MALE MIGRATION AND WOMEN'S ROLES: A CASE STUDY OF MBOLOLO LOCATION, TAITA-TAVETA DISTRICT, KENYA

BY

MBUTHIA, LOISE WANJIRU.

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF ARTS IN POPULATION STUDIES AT THE POPULATION STUDIES AND RESEARCH INSTITUTE, UNIVERSITY OF NAIROBI, SEPTEMBER, 1993.

D E C L A R A T I O N

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

Signature.....

MBUTHIA, LOISE WANJIRU.

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

Signature.....

PROF. J. OUCHO.

Signature.....

DR. S.A. KHASIANI.

POPULATION STUDIES AND RESEARCH INSTITUTE,

UNIVERSITY OF NAIROBI,

P.O. BOX 30197,

NAIROBI.

D E D I C A T I O N

TO THE MBUTHIA'S FAMILY. YOUR FAITH,
LOVE AND PRAYER SUPPORT CARRIED ME THROUGH THE
GOOD AND TOUGH TIMES...

A C K N O W L E D G E M E N T S

Many people contributed to the success of this work. First and foremost, I am grateful to God for all His mercies towards me during the course of my academic life thus far. I am also indebted to the management of Taita Taveta ASAL Programme for the two years they sponsored me to undertake this course.

I acknowledge, most heartedly, the relentless works and efforts of my two supervisors, Prof. J. Oucho and Dr. S. Khasiani whose advice, guidance and constructive criticisms enhanced the completion of this work.

To Peter Ochuka, thanks a lot for your assistance.

To my fellow students, friends and the entire staff of Population Studies and Research Institute, thank you all. Your support, encouragement and inspiration in one way or another did not pass unnoticed. To all my family members, you have all been wonderful in everything.

To you all, may God Bless You.

A B S T R A C T

A remarkable feature of development process is the process of migration. While this phenomenon might be regarded as inevitable and desirable result of industrialization especially rural-urban migration, policy makers in developing countries have tended to view it with considerable anxiety as in recent years, the process has worsened the problem of urban intra and rural development.

The magnitude of these problems has forced policy makers in many African countries, including Kenya to introduce measures to check the flow, especially of rural-urban migration. In their efforts to grapple with these problems, policy makers need not only quantitative but also qualitative information on the important variables affecting rural-urban migration as well as data on the consequences of such migration on agricultural sector and on the rest of the economy. Consequences in the urban areas of destination are well documented, but rural areas of migrants' origin are still plagued with a dearth of information on the consequences of such processes on the population left behind (Mochoge, 1981).

The thrust of this study is to examine the consequences of male household heads rural out-migration on the population left behind, more specifically, the women, with particular reference to their socio-economic roles. The study's main objective is to establish whether male out-migration affects women's socio-economic roles in areas of out-migration. The socio-economic roles examined include workload aspects, decision making structures and the utilization of migrants' remittances in relation to the women's socio-economic roles.

The study used primary data, collected in Mbololo Location, Taita Taveta District, Kenya. The main methods of analysis included

cross-tabulations and the chi-square test. The study results showed that women in the rural areas continue to play key roles in all the rural agricultural activities. This is irrespective of whether the household head has migrated or not. Children are an important labour support network for the rural women. Household heads also play significant roles mostly as a form of supplementary support to the women, although this kind of support is absent in migrant households. This evidence points to a diminution in labour supply in these (migrant) households. Hiring labour is more common in migrant than in non-migrant households, although less than half of the households do indeed hire labour to replace migrant labour.

Also documented in the findings is that the women in migrant households made more independent decisions in farming activities than those in non-migrants households. Decisions related to labour hire are mostly made by the household heads. Majority of the women left behind received remittances from their migrant household heads and the first priority for its utilization went towards food expenses and other household expenses. Remittances were thus found to be an important source of rural incomes used to sustain the rural population especially during difficult times (Oucho and Mukras, 1983).

Although the study found that migrant households do not necessarily replace migrant labour, many more of these households hire labour than non-migrant households do. Over 90% of all households that hired labour used migrant's remittances to pay for its services.

The study recommends among other things, that women's time budget allocation study be done for further research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

Most of the problems of rural underdevelopment are reflections of out-migratory selectivity just as the selectivity of out-migration is a response to lack of rural development (Goldscheider,1978). Apparently, the issue of greatest concern at national and sub-national levels is integrated rural development whose advocates contend is inversely related with internal migration. Internal migration tends to contribute much to adverse economies and tends to threaten successful implementation of rural development projects aimed at stemming rural-urban migration in the African continent (Campbell, n.d.).

Migration is seen not only as undesirable but also as the root cause of problems both at places of origin and destination. Often, it results in a loss of the most talented young people from rural areas. The migration of young adult and adult males leaves many rural areas without male household heads (Khasiani,1982).

While rural-urban migration involves movement of all kinds of people, evidence shows that the likelihood of this process increases rapidly with level of educational achievements. Rural-urban migration seems to be selective of young unmarried adult males and married men who leave their wives and children in their rural homes (Monsted,1978).

Migration situation is considered a disturbing factor in Kenya due to associated problems at both places of origin and destination. Migration of young adult and adult males deprives rural areas of labour force needed during the peak agricultural seasons as it leaves behind the very young , the very old and a disapproportionate number of women. It is estimated that

approximately 525000 rural households are headed by women left in rural households and farms (Republic of Kenya, 1985). The greater tendency of more educated and trained to migrate drains the rural talent and dampens potential for development.

1.2 PROBLEM STATEMENT

Whereas agriculture, a rural economic activity, is considered the backbone of Kenya's economy, evidence points to a declining agricultural production especially of the subsistence food production. One of the factors that has been found to contribute to this decline is rural-urban migration which by its selectivity by age and sex robs rural areas of the able-bodied household heads needed to participate in rural development (Ominde,1983).

There are two opposing views on the impact of male out-migration on the rural household and the community. The first claim is pure gain for both the migrant and his rural household and community. Migrants' earnings could result in an improvement in farming activities through remittances to his rural household which could go towards hiring labour to replace migrant labour, purchase of farm inputs, such as improved seeds, fertilizers, and so on, thus raising the farm output. If labour is not hired to substitute for the migrant, kin or communal labour groups step in to assist the wife on her own. Where labour is hired, this leads to better agricultural output (Palmer,1985).

On the other hand, where this remittance may not be forthcoming or adequate, the migrant labour would lead to a diminution of the supply of labour for male-typed and shared tasks, such as ploughing and land preparation. This may lead to an increased workload for women, low employment of farm inputs, and

thus lead to a declining farm output. Any remittance would go towards immediate consumption needs rather than investment in farming activities. The absence of the male head in the family may also cause delayed decisions by the members left behind that relate to farming activities, which were intended to raise farm output. Such decisions could include credit facilities, sale of livestock (destocking), cultivation of certain crops, and so on. In most developing societies, and indeed in Kenya, women are not permitted to make major household investment decisions, such as sale of land, in the absence of their husbands (Palmer,1985).

As reflected in recent studies, Kenya's rural areas of male out-migration have been experiencing a declining agricultural output, at least of subsistence crops, as evidenced in reduced household labour, failure of agricultural extension officers to recognise the traditional role of women in agricultural production in their delivery of services, increased land ratio if remittances are not earmarked for hiring substitute labour. Although it is not questioned that remittances are being made, but the prioritisation of their use has become a matter of concern. It should be pointed out that evidence for use of remittances to maintain output is patchy and inconsistent, family consumption expenses, especially school fees, appear more significant than support to farm output levels. The freedom of deployment of any such remittances by the women left behind is also questionable despite the fact that there has also been the changing role of women left behind.

Thus, although some literature on migration has addressed the consequences of migration on the rural areas of migrants' origin, little has been said about how the movement affects the women left behind and if really these effects are significant in contributing

to poor performance of the rural economies.

This research focuses on the effects of the out-migration of the household heads on the women left behind in determining whether this kind of migration has any significant effects on the women's socio-economic roles. The study assumes that the characteristics of the women population in the study area should be homogenous (in the absence of out-migration) given similar ecological conditions. If this assumption holds, that is, no significant differences are observed between women from migrant and non-migrant households, then the effects of male out-migration on the women left behind are not significant. The research examines the women from the migrant households as the experimental population and the women from the non-migrant households as the control population.

In summary, the primary concern of this study is to explore the contemporary roles of women in the rural areas, with particular reference to agriculture and examine the extent to which these roles relate to the out-migration of male household heads. The roles focused on include decision making in farming activities, daily workload management and what alternate adjustments to resource deployment the women undertake. The study also examines utilisation of migrants' remittances in relation to women's workload and decision-making aspects.

1.3 OBJECTIVES

The general objective of this study is to examine the extent to which male out-migration affects women's socio-economic roles in farming and consequently prescribe appropriate suggestions on how to contain the problem.

Under this broad objective are the following specific objectives:

1. To determine the effects of male out-migration on women's workload especially in farming activities.
2. To determine the effects of male out-migration on women's decision-making related to farming activities.
3. To examine how the migrants' remittances are utilised in relation to women's roles in farming activities.

Note: To achieve objectives 1 and 2, the study examines women from both migrant and non-migrant households. Any differences existing between the two households with respect to decision-making and workload aspects of the women will be attributed to effects of male out-migration. For this purpose, chi-square method of data analysis is used, as will be explained in Chapter 3.

1.4 JUSTIFICATION OF THE STUDY

Goldstein(1979) noted that a dearth of information confronts development researchers on the efforts to assess the role of migration in rural (and urban) populations. Although most censuses now include migration questions, their utility is severely restricted not only by the limited number and kinds of tabulations made but also by the inadequacy of questions on migration. Surveys done to overcome these deficiencies are limited to small areas or

individual communities, especially big cities, which restricts their value for purposes of generalisation. Understanding of migration to rural development requires focusing on the people left behind, in the case of this study the women folk. From a policy point of view, the results should indicate where efforts need to be made or improved to certain segments of population or how they could be replaced by other mechanisms.

There has been increased attention to rural development in Kenya with an objective of raising the standards of rural living conditions. Various development incentives have been extended and expanded in rural areas, such as increased extension services, credit facilities, organisation of cooperatives, among others. Emphasis to integrate women in the development process at national level also exists. Increasingly, international agencies are turning their attention to integration of women in development as a strategy for improving economic conditions both at household and at community levels. The issue of integrating women in development projects becomes even more important in the rural areas where, even though development agents portray the desire to do so, strong cultural and structural constraints continue to impede the achievement of these goals.

