is not very different from the urban informal sector. For example in a 1983 study Nakuru the sub-sectoral percentage values were 11.1, 62.0 and 26.9 for manufacturing, trade and services sub-sectors respectively.

#### 4.2 Other Enterprise Characteristics

From a discussion of the universe we now turn to a discussion of the business characteristics as revealed by the sample. In doing so, we concentrate on a number of key issues which we feel are central to this study, beginning with the stated reasons for initiating business. This is presented in Table 5.

The reasons stated for initiating the businesses are in many senses the usual and expected reasons. In most cases the enterprises were initiated because the owners were looking for a source of income. This is expressed in different ways but most clearly in the cases of

Table 5: Reasons for Beginning Enterprise

Reasons	Nyeri	Meru	Uasin Gishu	Siaya	Total
Couldn't get employment	23.3	25.3	11.7	7.5	15.5
Previous employment not good	16.7	16.2	4.9	6.2	10.2
To have a source of Income	21.1	16.2	51.5	50.0	37.1
Prefers self employment	23.3	20.2	5.8	9.4	13.9
Family problem	2.2	5.1	8.7	9.4	6.9
Survival after retirement	-	1.0	-	1.2	0.7
Collapse of former occupation	-	-	-	1.9	0.7
None/No response	3.3	2.0	1.0	-	1.3
Supplement farm cash	1.1	5.1	1.9	1.2	2.2
It's a promising business	2.2	-	1.9	1.2	1.3
For wife to get employment	-	1.0	-	0.6	0.3
Saved enough to start by myself	-	1.0	1.9	0.6	0.7
Inherited business	2.2	1.0	-	0.6	0.7
Liked the work	2.2	1.0	2.9	2.5	2.2
Had some training	2.2	1.0	5.8	4.4	3.5
Started by husband	-	1.0	-	1.2	0.5
Sacked from previous occupation	-	2.0	-	0.6	0.6
To sell market farm produce	-	1.0	-		0.7
Lack of similar enterprises	-	-	1.9	0.6	0.6
To help the Disabled	-	-	-	0.6	0.1
Total	99.8	100.0	99.9	100.0	100
N	90	99	103	160	

Uasin Gishu and Siaya where 51.5% and 50.0% respectively give this reason as the main reason why they started the business. In the case of Nyeri and Meru these reasons comes across more subtly as a combination of "couldn't get employment", "previous employment not good" and

"to have a source of income". What seems to come across albeit more subtly in Nyeri and Meru is that nearly a quarter of the entrepreneurs had actively looked elsewhere for employment i.e. 23.3% in Nyeri and 25.3% in Meru. Also in the same two districts it can be deduced that 16.7% and 16.2% respectively had some kind of previous employment. This should be compared with the much lower figures for Uasin Gishu and Siaya. One further point worth noting is that the reason "prefers self-employment" which is given by 23.3%, 20.2%, 5.8% and 9.4% in Nyeri Meru, Uasin Gishu and Siaya respectively, is very suggestive. It suggests that in Nyeri and Meru there probably exists a much higher sense of "going-it-alone entrepreneurship" than in Uasin Gishu and Siaya. If one adds this response to the "previous employment not good" response then in Nyeri and Meru, 40% and 36.4 of the respondents respectively seem to display the going-it-alone attitude compared to 10.7% and 15.6% in Uasin Gishu and Siaya respectively. We note by way of emphasis that in Nyeri and Meru, 16.7% and 16.2% respectively had previous employment.

One other interesting point worth noting from the responses is that, very few entrepreneurs inherited their businesses. They are therefore in nearly all cases first generation entrepreneurs. This is not surprising considering that most of the businesses are very young indeed. Thus in Nyeri, Meru, Uasin Gishu and Siaya the mean number of years that the businesses have been in operation is 4.9, 4.5, 5.0 and 4.2 respectively. The overall mean age is therefore 4.7 years which is one year older than the 3.7 years. Ndua and Ng'ethe found for Nakuru in their 1983 study. All the same "Youthfulness" of the businesses is quite similar to the urban informal sector and might be a factor in explaining other characteristics of the businesses such as ownership and size. Thus in all the districts a majority of the businesses are owned by a single individual. In Nyeri single proprietorship accounted for 92.2% of the enterprises. The proportions for Meru, Uasin Gishu, and Siaya were 87.7%, 95.1% and 97.5% respectively. Overall then 92.2% of

the businesses had single proprietorship. In addition, the majority of the enterprises are quite small as measured by the number of people employed, as discussed at length and in more detail in chapter VI.

The sex distribution of enterprise ownership shows that in all the districts, the majority of the businesses are owned by men. In Uasin Gishu and Siaya, however more women own businesses than in Nyeri and Meru. This is summarised in table 6.

Table 6: Sex Distribution of Ownership.

Sex	Nyeri	Meru	Uasin-Gishu	Siaya
Male	71.1	78.8	66.0	52.5
Female	28.9	21.1	34.0	47.5
Total	100.0	100.0	103.0	100.0
N	90	99	103	160

In general the businesses operate under what appears to be less than optimal conditions. This is reflected especially in the types of structures from which the businesses operate and the type of facilities available to the businesses. On average 45.4% of all businesses operated in the open air, while just over a quarter (27%) operated in permanent cemented structures. The rest operated from other types of structures, most of which were semi-permanent.

There are some interesting inter-district variations with respect to the type of structures from which the business operate. Nyeri's dominance of the "open air" operators could be on account of Karatina town which had a huge open air market. Even though the market was deliberately undersampled the effect of it can still be seen in this distribution. In addition, due to non-availability of

Table 7: Business Physical Structure

Survey Area	Total No. of Activities	Open Air	Corrugated Iron Shed	Wooden Structure	Cemented Structure	Other
Nyeri	90	60.0	2.2	16.7	16.7	4.4
Meru	99	43.4	7.1	13.1	34.3	2.0
Siaya	160	40.6	11.9	9.4	35.6	2.5
Uasin Gishu	103	37.9	18.4	13.6	21.4	8.7
Mean		45.4	9.9	13.2	27	4.4

land on which to erect permanent or semi-permanent sheds, other operators, apart from the market operators, tended to operate from small and fairly squeezed open places. This included carpenters, metal workers and Jua Kali mechanics. On the other hand, a relatively large number of operators in Siaya and Meru, 35.6% and 34.3% respectively enjoyed the security of operating from permanent cemented structures.

The business's physical structure and the permanence of the businesses location or lack of it, should not be confused. Thus the majority of the businesses, i.e. 69% operated from a fixed location, meaning that one could always find them in approximately the same physical location. In the urban informal sector the physical location of a business is usually arrived at through a rough calculation of demand factors, including the location of potential competitors. This also seems to be the case with the rural informal sector, but once the location is decided upon, the operators seem to stay there more or less permanently. This is to be expected, given the fact that, unlike large towns, there is very limited room to move about in these rural centres, simply due to the small size of the centres.

The permanence of the business location does, of course, not mean that the operators own the physical space from which they operate. On the contrary by far the majority of them, i.e. 63.9% pay rent for

their operating space. Another 21.2% are essentially "squatters" who are "neither owning nor renting" the space. Therefore only 8.7% of the operators "fully own" the operating space. What this seems to mean then is, the majority of the operators are "serious businessmen" and not simply rural folks from around who happen to own a plot in the nearest centre and which they have sought somehow to utilize. All the districts reflect the above pattern of "tenancy". The only significant difference seems to be that Nyeri and Meru have a higher incidence of "squatting" at 36.7% and 29.3% respectively, compared with 10.7% and 8.1% in Uasin Gishu and Siaya respectively. The higher incidence of "squatting" in Nyeri and Meru could reflect relative "generosity" of municipal authorities in these areas. Thus 90% of all the "squatters" in the two districts claim that they were "given their space" by the local council.

In spite of the permanence of location and rental payment, most of the enterprises lack the kind of facilities one associates with formal business. These include water, electricity, telephones etc. Thus, in all the districts, 76.4% of the businesses lacked water, 84.5% lacked electricity and 93% lacked telephones. Now, this pattern of non-availability of facilities might not be the disaster it seems like at face value. This is because, one, most of the enterprises operate from the open air and therefore conceivably cannot make use of these "fixed" facilities and two, most of the enterprises are of the kind that does not need and cannot make use of these facilities. Most of the traders belong to this category. We should re-emphasize here the observation that most of these facilities are available in the centres but not available, in the majority of cases even to those types of businesses that could conceivably make use of them. These include carpenters, jua kali garages, and metal workers, all of whom could make use the facilities. And yet most of the businesses operate from a "fixed location" which means the facilities could be taken to them even if it means on a sharing basis, for example one water tap for every 10 or so carpenters.

Finally we would like to note that contrary to the expectation that a fairly large proportion of the enterprises are seasonal, most of the enterprises operate throughout the year. Thus 92.3% of all the entrepreneurs claimed to operate throughout the year and there were no regional differences in this respect. What happens then is that if an entrepreneur has to close down, say to go and plant on the onset of the rains, the entrepreneur regards herself as essentially operating through the year.

#### 4.3 Conclusions

The sub-sectoral composition of the enterprises survey is very similar to the urban informal sector. One of the policy issues which arises from this composition is how to encourage a more balanced composition so that the share of trade and commerce decreases. Though in theory an optimal composition might not exist, one still feels that there is a case for government policy to pay more attention, particularly to manufacturing in order to encourage more entrepreneurs to go into this sub-sector. This is the sub-sector which, for example, would benefit most from infrastructural services such as electricity and water so long, of courses, that they operate from a fixed location and permanent or semi-permanent structures, without which the entrepreneurs might not be able to take advantage of infrastructural facilities even if they knew how to utilise them.

Other characteristics of the enterprises show that, one, there are no major inter-district differences and, two, overall the enterprises studied reflect similar characteristics to their urban counterparts. These characteristics include the reasons for initiating the business, patterns of ownership, and the kind of structures from which the business operates, to name but the most important ones. The one major difference seems to be that the rural informal sector reflects a higher incidence of legality i.e. being licensed, than its urban counterpart.

From the above, it is fair to conclude that the policy interventions for the rural informal sector need not be radically different from those intended for the urban informal sector. In both cases, for example, the enterprises need access to infrastructural services whether they are located in small rural centres, or in major urban areas such as Nairobi and Nakuru.

## 5. THE ENTREPRENEURS

### 5.1 General Background

Most of the entrepreneurs surveyed in this study are mainly young, male and married. Since we have already looked at the sex distribution of the entrepreneurs we begin by making some comments on the entrepreneurs' ages. In all the districts, most of the entrepreneurs are between 21 years old and 40 years. Indeed the mean age of the entrepreneurs is 33.1, 32.8, 33.6, and 31.7 years for Nyeri, Meru, Siaya and Uasin Gishu. This brings the overall mean to 32.8 years, which compares well with the 34.9 years found for Nairobi by Ng'ethe and Ndua in their 1984 study. The mean however conceals an interesting aspect of the age distribution of entrepreneurs and that is in all the districts there was a significant percentage of entrepreneurs which was over 40 years of age. This is shown in Table 8.

Table 8: Age Distribution of Entrepreneurs

Age in Years	Percentages			
	Nyeri	Meru	Siaya	Uasin-Gishu
0 - 20	6.6	3.0	4.3	3.8
21 - 30	53.4	51.5	35.0	30.1
31 - 40	23.3	28.2	26.8	33.1
41 - 50	5.5	11.0	19.9	19.5
51 - 60	5.6	4.0	9.2	7.8
Over 60	4.4	3.0	3.6	4.9
Total %	99.8	100	98.8	99.2
N	90	99	160	103

Given the above age distribution, and that the majority of the businesses are young as we have observed, and that the majority of the entrepreneurs are primary school leavers as shown below, it seems fair to conclude that most of the entrepreneurs are not straight from school. They were therefore either unemployed for quite some time before venturing into business or they had some kind of previous employment. The reasons given for initiating business suggest that some were indeed employed and consequently entered business because it promised higher income and the "luxury" of self-employment. Indeed, the response to the question of "previous employment" establishes that most of the entrepreneurs were previously employed.

Table 9: Previous Employment

	Nyeri	Meru	Siaya	Uasin Gishu
N/A	1.1	1.0	1.2	-
None	24.4	-	16.9	25.2
Farmer	30.0	23.2	25.0	19.4
Casual labourer	12.2	8.1	4.4	6.8
Teacher	2.2	4.0	4.4	3.9
House wife	-	1.0	9.4	1.9
Business	2.2	1.0	3.1	1.0
Carpentry	2.2	3.0	1.9	1.0
Tailoring	2.2	6.1	1.9	4.9
Driver	2.2	7.1	0.6	1.9
Mechanic	2.2	5.1	-	1.9
Hotel work	1.1	4.0	0.6	1.0
Shop-keeper	-	-	1.2	1.9
Trade-hawker	2.2	-	5.0	3.9
Fishing	-	-	2.5	-
Civil servant company	7.8	12.1	11.9	13.6
Bicycle repairs	-	-	1.9	2.9

Table 9... cont'd

	<u>Nyeri</u>	<u>Meru</u>	<u>Siaya</u>	<u>Uasin Gishu</u>
Shoe-shine	-	-	0.6	-
Plumber	1.1	1.1	-	-
Accountant	1.1	-	-	1.0
Salodn	-	1.1	-	1.0
Radio & T V repair	2.2	1.1	-	-
Watch repair	-	2.0	-	1.0
Maid/House boy	1.1	2.0	-	1.9
Others	2.2	1.0	7.5	3.9
Total	100.0	100.0	100.0	100.0

Table 9 shows that very few of the entrepreneurs were previously unemployed. This is not surprising. After all most of the initial capital must come from personal savings as discussed in Section 7. The obvious point therefore is that the informal sector is not for those who are straight from school. This point needs reiteration in view of the sometimes public image of the informal sector as a place where unemployed school leavers immediately flock into.

In all the districts, most of the entrepreneurs were married. Thus in Nyeri, Meru, Siaya, and Uasin Gishu, 63.3%, 66.7%, 91.9% and 80.6% were married, or 75.6% overall. Thus Nyeri and Meru have slightly more single entrepreneurs than other districts. Given that the mean age of entrepreneurs is roughly the same in the four districts, it seems that in Nyeri and Meru, the entrepreneurs have simply decided to stay single slightly longer.

In all the districts, those who are married are married mostly to one wife. However in Siaya 21.2% have more than one wife (maximum 5), in Meru 5% have more than one wife and in Uasin Gishu 9.8%

have more than one wife. In Nyeri, no entrepreneur has more than one wife.

In all the districts, 80.8% of the married entrepreneurs had children mostly of school age ranging from one year to 20 years. Even more important is that most of the entrepreneurs had other dependents. Thus 66.7%, 69.7%, 65.9% and 75% in Nyeri, Meru, Uasin Gishu and Siaya respectively had other dependents. The number of dependents ranged from one to 10, with the majority of the entrepreneurs supporting one to five dependents. This, added to the children shows that each entrepreneur was supporting quite a large number of people. Table 10 summarises this information.

Table 10: Total Number of Dependents including Children

Number of Dependents	Nyeri	Meru	Uasin Gishu	Siaya	Total
1	8.9	4.0	2.9	5.0	5.1
2	7.8	6.1	4.9	8.1	6.9
3	5.6	10.1	6.8	3.1	6.0
4	10.0	7.1	10.7	13.1	10.6
5	5.6	6.1	4.9	4.4	5.3
6	2.2	6.1	10.7	7.5	6.9
7	4.4	1.0	6.8	9.4	6.0
8	2.2	-	14.6	6.2	6.0
9	2.2	1.0	1.9	6.9	3.5
10	-	1.0	7.8	2.5	2.9
Over 10	2.2	3.0	14.5	15.4	9.7

The entrepreneurs assisted the dependents with cash and non cash help. Overall 33.4% of the entrepreneurs assisted with cash, another 21.9% assisted with non-cash, 15% assisted with both cash and non-cash and the others either did not assist or had no dependents.

Even more interesting for this analysis is that those who assisted with cash managed to give fairly large sums given the nature of some of the businesses. Overall, the mean monthly assistance to all dependents was 484 shillings for Nyeri, 397 shillings for Meru, 486 shillings for Uasin Gishu and 271 shillings for Siaya for an overall mean of 421 shillings per month per entrepreneur.

The above assistance figures should be interpreted in the light of two factors. One, the income of the businesses which is discussed later in this report and two, whether the entrepreneurs have other sources of income. Overall, the majority of the businessmen do not have other sources of income. Thus 53.5% do not have other sources of income, while the other 46.5% do. This is summarized in Table 11.

Table 11: Other Income Generating Activity

	Nyeri	Meru	Uasin Gishu	Siaya	Overall
Yes	47.8	59.6	50.5	36.9	46.5
No	52.2	40.4	49.5	63.1	53.5
Total	100%	100%	100%	100%	100%
N	90	99	103	160	452

Table 5.4 shows Siaya on the one extreme and Meru on the other extreme. Nearly two-thirds of the entrepreneurs from Siaya have their businesses as the sole source of income. The reverse is true for Meru where nearly 60% of the entrepreneurs have some other sources of income. Nyeri and Uasin Gishu reflect a more balanced situation. What this suggests then is that, in assisting their dependents, the entrepreneurs from Siaya are making a much bigger sacrifice. In other words, overall, they are poorer than their counterparts from Meru.

For the 46.5% with other sources of income, farming is the principal source of this income, and this constitutes a direct linkage between these businesses and agriculture. Thus 85% of the 46.5% with other sources of income are engaged in agriculture related "other activities" such as peasant farming, coffee and tea growing, dairy farming, etc. We would like to note here that nearly half (44.7%) of the "other activities" are described as "peasant farming". This, of course, is not a surprise finding given that overall, 92% of the entrepreneurs describe their parents occupation as "peasant farmers". In addition to their parents background 55.5% of the businessmen own some land. This breaks down to 34.4% in Nyeri, 55.6% in Meru, 71.9% in Siaya and 48.5% in Uasin Gishu. The contrast between Nyeri and Siaya is obvious here.

Although most of the entrepreneurs own some land, the holdings are fairly small as one would expect. Thus, of those who have land, 75.3% claim to have between 1-5 acres. Moreover of the 55% who have some land, 32% have title deeds while the other 23% have none. All in all then, the entrepreneurs are either landless or have fairly small holdings. This is in keeping with the reasons they offer for wanting to go into business. Furthermore, the entrepreneurs are not necessarily all tied down to the place where the businesses are located. Thus asked whether they would consider moving to another town 50% said they would. Furthermore, nearly all of them, i.e. 90% of the 50%, stated that they would want to move to a bigger town. Asked why, nearly all of them i.e. 93%, claimed that they would move because business would be better there.

Having looked at some social aspects of the entrepreneurs, we now turn to one of the most important social aspects namely, education. In doing so we want to keep in mind the theoretical assumption that the level of education somehow influences productivity, in this case informal sector productivity.

## 5.2 Education

In analysing the educational attainments of entrepreneurs, one factor to keep in mind is that most of our respondents, to be more exact, 56.5%, claimed that they terminated formal education on account of lack of school fees, and this does tell us something about their general social background. Thus the educational attainments of the entrepreneurs as measured by the number of years of formal schooling, is relatively low. This information is provided in Table 12.

Table 12: Entrepreneurs Education

Level of Education Attained	Percentages			
	Nyeri	Meru	Uasin-Gishu	Siaya
None	5.8	4.0	17.5	14.4
Primary level	50.0	48.6	60.2	63.7
Secondary non- technical	41.1	33.3	22.3	20.6
Secondary Technical	3.3	4.0	-	1.2
Above secondary	-	-	-	-

We observe from this table that a majority of the entrepreneurs had attained the level of primary education only. Thus in Nyeri, Meru, Uasin Gishu and Siaya, 50.0%, 58.6%, 60.2% and 63.7% of the entrepreneurs respectively had received some basic education. It is also evident from the table that 5.8%, 4.0%, 17.5% and 14.4% of the entrepreneurs in Nyeri, Meru, Uasin-Gishu and Siaya respectively had not received any formal education at all. Furthermore, this tends to indicate that entrepreneurs in Nyeri and Meru have slightly more years of formal schooling than their counterparts in Siaya and Uasin-Gishu. The reasons for this regional imbalance could be simply availability of educational opportunities. For Nyeri and Meru, the mean number of years of entrepreneurs' formal schooling are 7.8 and 7.6 years respectively. The corresponding mean figures for Siaya and Uasin Gishu stand

at 6.6 and 6.0 years respectively.

The data also reveals that the mean number of years of formal schooling for workers in informal sector activities are 9.1, 9.6, 7.0 and 6.6 years in Nyeri, Meru, Siaya, Uasin Gishu respectively. Apart therefore, from revealing that informal sector workers in Nyeri and Meru have more years of formal education than their counterparts in Siaya and Uasin-Gishu district, the data also indicates that workers have slightly higher education than the entrepreneurs. Though we have not yet found a complete explanation to this, it could be that there is a slight "generation gap" between the entrepreneurs and the workers, with the latter tending to come from a younger and better educated generation.

The data also shows that the proportion of entrepreneurs with some secondary non-technical education were 41.1%, 33.3%, 22.3% and 20.6% for Nyeri, Meru, Uasin-Gishu and Siaya respectively. One surprising finding from the data is that only 3.3%, 4.0%, 1.2% of the respondents in training at secondary school level. Further analysis of our data also reveals that none of the entrepreneurs in the four surveyed districts had obtained any type of technical training from any other formal training institutions such as the Village polytechnics, Institutes of Technology or even the National youth service, to mention but a few. The main explanation for this finding may be the composition of the rural informal sector activities that prevail in the rural areas. Recall that in Section IV of this report, we indicated that the trade subsector dominates rural informal sector activities. As mentioned elsewhere, trade does not require any specialized skills, particularly the kind of trade witnessed during the survey which specializes in the marketing of simple and few consumer goods.

