DOMINO-INDUCED STATES
OF NEUTRINOS AND SCALAR PARTICLES:
A STOCHASTIC APPROACH TO QUANTIFICATION
AND ALLENATION IN QUAD SYSTEMS

by

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SOCIO-ECONOMIC STATUS
OF FAMILIES AND SOCIAL PARTICIPATION:
A MULTIDIMENSIONAL ANALYSIS OF COMMITMENT
AND ALIENATION IN RURAL KENYA

by

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A Thesis submitted in part fulfilment for the
Degree of Master of Arts in the University of
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1976
This Thesis is my original work and has not been presented for a degree in any other University.

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This Thesis has been submitted for examination with our approval as University Supervisors.

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Abstract

It is the central thesis of this study that the socio-economic status (SES) of families is a major determinant of social participation among peasant communities in rural Kenya. Survey data from Mbooni, a rural area in Machakos District in Eastern Kenya is used to determine whether the same relationship which has been found in other communities (mostly in an urban context) between SES and social participation exists also in rural Kenya. Hence the study investigates the extent to which in a rural area several forms of social participation are related to SES as indicated by the major independent variables, i.e. education, occupation, income and levels of living. Sex, age, and attitudes towards participation in community activities are other independent variables examined in the study. The study also holds that the same forces determine the degree to which individuals become either alienated or committed in processes accruing to social participation.

The major aim of the study therefore is to explain why some groups or some individuals within groups are actively involved in the various areas of participation that we have studied, i.e.:
Voluntary organizations, for example in cooperatives and self-help groups;

Political activity - like voting; and

Informal aspects of participation which include barazas, and field demonstrations,- while others are either not actively involved or even not involved at all.

A major justification of this investigation lies in the observation made in recent research studies that rural development has come to mean an approach to increase the level of participation of the rural population in the development process and to improve the level of living of the rural population, for example in increased incomes, employment opportunities, welfare amenities, and so on. A recognition is also made that development is impossible without a greater contribution from the vast majority of the working population in developing countries, who are in the rural sector. In view of this, therefore, a study on social participation in rural development becomes a crucial area of inquiry. And it is our hope that it will greatly enhance the present conception of peasant behaviour and his socio-economic constraints in rural development process.
The study area, Mbooni, ecology provides natural clusters which formed the basis for the sampling strategy used in the study, i.e. stratified random sampling. The rural household is the unit of study, where the household heads are the respondents. The interview schedule is the major data gathering tool utilized in this study.

The major findings emerging from Mbooni data show that a majority of farmers suffer from very poor incomes, low levels of living, low formal education and consequently low degree of social participation. However, despite the low socio-economic status and general low participation among a majority of Mbooni farmers, there are marked differences in individual degree of participation in the various aspects of participation we have studied in this area. We have found that there is a consistent trend which is statistically significant for the following socio-economic groups to be more likely active participants in the areas of participation covered, these are:

(a) higher income persons
(b) persons with high levels of living
(c) persons with high levels of formal education, and
(d) persons in higher occupational ranking.
Hence towards an explanation of differential participation among individuals, we have come to a conclusion that this is largely accounted for by SES differences of the individual participants. Thus our central thesis in the study has been confirmed, that SES is a major determinant of social participation, even in a rural area, where our Kenyan case conforms to the general pattern. All the hypotheses we set out to test relating SES and social participation, have been confirmed by our data. The same data, however, has shown almost no relationship between sex and social participation, and in fact a negative relationship was established between attitudes and social participation.

The many socio-economic disadvantages of rural farmers in Kenya, and generalizable in most developing countries, as demonstrated by our study are reflected in a lack of schooling, low levels of education, poor incomes, low level labour skills of which is a major constraint in absorbing them in the development process through their taking an active participation in those areas (for example in economic organizations) through which it is hoped they can improve their lot towards high levels of living, increased incomes, welfare amenities, and employment opportunities. In this context, therefore, we have called for a re-definition of rural development which should purposefully have its focus on the
socio-economically deprived majority in rural areas, herein our study identified and referred to as the "target" group, whose characteristics are listed here below:-

(a) no schooling (lack formal education),
(b) have incomes below K.shs. 2,400 p.a.,
(c) have low levels of living, as characterized by possession of only 5 household items, i.e. "karai", table, wooden box, easy chairs and torch. (Note: those with high levels of living possess 18 items, two of which are characteristic of this group only, i.e. vono bed and motor vehicle),
(d) are often petty traders, casual labourers, and those who are not engaged in any non-farm activity.

However, multivariate analysis on the major SES indicators has shown that occupation accounts for the strongest variation in social participation particularly in voluntary organizations. Hence type and conditions of employment and benefits for example, freedom of personal time, for the majority in the rural areas emerges as a foremost crucial factor in enhancing active participation for both men and women in the development process.
MAP OF MBOONI LOCATION

- Markets with shops
- Boundaries of sublocations
- Government roads

Morjakos

Boundaries of sublocations

Government roads

Kalawani

Itotani

Mavindu

Nzeveni

Mutitu

Kywu

Utangwa

Kitundu

Uvuu

Mkumbuni market

Kalawani market

Nzaini market

Uthiuni

Tawa market
CHAPTER ONE

INTRODUCTION

Problem Statement

Existing empirical evidence on social participation shows that it is an integrating factor among rural communities in generating solutions to their daily needs (or problems) and therefore enhances commitment to the development efforts aimed at raising local levels of living. A particularly important type of social participation is the voluntary (self-help) effort which statistics evidence as a current prime mover of social change in the rural areas in Kenya.

In past research a lot of energy has been expended in trying to understand the motivating forces behind participation. As a result a wealth of literature has been amassed to show that the socio-economic status (SES) of families is a possible factor behind social participation. Data from a rural community are used to determine whether the same relationship exists in rural Kenya.

The study is therefore set to investigate the extent to which, in a rural community, several forms of social participation are related to social status as measured by SES. Hence it is the central
thesis of this study that SES of families is a major determinant of social participation among peasant communities in rural Kenya. People's attitudes towards social participation, and some demographic characteristics, e.g. age and sex, are also seen as important contributory variables. Levels of living is another possible stratifying factor in rural communities, and consequently a possible determinant of social participation patterns in the same communities. Hence the study intends to investigate the extent to which the above factors determine the degree to which individuals become either committed or alienated in the process of participation.

The study therefore aims at:

1. Examining the motivating forces behind social participation.

2. Explaining why some groups or individuals within groups are committed while others are alienated.

3. Assessing the implication of this dichotomous behaviour on the development of peasant societies.
4. Attempting to formulate a theoretical explanation of peasant participation in rural areas.

5. Assessing its applicability (no. 4 above) and hence suggesting needed areas of research in the field.

6. Examining level of living as a possible measure of SES, and testing how it relates to participation. (Level of living has not been used as one of the SES indicators in past studies on social participation).

7. Attempting a theoretical assessment of the relative contribution of each of the SES indicators in determining social participation patterns in rural communities.

JUSTIFICATIONS OF THE STUDY

The study is justified as a research problem due to the following reasons:

First, in recent studies rural development has come to mean an approach to increase the level of participation of the rural population in the development process and to improve the level of living of the rural population. It is recognised that:
4. Attempting to formulate a theoretical explanation of peasant participation in rural areas.

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"development is impossible without a greater contribution from the vast majority of the working population in developing countries who are in the rural sector" (ILO, 1973:15).

The improvement of the productive capacity, and particularly of those people who depend directly or indirectly on the exploitation of the soil is a major objective among the strategies of rural development. One of the major desired results of societal development, therefore, is improvement in the conditions of the lower classes including the lower classes of rural areas. In view of this, understanding of the concept of participation in rural development becomes a crucial area of inquiry.

Understanding of the concept of social participation in rural areas will elaborate on processes which could promote further mobilization, organization and centralization of local resources in rural development efforts and hence contribute to planners' understanding of planning needs and execution of strategies for development. In formulating a systematic programme of employment creation for the rural areas, for example, it has been noted that:
"the entire potential of the manpower of the rural areas for socio-economic transformation of the countryside needs to be mobilized while enlisting the whole hearted support and participation of the rural population" (ILO, 1973:11).

The study will also enhance the present conception of peasant behaviour in development process. It is also likely to contribute to greater understanding of the discipline of sociology in which minimal empirical inquest has been undertaken within an African context. Within the same context the study is likely to be a worthy contribution to research methodology. It is also likely to contribute to the understanding of the disciplines related to sociology.

Data on social participation in countries other than the United States are relatively scarce, and studies on social participation in the rural areas of other countries are even less abundant. Most studies on social participation have been conducted in urban, peri- or suburban areas, and lesser numbers in rural areas in the developed countries. Additionally, negligible studies have been done in developing and under-developed countries on social participation in the rural areas, and also in Harambe self-help. The present study therefore tests the relationship between participation and position in the stratification system.
for rural areas of Kenya where the historical development has been markedly different from that of the United States and most of Europe. On the basis of measures of economic and political development, furthermore, Kenya is also different from the countries for which most of the research has been reviewed. Kenya's dualistic structure which comprises a traditional sector dominated by a 'modern' capitalist-oriented sector, cannot be assumed on a priori basis to exhibit at the local level the same social participation patterns found in highly industrialized countries.

In view of the foregoing aims and justifications of the study, the review of literature follows. The main aim in reviewing literature is to find out what views other scholars hold with regard to the phenomenon of social participation, how they define, intercorrelate and operationalize their variables into empirical studies.

LITERATURE REVIEW AND CONCEPT DEFINITION

Four major concepts will be discussed, and will include:

i. Participation

ii. Commitment

iii. Alienation

iv. SES
The involvement of persons in organizations, programmes, and decisions that affect them has been a current theme in sociological analysis. Variations in the rhetoric and focus of this theme has included such issues as social participation at work, industry, leisure, in voluntary organizations, in self-help (or harambe) activities, in church and in other areas. The notion of participation, although widely used is often left either undefined or given a very imprecise definition. Pateman (1970:68), for example, notes that participation is ordinarily used in a wide sense to cover almost any situation where some minimal amount of interaction takes place often implying more than that a particular individual was present at a group activity. This view then suggests that participation must be participation in something, for example, taking part in decision-making process, in a group activity, or even being present in a meeting but having no influence.

Clark (1959:851) has attempted a definition of participation "as the degree to which the member meets the role expectations of the organization". Another scholar, Etzioni (1968), quoting McGregor, remarks about the misunderstood ideas about the concept and goes on to say that:
"participation consists basically of creating opportunities under suitable conditions for people to influence decisions affecting them, and that influence can vary from a little to a lot....participation....."

(In this study the continuum of a little to a lot of participation is interwoven in the concepts of commitment and alienation).

Some theorists have argued that participation has an integrative function in that it increases the feeling among individual citizens that they belong to their community. This view is put forward by Pateman (p. 25) who quotes Rousseau in the argument that the more the individual participates, the more able he is to do so. This notion implies that participation is cumulative (an aspect we also wish to discuss later in our analysis). Man, it can be argued, is differentially involved in society and participates in varying degrees of intensity in different social situations. Hence the study intends to gauge the extent and intensity of participation in social groups. In this study, therefore, social participation will be taken to mean involvement in taking part in formal and/or in informal social interaction for individual (or group) perceived benefits, i.e. social, psychological, economic, or otherwise. Commitment and alienation will thus be key concepts in explanation of social participation.
The extent and intensity of participation will be discussed in the realms of the concepts of commitment and alienation. The concept of commitment has been defined and operationalized in various forms, for example, Kanter (1968:500) sees it "as the process through which individual interests become attached to the carrying out of socially organized patterns of behaviour which are seen as fulfilling those interests as expressing the nature and needs of the person". According to Kanter, active involvement of time and energy should be a requirement in order to gain anything at all from belonging to the system. By implication, commitment to an organization would call for individual sacrifices of time and energy (plus resources) geared toward satisfaction of implicit or explicit needs of that individual. Two other theorists, i.e. Babchuk and Booth (1969:34) have attempted an operational definition of commitment and involvement in an organization as the "frequency of attendance; committee membership held; and serving as an officer". These two further argue that the extent of member involvement could be nominal or active. As will be discussed later, this study wishes to adopt Chapin's procedures in measuring one or two aspects of participation. However, commitment cannot be understood without a discussion on its opposite - alienation.
In one way or another the concept of alienation dominates both the contemporary literature and the history of sociological thought. It is a central and pervasive theme in the classics of Engels and Marx, on the basis of whose ideas later sociologists have tackled the subject in various directions and in varying contexts. Despite the dominance of the concept of alienation, and especially in sociological literature, consensus on definition of what constitutes alienation remains lacking. The concept has been so widely used by numerous theorists to an extent that another scholar remarked that the history of man could very well be written as a history of the alienation of man (Kahler, 1957:43). Various attempts have been made to define the concept, where some authors have suggested a number of correlates some of which have even gone on upto thirteen, for example, normlessness, isolation, meaninglessness, estrangement, hoboism, apathy, even suicide, and so on (Dean, 1961). Hajda (1961:758-9) sees alienation as "an individual's feeling of uneasiness or discomfort which reflects his exclusion or self-exclusion from social and cultural participation", and that it is "an expression of non-belonging or non-sharing, and it varies in its scope and intensity". The concept of alienation, he observes, cannot be understood apart from its opposite, the feeling of
belonging, sharing or participation which he argues follows from individual inclusion or integration into social groups. A low intensity of alienation from the larger society, so Hajda points out, should characterize those who belong to none or only a few social groups. And a high intensity of feeling of integration (i.e. commitment in this study) into the larger society should be most frequent among those who are active in social groups. Other theorists who have made attempts on the meaning and measurement of alienation have found it difficult to operationalize it, and most of them have settled on abstract socio-psychological constructs, such as correlating alienation with such variables as authoritarianism, liberalism, and cynicism (Photoiadis and Schweiker, 1971).

Other students of alienation include: Nettler, 1957; Melvin, 1959 and others.

In this study, however, alienation will be measured by non-belonging or non-membership in a voluntary organization, and low participation in formal and in informal social interaction. Its opposite, commitment will apply to those individuals who will demonstrate multiple memberships in voluntary organizations and high (or active) participation in formal and in informal social interaction (to be discussed later in variable definitions).
Towards a theoretical explanation of alienation, Marx's thesis is crucial in understanding a host of usages and applications that this concept has been presented in the social science disciplines. In the economic and philosophical manuscripts of 1844, Marx distinguishes three different forms of alienation (see Jordan, 1971):

(i) alienation from the product of work,
(ii) alienation in the process of production (or briefly alienation of labour), and
(iii) alienation from society.

Marx was interested in the production forces and the material basis of society. For him, means of production, relations of men to means of production and established system of social classes are important in understanding the alienation of man. Property relations were class conflict relations. The worker is seen to relate to the product of his labour as to an alien object, hence alienated labour creates a world in which the real producer cannot recognize his input. Both the objects which the workers produced, and the means of production which they used to produce them did not belong to them; they did not themselves have direct control over them, they were owned and controlled by others. This kind of alienation, Marx, attributed to a capitalist society in which the worker becomes all
the poorer the more he produces. Marx sees termination of such alienation in the collectivization of property, through a radical transformation of society that would permit men to lead a truly human existence.

In Marxian sense, alienation becomes a social phenomenon, where the worker is denied participation because of powers beyond his means of production, on the basis of rigid class system. Social class perpetuates class differentials, and one's participation behaviour is determined by the position one has in the stratification system.

Many neo-Marxist sociologists conceive of alienation in terms of some form of separation of the individual from some aspect of society. The assumption here is that all social action may be conceived of as the product of the relationships among personality, culture, and social system. Alienation is also seen in social psychological terms where the dysfunction of both the individual personality and the social system produces extremist behaviour. The most often discussed attributes of the social system which could be closely related to alienation are those produced by inequalities in the socio-economic structure. Such inequalities are frequently considered in terms of the limited access of the lower socio-economic strata to
institutionalized means for attaining those goals which modern society suggests are open to all.

Roling, et.al. (1973) in their study on innovation and equity in rural development in Kenya came out with findings which are closely related to some kind of alienation of the rural masses due to inequalities. These authors argue that retreatism among rural masses is characteristic of the poor, or the "non-progressive" farmers as they refer to them. This retreatist behaviour seen as a consequence of inequity within the peasant community, where the relative prosperity of some (i.e. the progressive farmers) implies the relative poverty of the rest (p. 20). Inequity arises out of innovative behaviour and especially that of cash crops and farm technology. Their contention, therefore, is that since the poor have not made it, they will tend to escape or retreat in response to their deprived position in their community, and their inability to fill the gap between achievements and wants. Due to this frustration the non-progressive farmers may isolate themselves from those who have made it and retreat in apathy or escape into boozing, religious creeds, robbery, prostitution, corruption, and other unproductive behaviour (see Roling, 1971).
However, three options are open to this group to improve their situation, or rather to overcome their alienation: (p. 21).

(i) they can try to escape the constraints facing them in the rural areas by seeking wage employment in the towns,

(ii) they can try to improve their farms by adopting innovations, or

(iii) accept their different status and resign themselves to the fact that they will be poor as compared to progressive farmers, and become casual labourers, on the latter's farms to obtain some cash to support their subsistence enterprises.

*Participation in formal voluntary associations is another aspect of the social system which has been discussed in connection with alienation. Because such participation offers the individual membership and identification with a group which is more or less a part of contemporary society, it has been inversely related to alienation (see Hajda). Zimmer and Hawley (1959) have advocated that societal marginality is reflected in low socio-economic status, and low participation in formal organizations. Societal marginality is here operationalized in terms of SES as measured by net income and formal education.
However, Photiadis and Schweiker argue that membership in certain organizations such as sectarian churches, and others may reflect marginality and may be directly associated with alienation.

The social class position that an individual occupies within the society stratification system is seen as an important determinant of his participation behaviour. What therefore is SES? The concept of SES (or class) is very widely used, and status of class differences are found in every society, even though the components of status and the ways of measuring it differ from society to society. Yet it is argued that no matter how status is measured, persons of high status are close to the centre and persons of low status are usually at the periphery. The essence of stratification, therefore, is as old as society itself, as the experience that the lower sector classes are alienated from society as a whole, is born in all society.

The societal status of a person seems to have been more determined by the income and wealth of his parents and by his ethnic origins (i.e. ascribed status). Traditionally, the concept of social status among the Akamba, for example, was tied to community values. The high status persons included the wealthy persons, wealth here measured in number of...
livestock, size and quality of land, quantity of food produced, and even by number of wives acquired (conspicuous consumption) and number of children. Hence wealth was sought as a mark of prestige and status. However, in western societies SES is generally conceived of as having three components: education, income and occupation. Here SES is seen as both quantitative difference and qualitative differentiation in an individual. Social stratification means much more than quantitative differences and class structure of a community should be seen as a social fact.

SES has been measured using various indicators in social participation studies. However, it is argued that whether the indicator of SES used is income, occupation, or education, the higher status categories have higher participation levels. Our study has applied the above status indicators and introduced levels of living as a possible SES measure within a rural community.

Explanations of Social Participation

Explanations of the connection between SES and participation in voluntary organizations or groups have attracted a lot of interest. In spite of the great variation in purpose, study design, and sampling procedures, one of the consistent findings
in studies of social participation has been its positive relationship to social class. In a number of studies positive association between participation in voluntary organizations and SES has been well documented. Other variables, i.e. marital status, sex and age; attitudes towards the community; length of residence in the community; ethnicity and race, have also been associated with organizational participation.

With regard to the general body of participation theories, several scholars have been foremost in the formulation of these theories. Of these SES has been a key concept. Olsen's (1970) central thesis is that all forms of social participation, be they in political, voluntary, religious or otherwise have roots in socio-economic factors. He comes to this conclusion in his study on social and political participation of American Blacks, where he reports a positive correlation between SES and several forms of social participation. His indicators of status are income, education, and occupation. He measures participation in a variety of areas, in which he utilizes a total of fifteen attributes or indicators, some of which are:-
1. Voluntary Association Membership (total number of associations to which the person belongs);

2. Voluntary Association Participation Index (which also takes into account frequency of attending meetings and serving on committees or holding offices);

3. Political Organizational Participation Index;

4. Mass Media Exposure Index (listening to informational or public affairs programmes on television and radio, reading newspapers and magazines);

5. Community Activities Index (attendance at all kinds of community affairs and participation in various community affairs and in various community service programmes);

6. Church Participation Index;

7. Political Discussion Index;

8. Information Interaction Index, and others.

To arrive at a social participation score all fifteen attributes are coded in scales ranging from low to high. On separating SES indicators, Olsen finds that each of them, i.e. education, income, and occupation are positively (and almost equally)
associated with each of the fifteen participation attributes. (pp. 688).

In another study on the social and political participation of Negroes (Orum:1966), similar findings provide evidence that social participation is a function of social class. Orum comes to the conclusion that people in the lower SES participate less in voluntary associations and general elections than do those in the higher SES. In essence, his view does not differ from Olsen's since he purports that:

"...the higher the SES, the more likely a person was to belong to organizations". (p. 35)

Orum's study is primarily on two samples of White and Black communities in the United States, located in the inner city areas of Chicago and Detroit, respectively. He measures participation mainly by membership and activity in formal organizations (i.e. church, school groups, labour unions, and social, civic, and fraternal clubs) and voting behaviour.

Other students of social participation who support the general thesis on SES and social participation include Hodge and Treiman (1968:739), who in their study on social participation and social status come to a conclusion that family income exerts its
largest influence on organizational participation, and that education has a strong effect on all forms of participation. Hodge and Treiman utilize three major indicators to measure social participation, i.e. voluntary organizational memberships, church attendance, and informal association with friends. In analysis of levels of participation, the path analysis technique is used to derive estimates of the influence of parents' participation patterns upon those of their offspring. On this point they conclude that for both males and females there is a relatively high degree of intergenerational transmission of membership in voluntary organizations.

Another social participation theory that differs slightly from those discussed above is put forward by van Es and Whittenberger (1970), in their study on farm ownership, social and political participation in a rural community in Central Brazil. Their central argument is that social stratification in a community shapes the pattern of social participation in that community. Unlike studies reviewed above, stratification in their study is operationalized and measured by land ownership. Their argument is that it is generally recognized that ownership of land is the most important determinant of social stratification in rural communities of Latin America. The study finds that non-owners (of land) participate
less than owners in the various institutional spheres investigated, i.e. political participation, and polity; economy, and religion. They come to a conclusion that there is an outstanding positive relationship between social stratification and social participation.

Another study carried out in Kenya reports that SES is related to social participation (Dutto, 1975). Dutto's study which is mainly descriptive is perhaps one of the most comprehensive studies on participation in a Kenyan urban area - Nyeri town. This study covers numerous informal and formal areas of participation, which cover socio-economic, political religious, recreational and welfare groups. Informal aspects of participation include clan activities, meetings of elders, leisure participation and mass media exposure. Extent of individual participation is measured by memberships, attendance at meetings, financial contributions and committee memberships. Among Nyeri townsmen, the author reports, formal groups and associations are relatively unimportant as a means of social contacts. However, the active participants in formal groups are often the dynamic entrepreneurs, leaders, officers in these groups, and so on. At the other extreme those who are not
involved at all are the 'pathetic' and the poor, and these he argues are not isolated, as kin and friendship relationships continue to play an important role in providing for their recreational needs (p. 302). On SES and social participation, Dutto reports that education is not related by itself to social participation, and that occupation and income should be taken into account (p. 221). Another finding emerging from this study is that low status and unskilled occupations minimize participation (p. 222).

Studies on participation in rural areas of Kenya have mainly focussed on Harambee self-help, which seems to be the major force in the development of Kenyan rural areas. Harambee self-help in a Kenyan context simply means let us pull together, and this has been adopted as a national motto after independence. Studies on self-help show that it is born out of felt relative deprivation, where people's expectations for better welfare amenities and possibly free social services (for example education) with independence were not fulfilled as promised in pre-independence campaigns. In self-help projects the rural masses saw that they could develop their capacity to develop themselves, hence the search for solidarity in the movement. Extensive studies on "harambee" have been carried out all over the republic, the major of
which includes those of Mbithi (1972) conducted in Eastern and Central Kenya; Mbithi and Rasmusson's (1975) studies in Machakos and Nyeri; and Bolnick's (1974) comparative analysis on harambee.

Traditional work parties are seen as the origin of modern self-help groups, except among the pastoral tribes who are outside self-help movement as they did not have work parties traditionally. Self-help is seen as both economic and social investment for the rural masses. However, the major findings emerging from these studies is that the poor are most active in the self-help effort, and contribute most in cash, labour and materials. Leadership in the self-help movement is also reported dominated by farmers (male farmers) who either have no schooling or have primary education. Most committee members are farmers, followed by teachers and businessmen. The most popular projects that the poor are actively involved in are (in order of importance) education, dips, and water. The major area of participation of Kenyan rural masses therefore is to be found in self-help.

Other scholars have explained social participation in terms of racial and ethnic differences. In this respect, the Compensation Thesis has been
advocated (Olsen, 1970) in an attempt to explain more active participation of Blacks (in United States) than Whites controlling for SES. The basis of this thesis is that Blacks attempt to compensate for the racial discrimination they encounter in many areas of social life by forming relationships and organizations among themselves in which they can at least partially escape White racism. The "Ethnic Community Thesis" has also been given as an alternative explanation of Black participation in the States. This thesis suggests that members of ethnic minorities whether based on race, religion or nationality may become active in social and political affairs because of the social pressures exerted upon them within the ethnic community. As a consequence, so it is argued, their ethnic community serves as a salient reference for them.

A rather different theory on social participation is proposed by Smith (1963), a psychological model of individual participation in Formal Voluntary Organizations (FVO). His central argument is that general and specific attitudes towards FVO are important discriminators of FVO members from non-members while personality traits are more important discriminators of high - from low - participating members.
On specific forms of social participation, the church has been a major focus. Scholars have come up with some interesting conceptions. For example, Glock, et.al. (in Blaikie, 1972) in explaining church participation has presented the "Comfort Hypothesis", the basis of which is that church involvement is seen as a response to social deprivation. They further argue that the individual's location in some structure of inequality is seen to generate particular types of religious needs which in turn lead to characteristic styles of religiosity and non-church activity. A high level of church participation is found to be characteristic of high status individuals. An opposite conclusion reached is that a high level of participation in non-church organizations is very definitely a characteristic of high status individuals (Blaikie, 1972:41).