The knowledge of such constraints will help the development planners and programme implementors to make necessary adjustments in their policies and implementation strategies in their attempt to integrate the rural women in their developmental framework. The information will provide a fore knowledge on the social and economic potentialities and/or constraints of the target group, and thus provide a strategy in line with the governments policy of involving the rural population in development at the grassroot

level.

Knowledge of such constraints will also help to illuminate the extent to which the rural women remain in subordinate positions, especially with regard to household decision-making. Thus, the information derived helps both national and international donor agencies in their assessment of the extent to which rural women could be dependable in the overall spectrum of rural development.

Migration studies are grossly superficial on analysis of the consequences of migration, especially in areas of origin. Among the salient features are demographic consequences whereby the areas of origin are left generally disadvantaged, while the destination areas are relatively enhanced. Therefore, the study of the consequences of migration in areas of origin is important to articulate the interplay between spatial demography and development because each is as much a cause as an effect of the other. The configuration of development causes migration in as much the same way as migration causes development or underdevelopment.

The information also throws some light on the underlying causes of rural under-or development with respect to out-migration, and thus rationalises the need for further comprehensive research on issues relating to women in development.

1.5 SCOPE AND LIMITATION OF THE STUDY

There are many important factors that contribute to declining agricultural production. These include adverse climatic conditions, poor soils and related social economic institutions, for instance, education. However, this study is limited to the effects of out-migration only. There are also many notable consequences of male out-migration in areas of origin, such as its effects on children

rearing in the absence of male heads of households, psychological effects on the family, such as loneliness. However, this study is limited to the consequences with respect to farming activities.

The research on which the study is based was confined to only one area due to time and financial constraints, as a wider coverage was not feasible.

The inherent characteristics of the migrants would not be researched into but are presumed to follow the general characteristics of selectivity by sex and age, as evidence in the literature review clearly shows. The selective process is important as it tends to involve economic, social and demographic characteristics that distinguish the migrants from the non-migrants. The literature review highlights on some characteristics of migrants and non-migrants in areas of origin. The important point here is that because migration is selective, attention need to be given to the effects of that selectivity on the demographic, social and economic implications for the rural development.

Although several factors determine female-headed households, this study strictly addresses the issue of female-headed households triggered only by the out-migration of male household heads. The thrust of analysis in this study are female heads rendered thus by the migration of their male household heads. However, the single, divorced and the separated women were also interviewed but not subjected to further analysis.

Rural areas are also affected by return migration, which also has important consequences for rural development (Mochoge, 1981). However, this consequence will not be considered in this research. The study is largely retrospective, that is, it addresses the situation as it is at the time of the survey. For the purposes of

this study, return migrants' households at the time of the survey were considered as non-migrant households.

1.6 OUTLINE OF THE CHAPTERS

Chapter one deals with the introduction to the problem, the problem statement, the objectives, justification and limitations for the study. Chapter two focuses on theory and literature review. Chapter three outlines the methodologies for data collection and analysis. Chapter four deals with the results and interpretation of the research findings. Chapter five gives the summary, conclusions and recommendations for policy and further research.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 LITERATURE REVIEW

In a review of literature for Asian countries, Goldstein(1979) found very little information relating migration to rural development or addressing migration policy. It reported a clear urban bias in the analysis of rural-urban migration with the major attention focusing on how to keep rural residents out of the cities and migrants' adjustment problems. In focusing attention to the rural aspects of the problem, little effort is generally made to separate questions related to productivity from the aspects of the development process. This is despite the fact that in order to have any effective solutions to rural underdevelopment, attention must focus on its contributory causes which generate movements from the rural areas. Perhaps most important in this regard is the observation that measures initiated to increase agricultural productivity are generally undertaken without any concern for the population left behind, the non-migrants who include women.

Studying intercensal net migration in Kenya, Wakajummah(1986) recommended that the impact of migration on resource development in areas of origin (and destination) need be carefully and systematically researched and attention be given to short- and long- term social and economic impacts of migration on areas of origin (and destination areas).

2.1.1 EVIDENCE OF MIGRANTS' SELECTIVITY

Although this study does not address the selective characteristics of migrants, it draws attention to the selective process in respect to some economic, social and demographic

characteristics that distinguish migrants from non-migrants. The argument is that the process in which migrants are selected in rural areas forms the basis on which to understand the consequences.

Goldstein(1979) noted that literature on migration devotes considerable attention to differential characteristics of migrants compared to non-migrants at both places of origin and destination. Migrants tend to be selective with respect to age, sex, marital status and occupation. In Asia and Africa, males tend to dominate, whereas, in Latin America, females are more numerous.

Ominde(1968) found that economically active age groups, that is, 15-44 have a high migratory behaviour. Rempel(1970) in his sample of eight largest centres in Kenya, found that most of the young rural-urban migrants were in ages 20-25. Oucho(1974) in his migration survey of Kisumu observed that about 63 percent of respondents were aged 20-29 and 75 percent were males while 25 percent females. These characteristics should manifest themselves in Taita-Taveta District.

In Kenya, Wakajummah(1986) found out that more adult males migrated from their districts to major urban centres, evidence of flight from rural poverty and lack of employment opportunities. According to his analysis, he found Taita Taveta District to be the major contributor of migrants to the main town of Mombasa, while the rural areas had a net gain of women and children. Palmer(1985) found migration in Botswana to be selective of both age and sex. In 1971, 80 percent of those absent from the country were men and 20 percent were women. This left a very pronounced impact of male out-migration evidenced by the sex ratio. About 40 percent of rural households were estimated to be temporarily or permanently without

adult male members. Male labour was found to be more scarce in the rural areas than female labour and hence not likely to be available at pay rates that women could afford.

Monsted(1978) contends that rural-urban migration in Kenya consists mainly of men(65 percent) and that in East Africa the migrants are young - over 65 percent being aged below 25 years. She also noted that although majority (56 percent) were unmarried, approximately 60 percent had their wives residing outside town.

Republic of Kenya(1985) noted that according to the 1979 census results, women composed 50.4 percent of the total population. Also in rural areas there are more women in the economically age groups, that is, between 15-64. The book indicated that as husbands leave rural areas to seek employment in towns and plantations, more and more women are left as heads of households. Even in polygamous and extended families, the wives are acting as household heads. These facts, the book noted, have meant that women are now taking up more responsibility from the men, they are unable to provide adequate parental care to the children, especially during infancy and childhood.

2.1.2 WOMEN'S WORKLOAD

i) Lack of male family labour

A number of sources document the contention that in Africa, women have been the principle producers of food crops in their respective societies. Kayere(1980) and Pala(1975) documented that the traditional roles of women included mainly household activities such as fetching water and fuelwood, cooking, child care, milking cows, planting, weeding, taking care of sheep and goats while the men did the harder tasks such as ploughing, clearing bush,

building, hunting, and so on. In some cases, the planting and weeding tasks were shared. Kayere further pointed out that with male migration, women have been taking a larger responsibility in roles that were traditionally the domain of males, such as increased responsibility on livestock and farm work.

Palmer(1985) also noted that male migration presents the farm household with a diminution of the supply of labour for male-typed and shared tasks - such as ploughing and land preparation - commonly males' tasks. The men and women usually shared the harvesting and carry the crops together. It is difficult to see how women even with the assistance of their children, can work more intensively and longer to offset the absent husband in these seasonally rushed jobs. Hiring labour at this time is more costly as demand is high, placing an additional seasonal work stress for women. Whereas in traditional set-up, with male out-migration, labour assistance from relatives may be available, this declines because many families are short of labour(Gordon,1981). Moreover, where relatives and friends believe a woman is receiving large remittances, they may assume that she is not in need of traditional support systems. The situation is more severe in small or nuclear households in which male migration halves or eliminates the adult male family labour-force as compared to the extended or joint households where the remaining men are more likely to cope with men tasks or arrange for hired labour to be used effectively.

In Zambia, Chilivumbo(1985) found that selective male out-migration created problems in the work patterns which needed alternative solutions. As a result, some sex-role patterns in the rural areas were modified. For instance, there was an increase in female participation in agricultural production as wives assumed

traditional male labour roles. The traditional agricultural production in rural Zambia depended upon the complementary roles of males and females. Women are not only expected but required to work proportionally harder as they took on such tasks as felling trees, clearing new fields, fetching poles for constructing dwelling units, and so on. Although some men would return to the rural areas just prior to the beginning of the rainy season, majority of the migrants stayed away for several months, sending money home to enable the family to buy essential commodities such as food.

Richards(1959) on a study among the Bemba found that migration did lead to an "increase in Bemba women's agricultural workload accompanied by a decline in production as a result of extensive Bemba male migration." A similar observation was made by Palmer(1985) who noted that in Botswana, women were found to do all or most of field agriculture. Male kin were found to be of little reliance in subsistence for absent male family labour as fathers-in-law could be old and sons-in-law on migratory employment. The absence of male family labour was considered to be responsible for the decline in small-farm output as hiring labour was costly and remittances were also too small to cover additional cost when there are competing claims made on them.

According to Goldstein(1979), rural-urban migration tends to remove individuals in most productive age groups to urban areas, which creates labour-force shortage, especially where families cannot substitute machines because of high costs, size of land holdings and/or ecological conditions, or even hire labour.

A review of women by Republic of Kenya(1985) indicated that women were regularly found in agricultural activities notably planting, weeding, harvesting and marketing of food crops. Where

terracing and other soil conservation methods are practised, as in Kitui District, women still played a major role in participation. Women are now taking a bigger part even in the clearing and ploughing of land in preparation for planting (an exercise that was traditionally exclusive for males). Besides food production women are now heavily involved in taking care of livestock, which previously was an activity for men; this include poultry care, stall feeding for livestock, milking and grazing activities.

Pala(1975) further pointed out that whereas in low potential areas, farmers' associations and cooperatives, including credit cooperatives are uncommon, community self-help projects are widespread. Women's participation in such projects is immense because rather than receiving credit from government agencies, they join other farmers to raise money for each other's needs (Findley and Williams,1991). Becoming members of self-help projects (especially women's groups) is one of the few ways in which women as a marginalised group are able to pool their efforts to raise money for their own use. Due to heavy workload and lack of time make women less active in projects that are time consuming.

ii) Alternate deployment of labour

With regard to labour problems, Palmer(1985) pointed out that if cash remittances from migrants do not allow for production and consumption "as usual", their wives are bound to make changes in production and income farming activities. How extensive these changes are and to what extent they affect agricultural production depends on women's authority to deploy resources and on incentives accruing to them personally, such as labour assistance.