In order to further check the educational attainments of our respondents, we subjected them to a set of further specific questions relating to this issue. The responses we obtained were quite

interesting. First, quite a good number of the entrepreneurs reported, again, that they had received some training, but could not provide any formal certificates to verify their claims. This information is provided in table 13 which shows the distribution of informal sector entrepreneurs that reported they had received "some training".

Table 13: Entrepreneurs with "Further Training"

	Percentage				
	Nyeri	Meru	Siaya	U.Gishu	Total
Those with Training (formal/informal)	50	53.5	41.7	44.4	46.7
Those without	50	46.5	58.3	55.6	53.3
Total	100	100	100	100	100

From table 13, we note that 46.7% of all the entrepreneurs had received some training, formal or informal. For Nyeri and Meru, the proportion of entrepreneurs that had received any formal/informal training stood at 50% and 53.5% respectively. while the corresponding figure for Siaya and Uasin-Gishu is 41.7% and 44.4% respectively. We also note that there is no significant difference in the magnitude of those entrepreneurs who had received some training as compared to those who had not.

From those who claimed to have received some training, further information was also sought of where they had obtained it. The responses for this question are provided in table 14.

We note from table 14 that 56.7%, 58.6%, 63.1% and 59.2% of the total number of respondents had acquired their skills by teaching themselves. The data also tends to indicate that this proportion is slightly higher in Siaya and Uasin-Gishu than in Nyeri and Meru,

Table 14: Where Entrepreneurs Obtained their Training.

Place	Percentage				Total
	Nyeri	Meru	U.Gishu	Siaya	
At an Institution	7.8	15.2	12.6	3.1	8.8
As an apprentice	22.2	12.2	16.5	26.2	20.1
Self-taught	56.7	58.6	63.1	59.2	60.0
As an employee in formal organization	10	10.2	4.9	1.2	5.8
Any others	3.3	4.0	6.8	6.2	5.3
Total	100	100	100	100	100

possibly due to the education developments that we alluded to earlier. We also note that the second most important method of skills acquisition is through the informal apprentices programme. Thus the total number of entrepreneurs that had acquired their skills using this method were 22.2%, 12.2%, 16.5% and 26.2% in Nyeri, Meru, Uasin Gishu and Siaya respectively. Furthermore the data also reveals that apart from Uasin-Gishu district, over 70% of all the respondents had obtained their training using these two methods. We can therefore safely conclude that most of the training that occurs in the informal sector activities is either self-taught or learnt while one is undergoing an apprentices programme. This observation is further supported by our data on the duration of training received by informal sector operators. The data indicates that 44.6%, 40.4%, 58.6%, and 48.2% of the trained respondents in Nyeri, Meru, Uasin-Gishu and Siaya respectively had a training that lasted for less than six months. Entrepreneurs who had a training period greater than six month but less than one year accounted for 16.2% and 25.1% in Nyeri and Meru while those in Siaya and Uasin Gishu were 22.6%, and 18.6%. The rest of the trained entrepreneurs who accounted for 39.2%, 34.5%, 29.8% and 32.2% in Nyeri, Meru,

Siaya and Uasin-Gishu respectively did not know the duration of their training. It is very uncommon to find training durations in formal institutions that last as short as those revealed here.

To obtain a crude indication of the role of formal training to informal sector activities, we, again analysed data from a sample of entrepreneurs that had received some formal training. The first thing we examined was whether the formal training obtained was in any way related to the respondents current informal sector occupation. The analysis revealed that some 55.4% and 55.6% of the formally trained respondents in Nyeri and Meru districts respectively had some training that was related to their current informal sector work. The corresponding figures for Siaya and Uasin-Gishu districts are 57.6% and 60.3%. The rest of the respondents had training that was neither useful nor related to their current informal sector occupation.

What are the implications of this data? First, training as defined in our questionnaire does not seem to have any significant influence on the entrepreneurs' willingness to own and run rural informal sector enterprises. Part of the reason for this could be the smallness and the simplicity of activities undertaken relative to the activities in some sub-sectors of the urban informal sector enterprises. This observation is clearly reflected by some informal discussions we had with the respondents. When asked to list their immediate constraints, a majority (over 85%) did not in anyway report on issues relating to training. Even short-term courses such as book-keeping did not make any sense to them. It is also interesting to note that many did not have any problems in recruiting the right kind of labour, as they called it.

What may, therefore, perhaps influence rural informal sector productivity is the entrepreneurs' experience measured by the number of years one has been in operation or simply the amount of initial capital, among others. We shall address ourselves to these issues later in the paper.

### 5.3 Conclusions

The social background of the entrepreneurs indicates that any policy interventions intended to assist the rural informal sector must be targeted at entrepreneurs who are in their early thirties, are primary school graduates and who are therefore not immediate school leavers. The time between leaving primary school and setting up the business has in most cases been spent, either in seeking employment, or in being employed somewhere or in farming, an activity which a large number still carry on in addition to their business. Whatever the previous occupation, the occupation was necessary in order to generate the savings with which to start the business.

Furthermore, given their meagre educational achievements and the reasons they give for terminating formal schooling, it would seem that the majority came from a fairly economically disadvantaged background. In addition, given their responsibilities as indicated by their dependents they are unlikely to afford or accept any policy interventions that entail "big" responsibilities and commitments, and especially "big" financial responsibilities.

Their educational background further shows that most of them could do with more "training" and they themselves want more training. However, due to the same educational background, few qualify to enter the well established formal institutions, not even village polytechnics most of which now demand some high school education. This seems to leave only "further informal training" as the only avenue open to the already operating businessmen. To those still in school, this further training need not be informal as it can be provided for example by village polytechnics if the potential businessmen can afford it.

Finally we should register our surprise that given the much discussed unemployment of high school graduates in the last ten or so years, these same graduates have not found their way into the rural

informal sector. This says something about the tough working conditions in the informal sector as well as something about the prevailing white collar mentality of our high school graduates. This has implications for our overall educational policies.

## 6. LABOUR DIMENSIONS

### 6.1 Overall Employment

This chapter aims at presenting aspects of the various labour dimensions in the rural informal sector. The significance of the ensuing discussion can be deduced from the fact that one of the attractive sides of informal sector enterprises, particularly those in the labour surplus economies like that of Kenya, is the potential to create gainful and productive employment, particularly for those households in the lower income groups. It is in this light therefore that we look at the various aspects of labour in the rural informal sector, beginning with the overall employment situation.

The overall employment of the surveyed rural informal sector enterprises is presented in table 15, which shows the total number of people engaged in the different sub-sectoral categories.

Table 15: Number of People Engaged by Type of Activity

Type of Activity	Total No. Engaged	Total No. of Enterprises	Average Employment per Enterprises
Manufacturing	157	97	1.6
Trade	484	286	1.7
Services	142	69	2.1
Totals	783	452	1.7

Table 15 shows that the total number of people employed were 783 in the 452 enterprises surveyed giving an average of 1.7 persons

per enterprise. Due to the dominance of trade in the rural sector enterprises, the largest number of people was logically engaged in the trading subsector and this accounted for 484 persons in 286 enterprises giving an average of 1.7 persons per trade enterprise. The manufacturing subsector of the rural informal sector employed a total of only 157 people in 97 enterprises, thus employing an average of 1.6 persons per enterprise. The service subsector represented the highest average in terms of the people employed. The 69 enterprises surveyed in this subsector employed a total of 142 persons giving an average of 2.1 persons per enterprise. Apart from the services subsector therefore, we note that the overall employment of the rural informal sector activities is very low, possibly due to the enterprises small size. In this respect, the trade sub-sector seems to confirm what others have observed elsewhere and that is employment creation in these enterprises seems to occur as a result of horizontal proliferation rather than vertical growth of the enterprises. This is perhaps best reflected when an analysis of employment data on individual enterprises is undertaken. This information is provided in table 16.

Table 16: Distribution of Persons Engaged in Individual Enterprises

No. Engaged	Nyeri		Meru		Siaya		U-Gishu		Total	
	No. of Enterprise	%	No. of Enterprise	%	No. of Enterprise	%	No. of Enterprise	%	No. of Enterprise	%
1	63	74.4	52	52.5	93	58.5	53	51.5	266	58.8
2	7	7.8	24	24.2	30	18.7	29	28.2	90	19.9
3	6	6.7	7	7.1	19	11.9	15	14.6	47	10.4
4	6	6.7	4	4.0	7	4.4	1	1.0	18	4.0
5	2	2.2	5	5.1	6	3.3	2	1.9	14	3.1
Over 5	1	2.2	7	7.0	5	3.1	3	3.0	17	3.7
Totals	90	100.0	99	100	160	100	103	100	452	100

\* note percentage figures do not add to precisely 100% due to rounding up.

Table 16 shows that a majority of the enterprises are what would be termed as single-persons-operated enterprises. In Meru, Siaya, and Uasin Gishu, 52.5%, 58.5% and 51.5% of the enterprises fall in this category, while in Nyeri, the proportion is relatively higher and stands at 74.4%. The reason for this interregional variation is that in Nyeri extensive food trading activities accounted for the higher figures. Overall, we note that 53.8% of the entire sample were operated by one person. Enterprises employing more than two persons are extremely low. In Nyeri such enterprises accounted for only 25.6% of the entire sample while in Meru, Uasin-Gishu and Siaya, the proportion of enterprises in this category are 47.4%, 48.7%, and 41.1% respectively.

While casting doubts on the employment potential of the rural informal sector the above finding does not compare favourably with the employment status of informal enterprises in the urban sector. For instance, House<sup>1</sup> in his 1977 survey of 577 Nairobi micro-enterprises found that 49% were one man operated while the other 51% employed an average of 3.6 persons per enterprise. Similarly A.A. Aboagye<sup>2</sup> in a study covering informal sector enterprises in Nairobi, Mombasa and Kisumu reports that the average employment per enterprise was 3.1. Apart from suggesting that rural informal sector enterprises are relatively smaller than those in the urban areas, this comparison also highlights another distinct and important labour dimensions by way of contrast between the rural and the urban informal sector. This distinction is the close relationship and labour sharing techniques between agriculture and the rural informal sector.

To a large extent, this complementarity between agriculture and the rural informal enterprises is reflected in the degree of labour underutilization in these rural enterprises. This labour sharing technique between agriculture and informal sector enterprises is well reflected by our data. To repeat what was already outlined in Section V, in Nyeri and Meru 47.7% and 59.6% of the informal sector

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entrepreneurs respectively were engaged in some other secondary activities. The corresponding proportion for Siaya and Uasin-Gishu were 57.3% and 38.8% respectively. Of those engaged in secondary activities 90.6% and 83.1% were engaged in the agricultural sector in Nyeri and Meru respectively while the figures for Siaya and Uasin-Gishu were 55.9% and 58.1% respectively.

Despite the fact, therefore, that informal sector activities have low employment potentials, there is also considerable evidence of labour underutilization in these enterprises. The extent of labour underutilization is also explicitly reflected in an observation made by our enumerators during the time of the survey. The enumerators happened to be in Othaya town when the short rains were about to begin. When the rains came, most of the entrepreneurs they had scheduled for interview disappeared to plant in their farms. To increase the level of labour absorption in these enterprises, one can therefore clearly see the need for the articulation of policies that deal with this labour sharing issue between agriculture and the rural enterprises. On the other hand maybe this is partly a socio-historical issue. Thus with increase in landlessness the labour sharing will gradually come to an end.

## 6.2 Category of the Workforce

To get an idea of the category of workers who was engaged in the rural enterprises, we classified the persons engaged in these enterprises according to the type of worker and what the worker was engaged in. This information is provided in table 17.

We note from table 6.3 that the largest proportion of the labour force in these enterprises is what would be termed as the working proprietors. This represents about 29.0% of the grand total labour

Table 17: Category of Employment by Type of Activity

<u>Place</u>	<u>Working Proprietors</u>	<u>Paid Employees</u>	<u>Unpaid Family Workers</u>	<u>Apprentice or Trainees</u>	<u>Others</u>
<u>NYERI</u>					
Manufacturing	10	8	8	6	-
Trade	38	3	25	-	19
Services	10	4	6	9	12
Totals	58	15	39	15	31
<u>MERU</u>					
Manufacturing	4	10	9	8	-
Trade	46	11	6	-	37
Services	4	7	6	4	17
Totals	54	28	31	12	54
<u>UASIN-GISHU</u>					
Manufacturing	10	9	8	11	-
Trade	14	9	39	-	60
Services	4	4	16	4	4
Totals	28	22	63	16	64
<u>SIAYA</u>					
Manufacturing	2	16	6	12	20
Trade	84	14	33	-	46
Services	2	2	10	8	8
Totals	88	32	49	20	74
<u>Totals for all Sub-sector</u>					
Manufacturing	24	43	31	37	20
Trade	84	37	103	0	162
Services	20	17	38	25	41
Grand Total	228	97	182	62	223
<u>% Share of Grand Total</u>					
	29	12	23	8	28

force in these enterprises. The second largest category of the people engaged in these enterprises are a combination of the working proprietors, paid employees and apprentices and the unpaid family workers. This category is referred to as the "others" in the table and accounts for as much as 28% of the grand total labour force. In addition in almost all cases, most of the employees who were classified as "others" belonged to the casual or seasonal employees that were hired from time to time as work necessitated. Unpaid family workers, such as the proprietor's wife, sons and daughters constituted the third largest category of employees.

The large proportion of unpaid family workers as shown by the data tends to support the already established fact that most of the micro-informal sector enterprises are a family concern. The unpaid family workers are mainly concentrated in the trade sub-sector possibility due to the fact that this sub-sector does not require any specialized skills to operate. In a regional context, unpaid family workers are highest in Uasin-Gishu district, followed by Siaya and Nyeri. Not much can be said about this interregional variation in terms of family labour utilization. Suffice it to note that the extent to which an enterprise prefers to engage family workers is dependent on the opportunity costs of the family members concerned, more so perhaps with seasonal family workers.

Paid employees accounted for only 12% of the grand total labour force in these enterprises. Again, this low representation of paid employees in the rural informal sector enterprises tends to reinforce our earlier doubts about the employment potential of this sector. Paid employees are relatively well represented in the manufacturing and services sub-sector, mainly due to the fact that these two sub-sectors are skills specific. Apprentices and trainees are relatively modest in numbers and as one would expect in a "non-skills" sub-sector virtually absent from trade. Again they are mainly concentrated in manufacturing and the service sub-sector.

The data therefore shows that most of the labour force in the rural informal sector enterprises consists of working proprietors followed by the casual or seasonal employees (referred to as others in the table). Unpaid family workers are also fairly well represented in rural informal sector labour force. This finding of the composition of the workforce does not compare favourably well with other studies of the urban informal sector. In House's study (already referred to) for instance, only one-fifth of the total informal sector employees were classified as regular employees. Family workers and apprentices constituted another 25% while half the total labour force was being provided by the proprietors or heads of enterprises. Comparison of House's findings with ours tends to indicate that working proprietors in the rural informal sector enterprises are relatively fewer than those in the urban centres. This is possibly due to the dual role that labour plays, namely in agriculture and the informal sector. The proprietors of the rural enterprises have to fulfill this role. We also note from this comparison that paid employees are relatively higher in the urban enterprises than those in the rural areas. This finding is also supported by A.A. Aboagye's 1986 study which we have already referred to. In that study, paid employees accounted for as high as 42% (compared to our 23% paid employees). By using the number employed as a proxy for the size of the establishments, we can therefore rightly note that the rural informal sector enterprises are smaller than their urban counterparts.

### 6.3 Sex Composition, Mobility and Returns to Labour

In terms of the distribution of workers by sex, the males dominate the workforce. This is shown in table 18.

Table 18: Distribution of Labour Force by Sex and Activity

Sex \ Activity	Percentages			
	Manufacturing	Trade	Services	Totals
Male	12.7	37.1	10.8	60.6
Female	2.6	36.1	0.4	39.1
Total	15.3	73.2	11.2	99.7

From table 18 we note that in the trade activity, the two sexes are fairly well distributed. The males account for 37.1% of the total labour force while the females account for 36.1%. In manufacturing and the services sub-sector, however, we note that the male dominate. In the case of manufacturing, we note that females account for only 2.6% of the total labour force while in services, the absolute proportion of females is even lower and stands at only 0.4 percent. The reason for this low representation of women in the manufacturing and trade sub-sector is that these sub-sectors are more difficult to enter relative to trade. We would also like to note that the nature of activities that are covered by manufacturing and services are traditionally male oriented, for example car and bicycle repair, tin-smith and blacksmith. From this perspective, the findings are not surprising at all.

In terms of sex distribution by survey areas, the largest proportion of female representation was witnessed in Nyeri where women accounted for 44.8% of the total informal sector labour force. In the case of Meru, Siaya and Uasin-Gishu, female representation is lower than that in Nyeri and accounts for 36.2%, 40.6% and 34.7% respectively. We can therefore rightly note that females are fairly well distributed in the rural informal sector enterprises. In fact, a comparison between our finding with the 1978 Central Bureau of Statistics informal sector survey, data tends to support this observation. According to that survey, females accounted for only 30% of the total informal sector labour force. Part of the reason for this relatively large representation of females in our survey is that rural informal sector enterprises are smaller and simpler compared to their urban counterparts. The second reason, could of course, be, that females constitute a larger proportion of rural Kenya's population.

As shown in Section IV, the majority of the workforce are relatively young people. Thus to repeat, the mean age of entrepreneurs in Nyeri, Meru, Siaya and Uasin-Gishu are 33.11, 32.6, 33.6 and 31.7

respectively. The mean age for workers are 26.8, 23.3, 25.6 and 22.5 years in Nyeri, Meru, Siaya and Uasin-Gishu respectively. We therefore note that informal sector workers are relatively younger than the entrepreneurs. The data also reveals that there is no significant age variations in the different survey areas.

The data also indicates that over 75% of the entire workforce have worked in these enterprises for a period of less than 2 years. This is shown in table 19.

Table 19: Number of Years Workers have Worked in a Single Enterprise.

Years	Area Percentage				
	Nyeri	Meru	U-Gishu	Siaya	Total
1 - 2	92.6	89.9	76.7	88.8	84.6
2 - 4	3.3	9.1	9.7	4.4	6.4
4 - 6	3.3	-	3.8	2.4	2.4
6 - 8	-	-	3.9	2.5	1.7
Over 8	1.1	1.0	5.8	1.9	2.4

Table 6.5 shows that in Nyeri and Meru 92.6% and 89.9% of the workers respectively had worked for a period of not more than two years while in Siaya and Uasin Gishu the corresponding figures were 76.7% and 83.8% respectively. We also note from table 19 that the average number of years that workers have worked for a single enterprise are 2.6, 1.9, 3.5 and 2.6 years for Nyeri, Meru, Uasin-Gishu, and Siaya respectively. This finding raises a serious question about the horizontal mobility of the workforce in these rural enterprises. Do they, for instance, perceive their employment as a means of acquiring some useful skills that can be marketed elsewhere or is their employment a means of raising capital to enable them to start on their own? Although this question is quite useful from policy perspective, we cannot be able to fully answer it using the data that we have.

However, our data suggests that quite a large proportion of the workers perceive their informal sector employment as a means of acquiring skills and capital that can enable them to start on their own. In this respect, we note from the entrepreneurs histories that for those who were previously employed, their previous employment was not related to their current business. This suggests therefore that the principal reason for employment was to "save" rather than to acquire skills.

What about the returns to labour? Data on the monthly wages paid in the rural informal sector enterprises is presented in table 20.

Table 20: % Distribution of the Wages Paid to Workers

Amount in Kshs	Percentages			
	Nyeri	Meru	Siaya	U-Gishu
0 - 500	32.1	34.6	34.0	33.0
501 - 1000	31.0	30.5	28.1	24.4
1001 - 1500	1.1	1.0	2.4	1.2
1501 - 2000	-	2.3	-	3.1
No Answer	35.5	30.6	35.5	38.3
Totals (%)	99.7	99	100	100

A quick glance at the table shows that over 55% of the workers earn a monthly income of less than Kshs 1000. In the case of Nyeri, Meru, Siaya and Uasin-Gishu, the percentage of workers who earn less than Kshs 500 are 32.1%, 34.6%, 34.0% and 33% respectively. Table 20 also indicates that there is no considerable variations in the distribution of wages paid to informal sector workers in the rural areas. The explanation for this could be that somehow wages in informal sector enterprises are related to productivity. The implication of this apriori hypothesis is that there is no considerable divergence in productivity in the rural informal enterprises.

We also note from table 6.6 that about a third of the labour force in these enterprises did not report their wages. These are probably the contractual and/or seasonal employees that are paid on a "piece meal" basis. We did not, however, witness any payment in kind although indepth probes revealed that this kind of payment existed in a few informal sector enterprises.