Age and sex have also been put forward to explain social participation. Studies in this direction have been carried out by Babchuk and Booth (1965:35) who report that individuals in the middle years (40 to 59) are more likely to be affiliated than those who are younger. Rate of affiliation, they argue, is even more affected by sex than age. Freedman and Axelrod (1952) have similar findings that participation increases gradually and drops when a person is in his fifties, with an even sharper drop occurring at sixty. (See
also Bell and Force, 1956; Scot, 1957).

Men have been found to be more active in organizational participation than women (Babchuk and Booth, 1969:36). Similar findings are reported by Almond and Verba (1963).

From the foregoing examination of the general body of participation theories, it is clear that:

1. There is a general consensus among major students of social participation that SES (or social stratification) is a major factor in determining the extent of social participation among individuals and/or groups within a social system.

2. The following variables can and do to an extent explain the degree of social participation among individuals and/or groups within a given community:

   (i) Socio-psychological - i.e. attitudes, racial and ethnic differences; social deprivation;

   (ii) Demographic - i.e. age and sex;

   (iii) Physical or ecological - i.e. length in
community residence.

Having discussed the key concepts in this study from previous theoretical explanations of participation, we now state the theory of our study. We wish to apply the major theory on participation which has been confirmed in the Western world, to a local situation. Our study is therefore guided by one central theory that:-

1. SES is the major determinant of social participation.

It is also the central thesis of this study that:-

2. SES determines degrees of either commitment or alienation of members of a social system.

Our study draws a lot from the above participation theories. The traditional SES indicators i.e. education, income and occupation are applied. But while our study is strongly based on the existing body of participation theory, there are certain variations:-
1. It is conducted in an African rural area, unlike most of the studies discussed above conducted in the West in urban settings.

2. It is multivariate - i.e. a diversity of variables are examined, for example, levels of living, attitudes, and others. And the relative contribution of each of the major SES indicators, i.e. education, income and occupation, on social participation are examined through multivariate analysis.

3. The present study is an attempt to confirm the definition of rural development as increased social participation.

RESEARCH HYPOTHESES

The major theory in this study has now been stated and discussed within the framework of the general body of participation theory. Hypotheses which guide the study will be stated, and the independent and dependent variables will be identified and defined operationally.

From our theories we have social participation as the dependent variable, and SES, level of living.
age, sex, and attitudes towards participation in community activities as the independent variables. Level of living will be introduced as a possible status measure beside the other SES indicators. The following will be used empirically as indicators of social participation:

i. Voluntary organizational membership;

ii. Frequency of attendance at meetings;

iii. Financial contribution (including labour and material contributions to self-help and community activities);

iv. Committee membership within the community;

v. Office held in local committees;

vi. Frequency of interaction in informal groups.

The following indicators which are defined operationally will be used to constitute the independent variables:

i. Income

ii. Education (and literacy)

iii. Occupation

iv. Level of living

v. Age

vi. Sex

vii. Attitudes
The following therefore are the major hypotheses of the study to verify its theories:

1. The higher the level of education the higher the degree of participation in voluntary organizations.

2. The higher the level of education the higher the degree of combined participation in political activity and in voluntary organizations.

3. High level of education is positively associated with high degree of informal participation.

4. The higher the income the higher the degree of participation in voluntary organizations.

5. The higher the income the higher the degree of combined participation in political activity and in voluntary organizations.

6. High income is positively associated with high degree of informal participation.

7. The higher the level of living the higher the degree of participation in voluntary organizations.

8. The higher the level of living the higher the degree of combined participation in political activity and in voluntary organizations.
9. High level of living is positively associated with a high degree of informal participation.

10. The higher the occupational ranking the higher the degree of participation in voluntary organizations.

11. The higher the occupational ranking the higher the degree of combined participation in political activity and in voluntary organizations.

12. High occupational rankings are positively associated with high degree of informal participation.

13. Men are more active participants than women in combined participation in political activity and in voluntary organizations.

14. The more favourable the attitude towards participation in community activities the higher the degree of combined participation in political activity and in voluntary organizations.
VARIABLE DEFINITIONS

INDEPENDENT VARIABLES

Income: In this study income will be taken to mean an annual family income generated from farm produce, non-farm activities (e.g. petty trade, business, arts and crafts), and from family members. As ILO (1972:80) points out it is not uncommon for a family to have multiple sources of income, and especially in rural areas. The term income is used in its widest sense to include all elements of real income cash and in kind.

"Income is conventionally regarded as a flow of returns from human and non-human assets alike, while wealth is a stock of non-human assets....and an increment of wealth is component of income. The distribution of income and wealth differ widely, depending (chiefly) on the importance of "human capital" as an income earning asset, and on the rate of return obtained as income in different societies". (Hunt, 1975:11)

Income is one of the major stratifying factors in any society, and studies on income distribution on global basis, within a country, between regions, and specific groups are numerous. For example, in a recent study by ILO, (1972:76) the rural masses in Kenya (90% of the population fall under the lowest income groups with less than £ 120 p.a. (minimum wage for working poor) and subsequently regarded as living in absolute poverty. And this group also falls within
absolute poverty. And this group also falls within the lowest 40% of Kenya's population whose share of GNP is only 10%. (Chenery, et.al. 1974:4). However, the incomes of smallholders may be under-estimated because of the subsistence component, and subject to very considerable annual fluctuations. For example, their incomes represent not just their individual earnings but the return on the labour of all their family plus the return on the land and livestock. They are able to supplement incomes by growing food on their small individual "shambas".

Education: This will be taken as the total number of years of formal education, and the level or standard of education attained. Education has been given very broad and numerous definitions. Adopting a functional concept of education that equates education with learning, Coombs and Ahmed (1974:8) state that:

"education is obviously a continuing process, spanning the years from earliest infancy through adulthood and necessary involving a great variety of methods and sources".

Nyerere (1975:4) defines the purpose of education as:

"to transmit from one generation to the next the accumulated wisdom and knowledge of the society and to prepare the young people for their future membership of the society and their active participation in its maintenance or development".
He goes on to argue that formal education in a school or adult classes system is no substitute for the informal education provided by life experience.

Education (i.e. formal) is a major stratifying factor in society, and especially in the third world. As Illich (1968, 1970) has argued,

"though universal schooling is beyond the means of developing countries, education is still recognized as the only legitimate avenue to participation in society. The schools are destined to continue to provide privileges for the few at the expense of the many, producing a caste system by dividing society into two distinct classes: one with educational credentials, the other without."

This contention would adequately apply to Kenya, where only 50% of the young generation are provided with primary education (ILO:1972:238), and only 30% of the total population are literate (as at 1968, World Bank, 1974:18-19).

Numerous economic studies also show that education is a major determinant of income growth and differentiation for both individuals and nations. Studies in Latin America show that as education evolved from being a function of the church, to a function of national governments, it continued to serve two basic functions: to prepare elites for high status and leadership positions and to incorporate non-elites into the lower strata of the
social system. Education has been seen as a means of occupation (Durojaiye, 1973) and higher incomes as remarked by Blaugh (1972:434) that:

"people with more education earn more on average the world over even when family background factors are held constant".

Educational inequalities have also been highlighted in various countries in the third world, and quite evident in Kenya too, where, they exist between rural and urban, between regions, and within groups (see ILO, 1972).

Literacy: Literacy will be taken as the ability to read and write. Kenya's literacy rate as at 1968 was 30% (World Bank, 1974:17-18), which fits with the general pattern of the majority of peasants in less developed countries (70-80%) who are functionally illiterate (Rogers, 1962:68). Rogers defines literacy as "the degree to which an individual possesses mastery over symbols in their written form". The concept was measured in Colombia with a functional literacy test, where each respondent was asked to read a sentence. Literacy enables a villager to gain direct exposure to the printed media. For Lerner (1963:341)
"Literacy is indeed the basic skill that underlies the whole modernizing sequence", he continues:

"the very act of achieving distance and control over a formal language gives people access to the world of vicarious experience".

**Occupation:** This will be taken as any form of economic activity from which an income is derived to meet everyday expenses of life, particularly the basics. The majority of Kenya's population (90%) live in rural areas and earn their livelihood predominantly from agriculture. However, there are various non-farm occupations in which the rural population engages. These include government posts, e.g. teachers; agricultural, administrative, health, and community development extension officers, and others. Businesses, petty-trades and others also cover some of the non-farm activities in the rural areas. What we should note here is that occupations are ranked, and consequently stratify members of a society according to the type of occupation one engages in. However, there has been minimal attempt to classify occupations in the developing countries of Africa, Asia, etc., whereas in the developed countries a number of studies have been done on occupational groups, and occupational rating, and a number of occupational scales have been
developed (see for example Alba M. Edwards, Socio-Economic Grouping of Occupations; Hatt-North, Occupational Prestige; Warner Meeker, and Ells's Occupational Rating Scale: (Miller, 1964:97).

However, some studies conducted in Africa show that occupations are ranked in society. For example Morgan (1969) carried out an investigation on occupational prestige in which traditional roles in the African culture were included. His Nigerian University students ranked herbalist and diviners low and ranked paramount chiefs high though not as high as doctors and engineers. One study in Northern Nigeria that included farming among sixteen occupations to be ranked farm owners were fourth from the last (Amer, 1968:411). Durojaiye's (1973:418) study on occupational prestige ratings among "A" and "O" level and commercial school students shows that professional jobs i.e. doctor, dentist, engineer, lawyer, accountant (in that order) were mentioned by most children as having the highest prestige from the point of view of their friends, their relations and themselves. Big traders and big farm owners were ranked next to professions, etc. and lastly next to the bottom were farmers in general, although jobs with the lowest social standing included domestic workers, public sanitary workers and labourers.
Level of Living: Household level of living will be indicated by possession of certain household items that are assumed either commonly owned or luxurious in any household, e.g. tables, radios, cutlery, clocks/watches, sofa sets, etc. A Guttman Scale, to be discussed later, will stratify the households into categories between high and low levels of living. A subsidiary measure of level of living will be indicated by housetype and facilities. The type of house, it is common observation especially in rural areas, does give a clue to level of living. The focus on housetype will be type of wall (i.e. either stone/brick); roof (iron, thatch, etc.); floor (cement, earth); windows (glass, wood, etc.). Facilities will be taken to mean: sanitation (i.e. pit latrine or none); type of cooking place (i.e. gas, jiko, stones, etc.); lighting (i.e. paraffin lamp, tin lamp, etc.); and fencing (i.e. bush, wire, etc.).

Considerable ambiguity has developed in the term level of living. Some terms for the same phenomenon are SES, plane of living, social class, and standard of living. On definition of the concept, Hagood and Ducoff (1944:78) see level of living as the current consumption of goods and services related to basic household functions. Belcher, (1972:211;
1973:188) argues that possession of an item should be related to the consumption patterns if it is to measure level of living. He attempted a cross-cultural level of living scale consisting of fourteen items which include: construction of exterior wall; construction of roof, storage of water etc. which he tested in rural Puerto Rico.

Rogers (1962:379) defines the level of living of an individual or family as "the degree to which the basic needs of nutrition, clothing, housing and health are met". According to Rogers, level of living is indicated by the possession of status-conferring material objects, e.g. his level of living scale to measure the concept included items like: brick house, glass windows, and certain items of household equipment. He however, argues that the people of most nations have standards of living that are higher than their levels of living, and goes on to define standard of living as "the desired degree to which a person's basic needs are met, whereas the level of living represents the actualities that exist".

Age: This will be taken to mean the number of years lived since birth.
Attitudes Towards Social Participation: Attitudes will be defined in categories i.e. favourable, unfavourable, or average. Statements used will tap on individuals attitude towards solidarity and taking an active part in community projects e.g. Harambee self-help activities; an individual's feeling about church attendance and political behaviour e.g. voting, etc.

Definitions given on attitudes are numerous. For Rokeach (1968:450) an attitude is "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" (see also Krech et.al. 1962). Asch, (1952) says that attitudes are particularly enduring sets formed by past experience. As Allport (1950)suggests, all writers have agreed that attitudes are acquired through the principles of learning. However an attitude is not a basic irreducible element within the personality but represents a cluster or syndrome of two or more interrelated elements, i.e. beliefs (or cognitions, or expectancies, or hypotheses). All beliefs are predispositions to action, an attitude is thus a set of interrelated predispositions to action organized around an object or situation. As Krech, et.al. (1962:139) points out, the object or
an attitude may be anything that exists for the individual. Thus an individual has a vast array of attitudes toward objects in the physical and social world in which he lives, he has attitudes towards other people and groups of people, towards social organizations, and towards political and economic events, and lastly he has many attitudes towards himself.

DEPENDENT VARIABLES

Voluntary Organizational Membership: Throughout the study membership will refer to voluntary formal groups or organizations, membership means "the condition of being part of or belonging to formal groups and associations" (Dutto, 1975). This definition is acceptable in this study. The study will mainly cover membership in cooperative societies, especially that of dairy and coffee, Harambee self-help groups; church; women's groups, etc.

According to Rogers & Burge, (1972:107) most voluntary organizations or groups normally have a name or title, selected and titled officers, a written purpose, constitution, by-laws or charter, a regular common meeting time and place, and have government recognition. Definition of the term "voluntary association or organization" as it applies
in 'modern' societies differ widely, but generally contain three key elements. A voluntary association is an organized group of persons:

1. that is formed in order to further some common interest of its members;

2. in which membership is voluntary in the sense that it is neither mandatory nor acquired through birth; and

3. that exists independent of the state.

Many voluntary associations are subject to state control to the extent that they must be registered, and agencies of the state often create or sponsor voluntary associations in order to achieve their own end (for example 4 K-Clubs, some cooperatives, etc.).

The appearances of associations seems to be linked with new forms of economic activity (e.g. dairy and coffee cooperative societies. In many African countries, governments attach great importance to cooperatives as a means of bringing the population into market economy and of improving their economic and social situation through self-help. According to cooperative theory (Apthorpe, 1972:154) for example, the best means to improve the rural livelihood of
peasant farmer is by more social participation. But farmers have differential access, and especially to the more economic groups, like the cooperatives, as McGranaham (in UNRISD 1975:4) points out that in some places the majority of the poor inhabitants have in effect been excluded from membership in the cooperative. They have not had the resources to join or the relevant property basis, or the services provided have not met their particular needs. He goes on to say that it is the better off rural inhabitants who mainly take advantage of the cooperative services and facilities. Hence access to voluntary organizational membership may infer some form of stratification among rural population according to their 'means'.

Committee Membership: In addition to being a member of an organization, committee membership will mean belonging or taking part in such a body meant for decision making, e.g. membership in school, church, cooperative and locational committees.

Office-held: This will be position of leadership, i.e. chairman, secretary, treasurer, etc. within the committees.
Frequency of Attendance at Meetings: This will refer to number of times per month or per year an individual attends meetings of the organizations of which he is a member.

Financial Contribution: This will include cash, labour and material contributions to organizations in which an individual is a member, and to other community self-help projects like schools, dips, etc.

Political Participation: In this study political participation will be treated as an aspect of social participation. The main focus here will be on voting behaviour, taking part in political rallies or meetings, campaigning, and taking part in local and national political discussions. Olsen's (1970) study on social and political participation of Blacks covered a wider realm of political behaviour than dealt with in this study, i.e., doing volunteer work for a political party or candidate, and serving on a committee or holding office in a political party, wearing a campaign button, etc. Other scholars are only concerned with an aspect of political behaviour, for example, (Orum, 1966) is mainly interested in voting behaviour.
Frequency of Interaction in Informal Groups: This will cover number of times per month/year an individual takes part in social interaction in informal groups. By informal groups is usually meant groups based on kinship, neighbourhood, friendship ties and mutual benefits. Families, friends, neighbours, relatives, work associates, etc. may constitute informal groups (Rogers and Burge, pp. 106). Rural sociologists have found informal groups to be a very important influence in convincing farmers to adopt new agricultural ideas. Rogers and Burge argue that media such as farm magazines, radio, etc. are important in creating farmer knowledge about the new ideas, but interpersonal communication with the farmers, neighbours and friends is most important in persuading farmers to actually adopt the information. But the kind of informal social interaction focussed in this study will be more meaningful participation i.e. mainly participation in group extension methods, e.g. chiefs barazas, agricultural field day; national day gatherings, e.g. Uhuru and Madaraka day celebrations etc.

Another aspect treated under informal social participation is mass media exposure, which will be mainly listening to radio and reading newspapers and magazines, etc. Mass media exposure or mass
Communication channels include newspapers, magazines, films, radio, television, all of which enable a source of one or several individuals to transfer messages to an audience of many (Rogers, 1962:52).

Another variable very rarely included in studies on social participation is that of Cosmopoliteness, which the study will treat under informal participation in compiling into an informal participation index. Olsen (1970) in his social and political participation, included cosmopoliteness as one of the fifteen variables in his study. Adapting Rogers, (1962:52, 53, 147) definition of the concept, cosmopoliteness will be looked at as "the degree to which an individual is oriented outside his social system". The main indicator of cosmopoliteness in the present investigation is the number of trips made by villagers within a month/year to urban centres, mainly to Machakos, Nairobi and others. Often peasants have been regarded as 'localities' or 'rooted' individuals', i.e. those who confine their interests to their immediate environment, with little interests in the world beyond, whereas cosmopolites consider themselves an integral part of the larger society.
CHAPTER TWO

STUDY DESIGN

Discussion in this chapter will cover the research process in the study, i.e. discussion on area of research, sampling, and data collection, in the area:

1. Area of Research
   a. Geographical location
   b. Physical features
   c. Agricultural and economic activities

2. Sampling
   a. Sampling considerations
   b. Stratified random sampling
   c. Purposive sampling

3. Data Collection
   a. The interview
   b. Simple observation
   c. Key-informant

AREA OF RESEARCH

The study is carried out in Mbooni Location in the Eastern Division of Machakos District in Eastern Province, Kenya. Machakos district lies south-east of Nairobi, situated on the eastern plateau foreland which is mainly peneplain, and lies
about 400 metres to 1,000 metres above sea-level. However, there are some isolated ranges and hills rising well above 2,000 metres, and these include Iveti-Mitaboni, Kangundo-Matungulu (the Kanzalu Range), Mbooni and Kilungu.

Rainfall, more than soil is a major determinant of the agricultural potential in the district. Rainfall in the district ranges from 10-50 inches (254 mm-1270 mm). Depending on rainfall, vegetation, soils, topography and so on, the area can be divided agriculturally into low, medium, and high potential regions. On average the lowlands (lower-zone) receive 15 in. (245mm-508mm) of rainfall; the Middle zone 25 in. (508mm-672mm) and the Highlands (Upper zone) 40 in. (672mm-1270mm) of rainfall. (See E.A. Rainfall Map, SK53D:1972).

Vegetation varies according to the zones. The Upper zone, is mainly covered with combretaceous savana, and is an area of denser cultivation, and mostly evergreen. The middle and lower zones are characterized by acacia savana and grassland. And the driest areas of the district are mainly covered with bush and thicket. (See E.A. Vegetation Map SK53E:1972).
Soils in the district also vary according to the zones, with fertile loamy soils mainly in the Upper zone; red loamy, alluvial and sandy soils in the Middle zone and mainly mixed clay and sandy soils in the Lower zone.

Agricultural activities differ according to the zones. The Upper zone, mainly in the hills is a high potential land and is primarily used for cash cropping, e.g. dairy and wattle farming. The Middle zone is mainly characterized by cash crops like coffee and the Lower zone, cotton is the main cash crop. In the very dry lowlands, the land can mainly be used for grazing. However, in all the zones, subsistence farming is evident, except in middle and lower zones where it is predominant.

Administratively, Machakos is divided into six divisions, which are in turn divided into locations. The chief is the head of a location, the lowest administrative unit in Kenya. These divisions include: Central, Northern, South, Eastern, Western and Yatta. The total population in the district as at 1969 census (p. 29) is 707,214 with an average density of 50 inhabitants per kilometre, while total population in the Eastern Division of the district stood at 103,995 with an
average density of 93 inhabitants per kilometre.

**Mbooni Location**

Mbooni is one of the five locations comprising the Eastern Division of Machakos District. The other four locations include Kisau, Kiteta, Kibauni, and Muthetheni. Mbooni location is unique, in that it is fairly representative of the three major ecological zones in which Machakos District can be divided into i.e. Upper, Middle and Lower zones. Like the rest of the district, Mbooni lies approximately between 400 metres and rises at 2,000 metres at the hill top (Kikima) (see an illustrative diagramatical sketch below).
Lower Zone

The lower or star-grass zone lies all round the foot of the hill. This area receives an average of 15 inches of rainfall, and has low agricultural potential. Vegetation cover is mainly star grass, thicket and bush. Soil erosion is a major problem in the area mainly due to overstocking, and the shallow and easily water-lodged soil. The major cash crop here is cotton. The area is quite good for grazing, fruit and grain/cereal growing. Fruits grown include mangoes and pawpaw among others with maize, beans and pigeon peas, as the major grain crops.

Springline or Rocky Zone

This is a typical mountain zone, very steep with plenty of streams emanating from here and often appearing at the lowlands. This zone runs around the hill and it is the demarcating line between the lower and middle zones.

Middle Zone

The middle zone or Kikuyu grass zone is mainly a coffee zone. Annual rainfall averages 25 inches (508 mm. - 672 mm.). There are minor irrigation schemes, and most horticultural crops - fruits and vegetables are grown here. These include tomatoes, cabbages and bananas. Food
crops such as maize, beans, sweet potatoes, arrow roots, and sugar-cane. Wattle-bark and dairy farming are other forms of activities in the area.

**Upper Zone**

This is also referred to as high-bracken zone. This covers the area around the apex of the hill, with highest attitude (as discussed above) and with an annual rainfall average of 40 inches, and thick evergreen vegetative cover. This is the major dairy and livestock farming area, with exotic breeds (such as geysers) kept. Wattle bark, fruits and vegetables, i.e. tomatoes, cabbage, passion fruit, Irish potatoes, maize and beans are major crops in the area. It has been noted in a previous survey in the area that this zone is the most productive, and progressive and has higher incomes than the rest. (Mbooni Integrated Rural Education Project: 1974/5: 7).

Generally, vegetables, maize and beans are the greatest source of income in all areas. Coffee is an important source of income in Nzaini, Utangwa and Nzeveni. Tomatoes and cabbages are common in all areas.
In all areas, except Nzaini, grazing takes up most of the land; followed by food crops; and a small proportion under cash crop, except Nzeveni which has the largest proportion of land under cash crops. Overall self-help and casual labour seem to be the most widely utilized sources of labour.

Non-farm activities are numerous in all areas and these include small businesses, charcoal burning, carpentry, brick-making, sand-heaping, beer-brewing, arts and crafts, pottery and various kinds of petty trades.

Self-help (Harambee) activities, locally referred to as 'myethya' are mushrooming in the area, and vary in extent and composition, i.e. some are small groups usually based on kin, friendship or neighbourhoods while others are quite extensive. However, schools, dips, churches etc. are the major focius of harambee effort. The dairy and coffee co-operative societies are the only major economic bodies in the area. Mbooni location covers an area of 227 square kilometres.

Administratively, Mbooni is divided into fourteen sub-locations each of which is headed
by a sub-chief. These sub-locations include Kalawani, Mavindu, Mbanya, Yandue, Uthiuni, Mutitu, Kyuu, Utangwa, Kitundu, Ngai, Uvuu, Nzeveni, Iani, and Itetani. Total population in the location as at 1969 Census (p. 29) was 42,952 with a male population of 20,015 and 22,937 females. This gives a sex-ratio of about 115. Average population density in the location is 155 inhabitants per kilometre (note the Machakos average density of 50, and 93 of Eastern Province above). However some sub-locations are almost double this average, e.g. Nzeveni with 250. Population density clusters vary according to the physical or ecological zones, where a dense population is observed around the hill, and decreases in the lower zone. Below are the sub-locations according to the zones: (see map in the appendices).

<table>
<thead>
<tr>
<th>Lower Zone</th>
<th>Middle Zone</th>
<th>Upper Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalawani</td>
<td>Utangwa</td>
<td>Kitundu</td>
</tr>
<tr>
<td>Mavindu</td>
<td>Nzeveni</td>
<td>Mutitu</td>
</tr>
<tr>
<td>Mbanya</td>
<td>Kyuu</td>
<td>Uvuu</td>
</tr>
<tr>
<td>Ngai</td>
<td>Uthiuni</td>
<td></td>
</tr>
<tr>
<td>Iani</td>
<td>Yandue</td>
<td></td>
</tr>
<tr>
<td>Itetani</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The area suffers from lack of proper communication mainly due to the absence of all weather roads. Accessibility to the hill is very
poor, due to the mountaineous nature of the area. It is served by one major dust road which connects it to Machakos. Around the hill itself accessibility by road is almost nil.

The area is served mainly by Kikima Market situated at the apex of the hill, where a variety of economic activities are concentrated. The Divisional Headquarters, and the Divisional Health Centre, are also situated here. A small Post Office serves the area. Churches are numerous in the area and include a Catholic Church and Protestant Churches, i.e. African Inland Church, Seventh Day Adventist, African Brotherhood Church, Good News Church, and Gospel Furthering Fellowship.

**SAMPLING**

Certain sampling considerations were taken into account in application of the method in this study. The assumption in studying samples is that the characteristics of the sample will adequately reflect the characteristics of the aggregate, or statistical population from which it has been drawn. Statistical sampling theory seeks to determine how accurate a description of the population the sample and its properties will provide. Hence the major objective of sampling
is to make statistical inference of the parameter or universe. Other considerations behind sampling include the unmanageability of studying total population, resources and time factors.

There are some basic requirements that should be fulfilled in sampling procedure, and which this study took into account:

1. Representativeness and adequacy of a sample
2. Clear definition of:
   (a) the target universe to be sampled
   (b) the sampling unit, and
   (c) the sampling procedure, e.g. if random sampling is used, a sampling frame must be prepared.

Before any kind of sampling was decided upon it was quite essential to physically study the entire location. This required going around the entire area and through observation have a quick study of the physical features, agricultural and commercial activities, and so on. It was then decided that stratified random sampling was the most adequate sampling procedure to be employed in this study. Stratification of the universe under study was mainly based on a simple criterion, i.e. on the physical or ecological features in
the area, which in turn also showed that agricultural activities also differed according to the zones. Hence the other types of random sampling, (e.g. cluster) it was felt, would not be appropriate in this investigation. Below is the justification behind the necessity to stratify the area of study.