Ploughing and other tasks that men and women traditionally

shared may present serious constraints to continuation of farming patterns after male out migration. Such alternatives as altering the crop mix by shifting less labour intensive crops or that moderates seasonal labour demand peaks, reduction in acreage cultivated, renting out uncultivated land, undertake wage employment (for the first time) or increase if done previously, hiring labour and other farm inputs, could be employed.

Findley and Williams(1991) on the other hand observes that if the women are already the major agricultural producers, departure of their household heads is unlikely to create major changes in women's activities. The wives workload may increase somewhat, while the basic subsistence pattern remains unchanged. As a result, production is likely to remain the same, as the case in Zaire and Cameroon. Women to avoid suffering losses in income or food production will have to be flexible in seeking alternatives. To cope with her husbands absence, she may try hiring labour to perform all or part of the work normally performed by her husband, enter into mutual exchange agreements with kin or neighbours, adopt labour saving technology, and so on.

In Botswana, Palmer(1985) observed that male-headed households obtained a much larger proportion of their income from animal husbandry than do female-headed households, while they receive a smaller proportion from transfer payments. The reason for this is revealed in the Republic of Kenya(1985). The book noted that traditionally, the care of cattle, including the time-consuming task of collecting fodder, is usually undertaken by men and boys. This task is less compatible than crop cultivation with domestic work and child care. The time constraints also mean that care of livestock must compete with agriculture for women's time, and the

numbers decline with years of husband's absence as there is no incentive to replace animals lost due to death or forced sales during drought year.

In Nigeria, Goldstein(1979) indicated that where possible, families are forced to turn to hired labour in order to replace losses due to out migration - otherwise, they find themselves with much large holdings than can be possibly cultivated.

2.1.3 GENERAL HOUSEHOLD DECISION-MAKING

In a general study on the impact of male out-migration, Lipton(1976) observes that with the supply of working men depleted, women gain by being more important in the workforce and through the formation of women-headed households, the implication being that an emancipating authority follows. Colson(1970) suggests that women's new independent managerial role could, for example, mean appropriating the decision making role of husbands.

However, when it comes to meaningful detail, there is a fog surrounding the subject of wives and absent husbands' spheres of decision making. The question at issue is not whether women on their own are making more decisions, but how many more, how freely and which ones. Women may be able to make day-to-day decisions on family maintenance while absent husbands may have the final say on major farm decisions (which is the critical issue here). These may include capital investments and credit raising. Other issues include, for example, if an absent husband stipulates that certain acreage must be cultivated or a certain amount of some crop be produced, marketing of livestock, tree-planting, and so on, which the women must adhere to.

Pala(1975) in her book, for example, noted that a woman cannot

sell cattle, sheep or goats without consulting her husband or his next male kinsman, even when she bought the animals herself from her own resources. But she is free to sell chickens which belong to her whenever she wishes. Pala further pointed out that, in many cases, a woman may be for many purposes the head of a household because her husband spends much of his time away from home working in town or elsewhere. However, she may be unable to make certain important decisions such as planting permanent crops on land, inadequacy of agricultural extension services and training directed towards women. Pala alludes to the point that it is widely known that extension workers who are usually men, have a tendency to ignore women in the rural areas.

Boserup(1970) cited an instance in the Central African Republic where women play an important role in agricultural production but the extension workers always visit the women's husbands or brothers and not the women themselves; and that farming improvements tended to favour males' sector of cash crop production, while the female sector (food sector) continues to deteriorate resulting in the deterioration of the food supply. A woman household-head who is a landowner with substantial acreage can make independent decisions concerning land use, but in a situation where a woman is a de facto household-head but not a land owner, she is bound to a large degree by the decisions of the man who has the title of the land.

Palmer(1985) found that men had ultimate authority on farm decision making and a woman with an absent husband must still follow his directions, risking serious punishment if she acts independently. The day-to-day decisions were women's but long-term ones were exclusively for men. They were found to have no direct

access to credit capital, which limited their options in increasing farm productivity. Long-term decisions concerning agricultural capital investments were found to be the husband's domain while there was joint decision-making in the shorter term decisions. Women in some cases decide on what crops to plant, when and where to plant them, and whether to use exchange labour practices. When the husband is present, these decisions are made jointly. Extended male absence allows women considerable latitude and independence in decision making.

In Peru, Riegelman(1974) found that most decisions on when and what to plant were made by men; in Nigeria, on the other hand, women manage all aspects of subsistence production while men make decisions about growing of cash crops (such as cotton, tobacco) and determine the planting schedules. In Lesotho, he found out that women perform traditional male tasks out of necessity, such as herding and tending cattle, hoeing, thus spending many hours a day. Decisions regarding planting schedules (what, when, where to plant) remain with the men, and designers of agricultural projects in the country are realizing that extension workers must journey to South African mines to reach these males, if changes in farming habits are to be effected.

Republic of Kenya(1985) in a study of women's participation in household's decision making in two localities in the country underlined the dominance of women in matters concerning feeding the family as depicted in Table 2.1.

Table 2.1: Women Participation in Household Decision Making in Mwea and Nembure

Type of Decision	% made by Wife	
	Mwea	Nembure
What to eat	98	100
What food to buy	60	80
When to plant	60	75
What crops to grow	60	70
Whether to buy seed	55	60
Whether to buy fertilizer	20	25

Adopted; Source: Hanger J. and Morris J. (1973): Women and Household economy, in R. Chamber and J. Morris (eds). Mwea: An Irrigated Rice Settlement in Kenya Afrika- studies No. 83 IFO Muchen pg. 226

The study results in Table 2.1 demonstrates the dominance of women in making decisions related to food supply. With regard to these decisions, more women decide on the farming schedules than on the purchase of fertilizers. On the whole, women in these areas play important roles in making household decisions.

2.1.4 UTILIZATION OF MIGRANT'S REMITTANCES

Oucho and Mukras(1983) in their study of rural-urban migration investigated the positive role aspects of such movements. They found that migrants never sever connections with their home places. They often maintain strong cultural links with their districts of birth, through making home visits as well as making urban-rural remittances. The home areas often benefit from such remittances which help to the boost rural economy.

World Bank(1983) established that urban-rural remittances form a significant part of non-farm rural incomes. Rempell(1981) observed that urban-rural remittances sustain strong links between urban migrants and their rural kinsmen. Mukras et al(1985) argued that remittances are an important component of urban support

networks at both household and community levels, especially in Western Kenya.

Rempel and Lodell(1978) however noted that although it has been suggested that urban-rural remittances do not compensate rural areas for their lost human capital, they do stabilize rural incomes and sustain rural households especially during difficult times. Campbell(n.d.) in his study on rural-urban migration/rural development interrelations in West Africa, and Caldwell(1969) observed from evidence from Ghana and Nigeria, that a substantial percentage (over 70% in South-West Nigeria) of all remittances home are for immediate consumption especially food, clothing, general maintenance of household members, and school fees.

In Lesotho and Pakistan, Palmer(1985) found that remittances are frequently earmarked by the migrant for certain purposes such as purchase of livestock, household furniture, clothing and school fees of which men and women expectations do not always coincide. The migrant expects food requirements to be met from cultivation of the holding and from woman's small cash income. Education was found to have a larger claim on larger sums of money brought back. In Kenya, however, Findley and Williams(1991) underscored the importance of remittances in purchase of agricultural inputs, such as fertilizers.

Lipton(1976) observed that a woman's authority over the flow of remittances may or may not be comparable to her authority over existing productive resource. One migrant husband might leave his wife with decisions on land use but retain control over the destination of his remittances; another might decree land use and crop mix but be generous with remittance use. The consequences for cash crop production, food production, maintenance of farm assets

and general welfare will be quite different in each case. Long absence of migrants may clash with shorter term interests, for instance, extension messages that require immediate implementation, labour compensation for a man's absence rather than long-term strategy of saving of possible investment upon his return.

The use of remittances may be weaker in extended households where authority of women on farm decisions may be weaker and where the father or brother receives the remittances and thus retains ultimate decision, as in the case of Pakistan (Palmer,1985).

According to Chilivumbo(1985), migrants' remittances to their home communities more than compensated for the disadvantages caused by their emigration from the rural areas but other scholars pointed out that such remittances are very small and may not really go to farming activities.

In summary, migration studies carried out by sociologists (Mbithi,1975; Khasiani,1978) found out that selective nature of rural-urban migration contributes immensely to continued rural underdevelopment as it is both a brain and energy drain. It strikes at rural labour force, resulting in a high dependency ratio as the educated and active labour-force migrate to towns.

Amin(1972) concludes that:

> "Emigration impoverishes the (rural) region; this impoverishment reinforces the push effect on a large number of certain elements of the population, reproducing the conditions of emigration. The effect is a degenerated poor agrarian system."