The data also indicates that the mean monthly wages of the workers are Kshs 572.2, 894.7, 598.2 and 725.2 for Nyeri, Meru, Siaya and Uasin-Gishu respectively. The overall mean therefore is Kshs 697.6. A comparison of these mean wage figures with the official minimum wages of Kshs 698 reveals that informal sector workers in Nyeri and Meru receive a monthly income that is slightly less than the officially accepted minimum wages while those in Siaya and Uasin-Gishu are paid slightly higher wages than the official minimum wage rates. This is rather surprising given the fact that Nyeri and Meru are high potential agricultural zones certainly with slightly higher per capita incomes than Siaya. The explanation for this could of course, rest on the underlying forces of demand and supply of informal sector labour.

A further interesting issue relating to the wide variations in the mean wages is whether we should take them as representative of the equilibrium wages in the four survey areas. The answer to this question seems to be "no" since no one takes informal sector employment with the expectations of remaining an employee. The short working duration that we alluded to earlier would help bear this out.

#### 6.4 Conclusions

A consideration of the overall employment in the rural informal sector leads to the conclusion that on a per-enterprise basis, the sector employs even less people than the urban informal sector. Furthermore, there are no significant regional or sub-sectoral deviations from this pattern. Therefore, this begins to raise serious doubts about the employment potential of this sector.

The employment pattern reveals considerable male dominance especially in those subsectors which are traditional male domains. However, on the whole, the data shows better female representation than in the urban informal sector. Again in this respect there are no major regional differences.

In light of the fact that most of the employees have worked for a very short period, it appears that actual or potential labour mobility exists in this sector. However, this must be looked at in view of the "youthfulness" of the enterprises. Maybe the short labour tenure simply reflects the age of the enterprise.

The returns to labour seem to us low, given the long working hours we observed in the field. However the figures are almost exactly equal to the minimum wages and there are no significant interregional differences.

The composition of labour shows that the largest category of the workers are "working proprietors". However, unpaid family workers and other "seasonal" employees constitute fairly large proportions. This pattern holds true in all regions and in all sub-sectors. Overall then, the composition of labour viewed in the context of other factors such as whether the entrepreneurs have other income generating activities, suggests considerable labour sharing between the enterprises and agriculture.

Unpaid family workers were grossly underutilized, possibly reflecting the fact that underemployment in the informal sector is beginning to emerge. This issue was clearly reflected by the large number of workers who reported to informal sector enterprises everyday but did not have any specific duties to perform. This phenomenon tends to suggest that there is labour saturation in the rural informal sector enterprises, again casting some doubt on the employment potential of this sector.

Overall, the findings therefore suggests what we all suspected. That is, the need to design policies and programmes aimed at improving the capacity of these enterprises to absorb more labour and to do so under better conditions, including higher returns to labour.

## 7. CAPITAL

### 7.1 Initial Capital

We would like to start the discussion on capital by pointing out that capital is being used to refer to all man-made resources excluding labour even though it is accepted that both human and social capital may be crucially important in determining the performance of the activities under consideration. However, these other aspects of capital have been discussed elsewhere in this report.

An important aspect of the nature of the rural informal sector activities in the four districts is the relatively small amounts of initial capital required to set up the enterprises. The average amount of initial capital investments were Kshs 5127.00; 4622.00; 3066.00 and 2242.00 in that order of decreasing magnitudes for Nyeri, Meru, Uasin-Gishu and Siaya districts respectively. Whereas it is appreciated that the amount is not very small compared to the rural incomes especially of lower income group, and given the specific social-economic backgrounds of the entrepreneurs under study, it nevertheless underlines the "ease of entry" into the rural informal sector probably even more than the urban informal sector. This, we emphasise is purely and strictly from the point of view of initial capital requirements. The low figure also reflects the nature and the relative "pettiness" of most of these non-farm operations as the discussion on labour suggests. In fact when one considers the modal values, the smallness of the activities further becomes evident. In Nyeri district, the modal figure stood at Kshs 500.00 per enterprise while the corresponding

figures in Meru, Uasin-Gishu and Siaya districts were Kshs 2,000.00; 3,000.00 and 500.00 respectively. The rather low modal values for Nyeri and Siaya districts at Kshs 5,000 may be due to the fact that the two districts had a reasonably high representation of services sub-sector coupled with a reasonable proportion of trade sub-sectors. Even though Meru District had a similar percentage of services sub-sector we suspect that the high representation of manufacturing in this district could have had a pulling effect on the services sub-sector we suspect that the high representation of manufacturing in this district could have had a pulling effect on the services sub-sector so that this sector is also "big" in terms of absolute size of capital invested.

Another important aspect which can be deduced from the mean initial capital figures is that it seems to follow some resemblance to district earnings. We note for instance that Nyeri district which has a higher per capita income had a slightly higher mean initial capital invested followed by Meru district which also enjoys a higher per capita income than Siaya district. Uasin-Gishu with its vast and extensive agricultural resources has a better per capita income than Siaya. Therefore the entrepreneurs in Uasin-Gishu had invested more than those in Siaya district. The relationship of initial investment to either "hinterland" or specific household incomes is however an issue that requires probably a study on its own. In this direction we would like to point out that informal sector products are supposed to "fill a missing gap" which exists in the supply of products from a formal sector producing mainly for the middle and high income groups. It should therefore be expected that consumption of rural informal sector goods would be positively correlated to rural incomes subject to a relative maximum income. A further point worth adding is that it is possible that entrepreneurial skills and capabilities could also be factors in explaining the magnitude of initial capital. In this respect we note that in Uasin Gishu, for example, the high per capita income was not matched by an equally high initial capital investment.

Having outlined the magnitudes of the initial capital investment, we now examine the sources of these initial capital investments by way of further explaining their sizes. In Nyeri district, 80 per cent i.e. 72 out of 90 respondents claimed that their initial sources of investment capital was from personal savings with 10 per cent of the respondents citing loan advances from friends and/or relatives, as the source of the initial capital. In Meru district, those who subscribed the initial investment capital from their foregone consumption were 82.8 per cent of the sampled entrepreneurs while loans from friends and relatives helped set up 6.1 per cent of the businesses. As regards Uasin Gishu district, a relatively smaller percentage of 68.9 per cent relied on their personal savings as the initial source of funds. However a greater percentage of 12.6 per cent were financed by friends and/or relatives. In Siaya district, 73.1 per cent of the respondents used their personal savings while 18.7 per cent deployed funds raised from friends and/or relatives. We observed that in Nyeri and Meru districts, which as we have already pointed out have relatively higher per capita incomes, over eighty per cent of our respondents were able to finance their initial capital requirements which suggests that whatever they were doing before venturing into this sector, was above purely subsistence level. In Siaya and Uasin-Gishu, the importance of friends and relatives as a source of funds is underlined by the percentage contribution of this category into the initial sources of capital. The respective percentage values were 12.6% and 18.7% for Uasin-Gishu and Siaya districts.

The fact that the majority of those who seemed to borrow did so from relatives and friends has a far reaching implication in that these people are not likely to be significantly better off than their loanees which would further explain the low levels of initial capital investment. And the fact that they did not resort to the capital market are due to a host of reasons such as lack of or little exposure to such institutions and the risk averseness usually associated with a rural background. Furthermore because they are borrowing from friends and relatives they must calculate very carefully the chances of defaulting and therefore "loosing" their friends and relatives. This dictates borrowing fairly small amounts.

The combined contribution of personal savings and advances from friends and relatives constituted more than 80 per cent of the sources which confirms that informal sector activities are over-reliant on very limited sources of funds, usually coming from the family unit. This we suspect is an extension of the extended family behaviour. We, however, note that the non-prevalence of formal financial institutions as sources of initial capital is not unexpected because this phenomenon is also equally observable in the urban informal sector. Thus, in this respect the rural and urban informal sector activities are not any different.

The other category of respondents who did not cite any of the above two sources of funds cited "others" as the sources of initial capital investment. These are sources as retirement and/or terminal benefits for those who were in some form of formal employment in the civil service or private companies. Some businesses were set up after the owner disposed of an asset and would therefore not view the income resulting from such sale as a personal saving. As discussed elsewhere, a few inherited their business, but surprisingly none claimed to have had their businesses "set up" by a relative though "borrowing from relatives" actually amounts to this. On the claim by the majority of our respondents in all the districts that they initiated their businesses out of their own savings, we note that this response looks somehow "absurd" especially when we take into account that most people tend to consider savings as only the difference between consumption and incomes earned from wage employment. We therefore deemed it appropriate to seek further clarification in view of the fact that only 20.0% of our respondents claimed to have had some sort of wage employment in Nyeri district, 20.2% in Meru district, 16.3% in Siaya district and 15.5% in Uasin-Gishu district. The question therefore is: where did the personal savings come from? Answers to this question are tabulated in Table 21.

Table 21: Methods of Financing Own Savings

Source \ District	Nyeri		Meru		U-Gishu		Siaya		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Previous Employment	46	63.9	53	61.4	45	62.5	63	53.7	207	59.6
Sale of Farm Produce	24	33.3	30	34.9	22	30.6	24	20.4	100	28.9
Sale of Assets	1	1.4	1	1.2	2	2.7	23	19.6	27	7.8
Grants from Friends/ Relatives	1	1.4	1	1.2	2	2.7	-	-	4	1.2
Any Other	-	-	1	1.2	1	1.4	7	6.1	9	2.6
Total	72	100	86	100	72	100	117	100	347	100

Sources of personal savings varied from savings from previous employment/business to offers from friends and/or relatives. Of all those who cited personal savings as the source of initial capital, the majority i.e. 46 out of 72 respondents in Nyeri district had some form of employment. You will recall that in the entire sample in Nyeri district, only 18 respondents reported that they had some wage employment prior to entering the rural informal sector. What we suspect happened was that the question leading to the above answer was further refined so that even those who had wage employment in agriculture were captured as being former wage earners. This raises the contribution of agriculture in financing of rural informal sector considerably.

Another interesting possibility is that some people have temporarily quit the agricultural sector to join the operators in this sector and even though they view the enterprises as entirely withdrawn from the agricultural sector, they are, in their own view, both 'businessmen' and agriculturists. Those are the type of people who are likely to have very strong ties with their parents or wives/husbands, or simply have farms themselves as discussed in Section V of this report. It is this category of people which led to the claim by 33.3% of "personal savers" that the savings came from farm produce. This strong interdependence between rural informal sector and agriculture has some very

important implications. Firstly, it can act as a remedy in alleviating rural unemployment by providing off-farm employment. Alternatively it can conceivably lead to labour shortages in agricultural areas especially during planting, weeding and harvesting seasons.

In Meru district the percentage contribution of farm produce to personal savings is similar to that observed in Nyeri district. In Uasin Gishu district the contribution stood at 30.6% of the respondents which is not statistically different from the percentage contribution of this category in Meru and Nyeri districts. This, as already pointed out, indicates the importance of farm produce in these districts as a source of income. In Siaya district, however, this percentage is lower at 20.4% but the fall is more than compensated for by sale of assets such as cows which raised 19.4%. We note that in Siaya district, livestock farming is more widespread than in the other three districts so that most people would dispose of some livestock animals and set up businesses.

In all the four districts, the combined effect of sale of farm produce and other assets constitute more than 35.0% of the respondents' who generated initial capital from personal savings. This alone is a major contribution because we are saying that in the four districts 127 entrepreneurs out of 347 i.e. 36.6% had financed their personal savings from farm produce. It is possible that if we netted out non-agricultural employment out of those who reported previous employment, we can possibly end up with as high as 15.0% of the 59.6% as having had employment in the agricultural sector. This would lead to about 50.0% of those business respondents who reported their initial capital investment as having been realised from personal savings being directly involved in agriculture.

We therefore see agriculture playing a dual role in the growth of the rural informal sector. First it provides a big proportion of the initial capital from its employment or sale of agricultural sector

products. Secondly, though we have not systematically investigated this issue it must provide a market for these rural informal sector products. It can therefore be argued that the agricultural sector must grow in order to provide ways and means of meeting the labour requirements both in the agricultural sector itself and the rural informal sector.

## 7.2 Present Capital and Equipment

Having looked at the initial capital investment and sources for such capital, it is opportune to turn now to present capital. We therefore now examine the value of capital at the time of the survey. The magnitudes are examined under the assumption that the distribution of structures and consequently rental payments, remain put i.e. just as in the case of initial capital. In examining present capital, as measured by the amount of capital that would have been required to start the business at the time of the survey one gets the initial impression that the figures have been somewhat inflated. In Nyeri district, for instance, the mean figure that would have been required to start business would have been Kshs 16,971.00. This mean figure even though influenced by the maximum value of Kshs 250,000.00 the mode and median values at Kshs 10,000.00 and ,938.00 respectively, tends to suggest that the value of these assets have appreciated, either due to increases in incomes or due to inflation. Thus, it would now cost almost three times what it would have costed to set up a rural informal sector job some five years back. (The mean initial capital capital requirement was Kshs 5,127 and the average age of businesses was 5 years). Obviously some subjectivity could have been introduced by the respondents by building-in some modifications which they would like to effect.

We, however, note that these changes can not be fully explained by inflation or growth in incomes because even in Meru district which has the second highest mean figure for initial capital requirements, it was reported that the required mean at the time of the survey would be

Kshs 20,928.00. The mode and median values of Kshs 10,000.00 and Kshs 10,020.00 respectively would confirm that the mean surpasses that for Nyeri district. Growth in district specific incomes would be attributable to this even though the higher percentage of manufacturing in Meru district may mean that tools and equipment had been affected more by inflation than other factors of production which is actually a more plausible explanation.

As already pointed out, aspirations can not be ruled out because in Uasin Gishu district, the amount of capital required to start a business at the time of the survey was reported to be Kshs 28,065.00 compared with Kshs 3,666.00 required initially. This to some extent could be explained by the slightly higher percentage of older people in this district which would also turn out to be the case in Siaya district where the initial mean figure for capital shot up from Kshs 2,242 to Kshs 17,536. These two districts have 19.5% of their respondents in the age bracket 41-50 years compared to 5.5% and 11.0% in Nyeri and Meru districts respectively. We suspect that this age category is likely to overstate the true value especially as it is less educated than the rest. Besides, this age bracket is likely to internally incorporate some "dream-come-true innovations". In fact these two districts boasted of the highest percentage figures of respondents without any formal years of education as shown in Section V.

All the same, given that in Nairobi an ordinary Kiosk is exchanging hands at between Kshs 30,000 and Kshs 35,000, the stated current capital might not be all that exaggerated. What this means then is that, the rural informal sector activities are becoming difficult to enter because of the huge capital outlay that would be required for investment if one were to venture into it. We do, however, feel that given time, economic development, growth in per capita incomes, and sophistication of consumer behaviour, the informal sectors are becoming increasingly complex and therefore require more advanced technology and capital equipment. For instance, while a tailor could have started

off with a simple manually operated sewing machine, it may be infeasible to do so today because of competition mounted by the recent entrants. Another possibility is that activities in the informal sector have to compete with those in the formal sector which market or operate in these rural areas. And even though the informal sector supposedly produces for the low income group, this group would prefer a near-perfect stereotype of what the formal sector produces which would mean that a higher degree of technology, better tools and equipment, must have been envisaged. In answering this question, therefore we suspect that our respondents considered competitions and some level of dynamics which would be required to maintain their relative market shares.

Having examined the various methods of raising capital both initially and at the time of the survey, we now turn to the type of productive capital these enterprises employ, putting an emphasis on the type of equipment employed. Table 22 summarises the relevant data.

Table 22: Methods of Acquiring Machines/Tools

District Nature of Equipment	Nyeri		Meru		U-Gishu		Siaya		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
New	25	28.0	33	33.3	34	33.0	71	44.4	163	36.9
Second Hand	11	12.3	11	11.1	17	16.5	21	13.1	50	11.3
Self Made	1	1.1	-	-	6	5.8	6	3.7	13	2.9
New & Second Hand	1	1.2	2	2.0	-	-	12	7.5	15	3.4
Hired	1	1.1	1	1.0	2	1.9	1	0.6	5	1.1
Others	-	-	4	3.8	7	6.9	1	0.7	12	2.7
Not Applicable	51	56.6	49	48.5	37	35.9	48	30.0	184	41.6
Total	90	100	99	100	103	100	160	100	442	100

In Nyeri district, 28.0% of our respondents indicated that they operated with new machinery and/or tools. We suspect that most

of these equipment was employed largely in the manufacturing sub-sector where operations with old equipment would be relatively expensive in terms of maintenance and machiner-down-time resulting from breakage. It is interesting to note that only 12.3% of the respondents used second hand equipment.

The total number of those who utilised second hand and new types of equipment equals the sum of respondents in manufacturing and services sub-sectors. This suggests that the majority of the entrepreneurs in the trade sub-sector deployed very little or no equipment in their operations which makes common sense. This reflects the nature of trade as largely sale of agricultural products, where measures such as weight/volume are visually made or some other physically established measures are employed e.g. a bag or charcoal, a debe of maize or a bunch of bananas etc. Trade in domestic items too, such as sufurias, pangas, debes, etc. does not require much equipment. The fact that the majority of those who need equipment used new ones tends to point out to the ease of access and probably the relative cheapness of capital. Another likelihood is that there is no second hand market due to lack of or poor representation of similar formal sector activities who would dispose their obsolete machines and equipment in this market.

To try and establish the degree of "newness" of these equipment, we sought to know how many enterprises had bought new equipment in the past three years preceding the survey. Interesting enough, 27.8% of the respondents in Nyeri district had bought new equipment which indicates that the reported new equipment was relatively new. The mean expenditure amount for the three years was Kshs 6,062.50. This figure cannot be said to be high which underlines the simplicity of the type of equipment bought. It also gives an indication of the low capital requirement in Nyeri's rural informal sector.

In Meru district, 38.3% of the sampled enterprises deployed new machinery and tools while second hand equipment was employed by 11.1% of the respondents.

We feel that because Meru district has a higher representation of manufacturing activities in its sample, the effect is a higher percentage of the combined users of new and second hand capital than in Nyeri district. It is, however, observable that those who deployed tools and machinery are more than the establishments in both manufacturing and services sub-sectors which constitute 43.3% of the firms while those with either new or second hand equipment constituted 44.4%. The relative non-utilization of capital equipment in the trade sub-sector once again underlines the reason why most people tend to go into it given the ease of entry because there is almost no need for investment in tools and machinery to start the business.

In as far as expenditure on acquisition of new capital for the three years prior to the survey is concerned, 28.3% of the respondents claimed that they had invested in new equipment. Because this figure falls short of the respondents who reported deployment of new equipment by about 5.0% we encounter a perception problem in that some respondents could have considered an equipment to be new even if it was more than three years old. However, of those who had invested in new equipment, on average, they had spent more money (Kshs 10,463.00) than in Nyeri district. This, as already noted several times, could be due to the fact that the manufacturing sub-sector in Meru district was more pronounced than elsewhere in the survey districts.

In Uasin Gishu district, 33.0% of the respondents employed new equipment while 16.5% used second hand equipment. The emergent issue is that the trade sub-sector in Uasin Gishu district is likely to be more "capital-intensive" than in Nyeri and Meru districts because the combined manufacturing and services sub-sectors constitute 33.0% of the firms sampled out in Uasin Gishu district while the users of both new and second hand equipment constitute 49.5% of the sample.

The misconception problem once again comes to fore because only 13.8% of the firms reported that they had spent some funds in acquiring new equipment in the past three years preceding the study. The fact that some of the equipment is deployed in trade is borne by the low average of the amount spent which stood at Kshs 6,036.00.

Siaya district revealed a peculiar feature in that 44.4% of the respondents used new equipment while only 13.1% of the respondents utilised second hand equipment in the production process. This would mean that unlike in Meru and Nyeri districts, substantial percentage of traders in Siaya district deployed equipment. This is in light of the fact that manufacturing and services sub-sectors in Siaya district comprise 38.4% of the sample, while 57.5% of the sample employed capital in the form of equipment which was new or second hand. The other peculiar feature is that only 15.5% of the respondents had spent some money in the three years preceding the survey in the acquisition of new equipment which means that three years do not alter the newness of the equipment. We suspect that the average age of the informal sector firms in Siaya district could have led to the above observation because in this district, the average age of enterprises was 4.2 years compared to 5.0; 4.5; and 5.0 in Nyeri, Meru and Uasin Gishu districts respectively. While the mode for the other three districts was 9.0 years, the mode in Siaya district was 1.0 year which means that the majority of the respondents were operating with new equipment because they had just ventured into business. As if to ascertain that a higher percentage of traders must be deploying capital equipment, the average expenditure on the acquired capital equipment was Kshs 3,083.00.

Overall the percentage share of those who hired equipment is extremely low ranging from 0.6% to 1.9%. Such hired equipment are generally utilised in footlose industry and therefore likely to be found in the trade sub-sector. The low percentage may reflect a lack of information of the existence of such hire services. Another possibility is that a market for hire of tools and machinery does not exist because of the huge capital outlays that would be required to set up that type of business.

In fact if such a supply can be availed, it would be an easy way of getting started and would therefore ease the capital constraint which tends to hinder initial participation in this sector. This is because one would not have to commit a lot of capital in acquiring

these equipments but can take them on hire. It would provide a possibility that entrepreneurs can try various activities without the undue worry of permanent commitment of capital into an industry-specific equipment. It is our view that the issue of hired equipment should be pursued further because it would constitute a pool of available capital which could be even cheaper.

How about own made equipment? 1.1% of our respondents made their own equipment in Nyeri district while nobody in Meru district constructed his machinery and/or tools. In Uasin Gishu, 5.8% reported that they made their tools and machinery while 3.7% in Siaya district claimed that they had made their own tools.

In the entire sample, i.e. 442 respondents, 163 which constitute 36.9% utilised new equipment - equipment which was acquired not more than three years prior to the survey while 11.3% i.e. 50 firms had second hand tools and machinery.