The author, it should be pointed out is quite conversant with the area, and after living in an area even a layman's observations do highlight certain features or factors which may differentiate peoples or areas they live in. This was the case in Mbooni. Mbooni location is not homogeneous with respect to the physical or ecological set-up. The relief (i.e. altitude, rain, vegetation, soil, etc.); agricultural activities, (as discussed earlier) do differ markedly from the lowlands (i.e. Kalawani) to the highlands (i.e. Kitundu/Mutitu). Social participation patterns, it is likely, may also differ according to the zones, for example, participation in coffee and dairy cooperatives would only be applicable to households within middle and upper zones respectively, but not for lower zone where neither coffee is grown, nor dairy cattle kept. Variation of incomes in the
respective zones, is also a factor in stratifying the area.

The area, as pointed out earlier, is comprised of 14 sub-locations which we identified and accordingly located in the various zones (i.e. upper, middle, and lower). The lower zone comprises 6 sub-locations, the middle zone 5 sub-locations, and the upper zone 3 sub-locations (as shown earlier). The task was to choose sub-locations representative of each zone. Here we simply chose the areas, which showed marked differences according to the zones (note that the zones naturally overlap). Hence it was deemed appropriate to choose from each zone part of or an entire sub-location which manifested typicality of a particular zone according to the above criterion. Choosing of the representative sub-locations according to the zones was not random, as mentioned above due to the overlapping nature of the zones, and again by the very fact that we had a very few number of sub-locations to apply random sampling (i.e. 6 units in the lower zone, 5 units in the middle zone, and only 3 units in the upper zone). Bearing this in mind, the following sub-location or part of sub-locations were chosen as fairly representative of the respective zones (or strata):-
(i) In the lower zone three sub-locations were to represent this stratum, i.e. Kalawani, Mavindu, and Mbanya (note from now on, the lower zone for ease of reference will be referred to as Kalawani).

(ii) The middle zone was represented by 4 sub-locations, i.e. Kyuu, Utangw'a Nzeveni, and Uthiuni (note that Uthiuni sub-location will be referred to as Nzaini in this study for convenience).

(iii) As the upper zone represents the smallest geographical area in the location, it was decided that the entire Mutitu and Kitundu sub-locations, and part of Uvuu sub-location which falls in this zone be studied. As has been evidenced in another study in the area, this zone is very important, and has marked differences from the other zones. Hence studying say only one sub-location was considered insufficient, as there was also some variation between the sub-locations in this zone which had to be accommodated.
The target universe in this study are the farm households in Mbooni location, the territory we intend our generalizations to cover.

The rural household is the focus of the study and therefore was the unit of observation, where the households rather than individual persons were the sampling units. The sample was only comprised of working population (over 18 years) of household heads. However, our specific (or working) universe were the sub-locations which were chosen as representative of the zones under study. As one of the requirements of sampling is a complete sampling frame of the respective strata under study, this became an obvious commitment. There were no lists of the farm households in the entire location. This called for immediate arrangements to list all the households in the respective strata under study With the help of local administrative officers, i.e. the sub-chiefs, the household lists were compiled. The following are the sampling frames:

the Upper zone - i.e. Mutitu and Kitundu - 527 households;
the Middle zone - i.e. Kyuu and Nzeveni - 285, and Nzaini 110; and
the Lower zone - or Kalawani 216.
Total sample size, it was decided should not be less than 250. The basis of this decision rested on considerations of resources, i.e. money and manpower, time, the nature of the area under study, and with the research problem in consideration. Stratified random sampling was the basic technique applied in sample selection in the area. Stratified random sampling may be either proportional (i.e. when same sampling fraction is used throughout all population), or disproportional (i.e. the within strata sampling fraction vary from stratum to stratum). In order, therefore, to obtain maximum efficiency in stratification we assigned a greater representation to a stratum with a large dispersion and a smaller representation to one with a smaller variation. That is, sample size drawn from each stratum was fairly in proportion to the contribution which that stratum makes to total universe. Hence disproportionate samples were taken through probability or random sampling procedure in the various strata. Randomness is a property of the sampling plan, and random sampling indicates that the chance of any one member of the parent population being included in the sample should be the same as for any other population member. This ensures representativeness of the sample to the universe under study. To give equiprobability of selection to every
unit in that universe, systematic or interval random sampling procedure was used in sample selection in each stratum. The sampling fraction which gives the probability of including each sample unit in the sample was used. The major advantage of using systematic sampling is that it is more representative of the population under study. The following, therefore, were samples obtained in each stratum:

Upper zone - i.e. Mutitu and Kitundu 57;
Middle zone - i.e. Utangwa 51, Kyuu and Nzeveni 51, and Nzaini 57; and
Lower zone - Kalawani 51.
This gives a total sample size of 267.

As is evident above, a larger sample size was taken to represent the middle zone, this is fairly in proportion to the contributions which this zone makes to the total area under study. The middle zone does not only predominate the area under study, but it is also affected by the overlaps in both the upper and lower zones. The Upper and Lower zones are more or less given equal representation due to the fact that they do not only cover a lesser portion in the area, but are also quite distinct zones in the area.
As the main focus of the study is the socio-economic status of the families, it was deemed necessary to purposively include in each stratum certain households who were seen as richest, and poorest by people in that area. The judgement on who was rich or poor, was reached after consultation with the sub-chiefs and a few elders in each area. However, the basic criteria on who was rich was mainly based on material possessions, e.g. owning a motor-car, business, large farm, a 'modern' house, etc. as depicting certain traits of the rural bourgeoisie. The opposite applied to the poor, i.e. touched mainly on households in the lists for those on relief of distress, with poor house structures, and less material possessions, and so on.

Hence a purposive or judgement sample was undertaken in the various strata just to ensure that the extreme cases in the SES were included in the sample. Purposive sampling is a non-random procedure. This technique is based on judgement on whom the researcher should include in his list of respondents, on the basis of certain characteristics believed to be typical of the population under study. Obviously a representative sample is normally taken on the premise that it would evidence the various traits characteristic of the
parent population. But inclusion of a purposive sample, it was felt, would confirm such inclusion of the border cases. Another impetus the study had in applying a purposive sample, was given by results in a community survey conducted in the area (Mbooni Integrated Rural Education Project, 1974/75:17, 30, 37) which had utilised the same households (i.e. rich and poor) in a purposive sample, in addition to a random sample in the various strata. The comparative results with regard to certain traits, e.g. incomes showed marked differences. This study wishes to explore this further.

The purposive total sample size was 30, with a total of 15 rich and 15 poor households. In each zone therefore 5 rich and 5 poor households were taken. Note, these purposive cases were set aside before systematic random sampling was applied to the rest of the sampling lists in each zone. These were then added in the sample sizes in the respective zones.

Certain problems were faced with regard to sampling in the area:
Identification of the ecological zones necessitated studying the entire location physically, i.e. through observation and locating the strata clearly according to the stratification criterion.

Due to the mountaineous nature of the area, accessibility to the various strata was not only time consuming but strenous.

Lack of sampling frames meant spending some time in complete physical enlisting of all household units in each stratum.

**DATA COLLECTION**

Field work was carried out in the period between October 1975 and January 1976. General observation visits were carried out during the planning stages of the survey. Pre-testing of the questionnaire was done in the area of study, this necessitated modifications, and change of some questions. The first few days in the field were spent in studying the area through simple observation. This meant surveying the entire location, and especially to clearly locate the ecological zones for stratification purposes (this is discussed earlier under area of study, and sampling). Training of research assistants who were community
based was also carried out. Topics covered in training included: (a) a detailed look through the entire questionnaire; (b) rapport creation; (c) probing, and recording answers. Setting the zonal boundaries was also done as part of their training.

The interview has added advantages - i.e. high response rate, probing, follow-up, and tapping of observational data. The interview schedule is the major data gathering tool in this study. It is also the most appropriate in this area of study, as the target population has very low literacy rates, which rules out the utility of the questionnaire. This approach does not only fit the nature of the study, but it is also economical in that it affords saving time and resources. Other data collection methods, e.g. case studies, pure participant observation, would not be adequate in this study, mainly due to the nature of the problem which is bent on probing on an empirical situation at a given point in time. However, the survey method is supplemented by simple observation data and by use of resourceful persons, or key-informants on certain topics, as discussed below.

Simple observation technique was utilized in this study especially in the early stages in designing
the sampling approach. Studying the entire area by simple observation, of physical features such as relief, and attitude; agricultural activities, and especially according to the zones, called for this technique. This technique was again used to complete data in the interview schedule, especially by simple observations of for instance house structures where it would appear odd to ask a respondent about roof or wall type of his house.

Key-informant data collection technique, was employed to a limited extent, especially for social participation patterns, and farmers accessibility to organisations, such as the cooperative societies.

The unit of study as pointed out earlier is the farm household. Hence the head of the household (the husband, or the wife in absence of the husband) were the respondents. The author was the key interviewer assisted by research assistants.

Question content in the interview schedule was varied. However, most of the questions were close-ended or pre-coded for easier handling of data in the field and in analysis. Close-ended questions have also a high comparability of answers. Some closed-ended questions were supplemented by an open-ended phrase, e.g. "other" for more information on a particular
topic. Simple observation questionns were also utilized for example the question on house facilities, e.g. fencing; and some household possessions for mere observation, e.g. tables, chairs, etc. Lastly attitude questions on a 5-point scale (i.e. strongly agree; agree; uncertain; disagree; and strongly disagree) were utilized. Editing of the questionnaire was carried out as soon as possible and missing data, and especially on the major variables, was collected. Response rate as shown below was quite satisfactory:-

Kyuu and Nzeveni - 49; Kitundu and Mutitu - 49; Utangwa - 51; Nzaini - 52; Kalawani - 51; Total Response rate - 252 (Note: out of a total sample size of 267).

Certain special problems were experienced in the field: -

(1) Due to the nature of the area of study (discussed earlier) travelling meant tracking long distances on foot, a difficult terrain to cover. Transport within the area is almost nil.
(2) Availability of respondents. Sometimes it necessitated a number of visits to get a respondent at home. The study was also carried out during a very busy period for the farmers, i.e. the short rains had started. Availability of respondents on market days (i.e. on Mondays and Thursdays) was very poor.

(3) Rain was another extraneous factor and especially in December.
CHAPTER THREE

FINDINGS AND ANALYSIS

In this chapter presentation of findings and measures utilized in the study are discussed. Central in this discussion is our findings with regard to the major variables of the study, i.e., education, occupation, income, level of living, age, sex, and attitudes and how these relate to the various aspects of participation that we have studied. Areas of participation that we present include:

1. Voluntary organisational participation - membership; attendance; contribution; committee membership; and holding offices.

2. Informal aspects of participation, for example group extension forms like attendance to "barazas", mass media exposure and others.

3. Political participation, for example, voting. Measures are discussed within the overall presentation in the relevant contexts. Hypotheses of the study are tested after data presentation under the specific variables. Preceding findings we briefly discuss.
participation scales that we feel will illuminate, especially our discussion of correlational analysis.

Measures and Correlations

In our analysis of social participation we have adopted Chapin's, (1955:275-78) Social Participation Scale, to measure individual degree of participation in voluntary organizations. The other aspects of participation, i.e. in political activity and in informal aspects of participation are measured by carefully constructed scales, i.e. Political Participation Scale and an Informal Participation Scale (to be discussed below). In order to tap individual degree of participation in both voluntary organizations and in political activity, we have constructed a Combined Participation Index, covering the two aspects of participation.

(a) Social Participation Scale: This is a general scale of participation in formal voluntary organizations of all kinds, professional, civic, social, and so on. It is used when the total participation pattern is an important variable. For example, Chapin applied the scale to measure degree of a person's or family's participation in community groups and institutions. The scale has
five major components, which measure different dimensions, i.e. intensity and extensity or simply degree of participation, these are:-

1. Member
2. Attendance
3. Financial contributions
4. Member of committees
5. Offices held

We have computed this scale to analyse participation in formal voluntary groups, e.g. in Coffee co-operative, Harambee Self-help groups, and others. Scoring procedure is as follows:-

<table>
<thead>
<tr>
<th>Item</th>
<th>Score (Points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each membership in an organization</td>
<td>1</td>
</tr>
<tr>
<td>Each attendance at organization meetings</td>
<td>2</td>
</tr>
<tr>
<td>Each contribution to an organization</td>
<td>3</td>
</tr>
<tr>
<td>Each committee membership</td>
<td>4</td>
</tr>
<tr>
<td>Each office held</td>
<td>5</td>
</tr>
</tbody>
</table>

The individual total score is computed by summing up his scores on the above items in each of the organizations he belongs. Respondents are then categorized into three groups, i.e. high, average, and low participants. These categories are arrived at by
computing total mean \((X)\) or average score for all respondents, and standard deviation \((SD)\) a measure of dispersion is applied to standardize the categories. The measurement of \(SD\) from the mean establishes positions between and beyond which known proportions of the total frequency lie. In our analysis, individuals who lie within 1 SD either side of the mean belong to one category—average participants, and those who lie beyond 1 SD above the mean belong to the high participant category, and lastly those beyond 1 SD below the mean are the low participants. This standardization of participant categories has been applied in the same way in categorizing respondents into high, medium, and low participants in the various aspects of participation discussed below. The \(X\) and \(SD\) measures are also been used in measuring respondent's attitudes (discussed later). Scores on participation in voluntary organizations range from 0 to 54, with a \(X\) score of 13.7, and a \(SD\) of 6.9. Hence the participant categories are placed within the following scores: Low = 0-6, Average = 7-20, and High = \(\geq\) 20.

(b) Political Participation Scale: The Political Participation Scale consists of behavioural items, which are concerned with the more usual types of political activity, such as voting, attending political rallies, campaigning for a given candidate
political communication, i.e. discussion of national and local politics. This has been taken as an overall measure of political participation, which in this study is treated as an aspect of social participation. These attributes are combined into a single index (i.e. the Political Participation Index) using arbitrarily assigned weights, according to their intensity, in order to measure their collective influence. The following are the assigned weights to each of the attributes:

(1) Frequency of discussion in: Very Often: Rarely: Never

a. Local Politics 3 2 1 0
b. National Politics 3 2 1 0

(2) Frequency of attendance to political meetings/rallies:

High: Average: Low

4 2 0

(3) Voting:

a. National elections 1
b. By-elections 1

(4) Campaigning 5

Summing these weights for each respondent yields a composite score theoretically ranging from 0-17. Total X score of 7.9, and a SD of 4.7 were computed. On the basis of their scores, individuals were categorized into low (0), average (1-3), and high (> 3)
participants.

(c) **Combined Social Participation Index:** This index is essentially a combination of political participation index and social participation index (i.e. participation in formal voluntary organizations). To reach a combined social participation score, individual total scores on both indices are summated. A total X score for the entire sample is computed, and by application of SD, the respondents are categorized into high, medium, and low participants. (Total X score = 21.5, SD = 14.7; Low = 0-6, Average = 7.36, and High = >36).

(d) **Informal Participation Scale:** The informal participation scale comprising the various aspects of informal participation, is constructed to determine individual degree of participation in the following areas, which are assigned arbitrary weights:

1. Group extension forms of participation, mere attendance of which is given 1 score, i.e. (a) Chief's (Sub-chief's) baraza
   (b) National Days (i.e. 'Uhuru', 'Madaraka', and Kenyatta Day)
   (c) Agricultural field day
   (d) Agricultural show
   (e) Family planning
   (f) Home economics
2. Mass Media Exposure:
   (a) Listening to radio - 1 score
   (b) Read Daily Nation or 'Taifa Leo' - 1 score
   (c) Read Mkulima - 1 score

3. Cosmopoliteness:
   (a) Visit to Machakos - 1 score
   (b) Visit to Nairobi - 1 score
   (c) Visit to other town - 1 score

Individuals are then categorized into high, average, and low participants, according to their individual total scores.

\[ \bar{X} \text{ score} = 4.9, \ SD = 2.8 \]

Low = 0-2, Average = 3-8, High = 9-3

We are now set to test hypotheses of the study, which relate the major variables of the study to the various aspects of social participation discussed above. In testing all these hypotheses we have utilized two measures, i.e. the Chi-square \((X^2)\) and the gamma \((\gamma)\). A \(X^2\) measure is used to assess statistical independence or inter-dependence between variables. In this study the \(X^2\) is used to indicate association between variables of the study, e.g. income levels and social participation. The \(X^2\) measure is limited to establishing relationships between two variables only, by establishing the
difference between the calculated and the observed $X^2$, expressed

$$\leq \frac{(O - E)^2}{E} \quad \text{where} \quad O = \text{observed} \quad E = \text{expected}$$

A $X^2$ to be significant should be at most .10 level, and normally at .05. But we wish to test most of our hypotheses at .01 level of significance.

The gamma measure on the other hand goes beyond the $X^2$ in that it tells us the strength of association between variables. The sign of the gamma indicates the direction of the relationship and the size of the gamma is some indication of the strength of the relationship. The gamma measure normally varies from -1 to +1 (i.e. from perfect inverse correlation through 0 to perfect direction correlation). The gamma therefore tells us how much more probable it is to get like order, or concordant pairs, than unlike order or discordant pairs, expressed:

$$= \frac{ns - n}{ns + n} \quad \text{where} \quad n = \frac{s}{d} = \text{concordant pairs} \quad \text{discordant pairs}$$

This measure will be used in this study for this purpose. This measure has also been applied due to the fact that it has been found easy to calculate
manually and easy to interpret, and that it can be used in any size table.

Multivariate Analysis

The usual procedure for multivariate analysis of attribute data involves laying out in tabular form the data in its full grandeur, then examining the percentages in the dependent attribute among the various classifications. (see an example from the American Soldier, Stouffer 1949, Vol. I, p. 323 as cited in Coleman, 1964, p. 190). In this type of analysis the dependent attribute is dichotomous, having states 0 and 1, and the same applies to the independent ones. The states of the independent attributes are so labelled that state 1 of (variable or attribute) x, y, z, ..., is the state assumed to have an effect toward state 1 of the dependent attribute, and state 0 of x, y, z, ..., has an effect toward state 0. Thus in our study "being high participants" is state 1, whereas "being low participants" is state 0; x, y, and z, are having high income, high formal education and high occupational ranking, respectively; and X0, Y0, Z0 are low income, low formal education, and low occupational ranking.
For every classification by the three attributes there are three effect parameters, and two random shocks or error due to unexplained variation, one in each direction, and the difference in the classification lies in the direction in which the effect parameters operate. Hence the parameters that will be our concern are:

1. Effect of income
2. Effect of education
3. Effect of occupational ranking
4. Random shock due to other variables in the direction of being high participants
4. Random shock due to other variables in the direction of being low participants.

(Note: random shock is simply unexplained variation in each direction).

For further procedural details on this analytical operation see calculations in the appendix).

Our application of multivariate analysis in this study is felt essential in that it will help us explain the contribution or the strength of a single variable (like income) over social participation when taken in multiplicity with other variables (such as education, occupation, and so on). Since this type of analysis can only accommodate four attributes (three independent and one dependent) we have limited ourselves
to the three major SES indicators. We intend, therefore, to provide an explanation towards the extent to which SES determines social participation, and the degree to which other unexplained factors determine the same.

Note:
1. In this study N = 252, but there is variation which is mainly due to cumulative data.
2. Throughout the discussion 'average' and 'medium' are used interchangeably.

SOCIAL PARTICIPATION IN MBOONI

Mbooni data shows that 38.7% of households are headed by women, and 61% by men. The absentee male heads are in most cases outside the area at work. Most of the respondents are married (88.2%), with a few cases of widows (5.6%), divorcees (1.9%), and singles (1.2%). Age distribution of household heads under study shows that a majority of farmers are up to 60 years old, in which about 29% can be said to be young adults (upto 40 years) and 31% adults (41-60 years). The old over (60) constitute about 10%. Family size in the area can be said to be average where the majority of households (42.9%) have 5-8 children, while 31% of households
have small families, i.e. up to 4 children, and a small number (11.1%) of households with large families. On average the desired family size comes close to the actual size, i.e. between 6 and 7 children—the national figure (ILO:1972:121).

In this area, participation in formal voluntary groups is most significant in church which takes up (40.3%) of total memberships, next to which is in commercial or income generating organizations, the major of which is the Coffee Co-operative Society, with 30.6% of memberships as shown below:

Table 1: Distribution by Membership to Organizations

<table>
<thead>
<tr>
<th>Organization</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church</td>
<td>40.3</td>
</tr>
<tr>
<td>Coffee Co-operative</td>
<td>30.6</td>
</tr>
<tr>
<td>Dairy Co-operative</td>
<td>11.8</td>
</tr>
<tr>
<td>Women's Groups</td>
<td>4.3</td>
</tr>
<tr>
<td>Harambee Group</td>
<td>3.8</td>
</tr>
<tr>
<td>None</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.3</strong></td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td><strong>422</strong></td>
</tr>
</tbody>
</table>
Participation in church is not motivated by commercial benefits, like in most of the other formal organizations to which households in Mbooni belong. Studies in church participation have pointed out that it is a response to deprivation, and hence the most socio-economically deprived are to be located in the church, where they derive a lot of satisfaction in a new hope where worldly comforts are not as rewarding as promised of life to come, eternal life. In this study it has been observed that most of the households have church membership, and for most households this is the only formal organizational membership they can profess to have. Interesting enough, the better off or the rich also belong to church, and are actively involved in it.

Minimal membership rates are found in women's groups i.e. Home Economics clubs, "Maendeleo ya Wanawake" etc, and in major "Harambee" groups, e.g. Kitembooo Welfare Association, etc. Very few households (9.5%) have no memberships, and therefore can be said to be alienated in formal participation aspects of social interaction. However, alternative forms of informal social interaction are to be expected in this group.
Turning back to commercial organizations, i.e. Coffee and Dairy Cooperatives, membership is quite a limitation to a number of households. Membership in Coffee Co-operative, as pointed out earlier, can only be expected to cover households in the middle-zone, which is the coffee-growing zone in the area. Hence only households in this area can benefit from participating in the Coffee Co-operative. The Dairy Co-operative, although with most of its members from the upper zone which is the major dairy farming area in Mbooni, also has members in the middle zone. Hence, households in the lower zone are shut out from participation in the major commercial organizations in the area, and consequently, there is a limit to their income generating sources.

Church and harambee groups seem to have appealed to the majority of households. For example, Kitemboo, a major Welfare Association in Mbooni and Kiteta locations, is mostly beneficial in cases of death where it mainly takes the upper hand in funeral arrangements. Other harambee groups encompass a group of villagers on a particular task, e.g. financial and material contributions for farm house construction for all members in the group by rotation. It should be noted that this kind of activity is most marked among the poor who have not had permanent houses on their farms. On the whole, therefore, there are
limited opportunities for membership in commercially oriented organizations for most households in the area. Participation in the above organizations, other than church, seems to depend upon the amount of finances that a household has to begin with.

On quantity of participation, Mbooni data shows that 15.5% do not belong to any of the above organization, while the majority (65.1%) belong to upto 2 of the above organizations, and 19% of the households belong to upto 4 organizations.

Committee membership in the area is mostly marked in school (13.7%), church (11.1%), and locational (10.5%) committees. Membership in committees is minimal in Coffee (5.7%), and Dairy (2.2%) Co-operatives, in Harambee (2.5%) and women's groups (0.6%). (See table below). The numerous schools and churches in the area explains concentration of committee membership in these institutions.
### Table 2: Committee Membership to Organizations

<table>
<thead>
<tr>
<th>Organization</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>School committee</td>
<td>13.7</td>
</tr>
<tr>
<td>Church</td>
<td>11.1</td>
</tr>
<tr>
<td>Locational committee</td>
<td>10.5</td>
</tr>
<tr>
<td>Coffee co-operative</td>
<td>5.7</td>
</tr>
<tr>
<td>Major Harambee group</td>
<td>2.5</td>
</tr>
<tr>
<td>Dairy Co-operative</td>
<td>2.2</td>
</tr>
<tr>
<td>Women's Group</td>
<td>0.6</td>
</tr>
<tr>
<td>None</td>
<td>53.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99.9</td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td>314</td>
</tr>
</tbody>
</table>

Attendance at organizational meetings as would be expected, is dominated by church (34.9%), Coffee Co-operative (25%), Dairy Co-operative (10%), and in School committee (8.4%), as shown in table below.
Table 3: Attendance to Voluntary Organizations

<table>
<thead>
<tr>
<th>Organization</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church</td>
<td>34.9</td>
</tr>
<tr>
<td>Coffee Co-operative</td>
<td>25.1</td>
</tr>
<tr>
<td>Dairy Co-operative</td>
<td>10.1</td>
</tr>
<tr>
<td>School Committee</td>
<td>8.4</td>
</tr>
<tr>
<td>Locational Committee</td>
<td>6.0</td>
</tr>
<tr>
<td>Women's Groups</td>
<td>3.6</td>
</tr>
<tr>
<td>Major Harambee Group</td>
<td>3.2</td>
</tr>
<tr>
<td>Nil</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99.9</strong></td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td>498</td>
</tr>
</tbody>
</table>

Distribution by contribution to organizations reveal that Harambee projects (41.2%) are top receivers of such contributions (i.e. cash, material, and labour contributions). Contribution to church (22.7%), and Coffee Co-operative (22.5%) are about the same magnitude. Minimal contributions are directed to the Dairy Co-operative (8.7%), Women's Groups, School and Locational Committees, as shown by the table below:-
Table 4: Contribution to Organizations

<table>
<thead>
<tr>
<th>Organization</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harambee Projects</td>
<td>41.2</td>
</tr>
<tr>
<td>Church</td>
<td>22.7</td>
</tr>
<tr>
<td>Coffee Co-operative</td>
<td>22.5</td>
</tr>
<tr>
<td>Dairy Co-operative</td>
<td>8.7</td>
</tr>
<tr>
<td>Women's Groups</td>
<td>2.6</td>
</tr>
<tr>
<td>School Committee</td>
<td>0.7</td>
</tr>
<tr>
<td>Locational Committee</td>
<td>0.3</td>
</tr>
<tr>
<td>Nil</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99.9</strong></td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td><strong>573</strong></td>
</tr>
</tbody>
</table>

Self-help or harambee movement has a strong appeal not only among Mbooni households, but on a national level. The majority of Mbooni households have made contributions to Harambee projects which range from church, dips, nursery, primary and harambee secondary schools.