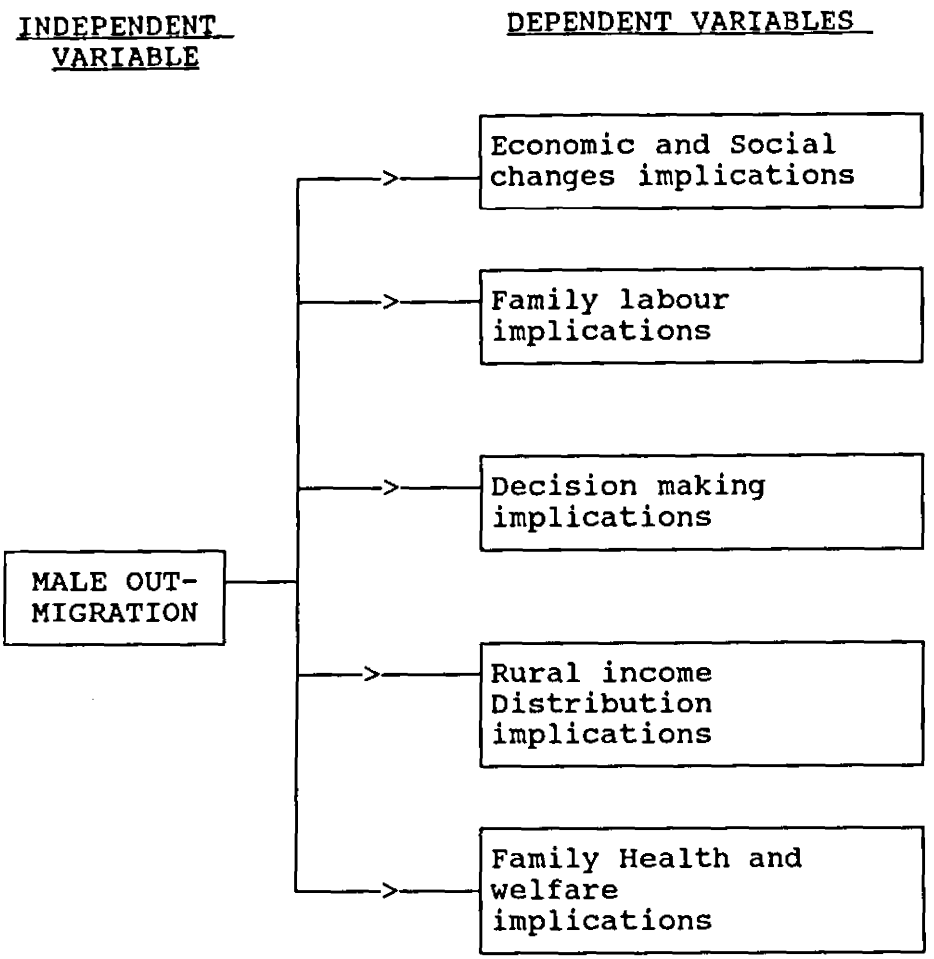
Thus, this literature review demonstrates that male out-migration creates multiple problems for the rural economy, and, for the purpose of this study, for the women left behind.

2.2 CONCEPTUAL FRAMEWORK

Although no specific theories have been advanced relating male out-migration to women roles, evidence from the literature review indicates that male out-migration increased the workload of women, that male migrants made long-term investment decisions usually made upon final return of the migrants while the women made decisions related to day-to-day management of the household activities. Migrant remittances were either not available or inadequate to make up the extra cost of farming created by the out-migrants.

This study found concepts in a similar study undertaken by Palmer(1985) in some Asian and South African countries crucial in examining the consequences of male out-migration on the women left behind in the study area. Palmer's major concepts can be modelled as shown in Figure 2.1, thus:

Figure 2.1: Palmer's(1985) Conceptual Model depicting some aspects where male out-migration affects the women left behind



Discussion of Palmer's conceptual framework

Lack of male family labour and solutions:

Palmer looked at this aspect in terms of its effects on phasing and land preparation. She found out that male out-migration (the independent variable) created problems of diminution of labour for the women left behind. Remittances were spent mostly on consumption expenditures and little on farming. School fees consumed a large proportion of the remittance. Labour was also hired although the remittances were not adequate to replace migrant labour in most cases. Renting out land and cultivation of lesser

crop acreage was practised as a way of labour adjustments. Kinship network were not available to assist the women but communal groups were important in providing support to the migrant households.

Decision-making authority of women over the deployment of resources: Though writers suggest that migrant's wives enjoy greater managerial authority, the real issue is how many more decisions women make, how freely, which ones and with what resources? Palmer found that women made independent decisions on the day-to-day management of the farm but the long-term investment decision remained their household head's domain. In majority of the cases, they decided on the crop mix and acreage planted. Few decided on renting out land. Migrants were found to earmark the remittances for specific uses, usually not according to the women's priorities.

Economic and social changes during long absence of the migrant: In the process of women's adjustment to the absence of their husbands, their authority and farming capability does mot remain constant over many years. Much depend on the size of the remittances and the cultural background. In the Near East, remittances were large enough to allow for improved economic status for the household, but in South Africa, the remittances were irregular and inadequate to allow for such changes. With time, women's tasks become more numerous. As remittances grow large, the women gradually withdraw from agricultural work, taking up some other economic activity.

Family health and welfare and demographic implications: The combination of maintenance of farm output and the use of

remittances determine the pattern of health and the welfare gains. This raises questions on the ordering of expenditure on nutrition, education, electrification, and housing. The process of arriving at that ordering also merited investigation. Male migration often lead to the nucleation of households, resulted in improved welfare as the remittances were concentrated on the immediate family, allowing better foods and nutrition. The long run effect on fertility was to depress it as the economic changes takes place and the migrant learns of modern family planning methods, besides the obvious one of partial separation of the couple.

Rural Income distribution and its effect on women: As the migrant's wives farm less land to make adjustment for farm labour, and if the remittances are utilized through high consumption, then the real migrant's wages go down. The income adjustments lead to women taking more off-farm work in order to maintain their real wages. However, the male agricultural wages rose as migrant women engaged male labour to replace migrant labour.

This study borrows from Palmer's conceptual framework, with specific reference to lack of family labour, the decision making authority of women and utilization of migrants' remittances.

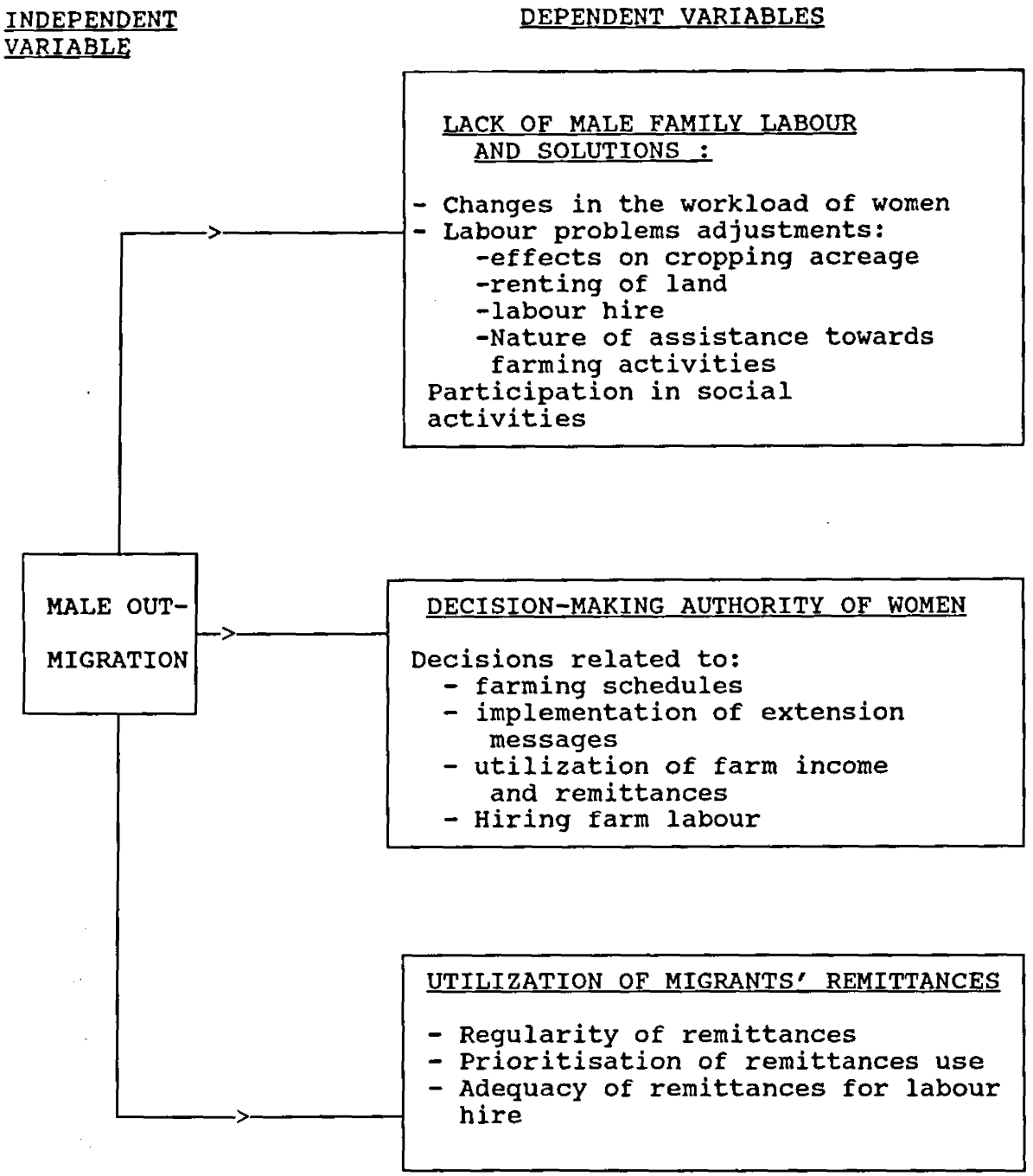
2.3 CONCEPTUAL HYPOTHESIS

From the literature review and theoretical framework thus cited, the conceptual hypothesis will read:

"Male out-migration significantly affects women's socio-economic roles in farming."

Graphically, the model this study employs is depicted in Figure 2.2, thus:

Figure 2.2: The Operational Model for studying effects of male out-migration on the women's socio-economic roles



Source: Adapted from Palmer(1985) conceptual model

2.4 OPERATIONAL HYPOTHESES

For purposes of determining whether those households with migrant members are disadvantaged in any one of the three aspects, those with no house-head migrant members will also be interviewed in order to test the significance of male out-migration on rural women's roles in relation to farming activities.

A: Workload aspects

1. Due to male out-migration, women in migrant households experience heavier workload than women in non-migrant households.
2. Migrant households are more likely to have hired labour than non-migrant households.
3. Labour adjustments patterns employed by migrant households are significantly different from those employed by non-migrant households.
4. Women in migrant households are less likely to participate in women's groups but more likely to participate in other social (communal) activities than those in non-migrant households.

B: Decision making aspects

4. Women in migrant households are more likely to make independent decisions on farming activities than those in non-migrant households.
5. Decisions related to the utilization of household's income (farm income and migrants' remittances) are likely to be made by the migrant household head.
6. Women in migrant households are less likely to receive and implement extension messages than those in non-migrant households.

C: Utilization of migrants' remittances

6. Migrants' remittances in migrant households are more likely to be spent on immediate consumption rather than on farming activities.

2.5 DEFINITION OF CONCEPTS AND VARIABLES

This study utilises one independent variable (male out-migration) and three dependent variables (women's workload, women in household decision making and utilisation of migrant's remittances with respect to women's workload and decision making).