3.4% of our respondents had a combination of both new and second hand equipment. One can therefore argue that 51.6% of the sample respondents utilised tools and machinery which was in a reasonable state and that most of these equipment was employed in the production of manufacturing and services. These sub-sectors constituted 38.3% of the firms in the sample. The remaining 13.3% was left to be spread thinly over trade or to be concentrated on some few individual firms which would lead to the conclusion that the trade sub-sector is the least demanding in terms of capital requirements which may be another reason why the majority of the respondents are found in this sub-sector.

### 7.3 Capital as a Bottleneck

As discussed in the chapter on business constraints, the three very important problems that most businesses seemed to confront are purely capital oriented in that, other than the express statement

of the fact that capital was lacking, suitable business premises would require some kind of investment while acquisition of a relatively expensive licence would erode the amount of capital left behind for investment. In fact all the problem aspects are nothing more than capital which underscores its importance as a limiting factor in the initial setting up of firms. Can the firms finance themselves once they have overcome the initial capital problem? When firms were asked about need for other financial assistance, 19.0% of the respondents in Nyeri district indicated that they would need the assistance while 8.1% of the respondents in Meru district voiced their interest in extra financial assistance. In Siaya district, 8.8% of the respondents would require more financial assistance while in Uasin Gishu district 29.1% would require the assistance.

The mean financial assistance requirement varied between Kshs 3508.00 in Uasin Gishu district to 15,729.00 in Nyeri district. Meru and Siaya districts had Kshs 11,550.00 and 12,809.00 respectively. The most surprising thing is the fact that while the majority of the respondents had reported lack of or inadequate capital as one of the most important problems initially, the same do not come out in need of extra financial assistance. This we suspect could be as a result of not knowing where extra assistance could come from. We note, however, that Uasin Gishu district had a noteworthy percentage (29.1%) of those who would require extra financial assistance. This, we suspect, is due to the fact that agricultural activities are carried out more extensively in this district and that the role played by institutions like Agricultural Development Corporation and Agricultural Finance Corporation are too conspicuous to go unnoticed. It is therefore possible that rural informal sector in this district have witnessed the successful effects of assistance and would therefore be daring to undertake a risk.

Another possibility is that, while lack of capital was a bottleneck initially, after initiation, the business soon established an ability to finance itself. If the rural informal sector firms

are able to be self financing after four or so years of operations, it would then mean that they would only require a "big-push" initially and thereafter they would be able to successfully "take-off" and sustain themselves along the desired growth path. It would therefore seem like the critical effort would only be required in garnering capital initially. However, provision of initial capital may entail training to impart the necessary skills be they technical or managerial if successful launching of the "big push" is to be witnessed. If we agree that capital, both human and physical become the major constraint which one has to contend with in the rural informal sector, the success of the rural informal sector will, to quite a great extent, depend on how quickly human capital can be imparted so that it can ably manage physical capital together with other resources that are required to effect production.

The above thesis is further supported by the responses that we got when we posed the question on how the respondents financed improvements in the business. 96.9% in Siaya district, 91.1% in Nyeri district, 89.3% in Uasin Gishu district and 86.9% in Meru district reported that they would deploy incomes earned from the business for purposes of improvements. This response suggests that the rural informal sector does not only subsist but can be a source of investment funds however small the funds may be.

Table 23 further shows that other than those who ploughed back profits, the next most important source of improvement funds was loans and advances from friends and relatives. This was, however, a small proportion. Only 1.9% of the respondents in Siaya district got loans from friends and/or relatives while in Uasin Gishu district 2.9% of the respondents relied on this category as a source of improvement funds. In Nyeri district, the importance of friends and relatives in providing financial assistance is underlined by 3.3% of the respondents while in Meru district, this percentage was 4.0%. The slightly

Table 23: Sources at Funds to Improve Business

District Source	Nyeri		Meru		U-Gishu		Siaya		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Income from Business	82	91.1	86	86.9	92	89.3	155	96.9	415	91.8
Loans from Friends/Relatives	3	3.3	4	4.0	3	2.9	3	1.9	13	2.9
Loans from Banks	-	-	3	3.0	2	1.9	-	-	5	1.1
Sale of Farm Produce	-	-	2	2.0	2	1.9	-	-	4	1.0
Loans from Government	-	-	-	-	-	-	-	-	-	-
Other Sources	2	2.2	3	3.1	3	2.4	2	1.2	10	2.2
Not Applicable	3	3.3	1	1.0	1	1.4	-	-	5	1.1
Total	90	100	99	100	103	100	160	100	452	100

lower percentage for Siaya district could be due to the lower relative per capita incomes compared to the other district so that most of it is consumed with little left for savings and lending.

The failure of agriculture to be an important source of business improvement funds is borne out by the finding that only 2.0 and 1.9% of the respondents in Meru and Uasin Gishu districts reported that they had resorted to this sector for purposes of getting improvement funds. This observation is rather peculiar but, supports our earlier proposition on the ability of the rural informal sector to be self sustaining, once given the initial push by agriculture. It appears then that after take-off, the relationship between the two sectors, agriculture and rural informal sector, is purely social and interactive on the one hand and business like on the other. The two must co-exist.

The failure to recognise the role of commercial banks and other lending institutions is underscored by the fact that nobody acquired any improvement loan from any government lending institution while banks as a source of improvement funds were cited by 3.0% of the respondents in Meru district and 1.9% in Uasin Gishu district. As we have already observed elsewhere, the rural informal sector in Meru district has a higher percentage of reasonably sized manufacturing sub-sector which suggests that the entrepreneurs are more exposed and therefore capable of approaching the banks.

What is borrowed must eventually be paid for. This can only be paid for by savings from the business. The average savings from the respondents in Meru, Nyeri, Uasin Gishu and Siaya districts were Kshs 1980.00; 993.00; and 596.00 respectively. However, the modal savings were Kshs 500.00 in Meru and Uasin Gishu districts and Kshs 200.00 in Nyeri and Siaya districts. This means that credit worthiness was highest in Meru district followed by Uasin Gishu district and that is why entrepreneurs in these two districts would qualify for small commercial bank loans. Besides, as observed in Section II, 55.5% of the respondents in Meru district and 43.5% in Uasin Gishu, had land as property which they could offer as collateral. While 71.9% of the respondents in Siaya district and 34.4% in Nyeri district had land as well, the average holdings of 1.4 and 3.9 acres in Nyeri and Siaya districts respectively would tend to militate against offering land as security because in the unlikely event of defaulting in the loan disbursement, the entire parcel may have to be auctioned. Recall that in Meru and Uasin Gishu, the average land holdings were 4.4 and 20.1 acres respectively which means that the owner may only lose a portion of land through auction if he were unable to honour the loan disbursements.

Of the sampled enterprises in Nyeri district, 24.4% had borrowed funds while only 31.3% had done so in Meru district. In Uasin Gishu district, 26.2% of the respondents had at one point in time borrowed

money while 39.4% of the respondents in Siaya district had borrowed some money for business purposes.

Here we observe that the average amount that was borrowed does not significantly differ in all the four districts. Respondents in Meru district reported they had borrowed Kshs 2624.00 while respondents in Uasin Gishu district claimed that they borrowed Kshs 2349.00. Entrepreneurs in Siaya district had borrowed, on average, Kshs 2257.00 while those in Nyeri district had borrowed the lowest amount of Kshs 1800.00. This suggests that the districts that had made a go at bank loans tended to borrow more on average but before we can safely conclude so, we need to examine the sources of these borrowed funds.

Table 24: Sources of Borrowed Funds

District Source	Nyeri		Meru		U-Gishu		Siaya		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Banks	0	-	6	19.6	3	11.1	3	4.8	12	7.9
Relatives	11	35.3	8	26.0	8	29.8	15	23.8	42	27.6
Friends	10	32.2	7	22.8	11	40.8	32	50.8	60	39.5
Co-operatives	3	9.6	3	9.6	2	7.2	3	4.8	11	7.2
Others	7	22.9	7	22.5	3	11.4	10	15.5	27	17.8
Total	31	100	31	100	27	100	63	100	152	100

Of the 31 people who borrowed funds for business in Nyeri district, nobody borrowed from commercial banks while 35.5% of the borrowers got their advances from relatives with friends funding 32.2% of the loanees. The co-operatives lent out to 9.6% of the operators while 22.9% of the loan recipients claimed that it was from other sources - this source is likely to be advances from parents, brothers and sisters who the majority of the respondents are unlikely to consider

as relatives. We feel that this category of "others" can conveniently be split into either friends or relatives or to avoid the problem of apportioning, we aggregate the sources into three categories of banks, cooperatives and friends and/or relatives. It would therefore follow that 90.4% of the borrowed funds was raised from friends and relatives while cooperatives financed 9.6% of the loanees.

In Meru district, the utilization of banks as a source of borrowed funds is underlined by the fact that of all the loan recipients, 19.6% got their funds from commercial banks with relatives facilitating loans to 26.0%. Friends constituted 22.8% of the financing institutions while cooperatives provided 22.5% of those who had borrowed. In Meru district, therefore, 71.3% of the loanees benefited from funds provided by friends and relatives, while somehow formal institutions financed 29.2% of the loanees.

As far as sources of borrowed funds in Uasin Gishu are concerned 11.1% of the financiers were commercial banks while relatives contributed 29.8% of the financiers. Friends supplied funds to the biggest share of the borrowers because they availed funds to 40.8% of the loanees. Cooperatives and others provided 7.2 and 11.4 percentage points respectively. Non-formal institutions raised 82.0% with cooperatives and banks funding 18.3% of the respondents.

In Siaya district, loans from commercial banks were cited by 4.8% of the borrowers while relatives provided 23.8% of the borrowers with funds. Friends took a bigger share of the participation by funding 50.8% of the loanees. Cooperatives and the category of others funded 4.8 and 15.5% respectively of those who borrowed funds. Those who received loans from "informal" sources were 90.1% of the loanees while 9.6% borrowed from "formal" institutions.

In Siaya and Nyeri districts, friends and relatives supplied over 90.0% of the borrowers with funds, while in Meru and Uasin-Gishu

districts this percentage was 81.0% which suggests that roughly 20.0% of the borrowed funds were raised from organised institutions which in our case could be commercial banks and/or cooperative movements. This supports our earlier observation that the two districts are making a go at the somehow formal credit institutions. In Meru district, the percentage of those who took loans competes favourably with the contribution of friends and relatives which are the two most important sources of borrowed funds in all the four districts.

The informal ways of raising the funds in the rural informal sector is underlined by the over-reliance on friends and relatives whom we suspect are within the rural set-ups. It is therefore expected that the rural incomes must be having telling effects on the stock of capital of these rural informal sector activities. One striking feature is the extent of the contribution of "others" to the borrowed funds in Nyeri district. It is felt that this category of "others" could be mostly from such sources as clan and village welfare organisations which are developed along cooperative movements principles but which do not legally exist as cooperative organisations - more often than not they, are not even registered in any office.

The foregoing is suggestive of the fact that credit channelled through formal lending institutions may take a lot of time before it can have the desired effects. It would therefore appear that informal sector activities in the rural Kenya may have to be approached from informal aspects or by facilitating, agriculture to produce more surplus by realising higher incomes which can be lent to the needy in the rural informal sector. The financing and particularly extension of credit to the rural informal sector certainly requires an in-depth study.

#### 7.4 Conclusions

In all the regions, the amount of initial capital required to start the business was relatively modest, though the degree of this

"modesty" needs to be interpreted with care given the socio-economic backgrounds of the entrepreneurs. Taking the latter factor into account, and in particular the fact that it took the entrepreneurs quite some years - between primary school and business - to generate the necessary savings, it would seem to us that in the entrepreneurs economic world, the necessary initial capital was huge.

A high proportion of initial capital was generated from agriculture or agriculture-related activities which underlines the importance of agriculture in providing an investment surplus for the rural informal sector. Why the entrepreneurs would want to invest the savings in the informal sector instead of re-investing in agriculture or investing in agriculture in the first place is a complex socio-economic issue touching on such factors as landlessness, migration, educational background, etc. which are somewhat beyond the scope of this study, though broached in earlier chapters.

We suspect, and to some extent the data suggests this that, the magnitude of initial capital is related to hinterland incomes in such a way that the higher the hinterland incomes, the higher the initial investment capital. However, once again this is an issue that requires more systematic investigation preferably trying to relate the entrepreneurs initial capital with other variables such as their household incomes and expenditures.

Personal savings, no matter from which source, provided the bulk of the initial capital. Thus, formal lending institutions play a relatively minor role in providing the capital. This is in spite of the fact that nearly 50% of the entrepreneurs have got some land and nearly all of them are willing to use the land as collateral.

Once the initial capital is provided, primarily by agriculture, the additional capital to improve the business comes from the

businesses themselves. This suggests that the businesses have the capacity to sustain themselves, once the initial capital problem has been overcome.

The entrepreneurs are however not overly inclined to borrowing order to improve business. But once again, the relatively few who borrow do so from friends and relatives, not from formal institutions, which suggests that any credit policy for these enterprises must come to terms with these informal lending mechanisms, for quite obviously they play an important role in overcoming the problem of capital.

## 8. CAPITAL FUNCTIONAL RELATIONSHIPS

### 8.1 Introduction

We now would like to test some functional relationships by way of trying to answer the question: Are there some significant factors such as education, experience measured in terms of age, which influence and therefore affect the amount of initial capital investment? Does availability of a suitable premise, which would entail paying rent, affect investment decisions?

### 8.2 Rent, Age and Education

Equation 1(a) below was run for all the entrepreneurs interviewed and yielded the following results:-

$$K_{t_0} = 2197.86 + 4.61 X_1 - 46.94 X_2 + 232.35 X_3 \quad (a)$$

(4.50)      (-1.21)      (2.43)

= 0.13

The values in the parentheses are t - ratios,

$K_{t_0}$  : Initial Capital Investment in Kshs.

$X_1$  : Amount of rent paid for the business premises in Kshs. per month.

$X_2$  : Age of the respondent in years.

$X_3$  : Formal level of education measured in actual years of schooling.

Unless otherwise indicated these variables will be defined as above throughout this report.

The parameter estimates for the monthly rental payment and the level of formal education are statistically different from zero while that of the age of the respondent is not statistically significant from zero but has a negative marginal impact on the level of initial capital investment.

The variation explained ( $R^2 = 0.13$ ) is worryingly low. This we suspect is due to the myriad factors that we would expect to affect investments in this sector. For instance investment in this sector is as an initiative of last resort towards averting unemployment. People enter this sector after they have failed to acquire a preferable job in any other sector which may mean that it is a choice between survival and extinction. Another possibility is that some people could have resorted into the rural informal sector to escape the difficult agrarian chores which one cannot, with conscience, easily avoid unless one has some sort of engagement outside the farm. These types of considerations which we intuitively know, to a great extent, affect investments in this sector have not been captured by our model. We hasten to point out that with the present resources, it is not possible to construct a model which can capture such factors.

Another possibility is the indivisibility of the capital equipment that might be required before the firm can start any operations. Such dictations may be imposed by the level of technology which may have virtually nothing to do with the aspirations of the rural informal sector. Besides, while rural informal sector investments may have some rationale behind them, the rationality is a personalised pursuit which may have very little regard, if any, to economic rationality. It is against this background that informal sector entrepreneurs are said to be innovative. It is therefore not surprising that the model can only explain very few variations owing to the difficulty of capturing human behaviour.

The statistical significance of both the respondents level of formal education and the amount of rental payment has very important implications. Firstly, it confirms our expectation of positive association and secondly, points out to the importance of these two variables thereby suggesting that their manipulation in the rural set up can influence the amount of investment in the rural informal sector. The non-significance of the age of the respondent may not be

difficult to comprehend but the negative marginal contribution is rather surprising. We, however, need not worry because of its non-significance.

The negative marginal impact of the parameter estimate for the age of the respondent contradicts our accumulation theory but conforms with the observed fact that the majority of our respondents were young and did not therefore have any time to accumulate capital. Another plausible explanation is that with age, responsibilities resulting from dependents tend to increase and with it financial commitments and increased risk averseness and need to diversity. This would mean that if one were to delve into the rural informal sector when one is advanced in age, one would have little to invest because of ones responsibilities as a parent or in some other capacity resulting from the extended family way of life.

The other aspect of risk averseness and the need for diversification implies that even if the older entrepreneurs had accumulated some wealth, they would not invest everything into the rural informal sector due to the traditional fear of the unknown which would bar them from putting all their eggs in one basket. It might therefore be decided that some of the funds be deployed in the agricultural sector, some be saved, while the remainder might be invested in the informal sector activities. We note that the younger entrepreneurs are less likely to have farms where they could deploy the funds and more often than not they only have themselves to care and worry about.

The above observations are corroborated by the statistical importance of the level of education. We expect there to be an inverse relationship between the age and the level of formal schooling and we suspect that the two are correlated. The higher the level of education the higher the level of initial capital investment. The likely thing to happen is that as levels of education increase, these who are likely to set up informal sector activities tend to gain more confidence or

alternatively, they are likely to appreciate the need for investing in somehow sophisticated business equipment so as to try and capture some of the market which prior to their debut was shared among earlier entrants. This would therefore tend to require more funds to set up. It is this younger and better educated entrepreneur who is likely to be innovative and not too averse to taking risks. Innovations, just like any search for knowledge cost money to undertake and cost even more to implement. It is therefore indicative that the more educated one is the more likely one is to be more exposed and knowledgeable and therefore likely to conceive the investment equation more broadly. The two pronged implications of negative contribution of the age and the positive contribution of education suggest that the rural informal sector is, with time, becoming a realm of the young who generally fall out of school system and cannot eke a living elsewhere.

The positive correlation for the monthly rental payment seems to confirm the need to exploit a resource to the maximum. Whereas one could have expected rental payment to constitute a withdrawal and hence a leakage from the amount initially available for investment, the failure to assume a negative sign may suggest that the majority of the actors do not regard rental payments as part of initial capital investment. But the most plausible explanation could be that for those who paid rent, they would want to maximise returns from the funds committed into the payment of rent.

It should be noted that the non-intenerant sub-sectors tend to invest more and it was shown elsewhere in this report that they tended to invest more both in tools and machinery and they are the ones who are generally housed in structures of some sort. They would therefore pay something in the form of rent. It is therefore not surprising that a positive correlation between rental payments and initial investment tend to vary directly.

The statistical significance and positive coefficients of the parameter estimates of both the level of education and the amount of rent paid would tend to support what we have already concluded and that is the majority of the rural informal sector problems can be summed up as capital oriented because education is human capital which is part of the broader capital definition while rent is an integral part of capital. While recommendations such as increasing educational qualities can be drawn, we hasten to point out that it should be beefed up to the levels that conform to rural informal sector needs. The positive association implies that the more educated actors would be able to absorb more capital and cope better with factors that accompany such capital. We note here that the higher the amount of rental payment the higher the capital investment which simply means that rental payments and initial capital investment are supplementary and complementary. Here we would like to recall that the most cited initial problem was lack of or inadequate capital followed by lack of suitable business premises which, it can be argued, is due to inability to pay commensurate rents. We can therefore conclude that provision of sheds at affordable rental charges would play a major role in promoting rural informal sector services. Even though it can be argued that the regression was some proportion of initial investment on total initial investment this is not likely to reverse the above observation because the main concern of this study is to try and show in as much as possible the nature of relationship and the possibility of disaggregating the constituents of a factor of production into some economically sensible components which can be viewed and attended to in their own accord.

### 8.3 Current Capital, Businesses' Age, Rent

Capital at the time of the survey was formulated in the general form of equation 1 (a) above, but this was thought to depend on initial capital ( $X_4$ ), age of the business in years ( $X_5$ ) and the amount of rent paid on a monthly basis ( $X_1$ ). The following results for the entire sample

were obtained.

$$K_{t_1} = 106.21 + 2.07 X_4 + 1756.58 X_5 + 894.35 X_1 \quad 1(b)$$

(7.50)                      (2.91)                      (1.84)

$$R^2 = 0.21$$

$K_{t_1}$  = Capital at the time of the survey

The variation explained improves to 21 per cent and all the coefficients of our parameter estimates have the expected positive signs. We hasten to point out that we have to contend with the problem of low explanation of the variation ( $R^2$ ) owing to the fact that our models are not formulated to capture the effect of non-quantifiable variables and such other socio-economic-politico variables which are generally very important in shaping the actions of entrepreneurs in the sector under study. Incorporation of such information would, doubtlessly, improve the explanatory power of our functions but in quantitative form the exercise is outside the scope of the present study.

The role of initial capital investment in determining the reported value of investment that would be required to start business at the time of the survey, is statistically significant from zero just as much as the age of the business since initiation is important. The coefficient of the parameter estimate for monthly rental payment is statistically insignificant but this we suspect is due to a correlation between initial capital investment and rental payments.

The initial capital investment constitutes the foundation on which the present worth of the business at the time of the survey was founded. It would therefore follow that the firmer the foundation, the more progressive would be the amount of capital especially if the changes in price levels were to be sporadic. Self-evidently, capital base is very important as it tends to underline how fast a sector or an economy can grow. If the reported costs of starting the business at the time of

the survey can be taken to be a proxy for capital investment between the initial value be considered as the result of growth which, to some extent, depends on the initial capital stock. It is therefore not surprising that the parameter estimate of the initial capital investment is very crucial in explaining growth in capital stock in the rural informal sector. This would suggest that the rural informal sector displays some economic rationality and features which are observable in the formal sector.