Some scholars of harambee self-help have seen it as a form of taxation and forcible extraction (Bolnick, 1974). In this study, self-help seems to be mainly voluntary, as tapped by a question on why a respondent contributed to Harambee projects, where the majority see it as a process for betterment, development, etc. of their area. However, a few cases report exertion of pressure and coercion on
them by the local authorities. Hence one can also argue that, even those who report voluntary contributions, may have voluntarily contributed in fear of coercion and/or pressure, rendering the self-help movement only voluntary is an extent. Development of an area is the major goal of most self-help groups, and is the case in Mbooni. But some scholars see harambee as pre-emptive development where ambitious schemes are started so as to pull in government aid, just to their dismay, as a result of which there has been oversupply of Harambee schools which are seen as inferior to government schools. The onset of self-help movement has been seen as a reaction to felt deprivation and frustration a search for community solidarity, after the high expectation's raised by politicians during their pre-independence campaigns failed to materialize. It was hard work and sacrifice that was to earn each individual anything; nothing was free, not even food and the promised 'free education for all' to be achieved with independence.

Still, with hard work, sacrifice, etc. the majority of the poor households in Mbooni, and I guess in most rural areas of Kenya, have benefitted the least if anything from self-help movement. As seen earlier, most of Mbooni households are poor, and hence constitute the majority of contributors in
harambee projects (likely to have effects on the distribution of incomes). Other studies in Machakos and Nyeri (Mbithi and Rasmusson, 1975) confirm that harambee at grassroots level is mostly carried by the poor. Anderson argues that financing of Harambee schools, for example, increases inequalities since only the relatively rich will afford. Observation is also made that the elite benefit most from the Harambee projects (Mutiso, 1974). Mutiso views harambee Institutes of Technology as becoming a regressive taxation transferring resources from the poor to the wealthy. There is also an implicit bias in self-help activity favouring projects with higher returns for the leadership group. The majority of the rural population do not maximize benefits accruing from their participation in harambee projects. There seems to be a waste and diversion of scarce rural resources and energies from uses that would be more useful and of immediate benefit to the majority, the rural poor.

Informal Participation

Chiefs (and sub-chief's) "baraza" seems to be the most effective form of group extension, and hence may be the major vehicle to reach Mbooni population, and possibly most of rural population in the nation. Studies in self-help also point out
that harambee projects are mainly initiated through Barazas which are most common, church meetings, etc. (see Mbithi and Rasmusson, 1971). Activities that are practically oriented are underutilized (as shown in the table below). The farmer's awareness of his capabilities and limitation can be unearthed through the above forms of group participation which are some of the channels through which the farm household can be reached.

Table 5: Informal Participation

<table>
<thead>
<tr>
<th>Activity</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief's Baraza</td>
<td>32.6</td>
</tr>
<tr>
<td>National Days*</td>
<td>28.4</td>
</tr>
<tr>
<td>Agricultural Field Day</td>
<td>13.4</td>
</tr>
<tr>
<td>Agricultural Show</td>
<td>11.4</td>
</tr>
<tr>
<td>Family Planning</td>
<td>5.9</td>
</tr>
<tr>
<td>Home Economics</td>
<td>5.3</td>
</tr>
<tr>
<td>Adult Education</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>102.6</strong></td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td><strong>672</strong></td>
</tr>
</tbody>
</table>

* i.e. Uhuru, Madaraka and Kenyatta Days.

As would be expected the mass media would be an ineffective method of reaching the bulk of Kenya's population which reside in the rural areas. While efforts in this direction should not be discouraged,
more utilization of other forms of reaching the rural population should be sought and utilized fully until their literacy levels permit effective utilization of the mass media. On mass media exposure, 57.3% of Mbooni households have access and/or listen to the radio, while 32.9% read "Taifa Leo" (or Daily Nation) and only 9.8% read the most common farm magazine, "Mkulima". However, the written word may be utilized more effectively through the young generation, where the children can read for the adults in most households, although with untold success.

**Political Participation**

Mbooni can be said to be politically active in areas of voting, attendance to political rallies (meetings), and discussions on both national and local politics. A few cases do go as far as campaigning for candidates in national and local elections (see Table below).

**Table 6:** Political Participation

<table>
<thead>
<tr>
<th>Activity</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting (National Elections)</td>
<td>21.5</td>
</tr>
<tr>
<td>Voting (By-Elections)</td>
<td>19.8</td>
</tr>
<tr>
<td>Attendance to Political Rallies</td>
<td>19.5</td>
</tr>
<tr>
<td>Discussion (Local Politics)</td>
<td>15.5</td>
</tr>
<tr>
<td>Discussion (National Politics)</td>
<td>14.6</td>
</tr>
<tr>
<td>Campaigning</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99.8</td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td>108</td>
</tr>
</tbody>
</table>
We have seen that participation is most marked in church, in political activity, in economically viable organizations, and in group extension through the "baraza". It now remains our task to isolate the variables of the study for indepth discussion towards a search for what characteristics or traits are differentiating in individual degree on participation behaviour.

Before we discuss the relationship between SES indicators and social participation, we wish to find out what attitudes Mbooni farmers hold towards social participation and after this compare their actual participation behaviour.

Attitudes and Social Participation

Attitudes develop in the process of want satisfaction. In coping with various problems in trying to satisfy his wants, the individual develops attitudes towards objects and people that satisfy his wants, for example means - goal objects will be seen in a favourable light, e.g. a member of a co-operative will have positive attitudes towards the co-operative. On the other hand, the individual will develop unfavourable attitudes towards objects and persons that block the achievement of his goals. The individual's attitudes may come to have "surplus"
instrumental value for him. He develops his attitudes in response to problem situation - in trying to satisfy specific wants.

The group affiliation of the individual plays a vital role in the formation of his attitudes. Both the membership groups with which the individual affiliates and the non-membership groups to which he aspires to belong are important in shaping his attitudes. It is with this background, that we deemed it crucial to also study farmers' attitudes towards participation in community activities, with the assumption that those persons who are active participants would demonstrate favourable attitudes. But before presentation of findings, we will discuss our analysis of the attitudes.

The study utilizes the Likert scale for attitude measurement developed by Likert (1932). Reliability of attitude statements is obtained through an item analysis test called the Likert Discriminatory Power Technique (1938). Each item to be reliable should discriminate significantly between respondents in the highest and lowest quartiles on the scale. This technique utilizes the criterion for internal consistency, in which the reactions or responses of the group that constitute one extreme in the particular
attitude being measured are compared with the responses of the group that constitute the other extreme. This criterion acts as an objective check upon the correct assigning of numerical values in that if the numerical values are reversed on a particular statement the extreme high group will score low on that statement, and the extreme low group will score high.

In this method if a statement is undifferentiating it will not differentiate or discriminate the two extreme groups, i.e. the high group will not score appreciably higher than the low group upon that statement.

Internal consistency of attitude statements is reached at by computing the difference of the mean (X) scores for all respondents in both extremes on the individual statements. Statements with the highest mean differences and most differentiating are then selected as most valid for the attitude test.

In this study attitudes toward social participation are measured. Nine statements are presented in the standard 5-point Likert Format from strongly agree, agree, uncertain, disagree, and strongly disagree, but these are collapsed and scored
on a 3-point form where 3 points are given to favourable attitudes (i.e. strongly agree and agree) and 2 points to uncertain, and 1 point to unfavourable attitude (i.e. disagree and strongly disagree). The Likert Discriminatory Power Technique of item analysis is then applied to the highest quartile (25th percentile) and lowest quartile (75th percentile) on the scale. Scoring by simple summation of item score for the extreme groups are obtained and their means computed. Differences in mean scores for the two groups are obtained. Five items survive the test and hence are the discriminating items selected for attitude measurement. (See table 7 below).

To categorize the respondents into favourable, average, and unfavourable, the mean (X) scores for all respondents in the entire sample are taken. A measure of dispersion, i.e. the standard deviation (SD) is used to standardize the categories. Those individuals who score within 1 SD either side of the mean are on the average, and those who fall away from 1 SD either side of the mean have favourable, and unfavourable attitudes. The following therefore were the categories established:

- Favourable = 13-13 (X score = 10.3)
- Average = 8-13 (SD = 2.4)
- Unfavourable = 0-7
Table 7: Mbooni Attitude Scale

<table>
<thead>
<tr>
<th>Attitude Statements</th>
<th>Scores</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Quartile</td>
<td>168</td>
<td>176</td>
<td>188</td>
<td>176</td>
<td>187</td>
<td>188</td>
<td>150</td>
<td>181</td>
<td>188</td>
<td></td>
</tr>
<tr>
<td>75% ile</td>
<td>100</td>
<td>70</td>
<td>72</td>
<td>88</td>
<td>182</td>
<td>78</td>
<td>162</td>
<td>77</td>
<td>179</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>68</td>
<td>106</td>
<td>116</td>
<td>88</td>
<td>5</td>
<td>110</td>
<td>-12</td>
<td>104</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1st Quartile $\bar{X}$</td>
<td>2.66</td>
<td>2.79</td>
<td>2.984</td>
<td>2.793</td>
<td>2.968</td>
<td>2.984</td>
<td>2.38</td>
<td>2.87</td>
<td>2.984</td>
<td></td>
</tr>
<tr>
<td>75% ile $\bar{X}$</td>
<td>1.43</td>
<td>1.01</td>
<td>1.031</td>
<td>1.396</td>
<td>2.888</td>
<td>1.238</td>
<td>2.57</td>
<td>1.22</td>
<td>2.841</td>
<td></td>
</tr>
<tr>
<td>Difference in $\bar{X}$ scores</td>
<td>1.2</td>
<td>1.8</td>
<td>2.0</td>
<td>1.4</td>
<td>0.08*</td>
<td>1.7</td>
<td>-0.2*</td>
<td>1.7</td>
<td>0.1</td>
<td></td>
</tr>
</tbody>
</table>

* Undiscriminating statements which are eliminated.

Internal consistency of the 5 discriminating statements are: 2.0, 1.8, 1.7 1.7, and 1.4 (as shown above) and hence adopted for the attitude scale. (Ref. Q. 26 of the Questionnaire in the Appendix).
The Likert Scale was found more appropriate in this study, as other investigators report to have found it easier to compute and less labourious than Thurstone's item analysis (Fishbein, 1966:94). However, both Likert and Thurstone's attitude scales have been found to yield comparable results.

A large number of Mbooni farmers hold favourable attitudes towards participation in community activities (57%), whereas a substantial group are on average (32%), and a small group (11%) hold unfavourable attitudes. See table below.

Table 8: Distribution by Attitudes Towards Participation in Community Activities

<table>
<thead>
<tr>
<th>Attitudes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favourable</td>
<td>57.0</td>
</tr>
<tr>
<td>Average</td>
<td>32.0</td>
</tr>
<tr>
<td>Unfavourable</td>
<td>11.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td><strong>246</strong></td>
</tr>
</tbody>
</table>

What motivates people to actively participate in formal social interaction? The study examines whether the attitudes that individuals hold towards participation in community activities influence their
degree of participation. The hypothesis tested here is that: the more favourable the attitude the higher the degree of combined participation in political activity and in voluntary organizations. This hypothesis is rejected by Mbooni data. There is a negative or an inverse weak relationship between attitudes and participation, as indicated by a gamma value of -0.16, and a $X^2$ that is not significant as shown in the table below:

Table 9: Attitudes vs Combined Participation in Political Activity and in Voluntary Organizations

<table>
<thead>
<tr>
<th>Combined Participation</th>
<th>Favourable (%)</th>
<th>Average (%)</th>
<th>Unfavourable (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>18.5</td>
<td>9.9</td>
<td>18.3</td>
</tr>
<tr>
<td>Average</td>
<td>23.1</td>
<td>35.6</td>
<td>40.8</td>
</tr>
<tr>
<td>Low</td>
<td>58.5</td>
<td>54.5</td>
<td>40.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.1</td>
<td>100.0</td>
<td>99.9</td>
</tr>
<tr>
<td>Base</td>
<td>65</td>
<td>101</td>
<td>71</td>
</tr>
</tbody>
</table>

$X^2 = 6.2$ (not significant)
$\gamma = -0.16$

The above figures demonstrate that, over half of those with favourable attitudes are in fact low participants, and also form the majority of the low participant group, as unexpected. Again over
half of those with average attitudes are low participants as say compared to a lower figure (40.8%) of those with unfavourable attitudes in this category. Interestingly enough, there is an equal representation of those with favourable and those with unfavourable attitudes in high participation (18.5% and 18.3%). This may mean that attitudes have nothing to do with participation.

Motivation to participate, it seems, depends on whether people hope or anticipate to achieve or to benefit anything. The content, aims and functions of existing voluntary organizations may not meet the needs, or rather do not serve the needs of most people in rural areas. As we have seen earlier, it is the relatively well off who are both actively involved and who also benefit most from their active participation. Loyalties or commitment to organizations are motivated by actual and/or perceived benefits from active behaviour in whichever areas of social interaction. As will be shown, socio-economic limitation, i.e. income, education, and otherwise have a strong explanation on differential participation in Mbooni, and in Kenyan rural areas in general.
The above argument is shared, to a large extent by Smith who purports that people will tend to participate in voluntary organizations to the extent that they have similar characteristics with the present or existing members of the voluntary organizations, and they have common interests or values with these members. But for Mbooni, it is unlikely that people participate for the same reasons, for example members of a co-operative may not see themselves as sharing similar income level, but rather that they can meet the prerequisites of resource and income base necessary in joining the co-operative.

It has also been argued that different facets of social participation are governed by different processes of recruitment. The rural population has differential access to meeting the requirements for recruitment in some of the organizations, and especially those that demand some resource base.

A possible explanation as to why attitudes are negatively related to social participation is the fact that the uniformity in attitudes among the members of a community is due, in part, to the fact that the community members of the group come to hold common beliefs about objects, people, events, issues,
and so on. Hence the homogeneity of the attitudes found within various social groups reflects, in part, the member's acceptance of the norms of these groups. However, it is a consistent problem in sociology and other social science disciplines in search for accurate enough measures of attitudes, and in this connection we call for refinement of attitude measurement in social science.

**Sex and Social Participation**

Bearing in mind the sex taboos in most traditional societies and especially in the division of labour, and the overload of decision-making power on the male, it was felt that we could not ignore sex in participation, particularly in the emerging formal voluntary groups. Traditionally, boundaries existed within which women would interact with men, these were socially sanctioned, and culturally defined. Certain norms, therefore regulated behaviour, where exclusive groups for men and women existed. For example, traditional work parties or 'myethya' were mostly based on age-groups (peers), on sex, neighbourhood, on clan and others. And since, the locus of decisions, on land and land use, livestock, and other socio-economic decisions rested on the man, then one would argue that women are likely to lag in an area of participation that is evolved from without their cultural context,
i.e. the formal organization. With this background therefore we have hypothesized that: men are more active than women in combined participation in political activity and in voluntary organizations. Mbooni data has rejected this hypothesis. There is a very weak positive but insignificant relationship as shown by a gamma value of 0.1. It looks from the table, that both men and women are comparable in their degree of participation.

Table 10: Sex vs. Combined Participation in Political Activity and in Voluntary Organizations

<table>
<thead>
<tr>
<th>Combined Participation</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>17.8</td>
<td>7.7</td>
</tr>
<tr>
<td>Average</td>
<td>30.3</td>
<td>38.5</td>
</tr>
<tr>
<td>Low</td>
<td>52.0</td>
<td>53.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>152</td>
<td>91</td>
</tr>
</tbody>
</table>

\[ X^2 = 5.44 \text{ significant at } .05 \]
\[ \gamma = 0.1 \]

The above statistics show that women are as active as men in both voluntary organizations and political activity. However, men are slightly more active, i.e. a 10% difference in high participation.
This difference is likely to be accounted for by political participation, and especially in more active areas like campaigning. In the area of political participation, men have been found more active than women (Milbrath, p. 135; Booth, p. 35-6). The reason given for this is that men take care of the family politics, which shields women off this area of participation. But local examples are contrary to this, for example, in his study on "Mbai sya Eitu", (Mutiso, 1971), found women very active in politics to the extent of overshadowing men and even staging a successful campaign for a candidate who eventually won a parliamentary seat. This is only to illustrate that women have ventured outside the kitchen and farm.

Again in our study we found in a number of cases the husband and wife had individual memberships and hence shared in the co-operatives. Women have also been much more organized into numerous self-help work groups in the rural areas. And there is also evidence that there are over 4,000 women's groups in the country, where over 90% of the members are women. It would be expected that women are likely to by-pass men in some of these areas of participation in the near future.
It is also possible to argue that participation can be cumulative, in the sense that active behaviour in a certain area may have a positive effect in another area of participation. Since in many traditional societies, it is the custom for the women to provide the major support for themselves and their children mostly through home grown food, and recently even by obtaining cash through the sale of their own produce, this could form a strong base for more active participation in those areas which will be maximizing in terms of benefits for the family. Women's role in agriculture has also been seen as an important indicator of their active role in the development of rural areas, where they also head a large number of households. For example 45% and 35% of the rural households in Kenya and Malawi (respectively) are headed by women, and that it is women who often contribute a major proportion of the family's farm labour, especially in subsistence, and other related tasks. (See Uma Lele, 1975:76-7).

From this study sex differences have had very little influence, if any, on social participation, and we can therefore say that rural women are moving side by side with men in participation in both political activity and in voluntary organizations. Hence both men and women seem to be quite aware of benefits accruing from active participation.
Within the same context, we have also found that both men and women of all ages (i.e. those studied - with age range of 19 and 80) are actively involved in voluntary organizations. It looks like a struggle for survival within all ages, since unlike in the Welfare States where the old are often on either welfare benefits, or pension, or have saved substantially for old age, the old in the rural areas have to struggle through. Of course reciprocity is still very strong and obligation for the aged parents, but venture and activity is quite cherished on the part of the aged. Another possible explanation for this activity until 'late' age may be the fact that among most traditional societies, very little if any accumulation, of wealth is practised due to the inheritance patterns which at old age means that almost all the children obtain their shares.

Individuals over the age of 60 are normally expected to be less active than the younger age groups. This is the peak period which some scholars have argued is the period when activity starts to diminish, and age starts its regressive effect on participation.
Our data, therefore, does not support findings of studies done in the West, in which Freedman and Axelrod (p. 6-9) report that participation increased gradually and dropped when a person was in his 50's, and that an even sharper drop occurred at 60. According to Scott active participation occurred between the years of 45 and 54, whereas Booth found that individuals in the middle years, i.e. 40-57 were more active. On focusing on these age groups, our study has shown that in a rural area, the basics of life have to be met by all irrespective of age.

Age and sex, we have seen, have almost no influence on participation within a rural context. We now want to examine the part played by each of the major socio-economic status variables of the study, i.e. education, occupation, income and levels of living, in influencing participation behaviour.

Education and Social Participation

Data on formal education in Mbooni shows that the area experiences low levels of education, as the table below indicates.
Table 11: Distribution by Formal Education

<table>
<thead>
<tr>
<th>Education</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No school</td>
<td>38.1</td>
</tr>
<tr>
<td>Upto Std. 4</td>
<td>42.4</td>
</tr>
<tr>
<td>Upto Std. 7</td>
<td>13.5</td>
</tr>
<tr>
<td>Form II</td>
<td>3.9</td>
</tr>
<tr>
<td>O-Level</td>
<td>0.8</td>
</tr>
<tr>
<td>A-Level</td>
<td>0.3</td>
</tr>
<tr>
<td>University</td>
<td>0.0</td>
</tr>
<tr>
<td>M/D</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99.8</td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td>252</td>
</tr>
</tbody>
</table>

As can be seen above a substantial proportion of the adult population in Mbooni has not been to school (38.1%), and most of those who have had any schooling have had up to 4 years of education (42.2%), and a few cases (13.5%) managed up to primary level, i.e. 7 years of formal education. Post-primary education is very meagre in the area, with only 5% of the total sample with some secondary education, with a majority of these with up to Form II education, and none with university education.

In Kenya, 50% of the young generation are provided with 7 years of formal education, an opportunity which was lacking among the majority of the adult population. Fifteen per cent of the
young generation in Kenya are reported to have access to secondary education, as compared to only 5% of the adult population in Mbooni. (See ILO, 1972).

It has been observed that the provision of minimum formal education (i.e. basically 7 years of primary education), is an essential condition for the effective participation of the masses in the development process in the developing countries where half of their population are said to lack a minimum level of education, (World Bank:1974). It has also been argued that the state of under-development of the poorest nations means that the formal educational system has not spread widely, with only a minority of the children, especially in rural areas, completing primary education. Some form of mass education is therefore seen as a necessary part of any development strategy based on the fuller and more productive utilization of human resources. Mass education would mean a step toward a greater equity as it involves better distribution of educational opportunities to under-privileged groups. However, what is evident in most developing countries is not so much of equitable distribution of educational opportunities to their citizens, but an extra emphasis on the provision of formal education on a wider spread a 'commitment' which takes the largest share of the nations total public expenditure. (Kenya spends about 20% of her total
The need for formal education is also seen in its role in rooting permanent literacy among a people, which as discussed below has been put forward as one of the indicators on the level of development in a country.

Literacy levels, as would be expected from low levels of formal education in the area, are poor in Mbooni (37.2%). However, the area can be said to have comparable literacy rates to the Kenyan adult national level of 30% (as at 1968 - World Bank, 1974:18-19). Mbooni, therefore, can be said to have slightly higher literacy rates than the nation.

Going back to the table, it is evident that literacy rates are highest in the vernacular. This is explained by the fact that among most of the adult population vernacular was the medium of instruction especially in the first 4 years of primary education in the rural areas. Hence the skills of read, write and speak become more complicated and sophisticated as one moves from vernacular to Swahili, and then to English. The distribution therefore diminishes as we come to English, where only a small number are located.
The majority of peasants in the less developed countries are still functionally illiterate. Many 'experts' therefore view literacy instruction as the best possible means for an underdeveloped nation to bear the vicious circle of low-incomes, high birth rates, and slow development, and make progress along the path toward modernization. Improved literacy rates are considered essential elements in nation building, and especially in Africa where in some countries national literacy rates are as low as 5%, i.e. Somalia, as compared to Chad – 7%, Uganda – 25% and Mauritius – 80%. Other developing countries, like in Asia and Latin America show higher literacy rates, e.g. Brazil – 67%, Philippines – 72%. Developed countries have almost reached total literacy rates, for example United States – 99%. Literacy, therefore, becomes crucial if the print media is to be utilized in reaching the majority who also reside in the rural areas. With increased literacy rates, the press would have a more effective role to play in education in rural areas.

Formal education (and literacy) we have seen is an important factor in participation in the development process. In other words, education has a positive effect in enlisting individual participation
which enhances their well-being. This we want to test in Mbooni, to find out whether an individual's level of formal education influences his degree of participation. A set of hypotheses are, therefore, tested.

The first set of hypotheses relate levels of formal education and the various aspects of social participation that we have discussed above. The first hypothesis tested here is that: the higher the level of education, the higher the degree of participation in voluntary organizations. Mbooni data shows that level of education has a strong positive association with degree of participation in voluntary organizations. This association is indicated by the critical value of $X^2$ which establishes the significance of the relationship at .001 level. This positive association is shown by a fairly strong gamma value of 0.33. (See table below):
Table 12:  Education vs. Degree of Participation in Voluntary Organizations

<table>
<thead>
<tr>
<th>Participation in Voluntary Organizations</th>
<th>Form II &amp; Above</th>
<th>Upto Std. VII</th>
<th>Upto Std. IV</th>
<th>No School</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>58.3</td>
<td>25.7</td>
<td>30.8</td>
<td>10.6</td>
</tr>
<tr>
<td>Average</td>
<td>16.7</td>
<td>54.3</td>
<td>52.3</td>
<td>55.3</td>
</tr>
<tr>
<td>Low</td>
<td>25.0</td>
<td>20.0</td>
<td>16.8</td>
<td>34.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>99.9</td>
<td>99.9</td>
</tr>
<tr>
<td>Base</td>
<td>12</td>
<td>35</td>
<td>107</td>
<td>94</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 24.79 \text{ significant at .001 level} \]

\[ \phi = 0.33 \]

Figures on the above table show that the majority of those with high formal education, i.e. Form II and above are high participants (58.3%) as compared to about half this figure of those who have gone up to Std. VII (25.7%) and about 2 times of those who have never been to school (10.6%) in the same participant category. The average participants are almost equally distributed in all educational groups, (except for those with high education, i.e. Form II and above) where slightly over half of each educational group are in this category, i.e. 54.3% (up to Std. VII), 52.3% (up to Std. IV), and 55.3% (no school). The higher educational group has a minority in the average
participant category (16.7%), a figure which is about a third of each of the educational groups in the average category. Form IIs (and above) and those with no school are the only groups which show marked differences in the low participant category, where 25% of Form IIs demonstrate low participation as compared to 34% low participants with no school, (about 10% difference).

Looking at the table (diagonally), participation behaviour of high (i.e. Form II and above) and low (i.e. no school) educational groups show a significant statistical difference, in that over half (58.3%) of those with high education are also high participants as expected, while only 34% of those with no school are low participants, which is slightly below our expectations as we would have anticipated that the majority of those with no school would be low participants. But statistics show that in fact this group has its majority concentrated in average participation. Again, a quarter (25%) of the high education group are low participants as compared to about a tenth of those with no school who demonstrate high participation. This seems to imply that high participation is not characteristic of the no school group. This is also shown when we look at the pattern of participation in the high
participant category where high participation increases markedly from no school to high formal education (i.e. 10.6% to 58.3%).

In explanation of the above participation behaviour in formal educational groups, and especially with the extreme groups (i.e. with high education and with no school), it is evident that formal education is a major influencing factor in participation in voluntary organizations. Participation in this area seems to favour, or rather cater more for those who have been exposed to formal education. It appears, therefore, that those who had the opportunity to get upto higher education levels obtained, like most early adopters or innovators, initial benefits which accrue from their active participation. A greater awareness and motivation are likely to be basic benefits that result from exposure to formal education, (and the higher the better) and these benefits are essential prime movers in the initial stages of decision-making in participatory behaviour.