2.5.1 Definition of concepts

1. Household: In this study, the household has been used as the basic unit of inquiry and analysis. For the purposes of this study, a household was defined as people who live within the same compound, fenced or unfenced, and share meals, have a common source of major income and have a common provision for the other essentials of general livelihood. This definition draws a distinction between a household and a family unit.

A family unit involves the additional criterion that members are related by blood, marriage or adoption. Thus in the cultural settings of most Kenyan communities, a household could consist of several family units living in the same compound and meeting the other criteria of the above definition.

2. Head of household or house-head: Identification of who the respondent considered to the head of the household was of analytical importance because the concept of household headship was the basic point of departure for this study. For the purposes of

this study, women respondents who were household heads were not subjected into further analytical process. The head of household was considered as the person in the household who the members acknowledged as their head. For the purposes of this study, this definition differs from the one used by the Central Bureau of Statistics, as importance was placed not on those that scholars would regard as the head by the experts, but on one that the actual members regarded as their household head, that is, traditional definition.

2.5.2 Definition of variables

1. Male migration:

For the purposes of this study, male migration (the independent variable) would be defined in terms of the out-migration of the household heads only. For example, the single and widowed who are not self-household heads, could include fathers, older sons, brothers, and so on, while for the married, it would probably be the husband's out-migration.

A male out-migrant will for the purposes of this study be defined as a person who moves away from his place of birth (Mbololo location) and crosses the locational boundary and reside in his place of destination for a period of not less than six months. The duration is considered appropriate for this study so as to give time allowance to the migrant to settle down in a job, to send remittances home, to make home visits and to allow a cropping season to last whereby the woman left behind will experience the chance to encounter enough challenges in the farming process in the absence of the household head. Hence, the duration of stay at place of residence will not be considered significant, if its less than

six months, as the issue at hand is whether the woman has been left behind and as such, what issues she faced that particular time that the head of household was away on migratory term, that is, the fact that the person has migrated for at least six months will be treated as an independent variable. However, the duration of home visits will be considered significant and will range from weekly, 1-2 months, 3-4 months, 5-6 months, 7-11 months, yearly, 2-3 years, over 4 years.

2. **Women's socio-economic roles:**

Women socio-economic roles (the dependent variables) are defined to include decision-making and workload aspects. Further, these two aspects are defined, thus:

a) Decision making, (a socio-economic role) is defined with respect to:

A) Farming-related decisions, such as:

i) Farming-schedules decisions, that is, when, what, where, how to plant

ii) Implementation of extension messages

iii) Hiring of farm labour

B) Other decisions:

i) Utilization of migrant remittances

ii) Use of farm income

b) Women's workload, a socio-economic role, is defined with respect to traditional division of labour, where women performed tasks such as planting, weeding, domestic activities, care of small stock, (some activities such as planting and weeding were shared tasks); while men performed tasks such as ploughing, taking care of

larger stock, such as cows, and in some cases, assist the women in the weeding, harvesting and storage. Thus, the following will be addressed:

i) Who mainly performs and assists in various household tasks, such as domestic, livestock and farming activities.

ii) Participation in women's groups

iii) Participation in other social groups

3. Utilisation of migrants' remittances: Defined in terms of any form of remittance sent by the migrant household head to the rural household. Remittances from persons other than the household heads are not considered in this study. Utilisation is analyzed in terms of the two socio-economic aspects discussed earlier, that is, women's workload and decision-making aspects.

CHAPTER 3: DATA AND METHODOLOGY

This chapter examines the study area, study population, sources of data, sampling procedures and sample size, limitations, and methods of data collection and analysis. The study uses mainly descriptive statistics to interpret the findings. A brief description of these methods of analysis and methodological limitation are also given.

3.1 Justification of the Study area and population

The marginality of a vast area in Kenya has led to increased concern by the Government to initiate development programmes aimed at promoting the development activities in these areas. A number of non-governmental organizations (NGOs) operate in these areas, most of them under the auspices of the Kenya Government. However, despite the concerted efforts to support the development activities in some of these areas, the underlying constraints of women (the main actors in agricultural labour supply) have not been explicitly addressed in the light of their contemporary socio-economic roles. One of the factors influencing the women's roles is heavy out-migration of males.

The study area- Mbololo location in Voi Division of Taita Taveta District is one such area. It has been selected to highlight some of the constraints faced by the women left behind as a result of male out-migration.

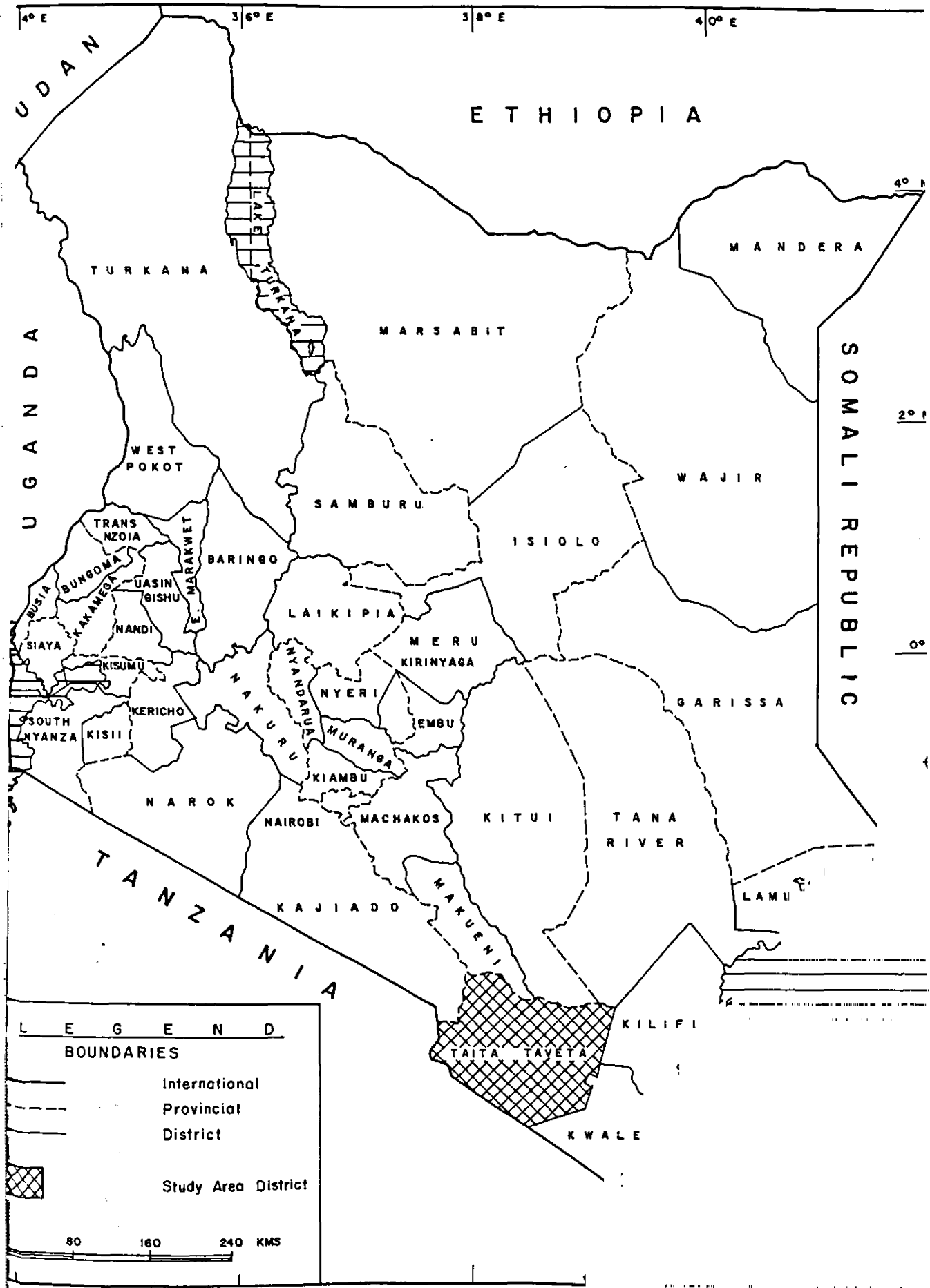
The semi-arid area is characterised by a substantial drain of the adult male labour in form of long-term migratory wage employment. Oucho (1990) noted that the district, one of the furthest in the Coast Province, has a significant proportion of its

out migrants moving into Mombasa, "The district has relatively more educated persons who apparently migrate to Mombasa as the centre of employment opportunities..." The area has been selected to highlight some of issues encountered by the women left behind as a result of male out-migration. Migratory remittances are a major source of cash income.

i) Background to the study area

The Taita Taveta District is located in the south-western part of Coast Province, in the south-eastern part of Kenya adjacent to Tanzania east of Mount Kilimanjaro (Figure 3.0).

The District covers about 17,000 square kilometres. In 1979, its population was estimated to have been 147,597. Overall population density is low (8-10 per sq. km) due to the fact that a large part of the District is semi-arid (classified under Arid and Semi-arid zones, ASAL, of the country, that is, areas of 500mm of rainfall annually and suitable mostly for livestock). More than 60 percent of the total area of the District belongs to the Tsavo National Parks. The area has diverse ecological setting in which soils, rainfall and temperatures differ substantially from zone to zone. Three such zones may be distinguished: the high potential, high altitude areas- over 1600m with a mean annual rainfall around 1500mm, good soils and cool temperatures;



ig. 3.0 : ADMINISTRATIVE MAP OF KENYA SHOWING LOCATION TAITA TAVETA DISTRICT

the densely populated mid-zone between 900-1500mm, where soils have been depleted by generations of intensive cultivation and where rainfall varies between 1000-1400mm; and the semi-arid zones at the base of the hills, with mainly sandy soils and rainfall generally under 800mm.

Despite these substantial variations, agriculture is the primary economic activity throughout the region and maize grown for domestic consumption, the principal crop in all zones. Small holder agricultural activities generally provides households in all zones with about three-quarters of the food they consume, as well as a variable and unpredictable cash income through sales of agricultural produce. Local casual or permanent labour, usually unskilled; herding, charcoal burning, brewing, handicraft sales, and migratory wage labour are other sources of household income. The welfare level of the District can be described as low due to the fact that income from the agricultural sector, which form the economic base, is low. Evidence suggest that the District consumes more than it produces thereby reflecting a deficit in food production. Lack of employment opportunity in the District has forced many males (and females) to out-migrate to other parts of the Republic in search of gainful employment,(Taita-Taveta District Development Plan, 1989-1993).