While the role of capital stock in determining growth is not in question, the exact influence of skilled labour constitutes a problem. Here, it would be noted that acquisition of skills requires capital investment. Therefore the amount of initial capital stock constitutes the nucleus around which growth and manpower advancement revolve. This means that, provision of capital should be viewed as a bedrock and should go some way in determining the future capital stock and with it employment and output. For the rural informal sector, efforts must therefore be made to raise the amount of capital stock on which future growth can be expected to revolve.

One factor that we expect to explain the growth of capital stock, is the duration that has passed since the initial investment. In other words, capital stock is considered to be an accumulation of capital over time such that any sector, sub-sector or business firm for that matter, would have its capital stock varying with the number of years it has been in operation.

This expectation is realizable from our function which suggests that for every year in which the business has been in operation, the stock of capital would increase by Kshs.1,756.58. The rationale behind this is not difficult to appreciate especially when one notes that informal sector activities are over-reliant on ploughed back profits as a means of facilitating growth. One would therefore expect to have

low capital stock if the business was relatively young.

Whereas it is notable that re-invested profits are the profits resulting from sales, we cannot concisely determine the factors that would explicitly explain this type of growth because, it may require an evaluation of the demand for the informal sector products which this study was not designed to cover. That type of analysis, as stated earlier, would require a time series data, and preferably a commodity by commodity or sub-sector by sub-sector approach.

From the foregoing it is clear that given time, the rural informal sector can develop a sound capital base. The only problem is that the pace is likely to be slow which could be due to the small and limited initial capital base. It is therefore possible that remedial measures intended to alleviate the problem of initial capital would go some distances in raising the pace of capital accumulation. A policy implication here is that some means should be found to retain the operators on the enterprises instead of the usual rapid turn over as operators come and go due to easy entry and exit.

Such traditional economic variable like the rate of interest could be very important in influencing these investments but few in the sub-terranean economy are likely to care about the rate of interest especially when there is very little interaction between them and the formal lending institutions. However, we do feel that the rate of interest or price of raw materials when observed over time can provide a good explanatory variable in discussing capital initially and at the time of the survey in the rural informal sector.

With the rural informal sector being dependent on agricultural sector as a source of initial capital investment, the capital constraint has to address itself to rates of return in the two sectors namely rural agricultural sector and the rural informal sector. Under the circumstances, the funds would be expected to flow out of the sector

with low returns, to the sector with higher returns. This outflow would continue until the two rates of return are equal. However, if the two sectors are viewed as being complementary and that the informal sector activities provide alternative non-farm income and may be ease(s) the pressure on the land, the rates of return are not likely to constitute a criterion for participation. We suspect that the latter view is quietly upheld as the phenomenon under which the rural informal sector activities are evaluated. Against this background we would expect societal values and virtues to supercede the economic rationality which makes an evaluation and analysis of this sector rather complex.

Having looked at the constituent factors that determines capital investment initially and at the time of the survey for the entire rural informal sector sample, it would be interesting to find out whether sub-sectoral initial investments and the perceived investment that would have been required at the time of the survey, tend to follow the entire sector observations or if it markedly differs from the observed results. The reason why we suspect that they could differ is because sub-sectoral requirements are thought to be different such that initial investments might be of different magnitudes i.e. it is possible that it might require much more initial investment to start a manufacturing undertaking than it would if one was to be in the trade industry. Whereas this may be true, it might not be necessarily true that considerations of such factors like rent are more prominent in the manufacturing undertakings.

#### 8.4 Sub-Sectoral Analysis

To try and establish the relevance and validity of the above presupposition, the running of equations 1a and 1b was undertaken for trade, manufacturing and services sub-sectors.

In the trade sub-sector, the two equations for both initial investment and investment at the time of the survey are presented below.

$$K_{t_0} = 901.6 + 4.36X_1 + 279.99X_2 - 10.41X_3 \quad 1(aT)$$

(3.54)      (1.67)      (-0.05)

$$R^2 = 0.13$$

$$K_{t_1} = 4005.47 + 1.84X_5 + 2352.05X_4 + 764.40X_2 \quad 1(bT)$$

(6.62)      (3.42)      (1.50)

$$R^2 = 0.29$$

We note that in the trade sub-sector, it is only the amount of rental payment which was statistically significant from zero in determining initial investment. The statistical significance of the level of education which was evident in the entire rural informal sector sample ceases. It is possible that in the trade sub-sector which we have maintained is easier to enter, the level of formal education is not important because if it were, it would in one way or the other constitute a constraint.

The only interesting finding is that as rent increases entrepreneurs in this sub-sector tend to raise the level of investment. This as we have already pointed out is easy to appreciate because in a wider context, initial investment entails rent for the business. It is therefore true that suitable business premises constitute a problem even to traders whom we suspect would require some shelter to safeguard themselves from heat, dust and rain. It is also possible that a suitable business premise would constitute a good warehouse where the entrepreneur can securely leave his goods overnight. It would therefore appear that the economic rationality of maximising returns from a per square foot of rented business premises holds true even in the trade sub-sector. It is true that it is in the trade sub-sector that most of those who operated from no structure are found. The positive variability between rental payment and initial investment would appear to be paradoxical. What we suspect is that those who managed to secure

business premises are able to invest more because they would have nothing to fear about like operating in a prohibited area. It can be shown that those who secured business premises before commencement of business had the necessary authorisation. It is also possible that the operators who paid any rent compared to those who paid no rent are likely to put more effort in a bid to try and recoup the cost. Such efforts may mean a sound initial investment coupled with business promotional undertakings.

Another interesting aspect of our function is that the variation explained is only 13 per cent - just as much as for the entire sample. What we suspect happened is that the dominance of the trade sub-sector in the entire sample, had a telling effect in influencing the fit.

As regards the level of investment at the time of the survey, the fit improves over that of equation 1(aT) to 0.29 while the coefficients of the parameter estimates for capital and the age of the business are statistically different from zero. The statistical significance of the parameter estimate for the age of the business underlines the importance of growth of capital over time which we suspect is realised from accumulation of ploughed back profits.

The statistical significance of initial capital investment and consequently its ability to accumulate becomes important which implies that a strong business foundation i.e. in terms of initial capital, becomes very crucial and if the accumulation on a yearly basis depends on the initial stock, possibilities of a healthy financial start accords an important take-off step. This is consistent with growth theories. The fact that the explanatory power of the function at the time of the survey has improved tends to suggest that once business has taken off, slightly more economic considerations tend to gain prominence with time. This is a logical consequence because once in the industry, the firm would do anything earthly possible to remain in business. The business

climate in which the firm finds itself is dependent on economic rationality unlike the decision to invest in the first place. In fact it can be argued that with time, entrepreneurs in this sector would tend to conform to the demands of the market both in terms of investment and production. This, we believe would be due to stiff competition on the one hand and the nature of demand on the other hand. With time, entrants become more as specialization and product differentiation tend to gather momentum. It is from this approach that the rural informal sector might become more difficult to enter. In terms of cost those who enter might in future be able "to swim and float" or else sink. Survival will depend on the ability to respond to market signals both in the factor and product markets.

In the manufacturing sub-sector the above two equations produced the following results:

$$K_{t_0} = 2926.21 + 5.21X_1 + 216.79X_2 - 70.22X_3 \quad (1(am))$$

(2.35)      (1.02)      (-1.16)

$$R^2 = 0.13$$

$$K_{t_1} = 1406.66 + 0.99X_5 + 32.50X_4 + 416.42X_2 \quad 1(bm)$$

(2.01)      (0.63)      (0.17)

$$R^2 = 0.06$$

Another important aspect of the rural informal manufacturing sub-sector is that some trades are likely to be a family/clan affair. These considerations have not been catered for in our model but we have reason to believe that they are crucial in explaining the observed behaviour.

When one considers the amount of capital at the time of the survey, initial capital investment is the only variable which has a

coefficient of the parameter estimate statistically different from zero. We however, note that the specification problem is more pronounced because the variation explained drops to a meagre 6 per cent.

While the trade sub-sector groups actors who are almost similar in that the majority of them can sell products which are similar and hence easy to predict, manufacturers are likely to be of diverse and distinct characteristics and cannot be able to change their production plans in the very short run owing to the specificity of the capital equipment employed. Flour milling and tinsmithing accord us two polar examples yet they are both in manufacturing. Inevitably it is also the rural informal manufacturing sub-sector which is likely to face competition from formal establishments within and around the location. A tailor has to contend with competition mounted by ready-made clothes which are produced en mass and sold in the local market or in the shops, just as a miller has to confront competition mounted by packaged flour by formal organisations which can readily be found in the nearby shops.

The fact that capital at the time of the survey did not depend on the number of years the business has been in operation tends to suggest that four years may not be long enough to facilitate acquisition of other capital equipment especially of the type which is required in the manufacturing sub-sector. Alternatively, because of prevalent competition from other institutions, manufacturers invest as and when they get funds and therefore their investments do not directly depend on years of operation even though this plays a positive role.

It should be recalled that we expressed some reservations about the amount which was reported to be the requisite amount to initiate business at the time of the survey. The consequent poor fit and the failure of this model to appreciably explain this investment somehow strengthens our suspicion of subjectivity in responding to the question. We, however, appreciate the difficulty of capturing some of the determinants of the

actions regarding investment in this sector even when a reformulation is contemplated. In our view an in-depth study on manufacturing sub-sector to try to establish how investment was mooted, problems associated with investment in business premises, skills, raw materials, product demand and the size of the market, competition and such other factors that determine demand for and supply of the individual firm products, is necessary. It might be reasonable to confine the study to two or three products of rural manufacturing sub-sector to facilitate a rigorous factual analysis which can lead to firm conclusions.

Let us now examine the above two equations with regard to services sub-sectors.

$$K_{t_0} = 3030.99 + 5.34X_1 + 218.65X_2 - 93.47X_3 \quad (1as)$$

(2.02)      (0.91)      (-1.20)

$$R^2 = 0.16$$

$$K_{t_1} = 6246.48 + 5.29X_2 + 1969.28X_4 + 1010.64X_4 \quad (1bs)$$

$$R^2 = 0.39$$

Equation (1as) has a marginal improvement over equation (1a) for the entire rural informal sector sample with respect to the variation explained, but the only parameter estimate whose coefficient is statistically different from zero is that one of monthly rental payment.

This suggests that provision of business premises cheaply would alleviate a major constraint. It should be emphasised here and now that while capital can assume many facets, it would be paramount to firstly avail suitable and affordable business premises before delving into any other form of capital unless of course the pre-investment condition requires some prior training in which case training becomes a necessary precondition.

When we considered equation (lbs) above, the importance of initial capital is prevalent as underlined by the fact that it is the only factor whose parameter estimate was statistically different from zero. The variation explained shoots up to 38 per cent which further underscores the role of initial capital in explaining investment at the time of the survey. It would therefore appear not surprising that policy issues tend to address themselves to provision of capital as a remedial measure to informal sector problems. This we note, is borrowed from the accepted popular belief that it is lack of capital that greatly explains the slow rate of economic growth and development in the developing countries. However, when constraints to capital are attacked, they are generally tackled in the formal sector with commendable results. We suspect that the advancement of provision of capital theory is borrowed from there and it is only hoped that it would work as well in the rural informal sector. We, however, underscore the fact that capital is not the only factor of production that can limit growth in output.

One important feature is that, on a sub-sectoral approach, the level of formal education is not important in determining the level of initial investment which as it turns out, is statistically significant from zero at the macro level of the rural informal sector. The non-significance at sub-sectoral level could be due to the fact that actors in the same sub-sector are likely to have levels of education which are closely clustered around their sub-sectoral mean which may mean that the intra sub-sectoral variations are too small to make any recognisable contribution in the determination of initial capital investment.

Another astonishing finding is observable when one considers cost of investment at the time of the survey. Whereas in the entire sample formulation, both the amount of initial capital and age of the business i.e. number of years that the business has been in operation had parameters whose coefficients were statistically different from zero in

the respective sub-sectoral equations, it is only the parameter estimates of initial capital investment which were statistically significant from zero. This we suspect is due to the fact that sub-sectoral observations with respect to the age of the businesses did not differ markedly.

#### 8.5 Conclusions

For the entire sample, the amount of initial capital investment is positively influenced by formal education and monthly rental payment but not by the age of the entrepreneur. Again for the entire sample, capital at the time of the survey is positively influenced by the initial capital, the age of the business in years, and the monthly rental payment. In both cases though, the variations explained are quite low.

In the trade sub-sector initial capital is positively influenced by rental payment but not by any of the two other variables, namely education and age of entrepreneur. The manufacturing and services sub-sectors reveal a similar pattern with rental payment being the only significant variable. In all cases the variation explained is low.

In the trade sub-sector, capital at the time of the survey is positively influenced by capital and the age of the business and the variation explained is quite high. In the manufacturing sub-sector on the other hand it is only initial capital which seems to have some influence on capital at the time of the survey. This is also true for the services sub-sector.

A possible emerging issue and which may require further evaluation is that, the amount of initial investment is dependent on some other factors such as the amount of capital stock in the district, and may be the ease with which such investible funds can be availed. It is also likely to depend on the opportunity cost of such capital. We are therefore saying that it is only a rational

expectation that the rate of return is likely to have a telling effect on the amount of initial investments because of alternatives available at the particular rural area. This study was not designed to gather data on such factors as the rate of return or the opportunity cost of initial investment and it is therefore not surprising that our model's explanatory powers are fairly low. We nevertheless have been able to capture some of the most important factors that determine the amount of capital stock both at the time of the survey and initially, particularly at the macro-level where rental payments and levels of education are of prime importance.

9. VALUE ADDED, SALES DESTINATION AND COMPETITION

9.1 Value Added

For the purpose of this analysis, we would like to recall that the rural informal sector is comprised mainly of trade activities. Enterprises that produce physical goods are relatively few and hardly exceed a quarter of the entire informal sector activities in the entire survey area. To facilitate comparison between the level of productivity in the distinct sets of informal sector activities, we asked our respondents to provide us with information on the value of goods and services produced on the previous day and week before the interview. The purpose of asking for data on these two periods was to enable us counter-check on the validity of the data so provided. The same thing was done on raw materials/stock purchases.

The first observation we noted about the responses to these questions was that the respondents had difficulty in recalling the exact value of goods and services produced or the value of raw material/stock purchased the week before the interview. This was hardly surprising given that most of them did not maintain proper accounts of their business transactions. Most of the respondents however, did not have much difficulty in recalling the quantities of goods and services produced or purchased one day before the interview. In our analysis, therefore, we took the reported production and inputs data and multiplied them by 25. The implicit assumption in this calculation is that an average working month is composed of 25 days. This was done for the data reported on each individual respondent. The responses are provided in table 9.1.

From table 9.1 we note that the average value of goods produced in Nyeri, and Meru are Kshs 14,401.5 and Kshs 12,936.0 while in Siaya and Uasin Gishu are Kshs 10,453.7 and Kshs 9,152.0 respectively. We therefore note that informal sector enterprises in Nyeri and Meru had slightly higher productivity than those in Siaya and Uasin Gishu. The reason for

Table 25 Average Monthly Production, Expenditure and Value Added

Survey Area	Gross Production	Expenditure on Raw Materials/Stock Inputs	Expenditure on Other Services	Total Expenditure	Mean Value Added
Nyeri	14,401.5	9,386.3	1,923.0	11,309.2	3,092.3
Meru	12,936.0	8,736.3	1,708.5	10,444.7	2,491.3
Siaya	10,453.7	6,482.6	3,078.7	9,561.3	892.4
Uasin Gishu	9,152.0	5,319.3	2,806.7	8,125.3	1,026.7

this inter-regional variation in informal sector productivity may be that the uneven distribution of purchasing power as measured by the mean incomes in these four districts.

Table 25 also shows significant variations in the patterns of expenditure on raw materials inputs and stock. Entrepreneurs in Nyeri and Meru had slightly higher purchases than those in Siaya and Uasin Gishu districts. Thus, the average monthly expenditures on raw materials and stock inputs for entrepreneurs in Nyeri and Meru are Kshs 9,386.2 and Kshs 8,736.2 respectively while the corresponding figures for Siaya and Uasin Gishu are Kshs 6,482.6 and Kshs 5,319.2 respectively.

The figures also reveal slight inter-regional variations on the entrepreneur's expenditures on other service inputs. Such inputs include the expenditure for rent on working premises, electricity, water, wood, gas and charcoal. The average monthly expenditures on such inputs in Nyeri and Meru are Kshs 1,923.0 and Kshs 1,708.5 respectively while in Siaya and Uasin Gishu districts, the average expenditure stands at Kshs 3,078.7 and Kshs 2,806.7 respectively. This difference may be due to the energy expenditures entrepreneurs in Siaya and Uasin Gishu had to incur relative to their counter-parts in Nyeri and Meru. Most of the entrepreneurs in the latter two districts were located in areas where

electricity was available. This is especially true for entrepreneurs engaged in the manufacturing activities. A relatively large proportion of entrepreneurs in Siaya and Uasin Gishu districts were located in areas where electricity was not available. They thus tended to substitute their energy requirements with charcoal and wood, thus incurring higher expenditures. Gas, particularly for welding and tinsmithing was also obtained from relatively bigger distances than was the case in Nyeri and Meru. This is also true of raw materials. In this respect we therefore note that overall distance travelled to obtain raw materials and inputs could have an effect on the entrepreneur's expenditure. While the mean distance travelled by entrepreneurs in Nyeri and Meru is 21.4 kms and 17.6 kms respectively, that for Siaya and Uasin-Gishu is 48.3 kms and 52.8 kms respectively. The implicit hypothesis that can be drawn from this analysis is that expenditures on inputs such as raw materials, stocks, and the rents paid, has an influence on the level of informal sector productivity.

By defining the mean value added as gross output less the total expenditures on inputs and stock, the data indicates that the mean value added in enterprises in Nyeri and Meru is Kshs 3,092.3 and Kshs 2,491.3 respectively while in Siaya and Uasin-Gishu the figures are Kshs 892.4 and Kshs 1,026.7.

The mean value added figures in our survey do not compare favourably with the findings of studies conducted in the urban areas. According to Aboagye, A.A., for instance, the mean value added for enterprises in Nairobi ranges from Kshs 3,310.7 to Kshs 12,371.3 while that for Kisumu is between Kshs 2,288.5 and Kshs 8,524.6. The mean value added figures for enterprises in Mombasa is further reported to be between Kshs 3,698.6 and Kshs 8,524.6. By comparing our findings with those of Aboagye, we can therefore conclude that the rural informal sector enterprises are smaller than those in the urban areas. This comparison would also tend to indicate that informal sector activities in the rural areas

are the equivalent of what one would expect to find at the bottom of the activities in the urban areas.

We would however like to note that the question relating to productivity was not well understood by our respondents. We have also not disaggregated the production figures given in terms of the type of informal sector activities. Though this analysis would have been useful, it proved very difficult given the nature of responses. The need for such an inter-sectoral analysis can further be seen by bearing in mind that productivity or value added in the manufacturing sub-sector is likely to be significantly higher than in trade. However, it is our observation that the mean value added figures reported are representative of the informal sector activities in the rural areas.

#### 9.2 Destination and Competition

Most of the products produced in these enterprises are destined for the rural households. This conclusion is adequately reflected in our data. Of the total number of respondents in Nyeri and Meru, 84.4% and 85.9% respectively noted that their products were marketed directly to the rural households while the proportion for Siaya and Uasin-Gishu districts are 95.2% and 95.6% respectively. The rest of the respondents marketed their products indirectly to the rural households. Those respondents accounted for 15.6%, 14.1%, 4.8% and 4.4% in Nyeri, Meru, Siaya and Uasin Gishu respectively. This marketing pattern tends to reveal two things. Firstly, it tends to reinforce the observation that there is a close relationship between the agricultural sector, and the rural informal sector activities. In the absence of a stable rural community, informal sector activities in rural Kenya would not thrive well. The immediate implication of this observation is that any policy-efforts directed towards promoting these enterprises has to be formulated in the context of overall rural development strategies.

The second thing that this data tends to suggest is the existence of sub-contracting in the marketing of rural informal sector products. This is clearly evident from the proportion of entrepreneurs who marketed their products indirectly to the rural households. It is interesting to note that the extent of sub-contracting is more developed in Nyeri and Meru than in Siaya and Uasin Gishu. One would only hope that this marketing pattern is developed further since sub-contracting is one of the easiest ways in which technology can diffuse to these enterprises.

The final issue that we would like to discuss in this section is the extent of competition in rural enterprises. This issue was tapped by asking our respondents to provide us with information on the exact number of enterprises that produce similar goods and services in a given survey centre. The information given was later counter-checked using the data generated from the baseline survey. This data is provided in table 26.

Table 26: Number of Similar Informal Sector Enterprises in a Given Survey Area.