Formal education has been looked at as a status quality, hence those who have it are likely to explore a wider span of contacts than those who have not been exposed to it. A similar view is share
by Hodge and Treiman, who argue that through education more so than occupation and income, a sense of political awareness and community responsibility is imparted to the individual which results in high levels of social involvement. While we support this argument to an extent, we should not lose sight of the fact that education can have a regressive effect on participation in that, while it creates some kind of awareness in an individual, this may sometimes mean awareness of hopelessness in participation, and hence lack of participation. This argument is also supported by our data (ref. table above) where 25% of those with high education are low participants. To this group, active participation may seem pointless, and if their needs are satisfied elsewhere, they obviously do not need to be actively involved, and in any case they may not have the time. On the other hand, those with high education, are likely to be involved in a full-time job, e.g. teachers and local administrators, or in other activities from where they satisfy their economic needs, since an economic motive may also be necessary to participate or join the economically viable organizations like coffee and dairy co-operative societies.

A possible explanation of the no school group's low participation is that they may lack in
awareness of the advantages in belonging to organizations, or they may have realized this too late to penetrate some of the organizations which are obviously dominated by the early innovators of formal education. It also seems that this group may lack the means, e.g. economic base to join most of the organizations which call for financial backing. Another limitation in the no school group is that active participation, e.g. serving in committees often requires that one is literate, and most local leadership positions would demand the same. This obviously pushes the no school group to the periphery. But it was evidenced above that those who have not been to school have not resigned and accepted their position. It looks as though they are also aware as their majority are now concentrated in the average participant category, in fact just like those who have even gone upto Std. VII, and a few of them (10.6%) have even made a giant step very much comparable to those with high education.

Despite the fact that Mbooni adults have low levels of education, and that the higher levels of education begin from Form II and above, still the few who have this chance are very much differentiated from those who have not been to school, in participation behaviour. Again, most of the high participants are
likely to be either early Christians (or "asomi") or children of the early convertees to Christianity. This proposition is tenable since being a Christian was a pre-condition to receiving formal education and it is those who were first exposed to formal education who also saw the need to send their children to school. This points to some parental influence in attainment of formal education, and possibly with some influence on participation.

Although formal education is an individualistic activity, those who ventured into the attainment of it, got the impetus to forge ahead into new undertakings (e.g. voluntary organizations) to boast their newly gained status of being formally educated. And since most of those who received formal education were often Christians, they were to some extent 'alienated' or 'isolated' in most of the traditional activities because of their adoption of Christianity, and hence they had to seek other areas of participation. High formal education although very few have it in Mbooni, determines to a large extent degree of participation in voluntary organizations. This would be generalizable in Kenyan rural areas which suffer from very low levels of formal education among adult population. However, those with relatively high formal education in the
rural areas are at an advantage over those below them in their involvement in formal organizations within their community.

A number of western studies reviewed in this study have also shown that highly educated individuals are high participants in both voluntary organizations and in political activity. This study is interested in testing this proposition among Mbooni adults. The hypothesis being tested here is that: the higher the level of education the higher the degree of combined participation in political activity and in voluntary organizations. This hypothesis has been confirmed by Mbooni data. There is a fairly strong positive association as indicated by a gamma value of 0.37, and a relationship significant at .001 level as shown by the $X^2$ value of 27.38. (See table below).

Table 13: Education vs. Combined Participation in Political Activity and in Voluntary Organizations

<table>
<thead>
<tr>
<th>Formal Education</th>
<th>Form II &amp; Above %</th>
<th>Upto Std. VII %</th>
<th>Upto Std. IV %</th>
<th>No School %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>50.0</td>
<td>21.2</td>
<td>17.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Average</td>
<td>16.7</td>
<td>36.4</td>
<td>35.7</td>
<td>30.8</td>
</tr>
<tr>
<td>Low</td>
<td>33.3</td>
<td>42.4</td>
<td>46.9</td>
<td>65.9</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>99.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>12</td>
<td>33</td>
<td>98</td>
<td>91</td>
</tr>
</tbody>
</table>

$X^2 = 22.38$ significant at .001

$\gamma = 0.37$
In the above table, statistics show that half of those with high education (50%) are active participants not only in voluntary organizations but also in political activity, as compared to about two and a half times the figure of Std. VII high participants (21.2%) and about three times those with upto Std. IV of education who are high participants (17.3%). The critical observation here is that high participants without formal education (3.3%) are about sixteen times less than those with high education. At this stage, it is clearly evident that high education is a major screening factor in high or active participation. High participation, it was also shown, increases with formal education, since there are only 3.3% without formal education, 13.3% who have gone upto Std. IV, and 50% of Form II and above who are high participants. Looking at these formal educational groups in the average participant category, only a minority of Form IIs (16.7%) are found here, as compared to over two times this figure of the other groups. However there is shift in participation behaviour for those with high education when we focus at the low participant category. A third of the high education group are low participants (33.3%) as compared to about double this figure of those with no school (65.9%) in the same category. The high education
group with low participation appear an odd case here, as this is unexpected. However, their lack of participation can be explained away by their awareness, especially in political participation which seems to have boosted the figure from 25% to 33%. Political participation, does not seem to appeal much to all those with high education as would have been expected. The pattern of participation behaviour of the other educational groups is consistent in that they decrease towards high participation, and cluster mainly in the average and low participant categories. The no school group, has its majority concentrated in low participation (65.9%), with about half of figure with average participation (30.8%) and a negligible figure with high participation (3.3%). On the whole therefore, our correlation is in the expected direction. What explains this differential participation especially among those with high education and those with no school?

The nature of participation of the above educational groups is expected, since as mentioned earlier, active involvement like holding offices of chairman, treasurer, and committee membership requires that one has some formal education, and the higher it is the better one is placed for such an assignment. Since the low participants have
low or no formal education, their chances of participation in these areas are minimized. Education in the rural areas is very important as a basis of status in the community, it is a passport to a good job, leadership position, and so on. For example, teachers were given very high status in the community, and were an example of the value of education, and many aspired to be teachers. Status inversion, however, has removed teachers from their rank, since other numerous professions and jobs even in the rural area have also been ranked high. Hence leadership positions in rural areas will often be given to those with some education.

In political activity, the most active are again those with high education. In comparing figures in the above two tables, we see that there is a higher proportion of low participants in the combined participation table. Political participation, therefore, seems to discriminate even more according to educational levels. Certain political activities like campaigning for candidates, attending political rallies, are likely to attract those with high education who are more exposed through discussion of political issues, and through reading local newspapers, magazines, and others. Other scholars have seen education as an important variable stimulating participation in
both non-political and political groups. This view is expressed by Milbrath (1965) who also reports that persons with higher level of education have been found to participate more in political activity, a behaviour attributed to an extra awareness created through exposure to formal education. But we should also point out that in certain areas of political activity, e.g. voting, all educational groups were equally active, as over 90% voted. This behaviour, it can be argued, is not strictly voluntary since there was some pressure exerted by the local administrative authority almost making it a must that every adult had to be registered as an eligible voter and should vote when that time comes. Administration of political oaths, locally referred to as "Kithitu" had just been completed a few weeks before we conducted this study, and a by-election had just gone by. Hence active voting behaviour is most likely to have been due to the above factors.

In conclusion, therefore, high education is a representative determinant of high participation in both political activity and in voluntary organizations. There is evidence from our data that total lack of formal education is related to low participation. This pattern is generalizable to Kenyan rural areas, although studies in other sites may show that all the participants in Mbooni
fall into a category of low level of education. What we have taken as high education in Mbooni is relative to the general level of education in the area, which seems typical of most Kenyan rural areas.

Our last hypothesis relates education and informal participation. The hypothesis we are testing here is that: high level of education is positively associated with high degree of informal participation. Our correlations are in the expected direction, and this hypothesis is confirmed as there is a strong positive relationship as shown by a gamma value of 0.59, and a strong $X^2$ as shown below:

Table 14: Education vs. Informal Participation

<table>
<thead>
<tr>
<th>Informal Participation</th>
<th>Form II &amp; Above</th>
<th>Upto Std. VII</th>
<th>Upto Std. IV</th>
<th>No School</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>40.0</td>
<td>17.6</td>
<td>11.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Average</td>
<td>60.0</td>
<td>82.4</td>
<td>84.1</td>
<td>92.7</td>
</tr>
<tr>
<td>Low</td>
<td>0.0</td>
<td>0.0</td>
<td>4.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>10</td>
<td>34</td>
<td>107</td>
<td>96</td>
</tr>
</tbody>
</table>

$X^2 = 25.4$ significant at .001

$\gamma = 0.57$
A close observation of the table above, shows that the high education group are the majority with high participation, i.e. 40%, as compared to more than twice the figure for those of Std. VII (17%), and about one fourth of those of Std. IV, and one fortieth of those without formal education in the same high participant category. Upto now it is evident that low or lack of formal education accounts for differential participation among all educational categories in active participation. Figures on average participation category shows that a majority of all educational groups are concentrated here, except for the Form II who have a lower figure - 60% (although over half of the group) as compared to say the no school group with almost its entire cluster with average participation (92.7%). Of interest is the observation that, the low participant category has a meagre representation in the no school and Std. IV groups, and total absence in the higher educational groups. We can, therefore, see that in informal aspects of participation, the majority of Mbooni adults are average participants (about 85% on average) except for those with high education.

Informal participation in the various aspects discussed above, i.e. group extension forms and mass
media exposure is crucial as a means of increasing people's awareness and can be taken as a stage in the adoption process. Persuasion, assessment and decision making processes follow this awareness, which may be a possible first step to more active formal aspects of participation. Despite the fact that one does not have to be literate to attend chief's baraza, those with no schooling also lag in this area of participation. Mass media exposure, especially in reading newspapers and farm magazines is out for those with no schooling, for this kind of exposure requires reading skill that they lack. This may, to a certain extent, explain their overall lack of active participation. Still we can argue that this group is either less exposed, or less aware of their relatively deprived position as far as formal education is concerned, and hence feel that active participation is not only shared among the literates, but is also of less benefit to them.

High formal education, therefore, influences informal aspects of participation and low or no formal education has a regressive effect on participation.

As a way of summary on formal education and degree of participation, the following points come
to light:

1. The three hypotheses are confirmed that high formal education has a positive and fairly strong association with:

(a) degree of participation in voluntary organizations;

(b) combined participation in political activity and in voluntary organizations;

(c) informal participation

2. Formal education, and rather high formal education is a strong and representative determinant of participation in the above areas. It is a strong factor in explaining social participation in Kenyan rural areas.

Occupation and Social Participation

The major agricultural activities that the people of Mbooni are engaged in cover subsistence farming, cash-cropping - mainly coffee in the middle zone, cotton in the lower zone, dairy and wattle farming. However in addition to these activities, a large number of the adult population is engaged in numerous non-farm activities, which include small businesses like shop-keeping and teaching, wage-employment in the formal sector like in local
administration and in teaching, in casual labour, and in various kinds of petty trades such as charcoal burning, brick making, sand-heaping, beer-brewing, carpentry, pottery, and other types of arts and crafts. Presented below, therefore, is the distribution of Mbooni population by non-farm occupations.

Table 15: Distribution by Non-Farm Occupations

<table>
<thead>
<tr>
<th>Non-farm Occupations</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only farmers</td>
<td>53.5</td>
</tr>
<tr>
<td>Casual labour/Petty trade</td>
<td>14.4</td>
</tr>
<tr>
<td>Businessmen</td>
<td>14.0</td>
</tr>
<tr>
<td>Skilled artisan</td>
<td>10.0</td>
</tr>
<tr>
<td>Labourer/Domestic servant</td>
<td>3.3</td>
</tr>
<tr>
<td>Teacher</td>
<td>2.7</td>
</tr>
<tr>
<td>Government official</td>
<td>1.3</td>
</tr>
<tr>
<td>Clerk/Salesmen</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99.9</td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td>299</td>
</tr>
</tbody>
</table>

From the above table it is clear that about half of Mbooni farmers are not engaged in any non-farm activity (53.5%). A fairly large group are in self-employment (24%) i.e. businessmen, traders and skilled artisans. Casual labour and petty trade (14.4%) is another rural enterprise that occupies part of farmer's time, and very few are employed either as domestic servants or labourers on the farm (3.3%).
Formal wage employment is quite minimal (4.7%), with teachers on the lead with 2.7%, followed by local administration staff and other government officials (1.3%) and then clerks and salesmen (0.7%). We therefore can see that about 50% of the farmers have alternative sources of income besides the farm. On the other hand, another 50% of the farmers are solely dependent on the farm from which they derive their livelihood.

The preponderance of businessmen, skilled artisans, and petty traders (38.4%) in the area can be explained away by the abundance of agricultural products and especially vegetables (mainly tomatoes and cabbages) and other crops, and availability of timber in the area. Dairy and coffee farming has formed a strong financial base for the progressive farmers in engaging in businesses and other trades.

With regard to rural occupations in Kenya, it has been recognized that 90% of the population which still resides in rural areas is predominantly engaged in agriculture from where it earns its livelihood. On non-farm or non-agricultural rural enterprises, it has been reviewed that 75% of businesses are owned by farmers either individually or in partnership, most of whom can be said to be
self-employed. On wage employment 15% of the potential rural labour force (out of 4.4 million adult population) have been found to be engaged in regular wage earning activities in the rural areas and 5% are said to find casual labour there. The situation in Mbooni, as shown above, has very low opportunities for wage employment as compared to the national picture. However, Mbooni seems to have greater opportunities for casual employment (14%) than the national figure (5%). This variation can again be explained by an almost all through the year farm activities, which after the rains are continued through irrigation, and a peak demand for casual labour is demonstrated during harvesting of coffee.

In 1969, there were 1.7 million rural households in Kenya which included 4.4 million adults, of whom a majority (2.3 million) were women. About a third (i.e. about 525,000) of all rural households were found to be headed by women. This is significant especially when the women are left with the burden of farm management, and of the households as a whole as housewives. Most of these households are headed by women, the male head was away in town, either working there, seeking employment etc. Hence the process of selective migration cannot be ignored.
in understanding rural problems, especially in agricultural production. This process has been selective in a sense that in most cases the male heads of the household have migrated to urban areas, the young and more educated, etc. leaving behind the uneducated, the very young, the old, and a disproportionate number of women to develop these areas. In Mbooni, about 39% of total households were headed by women, although of course this figure is escalated by a few cases of widows, divorcees, etc. Otherwise it could be said that about a third of Mbooni households (about the national figure) are headed by women.

As pointed out above, men have been found to migrate more frequently than women. Most common reasons given for their migration are mainly a desire for a job and inability to find work in the rural areas. While this may imply unemployment and/or under-employment, the kind of job opportunities and incomes earned (often self-employment) in the rural areas fell short of the aspirations of most of the young and educated people. Hence, the inflow of job seekers to urban areas which has risen to gigantic rates especially ten years after independence. In 1971, 24% of migrants were seeking work in Nairobi, compared to say 2% in 1964-1965, (ILO: 1952:49).
Occupational characteristics of the rural poor is, therefore, crucial in not only understanding their processes of income generation but also their productivity on these processes. While expansion in employment is one way of absorbing the population engaged in low-income activity in the rural areas, there is need to consider raising production levels in existing occupations. However although a substantial proportion of the poor in the rural areas are not engaged in wage labour, they cannot be described as unemployed or searching for employment, as most of them are self-employed small farmers but suffer from very low income levels as shown earlier. The working poor (discussed above) constitute the bulk of employees on small holdings in the rural areas, with 12% of the rural households living as pastoralists. However, access to land, it has been observed, is closely related to pattern of rural employment, as only 7% of Kenya's total land size can be described agriculturally as highly potential with adequate and reliable rainfalls, good soils, etc. In summary therefore Mbooni can be said to share rural employment problems experienced in most rural areas in the country. With the frequent droughts in the area, due to unreliable rainfall, and especially hard hitting at the lower-zone, slack periods are experienced during which idling about is common until the peak
periods of planting, weeding and harvesting. Serious under-employment, if not un-employment, can be experienced for a substantial period within a year.

From the foregoing, we have seen that non-farm occupations that the farmers engage in are also alternative avenues for extra sources of income. We now want to see what influence, if any, these non-farm occupations an individual farmer engages in have on his degree of participation. In much of the literature individual participation has been found closely related to his occupational status, where individuals with high status occupations have been found to demonstrate active participation, for example in voluntary organizations. Is this also applicable in Mbooni? The first problem we are beset with is that of delineating occupational status of farmers who also engage in numerous non-farm activities, which can neither fit the most common occupational categories used in urban setting, i.e. Professional, Skilled, Unskilled, and Unemployed, nor even the more crude categories once popular in the West - White Collar and Blue Collar jobs. What we wish to point out here is that the category "unemployed" is inapplicable to farmers who are engaged in some activity. Again there are various skills that the rural farmer has, like pottery, weaving,
thread and bead work, carpentry, and others, and would these all be labelled "skilled", or shall we call a progressive farmer who also is a renowned businessman a professional? I am just pointing out that, although profiles on rural occupations may exist, there are no rural occupational scales developed for Kenya, and I presume in most of Africa and in other developing countries, that could be applied in ranking these occupations.

We have, therefore, attempted a rank order of occupations mainly in major groupings in specialized activities, and where a particular category stands out significantly, it has been presented on its own. The major groupings, therefore, in order of rank are:

1. Businessmen
2. Teachers/Government officials/Clerks and Salesmen
3. Skilled artisans
4. Labourers, Petty traders, and Domestic servants, and
5. Farmers only.

The last category (i.e. farmers only) is included here to emphasize the sole dependence on the farm, which means that this group has no alternative sources
of income, and hence could be said (for analytical purposes) to be at the bottom of occupational status in the area. The top category, i.e. businessmen will be the cream with high status job.

We, therefore, want to establish whether the above occupational ranks have a positive effect on the individual degree of participation. To this effect we have related three hypotheses to these occupations. The first of these is that: **the higher the occupational ranking the higher the degree of participation in voluntary organizations.** Mbooni data confirms this proposition. A positive relationship is established at .001 level of significance. From the table below, it is shown that the majority of businessmen are high participants (70%) as compared to half this figure of persons in formal employment, (i.e. teachers, clerks, salesmen and government officials) in the same participant category (35.7%).
Table 16: Non-Farm Occupations vs. Degree of Participation in Voluntary Organizations

<table>
<thead>
<tr>
<th>Non-Farm Occupations (%)</th>
<th>Businessmen</th>
<th>Informal Employment</th>
<th>Skilled Artisans</th>
<th>Casual Labourers &amp; Petty Traders</th>
<th>Farmers Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation in Voluntary Organizations</td>
<td>70.0</td>
<td>35.7</td>
<td>23.3</td>
<td>18.9</td>
<td>18.4</td>
</tr>
<tr>
<td>High</td>
<td>17.5</td>
<td>42.9</td>
<td>50.0</td>
<td>47.2</td>
<td>58.2</td>
</tr>
<tr>
<td>Average</td>
<td>12.5</td>
<td>21.4</td>
<td>26.7</td>
<td>34.0</td>
<td>23.4</td>
</tr>
<tr>
<td>Low</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>14</td>
<td>30</td>
<td>53</td>
<td>158</td>
</tr>
</tbody>
</table>

$X^2 = 50.04$ significant at .001

$\gamma = 0.2$

The lower occupational groups, i.e. the skilled artisans, the casual labourers and farmers only have a minority representation in high participation, (i.e. 23.3%, 18.9% and 18.4%, respectively). However, the skilled artisans have a slightly higher representation than both the casual labourers and the farmers in high participation. In average and low participation, businessmen are least represented i.e. 17.5% and 12.5%, respectively, as compared to twice this number in the other occupational categories in the average participation, and in low participation. Of interest again, is the pattern of difference in the distribution of all occupational categories (except businessmen)
in average participation. However, about 60% of farmers are located here, as compared to a figure 11% less than the casual labourers and petty traders in the same category (47.2%). Farmers again are slightly higher participants than both the skilled artisans and those in formal employment (by about 8% and 15%, respectively). This then points out that the majority of average participants are actually farmers. Coming to low participation, we find that casual labourers and petty traders predominate (34%) as compared to a figure 11% less than farmers in the same category (23.4%). At this point, it is clear that the farmers are actually higher participants than the petty traders and the casual labourers.

According to our above ranking, therefore, there is a shift in the opposite direction, and hence this finding would imply that casual labourers and petty traders, and not 'farmers only' may be at the bottom in the occupational ranking.

Towards an explanation of differential participation according to these occupational categories, it can be argued that businessmen are much more active than those in formal employment due to the fact that their time is more flexible in that they can easily allocate their time to cater for their active involvement in voluntary organizations.
Again the businessmen are much more community based than those in formal employment, as the latter are subject to transfers, or outside the area assignment which obviously means a lag in their participation. A substantial cluster of persons in formal employment are low participants (21.4%). This may be again expected, since these individuals are by virtue of their employment full time engaged, and often have time constraints which hinders their taking an active part in voluntary organizations. Farmers, it is evident are more active participants than casual labourers, and petty traders. The most likely explanation here is that these farmers have much more time at their disposal to invest in active participation whereas casual labourers and petty traders allocate most of their time in these activities, and still find some time to work in their shambas. As a result very little time is left in which to invest in active participation. In average participation, farmers are also more active than skilled artisans. This again can be explained by both time constraint, and the possibility that actually more benefits may accrue from this non-farm activity. Skilled artisans may find this activity much more gratifying than taking off more time in participation, for benefits which may not override those deriving from their non-farm efforts.
What is it then about occupation that facilitates or hinders participation? Non-farm occupational characteristics of peasants are crucial in understanding their extra processes of income generation. As we have seen earlier income and resource base determines social participation. Hence those with extra sources of income are in strategic position to actively participate especially in the economically viable organizations. Hence we would expect that those with steady income sources, and especially those in business and in formal employment to be actively involved in voluntary organizations. The casually employed are obviously not sure of continued income source. Most of the time, availability of casual employment depends on peak activity periods, for example in planting and harvesting seasons, and sometimes on the newly introduced rural industrialization programmes which taps a few of the abundant casual labour. Petty traders often fetch minimal profits from their products, often farm produce, arts and crafts, the prices of which depend on supply and demand in the rural markets, and even in nearby urban areas.

Our findings on occupational rankings and their positive association with participation, although in similar direction with studies done in the West, are strictly not comparable. These studies
have had their focus mainly on occupations in the urban centres which they have standardized in rating scales. However, the major arguments that have come up in studies in Western and local urban centres on occupational status and participation is that high level of participation among professional and white collar workers can be regarded as an extension of formal work roles. This view is held by Axelrod (1956:16) who argues that high status represents a convergence of many kinds of interests arising in part from higher education, more and varied contacts, and interaction arising from demands of the occupational role. This argument, therefore, is untenable in our situation, where our focus is on peasants whose major occupation is farming, but who also happen to engage in non-farm occupations. Hence their high participation cannot be explained in terms of their occupational status per se, but more on what benefits accrue from their occupations. However, some kind of high-esteem may foster conspicuous active participation to boost especially the generally highly ranked business activity and formal occupations. But it seems that the economic base provided by such occupations facilitate active participation in voluntary organizations, and especially in the economically viable organizations like the co-operatives. For example, it is not
surprising that businessmen are the most active participants in Mbooni, given their economic advantage, in that they are also the progressive farmers - who often have large farms, have innovated cash crops (e.g. coffee) and dairy farming - all of which generate substantial incomes, and are also an essential resource base which is a prerequisite to membership in especially the economic organizations. On the other hand, those who do not engage in any non-farm activity, i.e. farmers, seem to be comparatively more active in voluntary organizations than we would have expected. It appears that these concentrate much more on their farm for maximum utility since it is the main source both for their subsistence and possibly for sale of surplus.

Our study, therefore, shows that businessmen are significantly more likely to be active in voluntary organizations than persons in the other occupational groups. That persons in formal occupations are somewhat more active participants than skilled artisans, casual labourers, petty traders and those who engage in farming only. However, farmers and skilled artisans demonstrate almost comparable performance in participation, but that farmers are definitely more active participants than casual labourers and petty traders. This would
imply that the farmers are likely to have higher incomes accruing from their more concentrated farming activity than those who depend upon unstable nature of casual labour and petty trade.

Our next hypothesis relates these occupational categories to combined participation in political activity and in voluntary organizations. We are testing the hypothesis that: the higher the occupational ranking the higher the combined participation in political activity and in voluntary organizations. Our data confirms this hypothesis. A strong and positive relationship exists as established by a $X^2$ significant at .001 level and a gamma value of 0.4. See table below.

Table 17: Non-Farm Occupations vs. Degree of Combined Participation in Political Activity and in Voluntary Organizations

<table>
<thead>
<tr>
<th>Non-Farm Occupations (%)</th>
<th>Combined Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Businessmen</td>
</tr>
<tr>
<td>High</td>
<td>56.1</td>
</tr>
<tr>
<td>Average</td>
<td>26.8</td>
</tr>
<tr>
<td>Low</td>
<td>17.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>41</td>
</tr>
</tbody>
</table>

$X^2 = 68.72$ significant at .001
$\gamma = 0.4$
Statistics above show that over half of the businessmen are high participants (56.1%), as compared to half this figure for those informal employment in the same participant category (28.6%); about five times less than the skilled artisans (10.3%); and eight times less than the casual labourers and petty traders and farmers (7.8% and 7.9%, respectively) in the same participant category. Figures in average participation show that businessmen and those in formal employment have an almost equal representation. Skilled artisans however, have a wider representation than the other occupational categories in this region, whereas petty traders, casual labourers and farmers are almost equally represented here, with about a third of their groups clustered here. A shift in the pattern of distribution occurs in low participation category. Here businessmen, as would be expected, are least represented (17.1%), whereas both the formally employed and the skilled artisans have almost equal large groupings here (42.9% and 41.4%, in that order). Over half of the farmers (58.6%), and casual labourers and petty traders (60.8%) are concentrated in low participation. Another critical observation is that the majority of the formally employed are low participants (42.9%). What emerges from these observations is that except for skilled artisans and businessmen, all the other occupational groups are largely in low participation.
Businessmen are definitely characterized by high participation, whereas we can more or less refer to skilled artisans as average participants. What, therefore, explains this participation behaviour?

We will more or less adopt the arguments we put earlier, i.e. as would be expected that those in full time employment would have much more time constraints and especially to engage in political activity. A comparison of the above two tables would give a clear and consistent pattern, in which all occupational groups are more active in voluntary organizations, than in combined participation. The overall decline of figures in combined participation is attributed to less activity in political behaviour. Low participation in political activity among all occupational groups may partly be explained by the sensitive nature of politics in the area during the time this study was carried out. Hence activity in areas like campaigning were quite sensitive as there were only two but warring factions for candidacy in national and by-elections. Hence keeping off active politics, would perhaps have been rational in order also to concentrate in a more personally rewarding activity like one's job, business, petty trade, and even on the farm.
Some scholars on this subject have suggested that characteristics of jobs facilitate political participation. Their argument here is that the development and use of social and intellectual skills are likely to carry over to politics, and that opportunity to interact with like-minded others and roles on the job may carry over to public service. Professionals have therefore been found most likely to be active in politics, followed by businessmen, clerical, skilled and unskilled workers in that order, (Milbrath, p. 125-126).