Throughout Taita, the principal planting season begins in March with plot preparation in anticipation of the long rains, which usually begin in March and end in May or June. Farmers in the highland community grow maize, vegetables and coffee. The middle zone is characterised by dispersed-plot farming strategy. The semi-arid plains community is populated mainly by recent settlers, mainly from the hills who engage in various combinations of food

farming, herding, charcoal production and casual labour on a nearby sisal estate. Both the middle and the semi-arid areas are characterised by a substantial drain of the adult male labour engaged in long-term migratory wage employment. The migrants' remittances are a major source of cash income.

The District is divided into four administrative Divisions: Taveta, Voi, Mwatate and Wundanyi. The Taveta Division is separated from the three others by the Tsavo West National Park but connected by a road through the park. The four divisions are then subdivided into fifteen locations comprising 54 sub-locations (as of 1991). Wundanyi town is the District headquarters.

The indigenous inhabitants are the Taita and Taveta ethnic groups. The population of the District is estimated to have been 147,597 in 1979; the average family size was 5 persons.

Voi Division, one of the four Divisions in the District, consists of four locations: Mbololo, Voi, Kasigau and Sagala (Figure 3.1). Most of the area lies in the semi-arid zone with the exception of part of Sagala location and one sub-location (Wongonyi) of Mbololo location which lies in the hills.

The area covered by the survey is Mbololo location which includes the southern half of the Voi Division (Figure 3.2). The area is part of the Taita foothills, and receives water from the

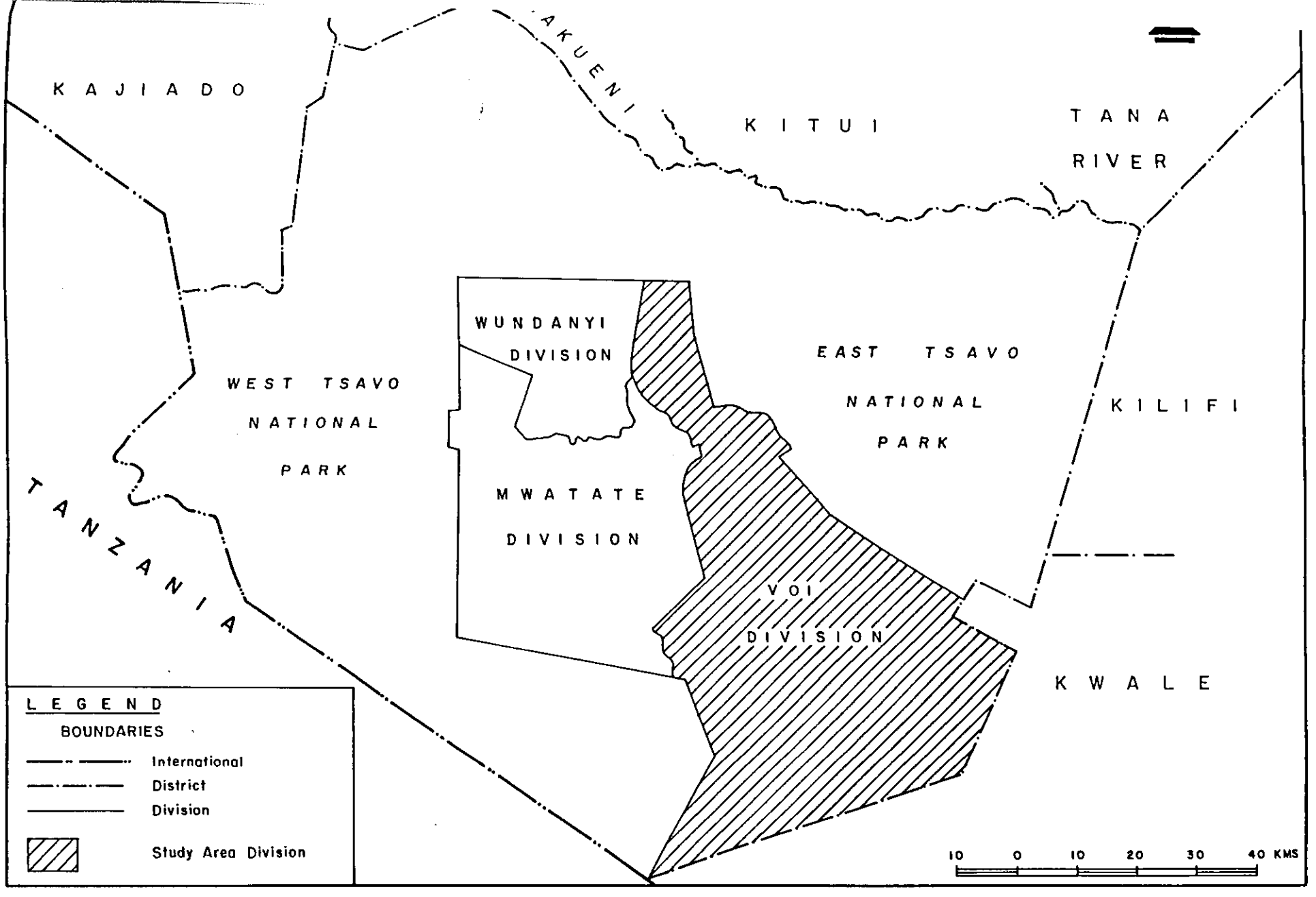


Fig. 3.1 : MAP OF TAITA TAVETA DISTRICT SHOWING LOCATION OF VOI DIVISION

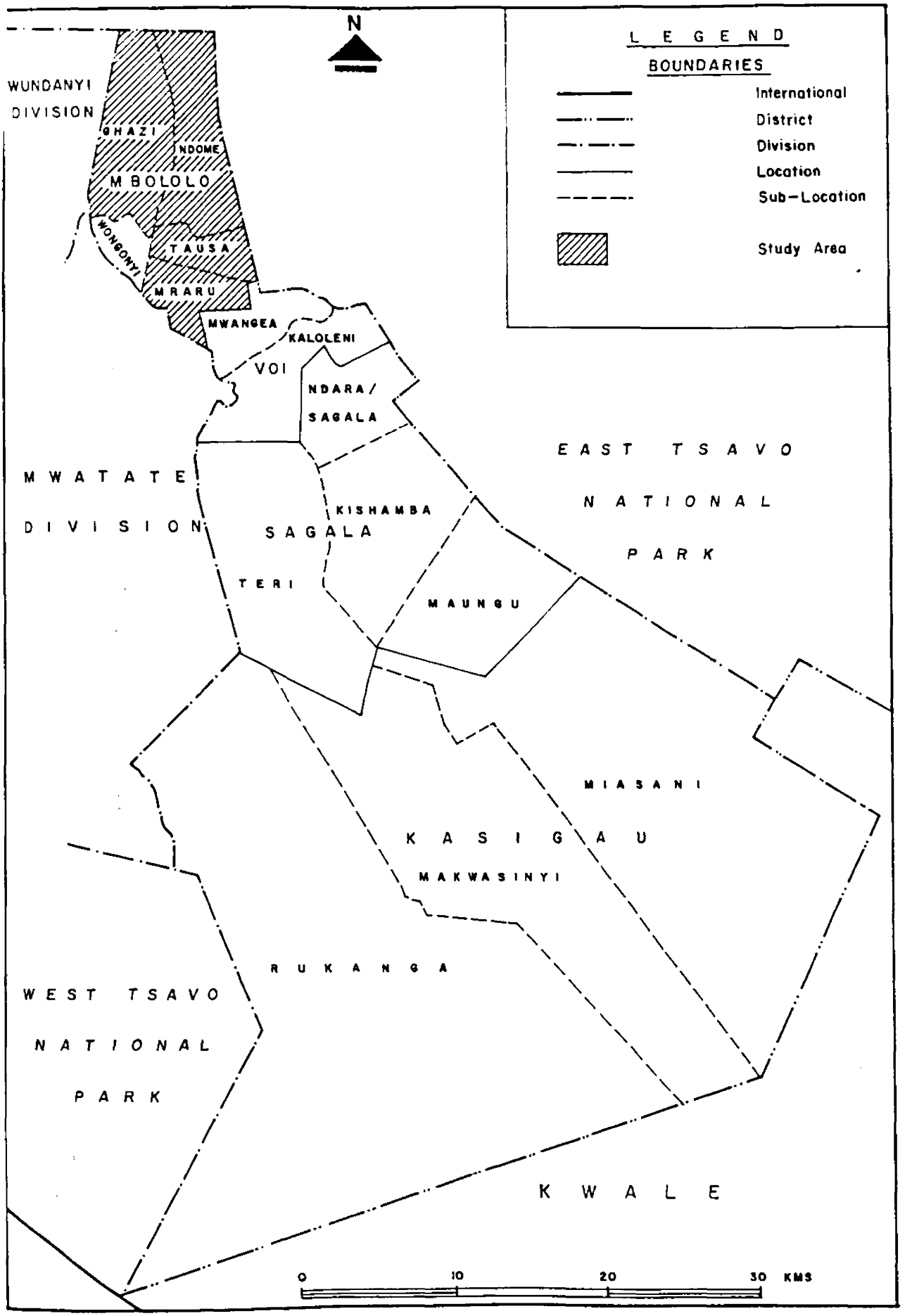


Fig. 3.2 : MAP OF VOI DIVISION SHOWING LOCATION OF MBOLOLO LOCATION (THE STUDY AREA)

rains that fall on Mbololo Range and Kigala Hills.

The area lies in the semi-arid zones 4 and 5 in the ecological zone classification, that is, areas with a mean annual rainfall of approximately 700 mm. The intensity of the rain is very high, but rainfall is not evenly spread over the whole growing season, resulting in frequent crop failures in the area. Population density of the area is approximately 100 persons per square kilometre.

The area's marginality has triggered off heavy out-migration, particularly of adult males in search of jobs. This has resulted in a high number of female-headed households, who are left to do most of the agricultural work in addition to the domestic chores.

The main economic activity in the study area is agriculture. Normally, the area is too dry for maize, but there is some scope for early maturing species and other drought tolerant crops, such as cow-peas, and pigeon-peas. Besides, livestock husbandry complements crop husbandry.

ii) The study area

A sample survey of 839 households was carried out in Mbololo location, Voi Division in Taita Taveta District comprising of women in each of the households. Cluster sampling design was used along village boundaries and the method of data collection employed was by use of a structured questionnaire.