Number of similar Enterprises	Percentage		Distribution	
	Nyeri	Meru	Uasin-Gishu	Siaya
None	5.6	2.0	5.8	1.9
0 - 10	34.3	51.5	41.6	32.3
11 - 20	15.5	7.0	23.3	13.0
21 - 30	10.0	10.1	10.8	16.0
31 - 40	2.2	5.0	1.9	8.7
41 - 50	6.7	4.0	2.0	11.2
Over 50	23.5	16.1	5.8	7.7
Don't know	2.2	4.0	9.7	8.5
Totals	100.0	99.7	99.9	99.3

From the table, only 5.6%, 2.0%, 5.8% and 1.9% of the respondents in Nyeri, Meru, Siaya and Uasin Gishu respectively had no competitors. 34.5%, 51.5%, 41.6% and 32.3% of the enterprises in Nyeri, Meru, Siaya and Uasin-Gishu respectively had to compete with less than 10 similar enterprises while 15.5%, 7.0%, 23.3% 13.0% of the respondents in Nyeri, Meru, Siaya and Uasin-Gishu respectively had to compete with between 11 to 20 similar informal sector activities. Given that the centres we surveyed were small when measured in terms of the population and purchasing power, we can therefore conclude that the extent of competition amongst informal sector enterprises is high. One reason for this could be a lack of innovativeness amongst the rural entrepreneurs. In this respect we note that apart from trade, considerable scope for expansion seems to hope that the Government's policy efforts in promoting these enterprises would be directed towards these two subsectors.

### 9.3 Conclusion

To conclude, we have noted that the value added in these enterprises is slightly lower than that in the urban areas. We have also noted that the expenditures on inputs and stock, including payments for electricity, rent on working premises etc. might have an influence on the value added in these enterprises. The goods and services produced in this sector are also destined for the rural households, while a mild form of sub-contracting is evident in the marketing of these products. Finally, the data shows that the extent of competition amongst the rural informal sector activities is rather high. If the entrepreneurs are willing to diversify their productive activities in areas where the potential has not yet been fully exploited, and they have or are provided with the capacity to do so, their potential for growth might therefore improve.

10. PRODUCTION

10.1 Introduction

Production of goods and services entails employment of factors of production. However, as stated several times already, one of the major problems of the informal sector analysis is the collection of reliable data. The problem is further compounded by the fact that most entrepreneurs are unwilling and unable to disclose information regarding production. Therefore at best one has to try and conceptualize the production equation using the most handy proxies. For instance in trying to find out the production relations, we employ the reported sales as the value of output without worrying too much whether the sales truly reflect the value added in this sector. This is because information on cost of raw material was fragmentary and more often than not, it is a question which may have little resemblance to the true costs. But as long as the value added remains proportionately fixed, the formulation can admittedly be plausible.

10.2 Factor Relations in Entire Sample

In theory, factors can relate in any way i.e. some capital equipment must go with some labour if output has to be realised. However, some relationships are strict and rigid. We intuitively expect that production in this sector would be similar to that observed in the urban informal sector<sup>1</sup>. After all we have maintained that there is no significant difference between the rural and urban informal sectors.

Given the nature of the establishments we studied, output (Q) can be stated to be a function of capital (K) and labour (L) so that

$$Q = f(K, L) \quad (1)$$

A regression of equation (1) above yielded the following results.

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$$Q = 1044.02 + 0.64K + 3022.70L$$

(6.68)      (6.73)

$$DF = 398$$

$$R^2 = 0.22$$

The values in the parentheses are t-ratio.

For the entire sample, the equation tends to display the expected production function features; positive marginal products for both capital and labour. The variation explained ( $R^2 = 0.22$ ) is rather low. This is however, not worrying because as already indicated elsewhere in the text, there are a lot of non-quantifiable factors that affect production decisions in this sector. If anything, one should even be impressed that contrary to the general tendency to view the rural informal sector as an "escapism" sector where people tend to seek solace instead of engaging in the "torturous" agricultural sector activities, it is a sector where regardless of the driving forces, the main economic factors that determine output in the formal sector are at work.

The coefficients of parameter estimate of both capital and labour are statistically significant from zero which implies that the production functions in this sector are well behaved in that the above production function is convex to the origin which implies that capital and labour are substitutable. In our case the marginal rate of substitution between capital and labour is roughly 4800 which means that if factor proportions were to be altered by movement along the same isoquant such that capital input fell by one unit, labour input would have to increase by 4800 units; here we encounter the known dimensional problem of the marginal rate of substitution but all the same substitutability of the two factors is eminent.

If we assume that the function rightly represents what goes on in the rural informal sector, which we can reservedly do because the combined behaviour of the 411 respondents is really diametric in that not only does it call for sub-sectoral groupings but even very distinct intra-sub-sectoral combinations are heaped together, we can say that the marginal products of the two factors can crudely give a pointer towards factor intensities.

Given equation (1) above, the marginal product of labour (MP) is equal to 3022.70 while that of capital is 0.64 units. A unit increase in labour input would therefore increase output by 3023 units while a similar change in capital input would increase output by 0.64 units. Even though implying that the marginal impact of labour is rather high, this does not mean that the rural informal sector is labour intensive but rather that if the factor market were perfect, labour remunerations would be very high. Thus, if we assume for example, that on average, the informal sector products cost Kshs. 0.50, the value of the marginal product would be Kshs. 1511.00 per month.

When the above function was formulated in a logarithmic form, the following better results were obtained.

$$\ln Q = 2.60 + 0.28 \ln K + 0.61 \ln L \quad (2)$$

(8.39)      (5.55)

$$DF = 398$$

$$R^2 = 0.26$$

In the case of equation (2), the variation explained rose to 26 per cent and the coefficients of our parameter estimates are both statistically different from zero. One of the most interesting revelations is that a proportionate change in output resulting from a proportionate change in labour input (elasticity of output with respect

to labour) is 0.61 while that of capital is 0.28. This means that even though output is not elastic with regard to both factors of production, it is more elastic with respect to labour which suggests that there is a bigger scope for labour being substituted for than for capital. This probably means that firms are employing almost the optimum amount of capital that they can. Besides, the share of capital in total output is less than that of labour. It is against this background that the rural informal sector can be said to be labour using and consequently capital saving.

Indeed, the above equation rightly indicates that the production techniques in the rural informal sector are capital saving. Against this background and taking into consideration that demand for labour is derived from the demand for the final product, one can say that, with the possibility of increasing the demand for the rural informal sector products, there is a potential for increasing the number of people engaged. The fact that the rural informal sector uses little capital is consistent with the general view that there is indeed a possibility of increasing the absorptive capacity of the rural informal sector by making capital easily accessible.

One worrying aspect of the findings is that returns to scale are rather low. In fact the function exhibits decreasing returns to scale. (The sum of partial elasticities with respect to capital and labour is equal to 0.89) This means that proportionate increases in the factors of production (capital and labour) raises output by less than proportionate. This could be due to wastage on the part of factor inputs or due to poor factor combinations or alternatively, the level at which the industry is operating could be "under-manned" which in a strict sense may mean that other than labour and capital, there could be a limiting factor such that output levels will depend on this other constraining factor. In other words, to double the number of dresses made, you need not only double the sewing machines and tailors but the machines must be of equal capabilities and the marginal tailor must be of good standing like the

earlier one otherwise the returns to scale would be decreasing. In this sense, the organisational and managerial qualities become fundamental and we suspect that these factors are the ones which could be at play here.

The above observation is not far fetched because we have maintained that skills just as much as capital are both limiting factors and constitute bottlenecks to increasing output and consequently amount of labour engaged. We would, however, like to point out that skills are embodied in the labour input and would therefore be difficult to disaggregate in order to conclusively pin-point that it is the constraining element in the observed decreasing returns to scale.

Production, we know, depends on the initial investment and the amount of labour. In addition, we should recall that capital at the time of the survey is, inter alia, a function of initial capital. There is however, a possibility that capital and labour are correlated, with labour depending on capital investment. We would therefore like to restate equation (1) above in order to remove part of the multicollinearity problem as follows:

$$Q = f(K_0, L) \quad (3)$$

$$K_1 \quad (K_1, K)$$

Where  $K_0$  is value of the initial capital and  $K_1$  is the value of capital at the time of the survey proxied by what was reported as the amount that would be required to start business at the time of the survey.

If  $K_1 = K_0$ , the above would reduce to the popular expression of the average physical product of capital being dependent on labour-capital ratio. However, because  $K_0 \neq K_1$  this cannot be said to be the case. What therefore is the case is that the average product of capital is a function of labour-capital ratio and a real capital deflator. For

instance the mean initial capital investment was Kshs. 3914.00 while at the time of the survey it was Kshs. 20875.00 which would work out to be equal to 0.19 which would constitute some sort of scaling down factor (deflator). In addition we would like to recall that education is an important ingredient in determining investment and consequently employment and output. We would therefore like to modify equation (3) above to incorporate the level of human capital. The above function becomes

$$\frac{Q}{K_1} = f(K_0, L, S) \quad (3a)$$

$$(K_1 K)$$

Where S is educational attainment in number of years of formal schooling.

Equation 3(a) above can be reduced to

$$Q^* = f(K^*, L^*, S)$$

where  $Q^* = Q/K_1$ ,  $K^* = K_0/K_1$  and

$$L^* = L \cdot K_1$$

so that in a Cobb-Douglas world

$$Q^* = AK^*L^*S \quad (3b)$$

A regression equation of 3(b) yielded the following results:

$$Q^* = 1.18 + 0.481K^* + 0.04L^* - 0.01S$$

(11.37) (0.20) (-0.26)

$$DF = 398$$

$$R^2 = 0.23$$

Even though the variation explained is rather low, the fact that the parameter estimate of labour-capital ratio is statistically different from zero implies that even in the rural informal sector, the average physical product of capital (labour) is dependent on labour (capital) - Capital (labour) ratio which is an interesting result because it suggests

that production relations in the rural informal sector tend to follow the economic rationale which prevails in the formal sector. This finding confirms the importance of factor intensities in determining the output levels. However, factor intensities on the other hand implicitly point towards the relative factor prices with the factor which is cheapest being substituted for the relatively dear one unless of course elasticity of substitution is equal to one. Because labour is thought to be abundant and hence its cost low, the production techniques are likely to be labour-intensive in the rural informal sector.

The capital deflator is statistically insignificant though displaying the right sign which would suggest that average product of capital would increase with increases in the capital factor which would mean that increases in capital (holding labour constant) would lead to more than proportionate increases in output.

As far as the coefficient of the parameter estimate for the level of education is concerned, it is not statistically different from zero and has, against our expectation, a negative marginal impact. This is contrary to our expectation because we thought that an educated person is likely to be skilled and consequently require more sophisticated equipment to complement his skills and therefore contribute more towards output. We however note that education and "skills" are not the same thing and furthermore education and capital investments are correlated, such that education raises the amount of capital. It therefore follows that education raises capital investment more than proportionately but the elasticity of output with respect to capital is less than unitary which would lead to lower average product of capital. We nevertheless need not worry because of the non-significance of the parameter estimate in the determination of the average product of capital.

In the strict Cobb-Douglas formulation of the nature:

$$Q^* = A(K^*)^\alpha (L^*)^\beta S^\delta \quad (3c)$$

The regression results are as follows

$$\ln Q = 2.65 + 0.71 \ln L^* + 0.14 \ln K^* + 0.04 \ln S$$

(18.57)      (3.83)      (1.34)

$$DF = 398$$

$$R^2 = 0.65$$

The interesting finding is that the coefficient of the parameter estimate of labour-capital ratio is statistically different from zero and has a positive sign which suggests that the rate of change of average product of Capital with respect to proportionate changes in labour-capital ratio (0.71) underlines the importance of labour.

Besides, the share of labour-capital ratio in the average product of capital is 71% which is the same thing as saying that the share of labour in total output is 71 per cent which underscores the important contribution of labour in the rural informal sector.

Unlike in the general formulation where the capital factor was not statistically different from zero, in equation 3(c) the coefficient of the parameter estimate is statistically significant suggesting that the higher the "growth factor" the higher the average product of capital. We have maintained that the value of capital at the time of the survey crucially depended on the amount of initial capital investment, and the higher the initial investment the higher the level of capital stock at the time of the survey. However, higher capital stock is acquired because it leads to more output and in this case more than proportionate increase culminating in higher average product of capital. This alone would suggest that output defined as a factor of capital would display increasing returns to scale. Apparently, the increase appears paradoxical because the capital factor is a quotient but what seems to happen is that it removes the effect of inflation which would mean that

real output would increase with increases in real capital and the increase in output is more than proportionate.

As far as the level of education is concerned, the coefficient of the parameter estimate is positive even though the magnitude is small. However, it is not statistically different from zero thereby implying that the level of education is not of great importance in explaining the average products of the factors of production. This should not be surprising because the level of education and its effect on increased productivity should be embodied in the labour input hence it is the quality of labour which determines the output levels. It would therefore be difficult to say which portion of the average product of labour can be attributed to educational attainment and which one can be assigned to labour per se. Another important revelation is that 65 per cent of variations are explained by the function which means that the specification of the model is reasonably good and that inputs in value terms tend to be poor determinants of the output. What then seems to come to fore is that, there is over or under statement of either output or factor inputs especially with regard to capital. This is because labour is easy to enumerate and in fact it is the actual number of people engaged per firm that was entered.

### 10.3 Sub-Sectoral Analysis

Having looked at the general and the specific Cobb-Douglas formulations for the entire sample, we would like to examine the sub-sectoral formulation but because of the failure of the general functions to perform well, we shall confine this analysis to the linearized Cobb-Douglas function which incorporates the level of education. This is because we are interested in finding out the role of education, if any, in the rural informal sector. For purposes of eye balling, we have presented the results of the standard format Cobb-Douglas production function. However, as a prelude we examine

very briefly, the standard formulation for the entire sample.

$$\begin{aligned} \ln Q &= 2.60 + 0.61 \ln L + 0.28 \ln K & 1 \\ & (5.55) & (8.39) & 2 & (4) \\ DF &= 398 & 3 \\ R^2 &= 0.26 & 4 \end{aligned}$$

The parameter estimates of both capital and labour are statistically different from zero which means that in the strict Cobb-Douglas function, the rural informal sector factor inputs produce some desired results. Elasticity of output with respect to labour is higher than that of capital even though output is inelastic with respect to any one of the variables. The fact that elasticity of output with respect to capital is very low (0.28) suggests that this sector deploys capital at a level where almost no substitution can be effected because some minimum amount of capital investment is desirable before any output can be realised. This may also suggest that this sector is constrained by the amount of capital. It is also noteworthy that the returns to scale are decreasing (0.89). For the entire rural informal sector, proportionate increases in factor inputs lead to less than proportionate increases in output. We shall revert to this phenomenon later.

In the trade sub-sector, the following regression results were obtained.

$$\begin{aligned} \ln Q &= 2.63 + 0.62 \ln L + 0.31 \ln K \\ & (3.82) & (8.17) & (41) \\ DF &= 254 \\ R^2 &= 0.31 \end{aligned}$$

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$$\ln Q^* = 2.69 + 0.73 \ln L^* + 0.13 \ln K^* + 0.05 \ln S \quad (3CT)$$

(15.59)      (2.82)      (1.37)

$$DF = 253$$

$$R^2 = 0.65$$

As in the case of the entire sample, estimation of equation (3CT) revealed that the function rightly fits the observations because the variation explained is reasonably high at 65 per cent. Both parameter estimates for the labour - capital ratio and the capital factor are statistically different from zero. Because of the overwhelming representation of the trade sub-sector in the entire sample, it had a spurious effect on the parameter estimates of the sample.

The rate of growth of average physical product of capital with respect to labour-capital ratio i.e. elasticity of average product of capital with respect to labour-capital ratio is 0.73 and 0.13 for the capital factor. The partial elasticity values also point to the relative share of the respective factors in the total product. The share of output which accrues to labour is higher than that of capital but this in itself does not mean that the rural informal trade sub-sector is labour intensive but rather that the average product of labour is likely to be higher than that of capital. The effect of education remains dismal because the coefficient of the parameter estimate is not statistically different from zero. However, the parameter estimate has a positive marginal contribution which would suggest that average product of capital would increase with increases in the level of education. Because education raises labour productivity, this would lead to higher output given capital which would lead to higher output - capital ratio.

The factor intensity deducible from equation (4T) is that, the capital-labour ratio is equal to 0.50 which rightly points out that the rural informal trade sub-sector is not capital intensive, but instead labour intensive. It should be recalled as we have argued, that this

sub-sector is the easiest to enter. However, returns to scale are decreasing given that the sum of the elasticities is less than one - this means that the growth potential of this sub-sector is really low because proportionate increases in capital and labour would lead to less than proportionate increases in output. Because demand for labour is derived demand, there is little hope of increasing employment substantially by boosting the demand for the informal trade sub-sector. It would therefore appear that growth in employment can only result from oversights of returns to investment which is unlikely to happen with regard to firms that are already in business. It can only therefore result from new entrants into this industry. This is because the majority of the respondents did not go into this sector after an evaluation of how viable the business was, but rather to create self-employment and thereby eke a living.

When the above equations were run for manufacturing sub-sector, the following results were obtained.

$$\ln Q = 2.10 + 1.00 \ln L + 0.33 \ln K \quad (4M)$$

(5.27)      (4.01)

$$DF = 87$$

$$R^2 = 0.39$$

$$\ln Q^* = 2.12 + 0.59 \ln K^* + 0.231 \ln K^* + 0.06 \ln S \quad (3CM)$$

(6.36)      (2.43)

$$DF = 86$$

$$R^2 = 0.60$$

Equation (3CM) above seems to be correctly formulated because 60 per cent of the variations are explained and the coefficients of the parameter estimates of both labour-capital ratio and the capital

deflator, are statistically different from zero. The effect of the level of formal schooling on the average product of capital remains poor which suggests that education is not very crucial in this sub-sector in as far as the determination of average product of capital is concerned. This is, however, not very surprising because the well educated would tend to shift out of the rural sector to the urban centres which would mean that they have very little possibility of being engaged in the rural informal manufacturing sub-sector. We suspect that in the long run, they will start the reverse migration from the urban centres to the rural areas where they may enter the rural informal sector. Even though they will have seen the "demonstration effect" of the urban informal manufacturing sector, we suspect that because they are likely to have no skills, most of them being school drop-outs from non-technical schools, they are likely to settle in the least skill demanding activities. It is against this background that the 8:4:4 curriculum is relevant.

In the manufacturing sub-sector we note that the rate of growth of the average product of capital with respect to labour-capital ratio has gone down (0.5) compared to that one of the trade sub-sector (0.73) where the average product of capital is higher owing to wider deployment of labour. Compared to the trade sub-sector, the manufacturing sub-sector is ironically more labour intensive ( $K/L_M = 0.33LK/L_T = 0.50$ ). This means that it costs less in terms of capital input to create a rural informal sub-sector job in manufacturing than in the trade sub-sector. This might not be very difficult to comprehend when one recalls that the majority of the enterprises in the rural trade sub-sector were single-owned single-operated which would mean that the average product of capital and total capital investment are equal as opposed to the manufacturing sub-sector where an average enterprise will have more than one person engaged. A more interesting revelation is the fact that the rural informal manufacturing sub-sector exhibits increasing returns to

scale (sum of elasticities of equation (4M) equal to 1.33). Thus proportionate increases in factor intakes leads to more than proportionate increases, in output. A possibility exists that as output increases, economies of scale resulting from indivisibility of capital, acquisition of raw materials and marketing are realised. This means that the average products of both labour and capital must be increasing functions of the relevant factor ratios. Given that demand for labour depends on the demand for the final product, it is in the light of this that one can advocate the encouragement of the rural informal manufacturing sub-sector because of its less reliance on capital and to fully exploit the capacity i.e. the firms should be encouraged, by increasing the demand, to grow upto the point where the rate of change of the marginal products of both capital and labour are equal to zero.

The change in average product of capital resulting from a rate of growth of the capital is higher (0.23) in the manufacturing sub-sector than in the trade sub-sector where it had a value of 0.13. This tends to suggest that manufacturing undertakings would appear on the outset to be capital using by design. It has however, been shown that once capital has been acquired, there is intensive utilization by combining it with large numbers of the other factor of production.

In the services sub-sector the coefficients of the parameter estimates of capital, and the level of education are not statistically different from zero.

$$\begin{aligned} \ln Q &= 2.77 + 0.93 \ln L + 0.15 \ln K \\ &\quad (3.66) \quad (1.61) \quad (4S) \\ DF &= 61 \\ R^2 &= 27 \end{aligned}$$

$$\ln Q^* = 2.65 + 0.81 \ln L^* + 0.07 \ln K^* + 0.05 \ln S$$

(8.04)            (0.47)            (0.72)

$$DF = 60$$

$$R^2 = 0.73$$

Other than failure of the parameter estimate of capital factor and the level of education to be statistically significant, the equation rightly fits the observations because the variation explained ( $R^2 = 0.73$ ) is appreciably high. The failure of the capital factor to be statistically significant implies that capital is not a major determinant of output and in fact, the share of capital in the total output is rather small. This means that output is likely to be determined by the labour input which culminates in lower average products of labour but higher ones for capital.

A proportionate growth in the average product of capital would require a growth rate of 0.81 of the labour capital ratio which suggests that this sub-sector is likely to be labour augmenting. A look at factor intensities suggests that the services sub-sector is one of the most labour-deepening sub-sectors in the rural-informal sector ( $K/L = 0.16$ ). It is cheaper in relative terms to create a job in the services sub-sector than it is in any other sub-sector. (Recall that it is this sub-sector which on average employed slightly more than 2.0 employees per establishment). This could be due to the fact that optimum utilization of a factor is achieved when the ratio of the marginal/products equals the relative factor prices which means that capital-labour ratio will be optimal. This is likely to be at a point where, theoretically, no more capital can be substituted for by labour. And because it is the capital which is relatively the fixed component, the optimum output would depend on the optimum utilization of labour. This we suspect could be attained when there would be no more positive marginal products of labour. This means that the increasing returns to scale which are displayed by our function must be exhausted. However, this

situation can only be realised if there is sufficient demand for the rural informal sector's services sub-sector. We further note that the returns to scale are marginally so (1.08) which may mean that further growth of this sub-sector can only come from horizontal growth.