Our last hypothesis that: higher occupational ranks are positively related with informal participation, is supported by our findings. There is a fairly strong positive relationship which is established by a $X^2$ significant at .001 level, and by a gamma value of 0.3. (See table below).
Table 38: Non-Farm Occupations vs. Informal Participation

<table>
<thead>
<tr>
<th>Informal Participation</th>
<th>Businessmen</th>
<th>Formal Employment</th>
<th>Skilled Artisans</th>
<th>Casual Labourers &amp; Petty Traders</th>
<th>Farmers Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>39.2%</td>
<td>21.4%</td>
<td>13.8%</td>
<td>9.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Average</td>
<td>58.3%</td>
<td>78.6%</td>
<td>86.2%</td>
<td>79.2%</td>
<td>90.0%</td>
</tr>
<tr>
<td>Low</td>
<td>12.5%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>11.3%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>99.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Base</td>
<td>48</td>
<td>14</td>
<td>29</td>
<td>53</td>
<td>160</td>
</tr>
</tbody>
</table>

\[ X^2 = 34.3 \text{ significant at } .001 \]

From the table above, figures on the high participant category show that degree of participation increases with occupational ranks, where businessmen lead the others, followed very closely by those in formal employment, and then skilled artisans. However, there is a reverse, when it comes to petty traders, casual labourers and those engaged only in farm activity, where the latter, unlike in previous discussion, are now less active than the former, a pattern which is also repeated in average participation. From about 60 to 90% of participants in all occupational groups are average participants. However, farmers (90%) and skilled artisans (86.2%) have majority representation, while teachers (78.6%) and
casual labourers and petty traders (79.2%) follow suit on an equal basis. Skilled artisans and those in formal employment are totally absent in low participation, whereas businessmen (12.5%) casual labourers and petty traders (11.3%) are almost equally represented in this area, still a minor representation of farmers in the same category.

What we need to point out here is that, in the area of formal participation, persons in all occupational groups would best be described as average participants, and that there are a few cases of low participants and also a significant group of high participants who are mostly located in the higher occupational groups.

Degree of informal participation according to occupational groups, seems to imply that those who are likely to benefit most from this kind of participation also happen to be relatively more active. These are the businessmen and those in formal employment mainly. There are two possible reasons that we want to advance here. In the first place businessmen as we have seen are also the progressive and more affluent farmers in the area, and hence are the key focus for example in group extension, like an agricultural field day, where in fact most of the demonstrations are carried out for the progressive farmers. Secondly, some of
of these in high occupational ranks are likely to be leaders and/or resource persons in these meetings, and especially at the "barazas", which may boost their ego and thus reinforcing them to conspicuously be actively involved. However, a substantial group of businessmen are low participants, (12.5%). These may not be getting any benefit in attending field demonstrations, barazas, and others. They either know the extension methods so well, or have access to first hand information even before it reaches the farmers at barazas, or they simply dismiss it as a waste of time. Another advantage these more affluent farmers have, as extensively shown in agricultural extension literature, is that they have direct services of extension officers, which obviously cuts down the necessity to attend field demonstrations, or even that some of these progressive farmers may be ahead of the extension officers, or even local administration in terms of flowing-in information. Concentration of all occupational groups in average participation, is likely to be boosted by attendance at barazas, where over 90% of our entire sample were found to be active. For the low participant group among the casual labourers and petty traders (11.3%): their behaviour may be explained by the nature of their activity. These groups are likely to be quite busy, and particularly the petty traders - moving from market to market,
or otherwise in buying and selling whatever products they trade in. As a whole, therefore, it seems that the question of pay-off in participation is important, and especially if we compare the high participation rates in voluntary organizations, and perhaps in the economically viable organizations.

In conclusion, our analysis on occupational groups and participation shows that, active participation increases with occupational ranks, where businessmen are in the forefront in active participation in voluntary organizations, in combined participation, and even in informal participation. However, except for informal participation, those individuals engaged in farm activity only, demonstrate more active participation than casual labourers, and petty traders, and hence they actually would belong to the rank we have assigned the latter group. These occupational ranks, therefore, could be said to determine degree of informal participation.

**Income and Social Participation**

Statistics on income distribution in Mbooni reveal that a majority of households in the area suffer from very low income levels (see table below).
Table 19: Distribution by Income

<table>
<thead>
<tr>
<th>K.Sh. (P.A.)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 2400</td>
<td>77.0</td>
</tr>
<tr>
<td>2401 - 3600</td>
<td>7.9</td>
</tr>
<tr>
<td>3601 - 4800</td>
<td>3.1</td>
</tr>
<tr>
<td>4800+</td>
<td>11.9</td>
</tr>
<tr>
<td>Total</td>
<td>99.9</td>
</tr>
</tbody>
</table>

Income distribution figures in the area show that about three quarters of the households (77.0%) earn up to Shs. 2,400/- per annum, a figure which has been taken as an annual average income for the working poor in Kenya (see ILO: 1912:61-2). Annual average income for Mbooni households is slightly below this figure - Shs. 2,100. About 23% of households have an income above the figure for the working poor, with a majority of the households concentrated on higher income groups (over Shs. 4,800).

While it is clear that a majority of households in the area are characterized by low incomes, there is an unequal distribution of incomes in which a very small section (11.9%) command highest incomes among the households in the area. However, inequalities in the distribution of national wealth
and income, and economic opportunities, has been of current interest in literature on both developed and underdeveloped countries. Such inequalities, it has been demonstrated, exist between and within nations, within regions of nations, and rural and urban sectors. In Kenya, income distribution picture has been analysed in terms of three major economic groups, with income ranges of K.£ 20 or less to over K.£ 1,000 p.a. Persons with incomes between £ 200 and £ 600 p.a. have been labelled middle-income groups. This group comprises employees in the non-agricultural formal sector, some smallholders, and a small proportion of owners of small non-agricultural enterprises both in the informal and formal sectors. Then there is the low-income group where most of the households in the country fall, which includes all unskilled employees in the formal sector, the majority of the smallholders and pastoralists, and employees in non-agricultural enterprises in the formal sector. This is the group labelled the working poor (with incomes below £ 120 p.a.) which have been said to be in a state of real poverty.

The majority of Mbooni households therefore could be said to be representative of the national picture with regard to poor income levels which
characterizes the majority of households in the nation. However, it can be misleading to talk in general terms of average rural and urban incomes, as in both urban and rural areas, it has been pointed out there is a high degree of inequality of income. In the rural sector, for example, those engaged in non-agricultural enterprises have been described as relatively well off, i.e. with incomes in excess of £200 p.a. The observation that the statutory minimum wages in urban areas are well above the incomes of all groups in the rural areas except more prosperous smallholders and owners of non-agricultural rural enterprises has also been made. The Mbooni experience, in general, shows that the households with highest incomes are not only progressive farmers, but have non-agricultural enterprises, mainly shopkeeping, and various types of trades. The rest of the households show patterns of extreme poverty, which is a consistent picture in Kenya as a whole.

Explanations given for low-income characteristics of poverty groups is that income growth is limited by lack of access to land, capital and other public facilities, and often by outright discrimination. To a large extent this group is outside the organised market economy and is said to have weak links with it. Low per capita income is also seen as possible
factor explaining low income levels in a country. Although Kenya could be said to have a relatively low per capita annual income (U.S. $136 as at 1969), this does not mean that there is no absolute poverty problem among the majority of its population. In this connection, a study by World Bank (Chenery, et.al. 1974) reveals that Kenya is one of the countries which demonstrates a high inequality ratio. The lowest 40% of Kenya's population (defined in relative terms as the lowest 40% of the population) had only 10% share of Gross National product (GNP), while the middle 40% shared 22%, and the biggest share of GNP (68%) was shared by the top 20% of the population. (Compare this with Tanzania - with a per capita income of U.S. $89, with moderate inequality ratio where the lowest 40% of its population had 13.0% share of its GNP, the middle 40% shares 26.0%, and the top 20% - 61%. Uganda had low inequality in which the lowest 40% of her total population share 17.1% of her GNP, middle 40% shares 35.8%, and the top 20% has 47.1% of the GNP.

The comparative picture above is a major pointer to gross inequalities in the distribution of national income in Kenya despite her relatively higher per capita income within East Africa. Further, on income inequalities in Kenya, it was estimated
that approximately 1.3% households received incomes of £ 1,000 and over compared to say 14.1% of households with incomes of £ 20 or less p.a. (See ILO, 1972:74). Income distribution in Mbooni, therefore, seems to follow the pattern in a similar direction, where despite poor incomes experienced in the area, the top 11.9% earn over Shs. 4,800 p.a. as compared to 77% with Shs. 2,400 and less per annum.

Income, as an indicator of status has been seen as an important variable in determining individual degree of participation. Hence we now move on to test through a set of hypotheses whether this proposition is tenable among Mbooni participants.

A set of three hypotheses relate income to various aspects of participation. The first of these is that: the higher the income the higher the degree of participation in voluntary organizations. This hypothesis is confirmed by Mbooni data. There is a very strong positive relationship between income and degree of participation in voluntary organizations, which is significant at .001, and the strength of this relationship is indicated by a very strong gamma value of 0.81. (See table below).
Table 20: Income vs. Degree of Participation in Voluntary Organizations

<table>
<thead>
<tr>
<th>Participation in Voluntary Organizations</th>
<th>&gt; 4800</th>
<th>3601-4800</th>
<th>2401-3600</th>
<th>0-2400</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>86.7</td>
<td>16.7</td>
<td>38.1</td>
<td>13.8</td>
</tr>
<tr>
<td>Average</td>
<td>13.3</td>
<td>83.3</td>
<td>57.1</td>
<td>54.9</td>
</tr>
<tr>
<td>Low</td>
<td>0.0</td>
<td>0.0</td>
<td>4.8</td>
<td>31.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>30</td>
<td>6</td>
<td>21</td>
<td>195</td>
</tr>
</tbody>
</table>

$X^2 = 90.1$, significant at .001 level

$\phi = 0.81$

From the table, a majority of those in the high income brackets (i.e. with over Shs. 4,800) are high participants (86.7%), as compared to the other lower income groups, where the marginal income group (i.e. up to Shs. 2,400) have only 13.8% with high participation. Most of the income groups, except those with highest incomes are concentrated in the average participant category. About a half of the group with poor incomes (54.9%) are average participants, as compared to 13.3% of the high income group with average participation. Almost the entire upper income group (i.e. Shs. 3,601-4,800) are concentrated in average participation, and the rest of the group are active participants (16.7%). On
looking at the low participant category it is evident that there is total absence of higher income groups, and a meagre representation of the lower medium group (i.e. 2,401-3,600) where 4.8% are in this category. Of significance is the group with poor incomes who have a cluster with low-participation (31.3%). Low participation it is demonstrated, is characteristic of those with poor incomes, while average participation embraces all income groups, except those with high incomes who are characterized by active participation. High income, we can therefore, assert is a major discriminatory factor in active participation in voluntary organizations.

Towards an explanation of differential participation according to income levels, it is expected that access to certain memberships, and especially the economically viable ones like coffee and diary co-operatives depends entirely on availability of resources. The first prerequisite to membership in these co-operatives is that one has to have land, and land that is suited to coffee-growing and dairy farming. The laggards will naturally be adversely affected, since not only have they the least land size, but also very poor land. On the other hand, the laggards have been found to lack in innovative drive, hence adoption of crops and farm technology have been found characteristic of the progressive
individuals, in terms of high incomes and high levels of living. This means that the poor are not likely to join these highly innovative activities. Further, financial commitment for the purchase of dairy cows, inputs and other items impinge upon the resources of members. It is, therefore, those who have the resources or the relevant property basis who can join such bodies. Hence the better-off are best placed in this activity. This notion is shared by a recent study by UNRISD (1975) on rural co-operatives in developing areas, where it has been shown that it is the better-off rural inhabitants who mainly take advantage of the co-operative services and facilities that are channelled through co-operatives.

Motivation to join in organizations may also depend on perceived benefits, be they socio-psychological, economic or otherwise. Active participation or rather commitment, in the organizations one belongs to, is likely to be enhanced by continued receipt of such perceived benefits. Once a member in a voluntary organization, active participation demands a great deal of more commitment of time, energy, and resources, and those who sacrifice these do so in anticipation of some returns in way of meeting their needs. We then can assume that the active participants have
their loyalties or commitment in these organizations in so far as they continue to satisfy their needs. On the other hand, the average participants with high incomes might not perceive of benefits from some participation. Whereas the poor or the marginal group seem to be aware of their relatively deprived position in the community, as we have seen half of them are average participants. This implies that, despite their marginality, they are trying to catch up with the high income group by trying to participate actively, as a few cases (13.8%) are also competing with those with high incomes. It looks that the laggards too are aware of benefits that accrue through participation, but that their limitations such as lack of capital are an obstacle to active participation, and hence such benefits are off their way, until they have a property or resource base which seems necessary for take-off into active participation.

Some authors, have argued that participation is cumulative, and is mostly so for higher socioeconomic status individuals. Through participation an individual grows in awareness, and the more he participates, the better he is able to do so. Lack of participation, therefore, becomes an important factor when considering the possibilities for status
improvement open to low status members of society. There is a continuous status struggle within members of a social system, and those who win are likely to have more opportunities open for them, as opposed to the laggards who seem to have made moves to catch up with the progressives, just to find that the latter are more distant the closer they try to get. However, this is the gap the poor are trying to fill, but they are often faced with poor income base which is their major obstacle towards realizing this goal, and hence this further perpetuates low participation.

In conclusion, therefore, income has a very strong effect on participation, and in this case a strong determinant of active participation in voluntary organizations. This is generalizable to Kenyan rural areas, where the inhabitants suffer from poor incomes, as a result of which they are almost unable to actively participate especially in those organizations that are likely to offset their poor incomes.

Our next hypothesis relates income levels to combined participation in political activity and in voluntary organizations. We are testing the hypothesis, that: the higher the income the higher the degree of combined participation in political activity and in voluntary organizations.
Data on combined social participation confirms that individuals with higher incomes are also active participants in both political activity and in voluntary organizations. A very strong positive association is established by a strong gamma value of 0.7, and a $X^2$ significant at .001 level. (See table below).

Table 21: Income vs. Combined Participation in Political Activity and in Voluntary Organizations

<table>
<thead>
<tr>
<th>Income Shs. (P.A.)</th>
<th>Combined Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;4800 %</td>
</tr>
<tr>
<td>High</td>
<td>62.1</td>
</tr>
<tr>
<td>Average</td>
<td>31.0</td>
</tr>
<tr>
<td>Low</td>
<td>6.9</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>29</td>
</tr>
</tbody>
</table>

$X^2 = 67.4$ significant at .001

$\gamma = 0.7$

Figures on the table above show that the majority of the high income group are high participants (62.1%) which is about four times the figure for the upper and lower middle income groups with active participation (i.e. 16.7% and 15%, respectively) and about ten times the figure for the poor who are
active participants (6.6%). These figures evidence a clear differentiation in active participation according to income levels. However, about half of upper and lower middle income groups are average participants whereas fewer cases of the extreme income groups are located here, i.e. the same figure for both high income individuals and the poor are average participants (31%). This behaviour, although it appears interesting, we have no explanation, and since our major concern is in the extreme participant categories, we now focus on what income groups dominate in low participation. We note here that the majority of the poor are low participants (62.3%), a figure about nine times greater than those with high incomes (6.9%) in the same category. A diagonal look at the table gives a very interesting picture, the pattern of participation of the extreme groups, (i.e. the poor and the progressives) is drastically reversed as compared to the middle income groups. For example, a minor representation of both groups in high and low participation is of the same weight, i.e. 6.9% high income individual depict a characteristic of the poor, whereas 6.6% of them show active behaviour; a trait of those with high incomes. It is, therefore, evident that the income gap means a wide gap in participation. The drive to participate or not participate does to a large extent depend
As argued, earlier, income inequalities enhance differential degrees of individual participation. While low participation has been explained by low level of income achievements, on the part of low participants, their low participation in political activity where income is not a prerequisite needs a further explanation. Some argue that participation that enhances prestige among high status individuals motivates them to participate more in various realms. This can be said to be a multiplier effect of participation, where the more benefits an individual receives from active participation, the more likely he is to seek and explore other areas in which to participate, still in anticipation of certain perceived benefits. The low status individuals are likely to have low motivation to participate actively even in areas where there is no financial commitment. They may show some resignation and acceptance of their marginal position, which further stagnates them into a pathetic situation. But we should not lose sight of the fact that individual motivation behind this behaviour may be determined by perceived benefits, where, if one does not participate in a certain activity he loses nothing, or even if his participation begets no benefits, it would be quite rational to keep away. Hence the drive to participate or not participate does to a large extent depend
We can argue that incomes are more differentiating in degree of combined participation, than in participation in voluntary association per se. This is evident when we compare participation behaviour in the above two tables, where in the combined participation we have much more participants with low participation than we had in participation in voluntary organizations. Hence high income emerges as a major determinant of active participation in not only voluntary organizations, but also in political activity.

High status individuals have also been found to demonstrate a high degree of participation in multiple aspects, including informal participation. This study has also tested this aspect of participation, and come to a similar conclusion that income is positively associated with informal participation. This confirms our hypothesis that: high income is positively associated with high degree of informal participation. A very strong statistical interdependence is shown by $X^2$ significant at .001 level, and by a very strong gamma value of 0.82. (See table below).
Table 22: Income vs. Informal Participation

<table>
<thead>
<tr>
<th>Informal Participation</th>
<th>&gt;4800 %</th>
<th>3601-4800</th>
<th>2401-3600</th>
<th>0-2400 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>41.4</td>
<td>16.7</td>
<td>19.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Average</td>
<td>58.6</td>
<td>83.3</td>
<td>81.0</td>
<td>90.8</td>
</tr>
<tr>
<td>Low</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>29</td>
<td>6</td>
<td>21</td>
<td>196</td>
</tr>
</tbody>
</table>

N=252

\[ x^2 = 47.3 \text{ significant at } .001 \]

The above figures show that, the higher income group has a majority on the high participant category (41.4%) as compared to the lower income groups, and especially with the marginal group with only 3.6% in this category. The majority of the participants within all income groups are concentrated in the average participant group, although the high income groups are not represented in the same magnitude as the other income groups here. Almost the entire poor income group has average participation (90.8%). Looking at low participation, there is a total absence of all income groups except the laggards, although with a minor representation (5.6%).
Although we can argue that informal participation, e.g. attending barazas requires no financial base, the multiplier effect of participation would partly explain differential participation in this area. On the other hand, attendance at say an agricultural field day would appeal much more to the progressive farmers where they gain from demonstrations in better farming methods and other innovations, which as we have argued earlier benefit the high income groups. Although informal participation is an area where the masses can be exposed on a large scale, it appears that the poor are either aware of the fact that these areas of participation have a focus on those who are best placed to use their exposure in getting something done in practice, or that there is no need to even be exposed if exposure impinges more on their realization of their marginality, or that once exposed they would be more frustrated due to economic limitations, which make it almost impossible to forge ahead. But despite these limitations, we can argue that the majority of Mbooni adults are aware of the need to actively participate in the informal aspects discussed above, as they are average participants and hopefully moving up to active participation.
Our analysis on income and participation, therefore, establishes that income is a major determinant in the various aspects of participation discussed above. Active participation is expected of those with higher incomes, and low income or marginal individuals are characterized by low participation.

Level of Living and Social Participation

Level of living although taken as one of the status indicators, it is felt that it is also directly related to income, and hence at another level it could be taken as an indicator of income, and especially in rural areas where cash incomes are scarce. However, level of living can again be taken as an indicator of innovative behaviour in the home. Hence our use of the terms "laggards" and "progressives", where for example the terminology "laggard" is used for analytical purposes to refer to those persons who, although would have liked to acquire certain household items are actually deficient of them due to certain economic limitations that we seek to explore. The "progressives" on the other hand will be used to refer to those persons who have adopted these household items.
We, therefore, wish to argue that level of living can stand as one of the factors influencing participation. This we can qualify through our findings above where in fact levels of living have a much stronger positive relationship than that which exists between both education and occupation with the various aspects of social participation that we have studied, as shown below by the strength of the relationships that exist between these variables and social participation as indicated by gamma value.

**Table 23: Strength of Relationships between SES Indicators and Social Participation as Indicated by Gamma**

<table>
<thead>
<tr>
<th>SES Indicators</th>
<th>Voluntary Organizations</th>
<th>Combined Participation</th>
<th>Informal Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>0.81</td>
<td>0.7</td>
<td>0.82</td>
</tr>
<tr>
<td>Level of Living</td>
<td>0.47</td>
<td>0.44</td>
<td>0.6</td>
</tr>
<tr>
<td>Education</td>
<td>0.33</td>
<td>0.37</td>
<td>0.57</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.2</td>
<td>0.4</td>
<td>0.3</td>
</tr>
</tbody>
</table>

On the basis of the above, therefore, we adopt level of living as a status indicator among rural populations.
General observation (and informational) data show that most of Mbooni households use the traditional 3 stones and firewood for cooking. Half the households have adopted use of the "jiko"/charcoal cooker, and a negligible number use stove and gas cookers. On lighting facilities the majority use kerosene lamp, a good number of them use tin lamps, and very few cases have adopted gas or pressure lamps. On fencing, bush is the major type, although wire fencing is slowly replacing bush fences. Housing in the area is mainly poor and semi-permanent. Most houses are mud-walled, with a few stone/brick ones, iron-roofing is quite common and replacing grass thatched house structures in the area. Very few cases have cement floors and glass windows.

In our study, levels of living of Mbooni households is measured by household possessions. The Guttman scale is applied to measure this variable.

The Guttman Scale

This scale is used to categorize Mbooni households into their levels of living or home innovativeness. This scale, developed by Louis Guttman has the major properties of being ordinal and cumulative. For example, it is assumed that an individual who can multiply can also add and subtract, or in
this study possession of a rare item like a motorcar, would imply that the individual possesses all the other items, like table, radio, and others. The scale has also the property of being unidimensional, i.e. it measures only one attribute.

Scale analysis is based on an analysis of the response patterns of the subjects to the set of items, where a response pattern denotes the set of responses to items given by a subject. In a perfect scale the responses of a subject to all the items can be reproduced from his rank position alone. Guttman takes this notion as the basis for his definition of error. Since perfect scales are not possible, individuals with non-scale patterns are assigned rank positions of the most similar perfect scale types. An error is then simply a response made by a subject which would have been predicted wrongly on the basis of his assigned rank position. An error is thus an error in reproducibility. The coefficient of reproducibility (Rep.) is therefore Guttman's basic overall measure of error for the entire scale, which is defined by the following formula:

\[
\text{Rep} = 1 - \frac{\text{total number of errors}}{\text{total number of responses (i.e. no. of items} \times \text{no. of subjects)}}
\]
In evaluation of the amount of error, cutting points are established at the boundaries of the categories for each item in such a fashion that the number of responses occurring outside the boundaries of the categories is a minimum. The total error of reproducibility is then simply the number of responses falling outside of the boundaries. Hence, the procedure is designed to enable us to see how far our items and people's responses to them deviate from the ideal scale pattern. The coefficient of Rep. is therefore a proportion which is supposed to indicate the accuracy with which responses to the various items in a set can be reproduced from the total scores. Guttman has suggested that the major necessary condition for determining whether a set of items constitutes a cumulative scale is that the coefficient of Rep. be at least 0.90, if the scale is below this, then it is unsatisfactory, a remedy of which is to eliminate a number of items which have most errors, and then rescaling the remaining responses and recalculating the coefficient of Rep.

Concepts of 'population of subjects' and 'universe of content' of items play a central role in a Guttman Scale. It is the universe whole scalability for a given population that is being tested, and not the particular group of items (for
either the population or the specific group of subjects). The universe consists of all the attributes that define the concept or that the universe consists of all the attributes of interest to the investigation which have a common content, and classified under a single heading which indicates that content. For example in this study the universe being tested is that of household possessions. For those items which do not fit in the universe, the formal analysis for scalability will clarify uncertain areas of content. The coefficient of scalability therefore ascertains that the scale is as near to an ideal one as possible, and also measures its departure, as given by the formular:

\[
\text{Coefficient of Scalability} = 1 - \frac{\text{errors}}{\text{smaller number of non-modals}}
\]

Non-modals refer to the least common of either the positives or the negatives on rows and columns. For a Guttman Scale to be valid or satisfactory, it has to reach the accepted coefficient of at least 0.65. In Guttman Scale item categories are arranged as columns, and respondents or subjects as rows, and possession of an item is indicated by a sign (e.g. \(x\)) and non-possession of an item by a negative sign (\(-\)). (See below).
In this study a universe of 32 household possessions was applied to our entire sample. 18 of these items passed the screening process and hence were adopted as the universe of content to measure the attribute - household possessions for Mbooni population (as will be shown below).

As pointed out in the discussion of the properties, criteria and use of the scale, our scale has fulfilled the two major criteria on the values of Coefficient of Scalability and Reproducibility. Our scale has yielded a Coefficient of Scalability of 0.82, and a Coefficient of Reproducibility of 0.91. Hence we have adopted our scale as a valid one, and have applied it to stratify the households into four major categories, i.e. High, Upper medium, Lower medium, and Low. These four categories have been determined by respondents' behaviour in the scale, with the end result of a "clustering of respondents who possess certain
household items, which in turn differentiate that group or category from the other categories of the respondents in the scale. The table below, therefore, shows the distribution of Mbooni households according to their levels of living.

Table 24: Distribution by Levels of Living

<table>
<thead>
<tr>
<th>Levels of Living</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>14.7</td>
</tr>
<tr>
<td>Upper-Middle</td>
<td>44.8</td>
</tr>
<tr>
<td>Lower-Middle</td>
<td>14.3</td>
</tr>
<tr>
<td>Low</td>
<td>26.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td><strong>Base</strong></td>
<td><strong>252</strong></td>
</tr>
</tbody>
</table>

The majority of Mbooni households, as the table above shows, are characterized by low levels of living. A minority, the top 14.7%, enjoy high levels of living, compared to the lowest group (26.2% - almost double the top group) who suffer from very low levels of living, and a larger medium group which constitute about half the households in the area, who can be said to show moderate low levels of living.
Eighteen out of 32 household possessions are the major scale items which have survived the scrutiny of the scale, and used as a basis of which the households have been categorized. The universe of this content is: - (Note the cumulative nature of possession of these items. Listed therefore, are differentiating items in the various groups).