Out of the five sub-locations in the location, 4 were chosen on the basis of their aridity. It was envisaged that the sub-locations selected represented a fairly similar type of climatical conditions (that is, semi-arid), whereas the remaining one represented a temperate type. A fairly good distribution of respondents was done in the four sub-locations. Mraru sub-location,

the largest, had 274 respondents, followed by Tausa(198), Ndome(194),and Ghazi(173).

Each of the sub-locations was divided into village clusters which were randomly selected:

Mraru sub-location clusters included Mwakiki(46 respondents), Kirutai(89), Mkwachunyi(95) and Kulele(44).

Ndome sub-location clusters included Maramunyi(45), Malatenyi(61) and Mlundinyi(88).

Tausa sub-location clusters included Mwandau(103) and Tausa(95).

Ghazi sub-location clusters included Mngalenyi(65), Makupa(48) and Majengo(60).

Some of the village clusters were found to be too large and were therefore subdivided, and the sub-clusters randomly selected. Such villages included Tausa, Mwandau and Mlundinyi.

iii) The study population

The Mbololo Baseline Survey(1986) noted that about 65% of the rural households in the area are headed by women majority of which is due to male out-migration. These women are left to do most of the agricultural work in addition to the domestic work. Thus, the study examined women from both migrant and non-migrant households in order to determine whether any significant differences exists between the two types of households. Any differences accrued with respect to manageability of the household workload and decision making aspects will be attributed as resulting from male out-migration, ceteris paribus. (It is assumed that the study population would be homogenous given the exposure to similar

ecological factors).

During the analysis, these types of households were sorted out on the basis of whether or not they had out-migrant household heads. The women respondents from non-migrant households were used as the control population.

iv) Characteristics of the study population

The study sought to establish the demographic and the socio-economic characteristics of the respondents and the household heads. Although not much has been documented on the women characteristics, a lot of literature exist on the nature of rural out-migrants. The observed nature of out-migrant is important in order to verify whether the characteristics observed agreed with the documented literature.

i) Age

Table 3.1: Age Distribution of the study population

Age interval	Frequency	% distribution
20 - 29	122	14.5
30 - 39	207	24.7
40 - 49	209	24.9
50 - 59	183	21.7
60 & above	119	14.7
TOTAL	839	100

Table 3.1 shows that most women respondents were aged above thirty (30) years. No respondents were found to be aged below twenty (20) years. The age profile depicts the nature of women rural areas are likely to exhibit.

ii) Marital status

Table 3.2: Marital status distribution of the women respondents

Marital status	Frequency	% Distribution
Single	39	4.6
Married	653	77.8
Widowed	121	14.4
Separated	19	2.3
Divorced	7	0.8
TOTAL	839	100

Table 3.2 shows the profile of marital status of the women respondents. Clearly, most of the women interviewed (77.8%) were married. The widowed are next with 14.4% while the single, divorced and the separated are 7.7%, reflecting typical rural setting characteristics where such categories are not so common.

iii) Household headship

For the purposes of this study, the definition employed of a household head was primarily the traditional one, that is, those that the respondent women recognised as their household heads. As it turned out to be, the married ones mentioned their husbands as their household heads, while the widowed, singled, separated or the divorced mentioned either self, fathers, sons or brothers as their head of households. 76.5% mentioned husbands, 19.4% self, 3.5% elder son, 0.5% brother and 0.1% cited father. For purposes of this study, the 19.4% who were self-heads were not considered for further analysis as indicated in the study limitations.

The respondents were asked whether their household heads worked outside their location (the out-migration defining area).

Excluding those who mentioned that they were self-household heads, 50.4% of the respondents answered in the affirmative. This indicates that about half of the male household heads were migrants while about half were non-migrants. It should be noted that this situation applies to only those who were current migrants.

With respect to the main occupation of the both migrant and non-migrant household heads, 49.9% were in farming, 43.4% in paid employment, while 6.6% were in business. (Ominde 1983 noted that farming was an important rural occupation, while Wakajummah,1986 and Republic of Kenya,1985 observed that most out-migrants left their rural areas in search of paid employment). Most migrants(90%) and a few non-migrants were in the category of paid employment. For the non-migrants, their nature of paid-employment was basically casual. Farming, including livestock keeping, was found to be the most important economic activity in the study area. An average of 3.24 cattle and 5.6 goats and sheep per household keeping livestock was recorded in the area.

iv) Some observed characteristics of the migrants

a) The place of destination

Table 3.3 The Places of destination for the out-migrants

Place of Destination	Frequency	Percentage
Mombasa	161	46.7
Nairobi	61	17.7
Voi	58	17.1
Wundanyi	38	11.3
Mwatate	11	3.2
Taveta	6	1.7
Other towns out-side the District	8	2.3
TOTAL	343	100

The place of destination for most migrants was Mombasa with 46.7% (Wakajummah 1986), followed by Nairobi(17.7%). The main town of study area, Voi had 17.1%, Wundanyi, the District headquarters (11.3%), while other district towns received a few, for instance, Mwatate(3.2%) and Taveta (1.7%). Other places of destination included mostly the urban centres in Coastal Province, such as Kwale, Malindi, Lamu, and other towns outside the province such as Garissa, Nyeri, Nakuru, and so on.

b) Duration of migration

Table 3.4: Distribution of respondents according to duration of out-migration of their household heads

Duration of out-migration	Frequency Distribution	% distribution
6 months and below	10	3.0
One year ago	7	2.1
2 - 3 years	15	4.4
4 - 5 years	30	8.6
Over 5 years	281	82.0
Total	343	100.0

Table 3.4 indicates that most migrants (81.7%) had migrated from their places of origin more than five years ago; 13.3% for 2 - 5 years, 2.1% a year ago, while 3% had been away for 6 months or less. This latter group was not considered in this study because it does not fall within the definition of migration which considers an out- migrant as a person who had moved from his location for a duration of not less than six months.

c) Regularity of home visits

About 37.5% of migrants visited their rural areas of origin on a monthly basis, 22.7% annually, 14.2% weekly, 16.5 semi-annually, while the rest 6.7% either on a fortnight basis, after 2 months or quite irregularly. Oucho and Mukras also made this observation that migrants maintained strong rural links with their rural areas through making regular home visits and sending remittances to their families.

3.2 METHODOLOGY OF DATA COLLECTION

3.2.1 Sources of Data

Primary data is used in this study, collected from women (both with and without migrant household heads) in the region of Mbololo location, Taita Taveta District. A structured questionnaire was the instrument used for data collection, which took place between December 1992 and January 1993.

3.2.2 Sampling design

Cluster random sampling was employed in selecting a sample of respondents. The method involves generally the delineation of the study area into clusters along administrative boundaries or grids. A random sample of clusters is undertaken using appropriate random sample selection technique. Once the desired number of clusters are selected, all the items in these clusters are included in the sample size. The study area was divided into village clusters. From the total number of village clusters, a random sample of 12 villages out of 32 was selected. Then, every woman in the random cluster sample was interviewed.

This sampling design was used as the area under study is sparsely populated and use of simple random sampling would not have been possible in terms of travelling expenses and time, given that the households are quite scattered.

3.2.3 Sampling procedures

i) The sample size

It was impossible to cover the whole population since it was too large and the field operation would have been too expensive given the limited time that was available for research. The population (universe) in this study consists of all women in the rural area of Mbololo. Due to the size of this population, it was necessary to use a sample to save time, labour and finances.

The study is aimed at examining the effects of male out-migration on the women left behind and finding out whether there is any significant differences between women from migrant households and women from non-migrant household. In order to do this, it was found necessary to use a sampling technique that would allow a representative sample size. The total sample size envisaged was to consist of 800 respondents but the actual sample size that was used in the study was 680 respondents as some respondents were not to be considered in the study. These included all those respondents who were self heads in their households, (which meant that the issue of households heads being absent or present did not arise) and those whose duration of migration was less than six months.

ii) The questionnaire

A structured questionnaire (Appendix i) based on personal interviews was used for systematic collection of information which was administered among all respondents by the researcher with the help of research assistants.

The questionnaire covered a wide range of information on independent (male out-migration) and dependent variables (women

socio-economic roles). The information sought for in the questionnaire was based on socio-economic aspects that are associated with the out-migration of the household head, for example, the background information of the respondents, such as age, marital status, whether they had an out-migrant household head, who mainly performed household tasks, who made different farm decisions, whether the women from migrant households received remittances, how such income is utilized, and so on.

A pre-test of the questionnaire was done to find out whether the questions asked were easily understood by the respondents. It also tested whether the questions were arranged in a logical sequence and whether the questions exhausted the topic under study. A few changes and corrections were made to improve on the clarity and sequential flow of the questions. Those that were found ambiguous were revised before the questionnaire was administered. Through the pre-test, the researcher was able to establish the time required to interview the respondents and also budget for the time required to cover all the respondents.

On the whole, this type of questionnaire was found to be convenient as it yielded quantifiable data that was crucial for this study. Care was made when asking questions regarding the performance of the tasks to ensure that the performance was based on who plays the key role in the tasks, and during times when schools are in session, as no doubt, children become important players in some activities (especially domestic and livestock) during school holidays, when the mother often finds a seasonal relief from otherwise a busy daily schedule. The rationale is that school-going children are normally home on a full time basis only on a quarter of the time throughout the year when the schools close

for holidays. Apart from such tasks such as fetching fodder and water which can be done in the evening after school hours, other tasks were found to be almost entirely performed by the respondent.

The task of ploughing was found to be unimportant in this study as ploughing in the area is rarely done before planting, save when it involves ploughing of new areas.

3.3 METHODOLOGY OF DATA ANALYSIS

The information about each respondent was coded and fed into the computer using the Statistical Package for Social Scientists (SPSS) computer programme. The coding was rechecked severally to ensure that the data was correctly coded. This process led to data processing which produced frequency distributions, percentages, cross tabulations and other descriptive statistics, such as the chi-square, with the aim of finding out how male out-migration affect the other variables. These techniques were found imperative because the data were basically in nominal form.

i) Tabulations

Tables are of great use in showing frequencies and percentages because tabulated data is presented in clear and orderly manner which is readily comprehended and facilitates quick comparison. From them, it is easier to make summation of items and to detect errors and avoid repetitions.

ii) The Chi Square Test

Chi-square technique is used in line with objectives 1 and 2, mainly to test the operational hypotheses on whether any

significant differences exist between migrant households and non-migrant households in relation to workload and decision-making. To achieve this, the two types of households were sorted out on the basis of whether or not they had a household head out-migrant. For all operational variables, the chi-square (X^2) test is applied to test whether the differences observed among them are significant.