#### 10.4 Technology

The type of technology in use in all the three sub-sectors is almost similar in that the efficiency of all the sub-sectors is almost equal and equal to the sample efficiency value. Equation 4 and the family produced the following efficiency parameters 2.60; 2.63; 2.10; and 2.77 for the entire sample, trade, manufacturing and trade sub-sectors. Services sub-sector is marginally more efficient while manufacturing is the least efficient. It should be recalled that manufacturing sub-sector has the highest returns to scale and we argued that this is due to excess capacity.

Technology is either embodied or disembodied in the capital equipment and that the type in use in this sector is mostly a modification of the urban informal sector on the one hand and the formal sector on the other. This is because some of the respondents had reverse - migrated and had been working in the urban formal sector which means that they employ the knowledge they gathered from the urban centres in their present occupations - this could be observed or acquired from the informal sector or from the formal sector. It is therefore likely that the level of technology can be said to be of intermediate nature in that it is neither primitive nor very advanced. It is neither rural nor urban. The degree to which the rural informal sector relies on the formal sector as a source of productive capital determines the type of technology in use. But if the rural informal sector relies on itself to quite a great extent as a source of physical capital, the ensuing technology would be peculiar to itself. Given the low average amount of initial investment we suspect that the type of physical capital which is employed here is less advanced than in the formal sector and most probably the urban informal

sector which would adopt some slightly more advanced technology from the formal sector due to geographical proximity and the nature of consumer behaviour.

The more the rural informal sector utilises its own products as intermediate inputs, the more it becomes integrated but this level of intra-dependence will require imparting of skills so that the sector can also service itself. If this sector was very innovative, the production technology would be unique. Depending on the degree to which skills and with them high quality precision products can be produced, the rural informal sector might start to infiltrate into other markets; formal and even urban informal markets might become its prey. For example different finished components of furniture can be manufactured in the rural informal sector which would have locational comparative advantage over urban formal and informal sectors especially when one notes that they might even be cheaper to transport than raw timber.

Other than disembodied, embodied, innovative and modified adopted technologies, there is also the "product pull" type of technology i.e. a situation arises where a producer is required to copy and reproduce a design from a finished product which is acquired from other sectors. For instance, a rural informal sector tailor may be required to take measurements of a pair of trousers which could have been bought from the formal sector. The degree to which the tailor will be able to "photocopy" the original pair of trousers, the more likely one is to acquire more business because of demonstrative publicity from ones past consumers. This happened quite often in the rural informal sector.

We can therefore conclude that the degree to which technological advancement can be deployed in the rural areas will depend certainly on the degree of interaction and interdependence and secondly on how fast and correctly the actors in the rural informal sector can reproduce stereotypes. A possibility exists of "import substitution" where things

like timber products, metal tools etc. will no longer be imported from urban centres but will be produced in the rural areas. When it comes to products that have wider usage in the rural areas, it might even be appropriate to locate such plants in the rural areas. Production of less skill-specific agricultural implements, dairy implements etc. can be undertaken here.

#### 10.5 Conclusions

We thought that on average, the manufacturing and services sub-sectors tended to employ capital more than the trade sub-sectors. We have, however, found that they both tended to employ more labour to go with capital and hence the revelation that the two are labour-using. They also tend to display increasing returns to scale. It is our conviction therefore that the two sub-sectors which tended to employ more capital on the outset tended to employ more labour so that they eventually raise the average product of capital. This suggests that labour is relatively cheap. What, however is implicit is that even though these two sub-sectors seemed to employ more capital, it is only because their operations seemed to dictate so and that this does not mean that they are in anyway capital intensive. What is rather intriguing though not difficult to comprehend is that, the sub-sector which seems the easiest to enter and in which the majority of the actors were engaged in (trade) appears more capital-intensive - within the horizons of our study.

The above findings suggest a policy aimed at encouraging manufacturing undertakings and may be services. Such a policy would be warranted on two major counts. Firstly, the trade sub-sector even though easy to enter at the outset, is relatively capital-intensive compared to the other rural informal sub-sectors which means that the ability of this sub-sector to provide gainful employment is curtailed by the over-reliance on capital. This suggest that a unit of capital invested in this sub-sector would generate less employment than it would elsewhere in the rural

informal sector. Secondly, the fact that this sub-sector displays decreasing returns to scale implies that there is little scope for growth in the long run because successive proportionate increases in factor inputs leads to less than proportionate increases in output. We suspect that organizational and entrepreneurial managerial capabilities are lacking here. It is therefore likely that factor mix falls short of the optimal combination. It should be recalled that the level of education was not statistically significant in determining the amount of investment in this sub-sector which we argued, in one way, underlined the ease of entry. Thus, if the level of formal schooling was going to be statistically significant from zero, it might constitute a barrier to entry. It would therefore appear that this sub-sector is full of people who are on a "trial and error" errand and that they are not here because they possess entrepreneurial skills but because they have no other alternative. To this category of people, the only important consideration is the rate of return even though the actual rate of return does not have to be competitive. In other words, they are here to pre-occupy themselves and as long as they can subsist, economic rates of return are not their primary concern. We would however, expect them to gauge the rate of return against the possibility of acquiring a job in the agricultural sector, an alternative which they do not seem to relish. We therefore conclude that in this sub-sector the scope for increased employment lies in the horizontal growth in numbers of establishments, a phenomenon which students of the informal sector have noted, albeit with respect to the entire sector.

A policy where the manufacturing and the services sub-sectors are encouraged to grow in the rural informal sector tends to be justified because these two sub-sectors are labour - using (compared to the trade sub-sector) and require skills which means that investment decisions to do so, though informal, are undertaken with considerable degree of seriousness. The observed increasing returns to scale imply that some excess capacity (in technical sense) is eminent and it would

be very easy to realise increased employment because demand for labour is derived from the demand for the product. It should however, be noted that these two sub-sectors require skills which means that the role of training is very crucial if the rural informal sector is to achieve the set goals of providing alternative off-farm employment at reasonable returns to both labour and capital. In so doing this is further expected to help curb the rural-urban influx by the young school leavers who drop out of the formal schooling system.

Increasing returns to scale implies that the firms have not attained the optimal size because the rate of change of the marginal products is negative. So, one wonders why this is the case. The most plausible explanation is that there are so many firms in the industry such that the market is saturated with individual firms struggling to survive by meeting the variable costs components of their average total costs. This excessive competition is discussed elsewhere in this report. In addition, we suspect that firms face seasonal demand patterns due to income fluctuations such that, when there are "windfall" gains, firms more than compensate for the down swing and tend to survive on anticipated future windfalls. These are seasonal payments to cash crops or marketed products and would ideally constitute permanent income on which consumption and consequently demand can be based on.

#### 10.6 A Footnote on Incomes

Revenue is the product of price and quantity. If we assume that our production functions rightly present what goes on in the rural informal sector, we can then argue that at equilibrium, quantity demanded is equal to quantity supplied. This we can safely conclude because the majority of our respondents were both the producer, distributor and the retailer so that there is no unnecessary holding up of stock other than for contingency. If the model can be used to forecast future output levels, income streams can be computed.

We, however, hasten to point out that these functions are highly aggregative and worse still one would be better advised to establish the demand function because demand does not strictly depend on supply while supply would tend to directly respond to changes in demand other things remaining equal.

# 11. BUSINESS MANAGEMENT AND OTHER CONSTRAINTS

## 11.1 Initial Constraints

Before discussing the nature of the constraints affecting the rural informal sector, we would like to start by making a distinction between perceived and real constraints. In doing so, we realise that it is not always possible to make this distinction with any degree of precision. However, one of the characteristics of many businessmen, and especially those in the type of business we studied is that, they claim to be confronted by a multitude of problems, some of which probably affect productivity directly, while some might not, but are altogether "felt to be problems" by the entrepreneur. Therefore in discussing the "problems" as reported to us by the entrepreneurs, we try to keep in mind some kind of a distinction between real, and the not-so-real constraints, to the extent that is possible.

We asked our respondents to name the three most important difficulties they encountered in beginning their businesses. Table 27 summarises the most important of the three initial problems.

Table 27: Most Important Initial Difficulty.

	Nyeri	Meru	U-Gishu	Siaya	Total
Lack of adequate Capital	54.4	60.7	85.4	89.4	65.7
Technical knowhow/skill worker	2.2	4.0	1.0	1.2	2.1
Finding suitable working premise	23.3	12.1	1.9	3.7	10.2
High licence fee	3.3	4.0	3.9	1.9	3.0
Other/unspecified	13.3	11.1	5.8	1.9	6.0
No difficulties	1.1	7.1	1.0	0.6	-
Finding customers	-	1.0	1.0	0.6	-
Total	100.0	100.0	100.0	99.9	-
N	90	99	103	160	-

The responses to our question as summarised in Table 11.1 are hardly surprising given what we have seen of the socio-economic background of the entrepreneurs. Even in light of the fact that it takes fairly small amounts of capital to set up these businesses, finding this capital was still the most important initial problem, more so in Siaya and Uasin Gishu than in Meru and Nyeri. The second most important problem, not shown in Table 11.1 but mentioned as such by 34% of the entrepreneurs was lack of suitable working space. The third most important difficulty, mentioned as such by about 7% of the entrepreneurs, was lack of skill labour.

Perhaps of equal interest is the method the entrepreneurs used in order to overcome the difficulties. The majority of the entrepreneurs, i.e. 53.3% sought assistance from friends and relatives in order to resolve the problems. A few formed partnerships, (2.2%) a few borrowed (10.8%) money from relatives, friends and formal institutions. These methods of resolving the initial difficulties not only underline the "informalness" of the enterprises but is also some kind of a constraint in that the entrepreneurs could only think primarily of friends and not of any formal or quasi-formal institutions as sources of help.

While lack of adequate capital was expected to feature as an initial difficulty, the issue of licensing was expected to feature even more prominently than it did. In the large urban centres, this difficulty usually features very prominently. The fact that it does not and that "administrative harrassment" does not feature at all either, suggests more accommodation of the informal sector by local authorities than what is usually witnessed in the urban centres. Alternatively it could be that due to the scattered nature and small sizes of these centres, the local authorities are unable to exert administrative control by way of regular policy.

In all, we feel that the three most crucial initial problems as perceived by the entrepreneurs are real problems in the light of our

own observations and the analysis in previous chapters. Next to the question of deciding how to raise initial capital, lack of suitable space seems an obvious problem. There are two main reasons for this. One, in these cases where space is allocated by the local authorities, there is usually more demand for it than the available space. Two, in those cases where it is "free for all" approach operates, the entrepreneurs tend to congregate where they think the demand for their products and services will be highest. We observed that this tended to be as close to the main road as possible if a main road passed through the centre, or some other "strategic" place which, by that very fact is likely to be quite congested. All this then means that a "new comer" is likely to find acquisition of space quite a problem.

Lack of skilled labour does not rank highly among the initial problems. The explanation for this seems obvious. Most of the enterprises are one man enterprises. Furthermore as we have already observed, the rural informal sector is dominated by trade and commerce which, due to their nature and size do not seem to require much skilled labour. Their "one person" operators are not, therefore, likely to view skilled labour as a problem. If this interpretation is correct, the surprise finding is that even the manufacturers initially did not seem to perceive lack of skilled labour as a problem either. Obviously, most considered themselves skilled, and most do not need to hire labour as the discussion on labour shows. In any case, inspite of their being unskilled, they would still be unlikely to hire labour initially given their meagre initial capital.

#### 11.2 Current Constraints

An idea on the current problems confronting the businesses was obtained from both formal and informal interviews with the entrepreneurs. But before we make more comments on this, we would like to observe that in most cases the entrepreneurs were quite optimistic about the future of their businesses. This<sup>is</sup> reflected in the fact that nearly three quarters of them (74%) and without significant regional variations, told

us that their businesses were expanding. However, the optimism was not reflected, for example, in business expansion as measured, say, by increases in the labour force. Thus, over the preceding one year, four fifths of the businesses (79.5%) has not change their labour requirements at all. Only 3.5% of the businesses had increased their labour at all. Another 1.9% had actually decreased their labour. This trend then tends to cast serious doubt on the "expansion" of the businesses, given the entrepreneurs' own admission that the most important factor which determines the number of people they employ is simply "good business". Nearly two thirds of our interviewees responded to this question. Of these, an overwhelming 78.4% stated "good business" as the most important consideration in hiring labour. It would seem then, going by this economic criterion, business has really not been expanding in the last one year. The point then is that there are some very real constraints under which the businesses currently operate.

One of the most commonly expressed constraint was lack of clients. This was identified by 42% of the respondents as the most crucial constraint currently hindering the business from expanding. This we believe is a genuine constraint. One of the most commonly observed characteristics of the informal sector is the ease with which operators can start their businesses so long as they can generate the initial capital. Unfortunately, as observed in the urban centres, once this initial difficulty is overcome, everyone tends to go into the same types of activities. The traders sell the same things, mainly household goods, and similar agricultural produce; the services are similar, mainly repairing shoes, watches, radios and cars; and the manufacturers produce exactly the same items, right down to the design. This is a phenomenon which we observed. The result is intense competition as shown in section IX for the relatively few customers. One way of partly resolving this problem would be by training, in order to introduce either new technology, at least at the level of product design, or new entrepreneurial attitudes so that the businessmen can venture into newer areas of business, or new marketing strategies.

Surprisingly the question of designing a new marketing strategy in order to reduce some of the pressure from competitors was not foremost in our respondents minds. Thus asked what they were doing to overcome the constraints and therefore facilitate business expansion, not a single individual brought up this issue. Instead such solutions as employing more skilled workers, seeking further training, more loan, assistance from friends, etc. were mentioned. Of course some of these might be indirectly related to marketing, but this was never made obvious. As suggested in Section VIII, sub-contracting could form a basis for an improved marketing strategy.

Lack of loan facilities was also constantly mentioned as a crucial constraint. In fact in the formal survey it was second to "lack of clients" as the most important current constraint, being mentioned as such by nearly 25% of the respondents. The issue here is whether this is a real constraint or simply a perceived constraint. Again, most men, no matter how small their enterprises are, will always claim to need more money. Now, the issue which requires more systematic investigation is whether more money is actually currently needed and for what. Looking at some of the businesses, such as the road side vendors of domestic goods, one wonders whether what they actually need is more money or as argued, above a different marketing strategy, or simply moving into a different activity altogether. However, "lack of loan facilities" has an institutional dimension in that whether a business needs loan or not, the institutional facilities should be available in order to assist, precisely in deciding whether more money is needed.

"Heavy taxes and license fees" was also brought up as constraint, ranking third after lack of loan facilities. The fact that this was brought up speaks well of the rural informal sector in that it means that the majority of the enterprises are actually licensed, something which one cannot say for the urban informal sector. This, of course, is a matter for the local authorities. Our discussions with some of the local authority officials tended to suggest that there is still considerable ignorance

about the enterprises. Do they make money? How much should the licenses cost? How much, location-wise, should they be restricted? While the overall mood was one of accommodation, some of the details still need to be worked out. This is an area that local authorities should start addressing themselves to. Overall however, as stated earlier, the finding that only 2 respondents reported some form of harassment from local authority officials speaks well of these authorities.

One of the most interesting outcomes of our attempts to formally establish the difficulties confronting the businesses currently is that lack of suitable working space is no longer an issue. It appears then that unlike lack of capital, lack of suitable space is only an initial problem. Once the space has been found/allocated, the businessmen seem quite happy to forget it as a problem. A related issue is that of infrastructure.

The general assumption is that lack of access to infrastructural facilities such as water, electricity, telephone, postal addresses, transport etc. constitutes a constraint. Apparently the businessmen do not view this as a problem at all. Thus, the issue is not mentioned at all as affecting prospects of future business expansion. It could of course be indirectly implied in that access to a loan, for example, could lead one to acquire better facilities but this never came up in this form.

Apart from the perceived problems, one of the very real problems confronting the entrepreneurs under study was that few had good documented evidence about how their businesses were doing. The majority, (60%) as noted in chapter IX did not keep any books. Siaya at 37.9% registered the lowest proportion of "offenders" in this respect. The majority claimed that they did not keep any records because "they had a mental knowledge" of the businesses, and therefore "records are not necessary". This phenomenon has been observed in nearly all informal sector studies. In our opinion it is an important area in small-scale business training.

The problem with training in general seems to be, first, the

enterprises themselves are doing little internal training. Thus, the majority have never received any request for training, with Nyeri as the worst case in this respect where 72.2% of the enterprises have never received any request for training. A second and complicating factor with respect to training is that, few of the entrepreneurs know of a related government programme. Thus, without significant regional variations, 76.6% of the entrepreneurs have never heard of a related government training programme. We feel that this is a very serious real constraint, given the meagre educational background of the entrepreneurs and therefore the obvious need for further training. The entrepreneurs themselves have a great deal of faith and expectation with respect to what the government can do. Asked whether the government can help in training nearly two thirds, i.e. 65.5% thought the government can help. Probed further 42.3% thought that the best way the government can help would be to "organise training". Another 15.9% thought the best help would be to facilitate "on the job training". Furthermore, for those enterprises with workers a majority would allow their workers to participate in such training either with full wages, with reduced wages or without wages. Only a minority i.e. 8% out of 28% would not allow their workers to participate. There is therefore a receptive mood to further training and the need for it.

One of the often noted problems of African entrepreneurship is that in most cases the entrepreneurs are involved in too many things instead of concentrating more on business. This can be a serious constraint. To some extent this a constraint in the enterprises we studied. As the data reported earlier shows, quite a large percentage are also involved in farming or have some other income generating activity. However in the short run, we feel that this is an inevitable constraint. The enterprises are so small that those with other sources of income consider this as a blessing given their social responsibilities. In the long run however, as the businesses expand and become more formalised there will be a need to educate the entrepreneurs towards specialising in business.

Finally we would like to return to the question of what the entrepreneurs perceive as the role of government in facilitating business expansion. Those perceptions are presented in Table 28. The views of our respondents in this matter pretty much summarize what they view as the constraints, some of which are very real as discussed above.

Table 28      The Most Important Thing the Government Should do to Facilitate Business Expansion.

Type of Assistance	Nyeri	Meru	U.Gishu	Siaya
Nothing	2.2	2.0	1.0	1.2
Provide roads	-	1.0	-	0.6
Provide water	-	1.0	5.8	1.9
Provide electricity	1.1	7.1	5.8	4.4
Transportation	2.2	-	-	-
Control material prices	3.3	2.0	1.0	1.2
Provide modern tools	5.6	2.0	1.9	1.2
Avoid Council harrassment	1.1	-	-	-
Provide commodities	4.4	3.0	1.0	2.5
Allocate plots	15.6	4.0	8.7	3.1
Give out tenders	1.1	-	1.0	0.6
Ban electronic watches	2.2	-	-	-
Assist in getting loan	16.7	60.6	63.7	70.0
Build houses	18.9	4.0	3.9	2.5
Give training	-	-	2.9	4.9
Reduce license fees	12.2	10.1	1.0	4.9
Build factories	-	-	-	0.6
Recognise Herbalist	2.2	-	-	-
Other	11.1	3.0	2.9	1.8
Total	100.0	100.0	100.0	100.0
N	90	99	103	160

11.3 Conclusions

The most important initial constraint facing the enterprises was lack of adequate capital. This is not a surprise finding. What is surprising is that once this constraint have been somehow overcome, the businesses can almost sustain themselves through "profits from the business".

There is conclusive evidence, that too much competition constitutes a major constraint something which is easily observable even by a casual observer. This, we suggest can be resolved by creating incentives to lure the entrepreneurs into those areas where the competition is less stiff. Certainly, trade and commerce seem to be over-populated.

There is no evidence that the enterprises suffer unduly from labour sharing with agriculture. In other words labour does not seem to be a constraint at all. However in our view, lack of skilled labour is a constraint though not always identified as such by the entrepreneurs themselves.

An important dimension of lack of skilled labour as a constraint is that the majority of the entrepreneurs are primary school graduates. Furthermore most of them have not received any "further training" related to their current business. Therefore skills-wise they are literally stuck, even in those areas such as services and manufacturing which obviously require additional skills on top of primary school education.

An important "skills" dimension is that the businessmen have little few ideas on how to run a business as evidenced by lack of records in all areas of business management. This, like some of the other constraints, they share with their urban counterparts.

Overall, the problem of lack of skills is compounded by the fact that there is little apprenticeship taking place. In fact, it is doubtful whether most of the enterprises have the capacity to engage in "in house" training. This means that some external intervention is necessary in order

to increase this capacity or in order to expose the entrepreneurs to possibilities of training outside their work place.

If we assume that the entrepreneurs have identified the real constraints as we do, then it appears that they do not consider either administrative harassment or lack of access to infrastructural facilities, as a constraint. It would seem then that the urban informal sector views the two more as problems than the rural informal sector does.

Finally, it is clear that in terms of priorities and recommendations to the government, the rural informal operators would rank "lack of adequate capital" as the most important constraint. This is where they would like government assistance most.

## 12. CONCLUDING OBSERVATIONS

### 12.1 ON RTPCs

In the Sessional Paper No. of 1986 on Economic Management for Renewed Growth, the informal sector is one of the four components which constitute the overall strategy for balanced rural-urban development. The other three components are (i) development of Growth Centres in particular the Rural Trade and Production Centres (RTPCs) (2) Better financing and management of urban development (3) Development of a strategy for energy development. While this study was not meant to address itself to these broad issues, some of the evidence from the study needs to be looked at in the context of these broad issues. It is in this light that we would like to begin by making a comment on RTPCs, more specifically, a comment on the choice of RTPCs.