<table>
<thead>
<tr>
<th>Low</th>
<th>Lower-Middle</th>
<th>Upper-Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Karai&quot;</td>
<td>Separate Kitchen</td>
<td>Foam Mattress</td>
<td>Vono Bed</td>
</tr>
<tr>
<td>Tables</td>
<td>Sheets</td>
<td>Radio</td>
<td>Motor</td>
</tr>
<tr>
<td>Wooden Box</td>
<td>Cupboard</td>
<td>Thermos Flask</td>
<td>Vehicle</td>
</tr>
<tr>
<td>Easy Chairs</td>
<td>Iron-box</td>
<td>Forks</td>
<td></td>
</tr>
<tr>
<td>Torch</td>
<td>Tooth Brush</td>
<td>Clock/Watch</td>
<td>Suitcase</td>
</tr>
</tbody>
</table>

The lowest group (26.2%) is characterized by only 5 items, i.e. Karai, tables, wooden box, easy chairs, torch. The lower-middle group is differentiated from the lowest group by only 2 items, i.e. separate kitchen, and sheets. Thus in addition to the 5 items possessed by the lowest group, this group also possesses these 2 items, lacking in the lowest group. The upper-middle group does not only possess the 5 and 2 items characteristic of the lowest, and lower-middle groups (respectively), but it has in addition 9 items which differentiate it from the lower-middle group (i.e. items which the lower-middle group do
not possess). These items are: cupboard, iron-box, tooth-brush, foam mattress, radio, thermos flask, forks, clock/watch, and suitcase. Then the top group is characterized by two major items which are not possessed by any other group, i.e. vono bed, and motor-vehicle, which can only be found among this group with a high level of living. It should be pointed out that this group possesses all the items that are possessed by all the other groups or categories. Certain items in the scale have proved significant in that they are the cross-over points in the scale, i.e. behaviour of respondents in the scale is modified by either the possession or lack of possession of these items, which also determine respondents place in the various categories. For example, the item separating the lowest and the lower-middle group is the separate kitchen, while sheets separate the lowest from the lower-middle groups, and lastly vono-bed is the bridge between the high and upper-middle groups. This pattern would seem to imply that a progressive move from low to high levels of living got to be marked by possession of separate kitchen, sheets, and vono bed (in that order). Of major interest, therefore are the two extreme groups which demonstrate high levels of living, and low levels of living.
The households with high levels of living are also likely to be those who enjoy higher income levels, possibly higher education levels, and likely to be the early adopters, as the items they possess show. Permanent house structures and better facilities, i.e. with regard to lighting, fencing, type of cooking place, etc. are also characteristic of this group. This group, it is most probable have higher social participation rates in formal organizations and groups. On the other hand, the low-level of living group are very likely to have very low incomes, nil or low levels of education, and may be labelled laggards in the adoption of the above household items. Poor house structures, and poor facilities in fencing, lighting, type of cooking place, etc. has been found to be characteristic of this group. Low levels of social participation are likely to be characteristic of the same group.

A simple survey in Mbere (Hunt: 1974:14) on a random sample of 205 households which utilized a list of various household items found that certain items were very rare among the majority of Mbere households, e.g. thermos flask, sponge mattress, radio, suitcase, etc. A similar picture has been shown in Mbooni, where these items are only
found among the groups with higher levels of living. The fairly common items among Mbere households were chairs, sheets, torches, etc. which are still owned by a small group of households as compared to Mbooni where over 80% of the households in the area possessed these items. Comparatively therefore, Mbooni households can be said to have high levels of living, while Mbere households demonstrate low levels of living, and hence laggards in the adoption of a number of items.

The table below gives a comparative picture of possession of some 10 common items used in both this study and in Mbere. It should however be pointed out that this is a simple comparison based on the percentage of households in possession of certain items, since in the Mbere study household items were not scrutinized in any systematic way, to discriminate certain items and hence validate their application to households under study.
Table 25: Household Possessions: Mbooni and Mbere

<table>
<thead>
<tr>
<th>Items</th>
<th>Mbooni out of 252</th>
<th>Mbere out of 205</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tables</td>
<td>86</td>
<td>30</td>
</tr>
<tr>
<td>Chairs</td>
<td>84</td>
<td>42</td>
</tr>
<tr>
<td>Wooden boxes</td>
<td>83</td>
<td>15</td>
</tr>
<tr>
<td>Torches</td>
<td>73</td>
<td>36</td>
</tr>
<tr>
<td>Sheets</td>
<td>58</td>
<td>48</td>
</tr>
<tr>
<td>Sponge mattress</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>Radio</td>
<td>34</td>
<td>9</td>
</tr>
<tr>
<td>Suitcase</td>
<td>27</td>
<td>11</td>
</tr>
<tr>
<td>Thermos flask</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Spring or Vono bed</td>
<td>24</td>
<td>29</td>
</tr>
</tbody>
</table>

Three hypotheses relate levels of living and the various aspects of social participation. The first of these is that: the higher the level of living the higher the degree of participation in voluntary organizations. Mbooni data shows that there is a strong positive association between levels of living and participation in voluntary organizations, a relationship which is at .001 level of significance, and a gamma value of 0.47. (See table).
Table 26: Levels of Living vs. Participation in Voluntary Organizations

<table>
<thead>
<tr>
<th>Participation in Voluntary</th>
<th>High</th>
<th>Upper Middle</th>
<th>Lower Middle</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>48.6</td>
<td>23.0</td>
<td>22.9</td>
<td>10.8</td>
</tr>
<tr>
<td>Average</td>
<td>45.9</td>
<td>56.6</td>
<td>45.7</td>
<td>47.7</td>
</tr>
<tr>
<td>Low</td>
<td>5.4</td>
<td>20.4</td>
<td>31.4</td>
<td>41.5</td>
</tr>
<tr>
<td>Total</td>
<td>99.9</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Base</td>
<td>37</td>
<td>113</td>
<td>35</td>
<td>65</td>
</tr>
</tbody>
</table>

$X^2 = 33.7$ significant at .001

$\phi = 0.47$

Statistics in the above table show that individuals with high levels of living constitute the majority of high participants (48.6%) as compared to about half this figure of the middle level of living groups, and about four times of those with poor levels of living (10.8%) in the same category. There is a very insignificant difference in average participation in all levels of living groups since about half of them are clustered here. However, when we look at the distribution of level of living groups in low participation, a sharp differentiation exists and especially between the progressive (i.e. high) and the laggards (i.e. low). Only 5.4%
of the progressives are low participants as compared to about eight times this figure of the laggards (41.5%). Again it is clear that over 90% of the progressives are in high and average participation, whereas about 90% of the laggards are in the average and low participation. The middle level of living groups can be said to have a concentration in average participation. The extent of participation in voluntary organizations is quite differentiating among the progressives and the laggards. This means that high level of living enhances an individual's chances of active participation.

The group with high levels of living can be seen as progressive individuals, who are the early adopters of household items discussed above. High innovative behaviour is therefore demonstrated by this group, which we can argue is much more ready to accommodate new ideas, practices, and otherwise in widening their social interaction patterns, than the laggards.

The progressives are also likely to have higher incomes. This assumption is tenable in that some of the memberships to which this group belong require some strong financial base, like the cooperatives mentioned above. High level of living,
therefore, can be seen as a strong indicator of status, as it is a differentiating factor in participation. Studies which have included the variable level of living, have not related it to social participation, as we have seen this variable has emerged, as a social status indicator, for example, Roger's study on modernization in Columbian villages in which he used level of living and farm size as economic indicators. We therefore come to the conclusion that individuals with high levels of living are more likely to be active participants.

The next hypothesis is set to test whether individuals with high levels of living are active in both voluntary organizations and in political activity, i.e. the higher the level of living the higher the degree of participation in political activity and in voluntary organizations. Our study confirms that there is a strong positive relationship at .001 level of significance, and the strength and direction of this association is indicated by a gamma value of 0.44, as shown below:–
Table 27: Levels of Living vs. Combined Participation in Political Activity and in Voluntary Organizations

<table>
<thead>
<tr>
<th>Combined Participation</th>
<th>High</th>
<th>Upper</th>
<th>Lower</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>High</td>
<td>25.7</td>
<td>15.3</td>
<td>16.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Average</td>
<td>54.4</td>
<td>36.9</td>
<td>29.0</td>
<td>23.0</td>
</tr>
<tr>
<td>Low</td>
<td>20.0</td>
<td>47.7</td>
<td>54.8</td>
<td>73.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>99.9</td>
<td>99.9</td>
<td>100.1</td>
</tr>
<tr>
<td>Base</td>
<td>35</td>
<td>111</td>
<td>31</td>
<td>61</td>
</tr>
</tbody>
</table>

\[X^2 = 22.69\text{ significant at } .001\]
\[\chi = 0.44\]

Figures on participation of the progressives show that a quarter of them are participants (25.7%) as compared to a figure about 10% less of the middle level of living groups (i.e. 15.3% and 16.1%) and about eight times the laggards in high participation. However, about half of the progressives are average participants (54.4%), as compared to the concentration of the other groups in low participation. Of significant contrast is the progressives and the laggards, where over 70% of the laggards are low participants, as compared to 20% of progressives in this category. The pattern of participation is quite consistent in all groups except
for the progressives where the reverse is evident. Here we find the major cluster in average participation, and about the same figure in high and low participation (i.e. 25.7% and 20%), we would have expected a higher representation in high participation, and a lower figure in low participation. Political participation seems to have affected our expectations, as the progressives are not as active in this area of participation, as in voluntary organizations (compare 25.7% and 48.6%, and 20.0% and 5.4%, of progressives in high and low participation in the two tables above). We can argue political activity does not seem beneficial in way of innovativeness, as a cluster of progressives are low participants (20%). The laggards too seem resigned in their positions and seem to make very little moves towards active participation, where only 3.3% are in this category. However, it is evident that there is marked differential participation and especially the progressives and the laggards.

From the foregoing we can argue that the early adopters of household possessions are also the most active in both voluntary organizations and in political activity. Innovative behaviour, is therefore characteristic of persons with high
levels of living which in turn enhance active participation.

The last hypothesis that: high level of living is positively correlated with high informal participation, has also been confirmed by Mbooni data. There is a strong positive association between high level of living and informal participation significant at .001 level. The strength and direction of this relationship is established by a gamma value of 0.6. See table below:

**Table 28: Level of Living vs. Informal Participation**

<table>
<thead>
<tr>
<th>Level of Living</th>
<th>Informal Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>24.3%</td>
</tr>
<tr>
<td>Average</td>
<td>75.7%</td>
</tr>
<tr>
<td>Low</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
<tr>
<td>Base</td>
<td>37</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 28.18 \text{ significant at } .001 \]

\[ \gamma = 0.6 \]
From the above figures, it is the progressives who have a representative majority in high participation (24.3%) as compared to the other groups, and especially the laggards with eight times this figure (3%) in high participation. Average participation, caters for about 90% of all groups except the progressives where three quarters of them are also clustered here. At this point we can assert that, the majority in all level of living groups are average participants. And in fact when we come to low participation, we find that the progressives are totally unrepresented, while an insignificant figure constitutes the middle groups (i.e. 2.8%, and 2.8%) and a slightly higher figure representing the laggards (10.6%). But there still is a clear cut distinction between the progressives and the laggards in both high and low participation.

From the above discussion, the highly innovative individuals also show readiness to widen their horizon in extending their social interaction even outside formal boundaries. As mentioned earlier, it is through group extension forms of participation, for example "barazas", that most of the rural population are made aware of a number of things, new ideas, and otherwise.
This awareness enhances innovative behaviour, which is seen as an important factor influencing participation.

In conclusion, analysis on levels of living and social participation confirms that:

1. High level of living is positively associated with:
   (a) degree of participation in voluntary organizations;
   (b) degree of combined participation in political activity and in voluntary organizations;
   (c) informal participation.

2. That high level of living is a strong determinant in both formal and informal aspects of participation discussed in the study.

SES and Social Participation

Below are results from multivariate analysis on SES and participation.
Table 29: Relation of Income, Education and Occupation to High Degree of Participation in Voluntary Organizations

<table>
<thead>
<tr>
<th></th>
<th>- Occupation</th>
<th>+ Occupation</th>
<th></th>
<th>+ Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Education</td>
<td>+ Education</td>
<td>- Education</td>
<td>+ Education</td>
</tr>
<tr>
<td></td>
<td>-Inc. +Inc.</td>
<td>-Inc. +Inc.</td>
<td>-Inc. +Inc.</td>
<td>-Inc. +Inc.</td>
</tr>
<tr>
<td>%</td>
<td>.71</td>
<td>.21</td>
<td>.56</td>
<td>.00</td>
</tr>
<tr>
<td>No.</td>
<td>(101) (3)</td>
<td>(8) (0)</td>
<td>(21) (8)</td>
<td>(7) (10)</td>
</tr>
<tr>
<td>P</td>
<td>P₁</td>
<td>P₂</td>
<td>P₁₂</td>
<td>P₃</td>
</tr>
<tr>
<td>P₁₂</td>
<td>P₂₂</td>
<td>P₁₂₂</td>
<td>P₁₂₃</td>
<td>P₂₃₂</td>
</tr>
</tbody>
</table>

Effect of income = -0.0625
Effect of education = 0.07
Effect of occupation = 0.2475

Error or unexplained variation due to other variables in the direction of being high participants = 0.3675
Error or unexplained variation due to other variables in the direction of being low participants = 0.2525
(See calculations of these in the appendices).

The above five variables show the relative sizes of the partial relationship of income, education and occupation upon being high or active participants together with the sizes of the errors which are mainly due to unexplained variation in each direction. These figures on effect parameters demonstrate that occupation has the strongest contribution, i.e. 25%, towards explanation of high participation. Education provides a very meagre explanation (7%), while income has relatively nil, and is in fact more towards negative contribution.
Hence SES indicators total to only 38% contribution of high participation behaviour. It is therefore, evident that SES does not explain about 37% variation in high participation and another 25% variation in being low participants. This leaves 62% unexplained variation on social participation behaviour, which calls for extra or additional explanation.

However, although analysis of factors of SES as they operate concurrently shows that it does not offer adequate explanation on participation behaviour, substantial explanation is given and especially by occupation. Occupation has, therefore, emerged as the major SES indicator in relation to income and education in determining active participation in rural areas. This could be due to the fact that the type of non-farm occupations or activities that the individual farmer engages in, form his alternative sources of income, which as we have seen earlier is a strong independent determinant in active participation and especially in the economic-oriented organizations. Businessmen, for example, have to be persons with certain incomes, and this brings us to the assertion that, when tested simultaneously, the effect of income in relation to occupation and education is likely to be diminished by the strength of the
occupation variable. Again, the three SES indicators are interrelated, and obviously there is a minimization of their independent effects in explaining active participation. Therefore, looking at SES indicators in multiplicity as they determine social participation behaviour, we can conclude that these attributes are weak in explaining social participation. But as we have seen earlier they have very strong participation when each of them is analysed independently. Technically, looking at these variables in a multivariate fashion is more indicative of life situation, for they co-exist, and hence it is inadequate to treat them independently per se. Therefore, social participation calls for an analysis that looks at a number of variables simultaneously and this would then show their relative effect in determining active participation. Such analysis also allows the investigator to see what variation is unexplained, and this stirs the need to search for such factors. In our study for example, we need to search for other factors that are likely to complement SES in explaining social participation. Possible factors among others are most likely to include land-size, and land-use patterns, access to credit facilities, degree of farm technology and farm innovativeness.
CHAPTER FOUR

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The following are the major findings that have emerged from Mbooni data. About 39% of Mbooni households are headed by women, and 61% by men. The majority of the farmers are less than 60 years old, about 29% are under 40 years old, and those over 60 constitute 10%. The majority of these farmers are characterized by low levels of formal education and consequently low literacy rates (37%). Only persons who have reached Form II and above can be said to have high formal education, and for Mbooni these constitute only 5% of our total sample, whereas those with full primary education, that is up to Std. VII, constitute 13.5%. The largest group has had up to 4 years of formal education (42.3%), but still a substantial cluster have had no schooling (38%).

About half (46.5%) of the farmers are engaged in non-agricultural enterprises. Very few of these are in formal wage employment (4.7%), which includes local administrative staff, clerks, salesmen, teachers and other government officials. Businessmen and skilled artisans form a fairly large group in non-farm occupations (24%). The other non-farm activity that a good number of
farmers are engaged in petty trade and casual labour. However, about half the farmers are not engaged in any non-farm activity (53.5%), and can therefore be said to solely rely on their "shambas" for their livelihood.

On incomes, we have found that Mbooni farmers suffer from very low income levels, with a total annual average of about Shs. 2,100, a figure which is below the national average income for the working poor, that is Shs. 2,400 (ILO: 1972:60-61). Inequity in income distribution is evident in the area as demonstrated by a minority of households (11.9%) commanding highest incomes – over Shs. 4,800 p.a., a figure well over £200 p.a. which is said to describe the relatively well off in rural areas – who also engage in non-agricultural enterprises. However, 77% of Mbooni farmers are in the category of the working poor with incomes upto Shs. 2,400 p.a.

Levels of living in the area are quite low as only 15% of the total sample can be said to demonstrate high levels of living, while 26% are marginal. Hence a minority of farmers show high adoption rate of household possessions, and are also likely to demonstrate high innovative behaviour not only in the home but also on the farm.
Social participation in the area is generally low. Participation in church has emerged as the most significant, accounting for about 40% of total voluntary organizational memberships in the area. The next common area of participation is in economically viable bodies, like the Coffee Co-operative Society which has 31% share of the total memberships. In political activity, voting behaviour is significantly high, and in the informal area of participation, barazas are the most attended.

Despite the low socio-economic status and general low participation among the majority of Mbooni farmers, there are marked differences in individual degree of participation in the various aspects of participation we have studied in this area. Towards an explanation of differential participation among individuals, we have come to a conclusion that this is largely accounted for by SES differences of the individual participants. Thus our central thesis in the study has been confirmed, that SES is a major determinant of social participation. All the SES indicators that we have utilized, that is, education, occupation, income and level of living have been found to have a positive significant relationship with the various aspects of participation.
studied. All the hypotheses we set out to test relating SES to social participation have been confirmed. However, Mbooni data has shown that no relationship exists between sex and social participation, and that there is a negative relationship between attitudes towards participation in community activities and social participation.

Differences in levels of formal education do account for individual differential participation. High formal educational levels has shown a consistent significant and positive relationship with each of the various aspects of participation covered in our study, that is, in voluntary organizations, in political activity, and in informal aspects of participation. There is also a consistent trend which is statistically significant, for higher income persons to be more likely to participate in voluntary organizations, in political activity, and in informal participation. The same results are evident for individuals with high levels of living to be most likely to be actively involved in the same areas of participation. Persons in higher occupational ranking, such as businessmen and those in formal wage employment (respectively) are significantly more likely to be active participants than those in the lower occupational
ranking - like the casual labourers, petty traders, and those farmers who are not engaged in any non-agricultural activity, in the various aspects of social participation covered.

Implied from our findings, therefore, emerges the observation that the many socio-economic disadvantages of rural farmers are reflected in a lack of schooling, low levels of formal education, poor incomes, and low levels of living. Since we have seen that a sound economic and resource base is a prerequisite to membership in especially the economic organizations, then the poor are obviously at a disadvantage, they are denied accessibility as they are deprived of the scarce goods. This means that they are not in a position to participate in those organizations that make these demands. Differential opportunity and access to such areas of participation sets in differences in individual participation. At this point the interpretation of 'status' based on say incomes, becomes superfluous, since those who take an active part in these voluntary organizations do so in so far as they can meet the requirements, such as good land that is suited to coffee growing and/or dairy farming and so on before one can qualify to adopt improved cattle, coffee growing, then a financial base is
essential for these inputs - rather than the consideration of having just cash. The argument here is that, it seems more a question of access to certain resources, other than participating for the sake of status maintenance. In other words, in the rural areas there are strictly no formal associations for individual leisure time, or for ego-boosting, for example sports clubs and others that cater for a minority of the urban elite.

Farmers, therefore, seem to be more actively involved in those areas where they get or anticipate some direct socio-economic benefits, or even direct benefit for the community such as some harambee projects like health centres.

The question as to why most of the farmers are not actively involved in especially economic organizations would be resolved to a large extent by also looking at their occupational characteristics. The relatively well off farmers have been found to encompass those engaged in non-farm enterprises, and especially in those enterprises that yield high payoffs, such as in business, and in formal wage employment, as compared to unsteady income flow in casual labour and farming, the latter being subject to crop failure due to drought, or poor yields due to lack of capital to develop the farm for output.
maximization. If then we pause and ask whether the businessmen or the formally employed persons will actively participate to enhance their occupational or professional role as has been advanced in most studies, it would be timely to redefine occupational status within a rural context. While the low participating groups, that is the petty traders, casual labourers, and farmers who are not engaged in any non-farm activity, could be said to be alienated, their alienation would only be in a sense that they have no access to some of these formal groups, especially due to economic limitations.

Formal education, we have found, is an important factor in enhancing participation. What type of farmers have had access to formal education? The history of formal education is tied to introduction of Christianity, where those who had low status in the traditional society were recruited into Christianity, where they eventually gained a new kind of high status, hence experiencing status inversion. This same group that had early exposure to formal education were also the first to grow cash crops and other income generating innovations, and others had access to formal wage employment. Hence we can see the linkage of formal education,
incomes, and occupation, which are important factors when combined in reinforcing differential participation among individual farmers.

One of the major goals in rural development is related to income generation and an equitable distribution of that income. But as our data has shown, that the little there is unequitably distributed, as argued earlier, income differences is a major factor in differential participation. Hence any effort to understand income distribution patterns in both urban and rural areas of Kenya, should start at the national level, and there is need to study and appraise national policy in regard to not only incomes, but also differential access and opportunities in education, employment, and the whole gamut of social and economic policies. Furthermore, land distribution is seen as one of the factors determining income distribution in agriculture, a factor which calls for re-examination of land policy. For example, the better off groups in the rural areas are often farmers with relatively large land holdings referred to as the progressives, who are also said to be favoured by general support schemes, e.g. in extension services, credit facilities, farm technological inputs, and other general support services. This group then tends to
constitute the upper income group in the rural areas. Twenty per cent of the rural population has been said to receive about 50% of the benefits of these support schemes. The assertion that farmers in Kenya are not given equal opportunities to increase their income levels through extension service and support schemes, seems to be tenable, in that these benefits do not reach the target groups, the small farmers. We, therefore, come to a conclusion that the general low income levels in Kenya can be understood within income distribution patterns, differential access to economic opportunities and formal education, which may be said to have deep rooted causes in policy commitment.

During the last decade (1963-1974) the policy statements of the Kenya government have shown sustained concern for the achievement of economic and increasing concern for the promotion of policies designed to reduce economic inequality among Kenyan citizens. In pursuance of this, the 10th Sessional Paper on African Socialism (1965) states a commitment to the achievement of high and growing per capita incomes, equitably distributed. However, the main emphasis seems to be on economic growth which is felt to be the first objective of planning in the nation. Other problems like education and
employment, should be catered to in ways that will not jeopardize this growth. After a decade, the 1974-1978 Development Plan has made a shift of emphasis where a recognition is made of the fact that despite the rapid growth of the economy problems of employment and income disparities are in greater proportions than ever before. Another shift towards greater emphasis on employment and income distribution is stated in this Plan. While measures to minimize income differentials, e.g. through higher taxation of better-off members of the community, acceleration of provision of education and health services, and giving opportunities for everyone to participate actively in the economy for improved standards of living, and so on, policy commitment on income distribution is quite clear:

"Equal income for everyone is therefore not the object of this Plan. Differences in skill, effort, and initiative need to be recognized and rewarded".


Still on income distribution, Friedman (1963) echoes on similar tone where he argues that the ethical principle that would directly justify the distribution of income in a free market society is:
"To each according to what he and the instruments he owns produces".
(Cited in Hunt, 1975:5)

But Nehru (Hunt, 1975:5) gives a warning, especially to the developing countries, that:

"Democracy if it means anything, means equality; not merely the equality of possessing a vote, but economic and social equality. Capitalism means the very opposite, a few people holding economic power and using it to their own advantage... there is no equality under this system, and the liberty allowed is only within the limits of capitalist laws meant to preserve capitalism".

It would be prudent, therefore, to assert that so long as the current statements on economic opportunities stand, the pronouncements on equi-distribution will be pre-emptive. But if the majority, the 90% of Kenya's population who reside in the rural areas have to benefit, even at the basic level, this will only be through deliberate policy statements directed to specific target groups in the rural sector. Such deliberate policies have been undertaken in a number of countries, Tanzania being a close example (see Chenery, et.al. 1974:269).

It appears that once the initiative of those who reside in the rural areas is recognized,
it has not been rewarded. As Mbithi and Rasmusson have shown, Harambee self-help activities at grassroots investment in rural development account for about 30% of the total national investment, and that over 90% of the total Harambee self-help is rural contribution as compared to government - 61%, foreign donors 0.3%, and the rest over 3-4% comes from big businessmen and rural elite. The little cash incomes of rural areas are therefore directed towards financing the new social services, the schools, cattle dips, health centres and a variety of the self-help projects. But it has been argued that, in fact the poor are drained of the little they have, for their contributions benefit the leadership group for example only the better-off will afford to send their children to the numerous Harambee schools that have been put up through collective effort. Hence, as studies of Harambee self-help have suggested, there is need to rechannel these resources to projects that will directly benefit the majority. Up to now most of Harambee activity has escaped administration, but some direct policy intervention may go a long way to ease if not correct disparities.