From our own field observations we have cause to believe that some of the centres where this survey was conducted could be the kind of centres which are potential RTPCs. The study was purposely designed to include urban centres, rural market centres and local centres. Some of the centres studied such as Karatina in Nyeri, Maua and Nkabu in Meru, Bondo in Siaya, Matunda in Uasin Gishu show remarkable vivacity and are supported by productive hinterlands. However, some of them are perhaps "too developed" to qualify as priority centres in that they already have the basic infrastructure such as telephone services, post office, adequate road links, and a market place. Using these criteria only, the smallest of the centres we studied such as Moibeni, in Uasin Gishu would perhaps qualify. Ultimately, of course the decision will be made by the DDCs - with guidelines - but our own observation was that there might be a danger of "going too small" when some of the people the strategy is intended to help, such as the informal sector operators, were "going a bit big" by heading the opposite direction to bigger centres and bigger markets.

## 12.2 The Public Image

The general view is that the informal sector suffers from a negative public image. This view is expressed in the Sessional Paper No.1 of 1986. Our conclusion is that this view of the informal sector is unduly urban, influenced as it is by urban lifestyles and expectations. In the rural areas, lifestyles are much more modest and informal and the informality is accepted if not actually sanctioned by traditions. There is therefore nothing negative about the market place and the market day for example. This then means that the problem of overcoming a negative informal sector image in the rural area, is much less if it exists at all. This we suspect is the explanation for the somewhat startling finding that the rural informal sector does not suffer from administrative harrassment. On their part, the operators seem to reciprocate for the positive public image in that nearly all of them hold some kind of license to operate and the majority actually occupy the space they legally as evidenced by the fact that the majority pay rent for the space they occupy.

## 12.3 Social Background of Operators

The Sessional Paper No.1 of 1986 views the informal sector as a place where "educated youth" will seek either employment or self-employment because "the modern sector will be unable to raise enough capital to employ more than a fraction of Kenya's workers". In making this correct argument, one issue which is often not very clear is the degree of the youth's education and what this suggests about their entire social background. This study shows that the entrants into the rural informal sector are essentially primary school leavers who claim to have left school on account of lack of school fees. This finding was quite surprising because we were expecting that by now secondary school leavers would be dominating the informal sector. Where are the secondary school leavers?, unemployed? An additional question is, to what extent can we actually assume that entrants into the informal sector are "educated youth"?

The operators who were in their thirties had been operating for about five years, had had little "further training" and quite a sizeable proportion had had some previous employment before venturing into the informal sector. This leads to the conclusion that the operators are not really young, are in some sense hardly educated and come mainly from a disadvantaged background.

#### 12.4 Training and Education

The educational and overall social background of rural informal sector operators raises the crucial question of training. The Sessional Paper No. 1 of 1986 recognises the need for "technical and vocational training at the secondary level". In order to develop "artisans, managers and entrepreneurs for the informal sector". Two issues arise here. One, where is the technical training most needed? In secondary schools or in primary schools? Given the problems of offering technical education in primary schools, the only feasible alternative is to offer it at the secondary level. But, the graduates of such training will have to find good reasons to go into the rural informal sector as opposed to primary school leavers going there. Our own conclusion is that the Public perception of who actually goes into the informal sector is again unduly influenced by the image of the urban informal sector as a place where educated youth go. A related problem is that the kind of training envisaged in the Sessional Paper No.1 of the 1986 is highly formal as it is expected to take place in Youth Polytechnics, Secondary Technical Schools, and National Institutes of Vocational training to name but a few. This seems to leave out the whole area of apprenticeship by the operators themselves. Our conclusion is that not enough of this is currently taking place in the rural informal sector. An yet, data shows that an overwhelming proportion of manufacturers and servicemen have had 'further training' and furthermore, most of them have been trained informally as apprentices. The conclusion therefore might be suitable for secondary school graduates, measures must be devised to encourage the informal apprenticeship system which in all probability, will continue to be the most if not the only important source of training for the rural informal sector primary

school level entrepreneurs.

A related training issue is whether the training should be tailored to meet "local needs and skill shortages" as the Sessional Paper No.1 of 1986 advocates, or whether the training should be standardized and tailored towards sub-sectoral requirements. There is a subtle difference here. Our conclusion in this regard is that the local differences with respect of the training needs of the informal sector are probably less important than the sub-sectoral differences and therefore training requirements. Whenever they were found, hawkers and other street vendors claimed they could survive without much training. Indeed the majority of traders did not have any training at all. Not so the manufacturers and servicemen most of whom had some training as already stated. This seems to suggest that a sub-sectoral approach to training might be more fruitful. This, in one sense, is obvious, whereas training for local needs and skill shortages is not very obvious.

#### 12.5 Priority of Manufacturing

Though the Sessional Paper No. 1 of 1986 does not directly single out manufacturing as the sub-sector which should receive most attention, we feel that this is implied in the statement made in the document that as part of the effort to assist the informal sector the government "will continue to lower tariffs on raw materials, semi-processed goods and other intermediate outputs particularly those widely used by small-scale manufacturers". The data gathered in this study shows that the sub-sectoral composition of the rural informal sector is similar to the urban informal sector and furthermore it is dominated by petty trade at the expense of manufacturing and services which require, at least some skills. We have all cause to believe, therefore, that there is a case in the urban and the rural informal sector to try deliberately to change the sub-sectoral composition by deliberately discriminating in favour of manufacturing in order to lay the ground for grassroots industrialisation.

In our view, most of the trade carried on by the informal trader is so small, while the operators quite many and so heterogeneous that we wonder whether any comprehensive programmes and policies can actually be designed for the operators. On the other hand the manufacturers, followed by servicemen, have a less transitory stake in the informal sector. They have invested in machines, in skills and continue to invest in permanent or semi-permanent structures. They therefore deserve programmatic support. Although the data does not show that the manufacturers are any bigger, for example, in terms of employment per enterprise, the data shows better potential for growth than certainly the petty traders who do not seem to have any potential at all.

#### 12.6 Space and Land Tenure

One conclusion which emerges from this study is that operating space is a constraint to the rural informal sector. Now, this was a surprise because in the public image lack of space is usually associated with the larger urban areas whose informal sector gave us the "Jua Kali squatter". In the rural areas on the other hand, one does not expect urban congestion and the consequential scramble for space. This study shows that the majority of the operators rent the space from which they operate. Few own the space. This, taken in conjunction with the fact that they identify lack of suitable space as one of the initial problems suggests that even in the small rural centres there is a need for rationalising use of space through suitable local government interventions. The few who own the operating space should be given title deeds if they do not already have them. We concluded that the majority who do not, probably claim that lack of suitable space is a problem either because they do not want to pay high rents or and because like everydody else they all want to congregate at certain strategic places where they would be highly visible to the customers. Either way a policy on allocation of space is called for.

The informal enterprises in these centres will continue to

increase from year to year. Unless therefore rationalisation of space use is done early enough the inevitable will happen. Everyone will congregate at the road side or the town centre at the expense of a good physical and business atmosphere. We would therefore recommend that certain types of businesses be allocated specific places. For example, those who need water and electricity such as carpenters and tinsmiths should be allocated a specific space. This would facilitate sharing of infrastructural facilities among other advantages.

#### 12.7 Infrastructural Facilities

One of the curious findings of this study is that lack of infrastructural facilities did not feature prominently as a constraint. Yet, the data clearly shows that the one facility they all seem to have is a postal address. Otherwise the other facilities are clearly missing at the places where the entrepreneurs operate from even those which are generally available in the town. This suggests that the entrepreneurs either do not need these facilities or cannot take advantage of them. This is probably understandable for traders, some of whom are itinerant, and some of whom are simply market day only operators. But from the point of view of manufacturers and servicemen the attitude reflected two things. One, it reflected that the entrepreneurs, due to their low levels of skills could not make use of, say, electricity and two, unlike their urban counterparts who constantly emphasize that they need these facilities, the rural entrepreneurs did not have the same high level of aspiration. Either way, it is a matter of public exposure and further training. We therefore recommend that once the RPPCs have been identified, priority must be given to training the local entrepreneurs so that they can aspire to and take advantage of the facilities. This is especially true of those facilities such as electricity, telephones and water which they will be required to pay for. Chances are that due to their already considerable financial commitments and the small sizes of their businesses, they might not be willing to immediately take advantage of the facilities. Not until it becomes clear to them after training, that use of these facilities will lead to increased production and therefore better incomes.

12.8 Capital and Credit

It is true as observed in the Sessional Paper No. 1 1986 that the informal sector, in this case the rural informal sector heavily relies on personal or family savings to generate the initial capital for setting up the enterprise. But whether this initial capital is "very little" except in absolute terms, is an issue that requires further assessment. This observation is made in light of the entrepreneurs' socio-economic background and the fact that the "very little" capital needed constitutes the single most important initial constraint and continues to be the single most important constraint after the businesses are operational. The most encouraging finding from this study is that the entrepreneurs, inspite of their heavy social responsibilities seem to re-invest the profits into the business instead of continuing to rely either on the family shamba or some other source for the necessary expansion capital. All the same, this issue requires careful policy attention. The importance of capital seems to us to be indisputable. What is not so indisputable is what role outside agents such as the public, and private institutions should play in providing this capital under such highly risky circumstances and to such risk averse clients half of whom claim that they have land as collateral, that they would be willing to use it as such and yet have never borrowed a penny from formal institutions.

In formulating a credit policy for the rural informal sector we would suggest that those who have some collateral such as land and claim to be willing to use it as such be taken simply at face value to test how genuine they are as businessmen. These are the best candidates for a loan programme such as the one currently being operated by the Kenya Commercial Bank and funded by USAID. Such a formal lending scheme should however start with extremely small amounts, payable over a long period of time at concessionary interest rates. A long repayment period has the advantage that it might stabilize the sector by forcing the loanees

to stay in business just a little longer if only to repay the loan. The experience thus gained would no doubt have some positive effect on the entrepreneurs attitude towards business and consequently on the actual performance of the business. In our view, loan priority should be given to those with the highest stock in their businesses, namely manufacturers.

For the entrepreneurs without any collateral, the problem is even more complicated. Here we feel that a lot could be learned from the experiences of some Non-Governmental Organisations such as the N.C.C.K. and the Rural Enterprise Programme, some of which have been lending to the informal sector on the bases of character reference from local groups and peers. We feel that the experiences of these organisations have not been studied closely enough. They could provide a few models.

Overall then, we would agree with the Sessional Paper No. 1 of 1986 that what is required is a multi-faceted credit policy, combining both formal and informal approaches and implemented by both public and private institutions and organisations. Such a policy must take into account the heterogeneity of the sector. Furthermore training for all must be a constituent part of it. Those who run public and private financial institutions in particular need training in appreciating the informal sector. The informal sector in turn needs training in appreciating business aspects of their operations and where to go for what type of help.

#### 12.9 Rural Entrepreneurship

The current public and private appreciation of the informal sector is partly predicated on the assumption that informal sector activities are "a prime training ground for future African entrepreneurs". At a very broad level this is of course true. Indeed even at the enterprise level this study provides some evidence that in some cases businesslike attitudes are beginning to emerge, for example the businessmen understand very well that the labour force is ultimately determined by the "performance of the business", that business location is important in attracting customers,

that where possible one should not rely too heavily on "assistance" from the outside, and that profits should be ploughed back into the business etc.

However, this study also shows that the rural informal sector is perhaps still dominated by what, for lack of better words, are "un-businesslike" social attitudes which will have to be overcome if the observation made in the Sessional Paper No. 1 of 1986 that the sector serves as a training ground for future African entrepreneurs is true. The rural informal sector, particularly the trading sub-sector seems to us to be simply a "holding ground" until something better comes. Most of the operators in the trading sub-sector seem to be there purely for survival. Thus, unlike the manufacturing and the services sub-sectors where the operators' previous occupations are related to their current occupations, most of the traders were doing something totally unrelated to their current occupations. It is for this reason that we suggest that the best chances of creating entrepreneurs lies with the manufacturing and the services sub-sectors, most of whom were previously employed in a similar profession and therefore quit because they wanted to be "self-employed". Once again, however, we would like to emphasize that though entrepreneurship cannot perhaps be taught, training in business management and other technical skills is obviously necessary if entrepreneurship is to produce results.

#### 12.10 Job Creation

On the basis of evidence gathered in this study, the rural informal sector has some potential for creating jobs but this potential seems low, in fact lower than the urban informal sector. However, we hasten to add that this is the result of a myriad of constraints discussed earlier, constraints which seem to us to be severer in the rural informal sector than the urban informal sector. Most of the enterprises are one person enterprises and until some of the constraints are overcome

we suspect that the pattern of growth of the sector will, in the foreseeable future, continue to be horizontal proliferation of one man enterprises rather than the desired vertical growth of the firms.

#### 12.11 Linkages with Agriculture

This study has shown that the rural informal sector has several dimensions of linkage with agriculture. The first dimension is the expected social-economic linkage. The entrepreneurs are mostly local people who in most cases have located their businesses where they are "because they live there". Similar to their parents they have a rural background and have dependents whom they support, mostly with cash obtained from the businesses. Support, to rural dependents does not, of course, constitute a direct linkage with agriculture, but it is all the same an important socio-economic linkage with those directly involved in agriculture. We have argued in this study that even though the amounts remitted to dependents might appear small in absolute terms, they constitute a major financial commitment given the relatively "small" sizes of the businesses.

From an economic point of view, perhaps an even more important linkage is the source of the initial capital to establish business. Results from this study show that a very large proportion of this capital is derived from agriculture or agriculture related activities. The reason for this is that quite a high proportion of the entrepreneurs own some land, albeit in small acreage. Farming therefore constitutes "other income generating" activity and provides the bulk of the initial capital. For those without land this particular linkage with agriculture is less straightforward but it can be safely assumed that the "relatives and friends" from whom they obtained the initial capital were primarily engaged in agriculture.

A second dimension of linkage with agriculture is labour sharing. Looking at the composition of the labour force and our own informal interviews with the entrepreneurs, it is quite clear that the enterprises' labour force is usually family labour engaged either on a permanent basis or on a seasonal basis depending on the labour demands of the agricultural sector. This suggests that in this particular aspect, the enterprise and agriculture are seen as complementary and careful calculations have therefore to be made on the labour demands of each activity.

A third dimension of linkage with agriculture is the "market linkage". This has two major elements. First, most of the commodities sold in the rural market places during the designated market days are agriculture on agriculture related commodities such as grains, vegetables and livestock. This element of the linkage is obvious enough as not to require much comment. Less obvious is the second element, namely, agriculture as the consumer of informal sector goods and services. As we have said on numerous occasions in this report, this issue requires a more systematic investigation than was possible in this study in order to understand the demand side of informal sector goods and services. However, from our preliminary investigations as reported in this study, it would appear that the final destination of informal sector goods and services is the "rural households" which implies that the demand for these goods and services is a function of household incomes from agriculture.

But even at our preliminary level of investigation there is another more or less obvious linkage between the rural informal sector and agriculture. This linkage could be called "product and service type linkage" and is especially applicable to manufacturing and services. Some informal sector entrepreneurs produce agricultural implements such as milk buckets, others service agricultural machinery such as tractors. These products and services have an obvious linkage with agriculture and should receive priority in any programme designed to promote the rural informal sector.

They do not require a systematic study to identify them. They can be identified on a case by case basis.

Overall we feel that the assumption that the nature of the rural informal sector, and particularly the demand for the goods and services provided by the rural informal sector is dependent on the hinterland agricultural incomes is a justified assumption, but it needs systematic testing.

#### 12.12 The Demand for products

In spite of the fact that the demand side has not been studied it seems to us that the income levels for consumers of these rural informal sector products should be raised which would mean that there would be an induced demand and with it, employment. We need to note that those who would acquire informal sector jobs would further fuel the re-activated demand for the products of the sector they work for.

Three sources of demand can be realised firstly by providing an environment in which the returns in the agricultural sector would be high i.e. the right signals have to be activated so that everything else works in conformity. Realistic producer prices would mean higher incomes to farmers and because increased agricultural output would require better seeds and other farm inputs like fertilizer, it would be easy for the suppliers of these inputs to predict the consumer behaviour as opposed to a situation where consumption of factor inputs depends on a snap-shot decision with regard to what farmers should be paid. The agricultural sector would constitute part of the market. Secondly, once this sector consumes more of informal sector products, incomes of those who are already in the informal sector and with it consumption would go up - depending of course on income elasticity of

demand for the rural informal sector products. Thirdly, with demand for rural informal sector products going up, there is the cooperant labour factor which comes into the scene and importantly so when one recalls the capital-saving nature of these undertakings. Those who now join the paid labour force as a result of increased demand for rural informal sector products will spend part of their incomes in consumption of the goods they help to produce. Depending on the size of increase in demand, new entrants into the industries might be witnessed. This analysis tends to suggest that given the economic interdependence between sectors, once the right signals are observable, the informal sector would, on its own despite the constraints, tend to react to meet the ensuing market demand. It is dynamic.

The above argument brings to the fore the explicit importance of the immediate market for which the informal sector caters. One may, however, express fear in that the informal sector goods could be inferior consequently leading to negative substitution occasioned by increased incomes. For these products to become superior, the incomes have to appreciably go up and if they did, they would compel the prices of all goods to go up so that the price of informal sector goods would remain relatively competitive. Besides, such hyper income growths are unlikely because even if some boom resulting from exportation of agricultural products was forthcoming, the government would institute a machinery for dealing with that so that the rural sector is not flooded with money. Besides it is an established fact that such substantial windfalls tend to be consumed on acquisition of consumer durables such as transistor radios, bicycles, new dwelling premises etc. Some people may even expand the size of their families by acquiring more wives or by marrying, for those who are unmarried.

12.13 Linkages with Formal Sector

Though this study has not directly addressed itself to the linkages between the rural informal sector and the formal sector establishments in larger towns, it is quite evident that the linkages exist. First, a sizeable number of the entrepreneurs were formally employed in formal sector before venturing into self-employment. The formal sector then served both as a means of generating initial capital and as a means of acquiring skills where the skills were needed for eventual self-employment. This is particularly true of entrepreneurs in manufacturing and services. Second, as in the urban informal sector the rural informal sector depends on inputs from the formal sector. These inputs are usually in the form of raw materials such as scrap metal for manufacturers. In addition to inputs the tools seemed to have been largely obtained from the formal sector. Generally, there is little tool manufacturing in the informal sector. Third, the technology seems to have been originally obtained from the formal sector through local modifications, here and there, were noticeable. All in all, the technology was largely copied from the formal sector and multiplied through more local copying. Fourth, with particular reference to trade, the rural informal sector, like its urban counterpart, serves as a highly decentralised distributor for goods produced in the formal sector except for trade in agricultural commodities which are obtained from the immediate hinterland.

12.14 The Rural Informal Sector

Overall this study shows that there are no major differences between the rural informal sector and the urban informal sector, except that the operations in the former seem to be smaller. To the extent that there are some differences they seem to be relatively small. However,

it can be argued that the rural informal sector is different in one very important aspect in that it serves a different social purpose. Whereas the urban informal sector is the first step towards rural to urban migration the rural informal sector serves the purpose of retaining would be migrants in the rural areas. But, it should be emphasised that this study shows that the majority of the rural informal sector operators would like to migrate to a different town and especially to a bigger town because business would be better there. The policy therefore is to improve business where they are so that they do not migrate to a bigger town.

The study also shows that there are no major regional or sub-sectoral differences within the rural informal sector. However, one noticeable sub-sectoral difference is that the manufacturing and the services sub-sector seem to have a higher stake in the improvement of their businesses, if only because of the investment they have made in skills acquisition. It is for this reason that we argue that priority should be given to these sub-sectors and particularly manufacturing.

ENDNOTES

1

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APPENDIX

TYPE OF FACILITIES IN SURVEYED CENTRES

	Road Tarmac		Water		Elect- ricity		Telephone		Post Office		Bank	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1. Matunda	X		X		X		X		X			X
2. Moi's Bridge	X		X			X	X		X		X	
3. Moiben		X		X		X	X			X		X
4. Ziwa		X		X		X		X		X		X
5. Turbo	X		X			X	X		X		X	
6. Timboroa	X		X		X		X		X			X
7. Burnt Forest	X		X		X		X		X			X
SIAYA												
1. Siaya Town	X		X		X		X		X		X	
2. Bondo	X		X			X	X		X			X
3. Yala	X		X		X		X		X			X
4. Usenye	X		X			X	X		X			X
5. Ndori	X			X		X	X		X			X
6. Ugunja	X		X			X	X		X			X
7. Akala	X		X			X	X				X	
8. Luanda	X		X		X		X		X			X
MERU												
1. Nkubu	X		X		X		X		X		X	
2. Chogoria	X		X			X	X		X		X	
3. Igoji	X		X			X	X		X		X	
4. Maua	X		X			X	X		X		X	
5. Chuka	X		X		X		X		X		X	
6. Timau	X		X			X	X		X			X
NYERI												
1. Karatina	X		X		X		X		X		X	
2. Othaya	X		X		X		X		X		X	
3. Chinga	X		X			X		X		X		X
4. Naro Moro	X			X		X	X		X			X
5. Muthinga	X		X			X		X		X		X