The role of voluntary organizations in rural development has been seen as social change
in rural areas, in that new associations no longer based on kin, age and sex, clan, and so on spring up. But the ultimate goal of these formal groups in rural areas, and especially the economically viable ones like the co-operatives is to increase incomes for the rural population. Hence voluntary organizations are a major strategy and instrumental in rural development, since they are looked at as the most appropriate way, administratively, in organizing the rural populace for their development. Effective rural development, therefore, requires mobilization of all actors in those formal organizations that are avenues for improving their welfare. But as we have seen, the case in Mbooni demonstrates that existing formal groups cater for a minority - the better off in terms of high incomes and high levels of living, those with formal education, and those with alternative sources of income, i.e. engaged in non-farm enterprises. This means that formal groups that would cater for the majority, i.e. the poor, the uneducated, and those with poor or no alternative income sources are lacking. This therefore renders the majority of farmers alienated as far as participation in formal groups is concerned. However, the Church seems to attract majority participation of farmers. Hence we suggest an appraisal of possible strategies of utilizing the
Church in rural development, for it seems a very viable channel to reach a majority of farmers.

Is formal participation then the most appropriate means to enlist people's participation? On the basis of our experience in Mbooni, we would argue that this may only be most appropriate for the better off, and hence another instrument for perpetuating inequalities in the rural areas. For the majority, the poor, formal groups as they now exist will not answer their problems, and hence effective rural development is not likely to be realized in the near future, unless there is either modification of a fresh start on associations that cater for and benefit the majority. Of course, Harambee self-help as it is today enlists active participation of the majority in rural areas, but as discussed above it is not the majority who benefit, but the leadership group, the better off. This leaves us in a dilemma - as both Harambee self-help and formal groups - like the co-operatives largely benefit the cream in the rural areas. Definition of rural development as increased participation, therefore, needs redefinition. Increased participation is in fact development for an emerging "upper" class in rural areas, which has been referred
to as the rural elite or the leadership group, and sometimes as the progressives. What emerges from this is the fact that both Harambee movement and formal groups in rural areas are enhancing and perpetuating inequalities within the rural areas, which is a serious regressive factor in total rural development that is directed to the majority. Hence, the goals up to the present time for rural development need a critical appraisal. The objectives of increasing rural welfare for all, increased incomes and employment opportunities, and others, should go farther to identify in depth who would benefit or who benefits from those rural programmes that are initiated for goal realization. It is our contention, therefore, that rural development that is effectively directed to the majority has still to be defined.

One of the major hoped for results of national development is improvement in the conditions of the lower socio-economic classes, and especially those of the majority, who in Kenya and in most developing countries, reside in the rural areas. But this would only come about through the right kinds of social justice policies, other than the current ones in Kenya which are biased towards increasing national output (or economic growth)
and very little attention is paid to improving social services for her citizens. Social services provide considerable potential for involving as opposed to reaching rural people. Conditions which increase the integration of individuals in society are access to opportunity, services, amenities and the reduction of want in terms of subsistence, shelter, security, and social means for ego reinforcement within a national context. From the foregoing we have the following recommendations, which we hope will enter the list of considerations that the policy maker and the others involved in the process have to consider and especially, in the formulation of rural development policy, and in programme implementation:—

1. There is an urgent need for direct policy statement and intervention to cater for the socio-economically disadvantaged majority in the rural areas. The target group that we have identified in our study, and to which this policy should be directed, has the following characteristics:—

(a) No schooling (or lack formal education);
(b) Earn incomes below K.shs. 2,400/- p.a.;
(c) Have low levels of living as characterized by our level of living scale to possess the following five household items: i.e. 'Karai', table, wooden box, easy chairs and torch. (Note: those with high levels of living have 18 items, the top of which are vono bed, and motor-vehicle). Level of living scales, however, can vary from one area to another, and from time to time.

(d) Are petty traders, casual labourers, domestic servants, and those who are not engaged in any non-farm activity.

2. The kind of policy we call for is that which ensures social justice and especially geared to reduction of want in terms of subsistence for all in the rural areas. To achieve this we suggest that current social policy as regards incomes, access to opportunities in education, employment and so on be re-examined with the view of making drastic changes that will set the stage towards equalizing socio-economic welfare for all. This of course may not appeal to a policy maker in Kenya, which is based on private enterprise and has
achieved so much through that system in terms of economic growth. But attempts towards equi-distribution are also likely to ensure national stability in the near future. Within this framework we deem the following elements of the policy to improve the socio-economic welfare of the target groups feasible:

(a) Encourage alternative income generating activities, and especially non-farm activities. Exploration of possible non-farm activities would be more relevant since formal wage employment is scarce and income increasing activities in an agricultural context are limited to specific certain products, e.g. cash crops, some of which have now got quotas (like coffee), while others are limited to a certain ecology (e.g. tea and pyrethrum). Within this context we would call for more varied production of arts and crafts, like wood work, pottery, synthetic products (e.g. nylon and sisal products). This would again be accompanied by market considerations on supply and demand with the view of safeguarding glutting of the market. Stringent measures should also be taken to check competition between large and small farmers. I
suggest that some of the projects should be purposively made a monopoly of small farmers in order that they increase their incomes. For example, poultry keeping and say formation of a Poultry Co-operative Society to protect and ensure that the farmers are benefitting. Only in this way can we be sure that the target group is benefitting. Feasibility studies and pilot projects should precede any encouragement on the farmers to initiate their own programmes. Once, therefore, the target group is encouraged to start various projects, then direct government aid in terms of inputs, expertise (if need be), group extension service to increase coverage, would directly benefit and improve the poor farmer. And may be this may pave the way towards a 'Welfare State'.

(b) There is need to re-examine Land Policy closely – access to land, it has been observed is closely related to pattern of rural employment. An attempt towards an imposition of a ceiling to land ownership, according to a particular ecology, and redistribution of excess land is likely to check the ever increasing inequalities in land distribution, and would also safeguard very likely far-reaching squabbles in the very near future. Related to this is the necessity to
to study land potential in the various ecological zones, soil suitability, and possible ways towards adaptation to the harsh environment and especially in drought-striken areas. Dry farming, applying certain seed varieties would benefit farmers in the low potential areas. Again, studies in the possibilities of reclaiming the vast mass of unutilized land (often regarded unproductive) should be sought, for example, through geo-surveys to harness underground running waters for irrigation, which would at least ensure that each farmer can subsist, instead of claiming that the nation has enough to feed and relieve its citizens. 

(Note: Israel has reclaimed most of her desert).

(c) In order to create permanent literacy among the citizens, not only should seven years of formal education be encouraged, but it should be made a national provision. Tanzania has made it, and more than this, with meaningful social policy for national prosperity. Kenya too, and other developing countries can make it. The first generation of adult population with some formal education, have found place in the system, but for the young generation it is almost like a camel trying to enter the eye of a needle. What we are
stressing here is the fact that the present educational system in Kenya is based on rigid sort and select policy, the passport of which is a high graded certificate based on 'theoretical' education. The most popular of the problems accruing from the present system of education has been referred to as "the school leaver problem" (i.e. Form IV school leavers and now the problem seems to be encroaching the graduates). Hence unless high formal education is accompanied by non-formal education and/or supplemented by economic assets like land, a steady source of income (i.e. wage employment, or a non-farm enterprise) and so on, it will obviously mean non- or very low participation in rural development activities. This is precisely the position that the majority of school leavers are in. Manpower planning should be streamlined to cater for what the national institutions produce, otherwise it ends up as a double waste of resources, unless the ultimate goal of providing formal education were only to render citizens literate. Education, as one scholar has argued, simultaneously promotes the conditions of equality and the conditions of inequality.
(d) The target group should be encouraged to set up associations for themselves, as most of the formal groups that exist in the rural areas cater for the benefits of the better-off. This would be preceded by a survey that would investigate in depth the alternative areas of participation that this group engages in. This information would be utilized to assess which of the existing forms of participation could be utilized for further effective mobilization in realizing the new goals to improve themselves.

3. It has either become a common practice or a convention that at the end of every study 'recommendations and implications for policy' are advanced. But often these have been very vague and often have left the policy maker or practitioner the burden of translating them into workable solutions which he is usually unable and ill-equipped to do. As Roling (1973) points out, with this practice, the logical sequence of the problem solving process is not completed by social scientists. In order to complete the process the social scientist is required to provide the policy maker, not with vague "implications for policy", but with a tested prototype which improves
on current practice and contributes to the solution of a significant social problem.

In this study we are not providing the policy maker with a tested prototype, for we are not in a position to do so, as this comes about through rigourous stages of the problem solving research. However, in order that the above recommendations that we have put forward can be implemented effectively, problem solving research will be very crucial. Briefly, these are the major steps in this process (Roling, p. 51):

i. Symptoms - i.e. the conscious or unconscious experience of a difference between gets and wants;

ii. Formulate problem
Diagnose problem;

iii. Identify solution;

iv. Try solution;

v. Evaluate;

vi. Replicate.

A good local example where this process has been applied is that in Special Rural Development Programme areas (see Roling, et.al., 1973).
Suggestions for Further Research

Future research in the area of rural development should not ignore the target group that we have identified in this study. However, a more in-depth research on this group needs to be carried out if there is going to be an effective rural development for the majority in the rural areas, who as we have found are concentrated in this group. A focus on their ownership of production assets and their access to key production inputs would help researchers understand how these characteristics determine the processes of income generation in these poverty groups and the constraints on these processes. There is also need for further research on the alternative areas of participation that these groups are involved in.

Another area that calls for further research is in studying existing formal organizations in the rural areas, for example, the co-operatives, mushrooming women's groups, and other formal and non-formal groups in rural areas. Their organizational set-up, leadership patterns, recruitment patterns and so on, would illuminate on possible constraints that impinge on the low socio-economic groups. In addition to probing for off-farm income generating activities, access and opportunities in non-formal
education need to be investigated, with the view of assessing the contribution that non-formal education can make towards rural development effort. Lastly, the church does not seem to have featured distinctly in rural development studies, and it is our view that more serious studies are needed in this area, and especially to gauge and assess the role of the church in rural development. This is an area, that Kenya can ill afford to ignore, particularly when the church has emerged the major area of participation which is most marked in the rural areas.
REFERENCES

Almond, G.A. & Verba, S.
1965 The Civic Culture, Boston, Little Brown and Co.

Allport, G.W.

Amer

Apthorpe, Raymond

Asch, S.E.
1952 In Krech, et.al.(op.cit.)

Axelrod, Morris

Babchuk, Nicholas and Booth, Alan

Belcher, J.C.

Bell, Wendell and Force, Maryanne, T.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Title/Reference</th>
</tr>
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<tbody>
<tr>
<td>Asch, S.E.</td>
<td>1952</td>
<td>In Krech, et.al.(op.cit.)</td>
</tr>
</tbody>
</table>
Belle, Thomas J. & Verhire, Robert, E.  
1975  

Blaikie, Norman, W.H.  
1972  

Blaugh, Mark  
1972  
Economics and Educational Planning in Developing Countries - Article in PROSPECTS, Quarterly Review of Education. Vol. II, No. 4 (Winter).

Bolnick, B.R.  
1974  

Chapin, F. Stuart  
1955  

Chenery, Hollis, et.al.  
1974  
Redistribution with Growth. A Joint Study by the World Bank's Development Research Centre and the Institute of Development Studies at the University of Sussex, Oxford University Press (c) of the World Bank.

Clark, John P.  
1959  
Coleman, James  
1964  

Coombs, Philip, H. & Ahmed, Mansoor  
1974  

Dean, Dwight, G.  
1961  

Durojaiye, M.O.A.  
1973  

Dutto, Carl, A.  
1975  
*Nyeri Townsmen, Kenya.* East African Literature Bureau.

East African Rainfall Map  
1972  

East African Vegetation Map  
1972  
SK53E (c) Copyright Reserved, 1967. (Revised edition). Revised from map D.O.S. (Misc.) 299E.

van Es, J.C. & Whittenbarger, Robert L.  
1970  


Hagood & Ducoff
1944
In Rural Sociology, Vol. 37, No. 2, pp. 208-220 (op.cit.).

Hajda, Jan
1961

Hodge, Robert, W. and Treiman, Donald, J.
1968

Hunt, Diana
1975

Illich, Ivan
1968, 1970
In Harvard Educational Review, (op.cit.).

International Labour Organization
1973

International Labour Organization
1972

Jordan, Z.A. (ed.)
1971

Kahler, Erich
1957
The Tower and the Abyss.
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>Lerner, Daniel</td>
<td>1958</td>
<td>The Passing of Traditional Society. Modernizing the Middle East. The Free Press.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Title</td>
</tr>
<tr>
<td>--------</td>
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<tr>
<td>Mbithi, P.M.</td>
<td>1976</td>
<td>Objectives of Integrated Rural Development Programmes with Reference to the Rural Poor.</td>
</tr>
<tr>
<td>Morgan</td>
<td>1969</td>
<td>In West African Journal of Education. (op.cit.).</td>
</tr>
</tbody>
</table>
Nyerere, Mwalimu, Julius
1975


Olsen, Marvin, E.
1970


Orum, Anthony, M.
1966


Pateman, Carole
1970


Photiadis, John, D. & Schweiker, William, F.
1971


Reissman, Leonard
1954


Rogers, Everret, M.
1969


Rogers, Everett, M. & Burge, Rebel, J.
1972

Social Change in Rural Societies. 2nd edition, Meredith Corporation.

Rokeach
1968

The International Encyclopedia of Social Sciences.
Roling, Niels; Chege, Fred; & Ascroft, Joe

Rural Sociology

Scott, John, C.

Smith, David, Horton

Torgerson, W.S.

UNRISD

World Bank

Zimmer, Basil, G. & Hawley, Amos, H.
1959 The Significance of Membership in Association. American Journal of Sociology, 64(September), pp. 196-201.
APPENDIX

MULTIVARIATE ANALYSIS

Relation of income, education and occupational ranking to high degree of social participation in voluntary organizations.

State 0 (Low participants) State 1 (High participants)
n = 142 N = 252 n = 110

- Occupation + Occupation
- Education + Education
- Inc. + Inc. - Inc. + Inc. - Inc. + Inc. - Inc. + Inc.
% .71 .21 .56 .00 .19 .73 .64 .91
No. (101) (3) (8) (0) (21) (8) (7) (10)
P P1 P2 P12 P3 P13 P23 P123

(Note: %s in State 0 are calculated out of n, i.e. 142 in the dependent variable, whereas %s in State 1 are worked out of 110)

Inc. = Income

In working out the effect of each of these attributes equations 1.7 - 1.3 on page 195-196 of Coleman:
-Inc. -Educ. -Occup. = + r
+Inc. -Educ. -Occup. = a_1 + r
-Inc. +Educ. -Occup. = a_2 + r
+Inc. +Educ. -Occup. = a_1 + a_2 + r
-Inc. -Educ. +Occup. = a_3 + r
+Inc. -Educ. +Occup. = a_1 + a_3 + r
-Inc. +Educ. +Occup. = a_2 + a_3 + r
+Inc. +Educ. +Occup. = a_1 + a_2 + a_3 + r

Substituting for $P$ for each of $a_1$, $a_2$, $a_3$ and $r$, results in four simultaneous equations which can be solved for $a_1$, $a_2$, $a_3$ and $r$.

The fifth component, $S$, may be found by subtracting the others from one, since the sum is 1.

$$a_1 = \frac{1}{4}(P_1 + P_{12} + P_{13} + P_{123} - P - P_2 - P_3 - P_{23})$$
$$a_2 = \frac{1}{4}(P_2 + P_{12} + P_{23} + P_{123} - P - P_1 - P_3 - P_{13})$$
$$a_3 = \frac{1}{4}(P_3 + P_{13} + P_{23} + P_{123} - P - P_1 - P_2 - P_{12})$$
$$r = \frac{1}{4}(2P + P_1 + P_2 + P_3 - P_{123})$$
$$s = 1 - a_1 - a_2 - a_3 - r$$

$$a_1 = \frac{1}{4} (P_1 - P) + (P_{12} - P_2) + (P_{13} - P_3) + (P_{123} - P_{23})$$
$$a_2 = \frac{1}{4} (P_2 - P) + (P_{12} - P_1) + (P_{23} - P_3) + (P_{123} - P_{13})$$
$$a_3 = \frac{1}{4} (P_3 - P) + (P_{13} - P_1) + (P_{23} - P_2) + (P_{123} - P_{12})$$
Substitute for Ps.

\[
\begin{array}{cccccccc}
P & P_1 & P_2 & P_{12} & P_3 & P_{13} & P_{23} & P_{123} \\
.71 & .21 & .56 & .00 & .19 & .73 & .64 & .91 \\
\end{array}
\]

\[a_1 = \frac{1}{4}(\.21-.71) + (\.00-.56) + (\.73-.19) + (\.91-.64)\]
\[= -0.0625 \text{ (effect of income)}\]

\[a_2 = \frac{1}{4}(\.56-.71) + (\.00-.21) + (\.64-.19) + (\.91-.73)\]
\[= 0.07 \text{ (effect of education)}\]

\[a_3 = \frac{1}{4}(\.19-.71) + (\.73-.21) + (\.64-.56) + (\.91-0)\]
\[= 0.2475 \text{ (effect of occupation)}\]

\[r = \frac{1}{4} 2 \times .71 + .21 + .56 + .19 - .91\]
\[= 0.3675 \text{ (unexplained variation or error due to other variables in the direction of being high participants)}\]

\[s = 1 - (-0.0625) - 0.07 - 0.2475 - 0.3675\]
\[= 0.2525 \text{ (random shock or error due to unexplained variation in the direction of being low participants)}\]
Good day, I am a research student from the University of Nairobi, Department of Sociology sent to Mbooni to gather some information on your participation in community activities in the area. The information you give us will be useful in planning for development of Mbooni. Information given here will be confidential and will be known only to me and my sponsor. We shall therefore be grateful if you respond to the following questions.

Name: .................................. Sub-location: ..................................

Q.1
a. Sex (tick) Male: .................................. Female: ..................................

b. Age: ..................................

c. Marital status: (tick)

<table>
<thead>
<tr>
<th>Single</th>
<th>Married</th>
<th>Divorced</th>
<th>Widowed</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.2
How far did you go in school (tick)

<table>
<thead>
<tr>
<th>No school</th>
<th>Upto std.3</th>
<th>Upto std.4</th>
<th>Upto std.7</th>
<th>Upto F.II</th>
<th>O-level</th>
<th>A-level</th>
<th>University</th>
</tr>
</thead>
</table>

Q.3
Can you (tick)

<table>
<thead>
<tr>
<th>Vernacular</th>
<th>Swahili</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

a. Read

b. Write

c. Speak

Q.4
Do you have any children? Yes..... No.....
If yes, number of children .............

<table>
<thead>
<tr>
<th>Children's</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If children have secondary school, did they attend (tick)
1-Govt. aided school ...... 2-Harambee ...... 3-Private school ......
Q.5
i. How far would you want any of your children to continue with their education .............

ii. What job(s) would you want your children to do:

1 ................. 2 ................. 3 .................

Q.6
What type of the following do you have (tick)

<table>
<thead>
<tr>
<th>Fire place for cooking</th>
<th>Lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stones fire-wood</td>
<td>Jiko charcoal</td>
</tr>
<tr>
<td>Electric</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fencing</th>
<th>Toilet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire</td>
<td>Bush</td>
</tr>
</tbody>
</table>

Q.7
Interviewer observe house (tick)

<table>
<thead>
<tr>
<th>Walls</th>
<th>Roof</th>
<th>Floor</th>
<th>Windows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone</td>
<td>Mud</td>
<td>Thatch</td>
<td>Iron</td>
</tr>
</tbody>
</table>

Q.8
Which of the following items do you have (tick)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>... Tables</td>
<td>... Separate kitchen</td>
<td>... Sheets</td>
<td>... Towels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Easy chairs</td>
<td>... Water tank</td>
<td>... Tooth brush</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Sofa set</td>
<td>... Wheel barrow</td>
<td>... Bicycle</td>
<td>... Torch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Radio</td>
<td>... Motor vehicle</td>
<td>... Iron-box</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Vono bed</td>
<td>... Wooden box</td>
<td>... Grinding machine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Chinaware tea-cups</td>
<td>... Suitcase</td>
<td>... Bookshelf</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... &quot; plates</td>
<td>... Clock/watch</td>
<td>... Carpets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Forks</td>
<td>... Foam mattress</td>
<td>... T.V.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Tea spoons</td>
<td>... Thermos flask</td>
<td>... Frying pan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Plastic basin/bucket</td>
<td>... Cupboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q.9
Apart from farming what other work do you do (tick)

<table>
<thead>
<tr>
<th>House wife</th>
<th>Trader</th>
<th>Shop Keeper</th>
<th>Clerk s/man</th>
<th>Labourer D/servant</th>
<th>Skilled Artisan</th>
<th>Teacher</th>
<th>Govt. Official</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Casual Lab./petty Trader Other (specify)

Q.10
How many meals does your family take per day?
1-One ........ 2-Two ...... 3-Three..... 4-Other ........

Which of the following did your family eat last week? (tick)

<table>
<thead>
<tr>
<th>Meat</th>
<th>Eggs</th>
<th>Bread</th>
<th>Milk</th>
<th>Butter B/band</th>
<th>Jam</th>
<th>Chicken</th>
<th>Chapati</th>
<th>Rice</th>
<th>Fruit juice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.11
From where do you get your agricultural/household information?
No source 1-....... Friend/word of mouth 2-....... Chief/sub.3-.... Baraza 4-..... Missions 5-..... Teacher 6-..... Radio 7-...... FTC 8-..... Ext. worker 9-..... Other 0-.....
Q. 12
Are you (tick)

<table>
<thead>
<tr>
<th>Name of Organisation</th>
<th>Coffee co-op.</th>
<th>Dairy co-op.</th>
<th>Church committee</th>
<th>School committee</th>
<th>Loc. committee</th>
<th>Women's groups Maendeleo</th>
<th>One major Harambee group, name it</th>
<th>Other Harambee group (list below)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>1. A member of</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Committee member</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Attendance freq. per month/year etc.</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Financial contribution (gross p.a.)</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Offices held</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q. 13
Why (a) did you contribute to harambee projects?
1. 
2. 
3. 
(b) Did you not contribute to harambee projects?
1. 
2. 
3. 

Q. 14
Why do you (a) go to church?
1. 
2. 
3. 
(b) Not go to church?
1. 
2. 
3.
Q.15

How often do you read/have read to you

<table>
<thead>
<tr>
<th></th>
<th>Daily</th>
<th>Thrice</th>
<th>Once-week</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Daily N/P (Taifa Leo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Monthly/weekly magazine specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Mkulima</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Other (specify).......</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.16

Do you listen to radio programmes: Yes... No.....
If yes, which ones (list: 1. .................
2. .......................... 3. .................
How often do you listen to these programmes? (i) very often.... (ii) often ...... (iii) rarely ......

Q.17

How often per month/per year do you visit:

i. Machakos town ........................
ii. Nairobi ........................
iii. Other (specify) ........................

Q.18

How many times since this time last year did you attend each of the following:

<table>
<thead>
<tr>
<th>No. of times</th>
<th>Chief sub-chief's Barazas</th>
<th>Agr. show</th>
<th>Uhuru/K. Day/Madaraka celebrations</th>
<th>Agr. field day &amp; or demos</th>
<th>Family planning talks</th>
<th>Home economics demos</th>
<th>Adult classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
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<td>Three</td>
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<td>Four</td>
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<td>Five</td>
<td>H</td>
<td>W</td>
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<tr>
<td>Other (sp)</td>
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<td>W</td>
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</tbody>
</table>
Q.19
Why did you (a) attend Chief's sub-chief's Baraza?
1. 
2. 
3. 
(b) Did not attend chief's/sub-chief's Baraza?
1. 
2. 
3. 

Q.20
How much money (gross) did you earn last year (in shs. per annum)

<table>
<thead>
<tr>
<th>Coffee</th>
<th>Milk</th>
<th>Tomatoes</th>
<th>Cabbages</th>
<th>Passion Fruit</th>
<th>Maize</th>
<th>Beans</th>
<th>Livestock</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Cotton</th>
<th>Wattle Bark</th>
<th>Charcoal</th>
<th>Business</th>
<th>Salary of Head</th>
<th>Help from Relatives</th>
</tr>
</thead>
<tbody>
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</table>

The following are questions about political life here. Please answer and discuss them freely.

Q.21
How often per week do you discuss issues in (tick)
a. Local Politics  
 Very often | Often | Rarely | Never
b. National Politics  
 Very often | Often | Rarely | Never

Q.22
How many political meetings/rallies did you attend since this time last year?
..................................................

Q.23
How much money (gross) did you give in support of the candidate of your choice in the last elections?
a. National elections  
 shs. ............
b. By-elections  
 shs. .............
Q.24
Did you campaign for any candidate in the last national elections? (tick)
Yes .......... No .........

Q.25
Did you vote (tick)
i. In the last national elections Yes..... No....
   If no, were you registered Yes..... No....
ii. In the by-elections in October '75 Yes..... No....
iii. Why did you (a) vote
    1.
    2.
    3.
(b) Not vote
    1.
    2.
    3.

Q.26
Indicate by a tick the respondent's feeling on the following attitude statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Community improvement or self-help activities should be a concern of</td>
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<tr>
<td>only a few leaders in the community</td>
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<tr>
<td>2. People should only attend meetings, that affect them personally</td>
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<tr>
<td>3. People should not contribute to Harambee projects</td>
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<tr>
<td>4. Community projects should be given very little of people's time</td>
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<tr>
<td>5. People should vote in local &amp; national elections</td>
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<td>6. Going to church is not important</td>
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<td>7. Members of this community should have equal say on how community</td>
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<tr>
<td>projects are run</td>
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<td>8. People should not pray</td>
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<tr>
<td>9. People should trust in God because they cannot control their future</td>
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</tbody>
</table>
Q.27
Interviewees statements of who actually owns/controls the organization/s one belongs to: (tick)
1. Farmer-members ............ 2. Non-farm businessmen ............
3. Other (specify) ............

Q.28
Interviewees statement of how much say he feels members should have about how 'his' organizations are run. (tick)
1. Less say ............
2. About the same ............
3. More say ............

Q.29
Indicate by a tick the respondent's feelings:

<table>
<thead>
<tr>
<th></th>
<th>Much</th>
<th>Little</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interviewees statement of the extent to which he feels a part owner of his organization/s.</td>
<td></td>
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<tr>
<td>2. Interviewers rating of the interviewees feeling of belonging to or identification with his organization/s</td>
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<tr>
<td>3. Interviewees statement on how much influence he feels he has in his organization/s</td>
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<tr>
<td>4. Interviewees statement on how much influence he feels he has on what goes on in his community today</td>
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</tbody>
</table>