The chi-square is a very general test that can be used whenever we wish to evaluate whether or not frequencies which have been empirically obtained differ significantly from those which would be expected under certain assumptions. The chi-square test requires a relatively large N (sample or population size) because the sampling distribution of test statistics approximates the sampling distribution given in the chi-square table only when N is large (Blalock, 1963). The size of N depends on the number of cells and the marginal totals.

The chi-square test is given by the formula:

$$X^2=\Sigma[O-E^2]/E$$

where $x > 0$ and

where O = observed frequencies

E = expected frequencies

The calculated value of X^2 is compared with the table value of X^2 for given degrees of freedom at specified level of significance. If the calculated value of X^2 is greater than the table value, the difference between theory and observation is considered to be significant, that is, it could not have arisen due to fluctuation of sample sampling; on the other hand, if the calculated value of

X^2 is less than the table value, the difference between theory and observation is considered insignificant, that is, it could have arisen due to fluctuations of sampling. The numbers of degrees of freedom is described as the number of observation that are free to vary after certain restrictions have been imposed on the data. Thus the degrees of freedom for all cells is (c-1)(r-1):
where c refers to columns,
and r refers to rows.
Thus in a two by two table, the degrees of freedom will be (2-1)(2-1)=1; in a three by three table, the degrees of freedom will be (3-1)(3-1)=4.

Chi-square is obtained by first taking the square of the differences between the observed and the expected frequencies in each cell. The sum of these non-negative quantities for all cells is the value of chi-square. The chi-square involves a comparison of frequencies rather than percentages.

The X_2 test requires that the following conditions must apply:
i) Experimental data must be independent of each other.
ii) Sample data must be drawn at random from the target population.
iii) Data must be expressed in ordinal units.
iv) Sample should contain at least 50 observations.
v) There should be no less than 5 observations in any one cell.
The main use of chi-square in this study is to find out whether there is any association between the independent variables (male out-migration) and each of dependent variables (women workload, decision making), in the context of those households with male out-migrants and those without.

Chi-square usually employs two types of hypotheses, the null

hypothesis (H_0) and the alternative hypothesis(H_A). Thus H_0 states that the two variables are independent.

In this study, the H_0 will state that there is no significant differences between the migrant and non-migrant households in the various dependent variables being tested, implying that any differences between them cannot be attributed to effects of male out-migration, that is, there is no significant association between the independent variable (male out-migration) and the dependent variables (women socio-economic roles); the H_A states that the two variables are dependent.

More specifically, the H_0 will state that there are no significant differences between the migrant and non-migrant households in the various dependent variables being tested, while the H_A will contravene this, implying that the differences observed can be attributed to effects of male out-migration, that is, male out-migration significantly affect the women socio-economic roles.

The researcher then sets out to confirm or disapprove the H_0 at a given level of significance. However, since the study used computer to calculate chi square, the interpretation would be that if calculated significance level of the test if small, (if it is less than 0.05 or 0.01), then, the null hypothesis shall be rejected and the alternative hypothesis accepted, suggesting that there is a relationship between the two variables are dependent. In some cases, the calculated values of chi-squares will be tested against the table values. If the calculated value is less than the expected value (from the tables) at 0.05 or 0.01 significance levels, then the null hypothesis will be accepted. For the reverse, the null hypothesis will be rejected, and the alternative accepted.

The main shortcoming with this method of analysis is that it

is not able to test the strength of association between variables. This imply that the degree to which the male out-migration affects the women's socio-economic roles would not be quantified and the association will be generalised. However, this will be a good pointer to the need for further research by use of statistical methods that will generate the strength of association between the variables.

CHAPTER 4: RESULTS OF MALE OUT-MIGRATION ON WOMEN'S ROLES

This chapter discusses the results of the study. All the three aspects of the study objective components, that is, workload aspects, decision-making aspects and utilization of migrant remittances are highlighted. The findings are given in form of frequency tables and chi-square tests.

To achieve the study's objectives, mainly objectives 1 and 2, both migrant and non-migrant households are examined and a chi-square test applied to test differences observed between the two types of households. Any significant differences observed are attributed to male household head's out-migration, with the assumption that all things being equal, the households' characteristics should be homogeneous. Where the chi-square results show significant differences between the two types of households, the differences are attributed to male out-migration. Where the chi-square results show no significant differences, the differences are considered to result from other factors.

All the chi-square results are tested against a significance level of 0.05. Where the significance level observed is higher than 0.05, the null hypothesis being tested is accepted and vice versa. In some results, calculated or observed chi-square values are also tested against the expected values from chi-square tables against the appropriate degrees of freedom (d.f).

All the chi-square values for the various components of the variables are given in Appendix ii.

4.1 WOMEN'S WORKLOAD ASPECTS

This section seeks to test the main objective of the association between the male out-migration and women's workload.

The aim of this objective is to find out whether male out-migration has an effect in altering the rural women's household work structures. The operational hypotheses addressed in this section deals with whether any significant differences in workload management, adjustment to labour problems such as labour hire, participation in social activities exists between women in migrant and non-migrant households.

4.1.1 WOMEN WORKLOAD ASPECTS

The general women's workload management situation is summarised in Table 4.1.

Table 4.1: Daily workload management situation of women from migrant and non-migrant households

Type of household	Sub-location name	Do you find your daily workload manageable	
		Yes	No
Migrant households	Mraru	62 (45.3)	75 (54.7)
	Ndome	26 (36.6)	45 (63.4)
	Tausa	53 (85.5)	9 (14.5)
	Ghazi	23 (31.5)	50 (68.5)
Non-Migrant households	Mraru	37 (37.8)	61 (62.2)
	Ndome	32 (35.2)	59 (64.8)
	Tausa	71 (82.6)	15 (17.4)
	Ghazi	23 (37.1)	39 (62.9)

Legend: Figures in brackets denote percentage frequencies

Results from Table 4.1 show that in all the sub-locations except in Tausa, more than half of the respondents in both types of households do not find their daily workload manageable. Although there are differences in the percentage distributions of the daily workload management situation between the two types of households, the chi-square significance levels are quite large, that is,

greater than 0.05 expected significance level. This implies that there are no significant differences between the two households with respect to daily workload management. Findley and Williams(1991) observed that if the wives are already the major agricultural producers (as is the case in the study area), departure of their household heads is unlikely to create major changes in women's activities. The wives workload may increase somewhat, while the basic subsistence pattern remains unchanged. Most respondents from migrant households indicated that they had over the years got accustomed to the workload situation.

The following sub-sections analyses various components of the workload aspects in the study area.

i) Main persons performing household tasks

This sub-section focuses on the main persons performing various household tasks in the migrant and non-migrant households. The relationship between the migration of the male household heads and the main person(s) performing the activities is tested by the chi-square value. This is used to show the differences between the two types of households. For all the sub-locations, the following null and alternative hypotheses are tested:

H_0: There are no significant differences between migrant and non-migrant households with respect to the main person(s) performing different household tasks; whereas, H_A states that the differences between the two households exist and are significant.

Tables 4.2 to 4.5 show the distribution of the main persons performing different household activities (tasks) in the four sub-locations of Mbololo Location. It is worth noting that some of the

total percentages for any given task may add up to more than a 100% where there was more than one main actor.

The research found out that fetching fodder was not a very common activity in the area, as grazing is more widely practised. Among some respondents, fetching water was not a major activity as they were either served by individual tap water, or the water source was quite near.

The task of ploughing was also found to be unimportant in this study as ploughing in the area is rarely done before planting, save when it involves ploughing of new areas.

Table 4.2 shows the distribution of main persons performing various household tasks in Mraru Sub-location. From the frequencies and percentages, it is evident that women perform most of the activities in the rural areas, irrespective of whether there is a resident or a non-resident household head. Findley and Williams(1991) observed that out-migration precipitates few changes in the productive activities of the women left behind where women dominate in agricultural activities, regardless of whether men are absent or not. Pala(1975) similarly made this observation.

The observed chi-square significance level for the women respondents performing domestic tasks is 0.7962 at 1 degree of freedom (d.f), implying that women being main actors in domestic tasks is independent of the residence of the household head. This observation is observed in most other activities where the significance levels range from 0.0911 to 1.000. At 0.05 significance level, the null hypotheses of no difference between the two types of households are accepted, implying that the male out-migration does not have any significant effects on women

performing the rural activities. Irrespective of the residence of the male household head, women mainly perform most of the rural activities.

In Mraru Sub-location, household heads performing livestock and farming activities is quite significant. The observed chi-square value, for example, for livestock grazing is 33.18000 at 1 d.f. and a significance level of 0.0000. This implies that the independent variable (male out-migration) has a significant effect on the household heads performing these tasks. The part that the household heads play in livestock grazing, planting and weeding, harvesting and storage is quite significant irrespective of how much or little their participation may be. This underlines the fact that the absence of the household head is significantly detrimental to the workload of the woman left behind. That is, the non-migrant household head is more likely to undertake such tasks, whereas, the out-migrant household head cannot undertake such tasks by virtue of his absence.

Table 4.3 shows the distribution of main task performers in Ndome Sub-location. Women mainly perform most of the domestic and non-domestic tasks. The frequency distributions do no show much differences among the respondents and the other main actors performing the tasks in the two types of households.

The observed chi-square significance levels for the women respondents in all activities except in livestock grazing shows no significant differences between the two households. The chi-square calculated values for all these activities (except livestock grazing) are 0.0000 at 1 d.f. and a significance level of 1.0000. The null hypotheses of no differences between the two households

are accepted, implying that in this sub-location, women performing these activities is irrespective of the residence of their household head.

In the area of livestock grazing, the observed chi-square value for women is 7.90729 at significance level of 0.005. The value is greater than the expected figure of 3.841 at 0.05 at 1 d.f. The null hypothesis of no difference is rejected and the alternative accepted. The results implies that there is significant relationship between the out-migration of household head and the women performing the task of livestock grazing. That is, women in migrant households are more likely to undertake livestock activities than those in non-migrant households.

Household heads performing livestock tasks is also significant but at a lower significance level than in Mraru Sub-location. The chi-square values for all the other main actors is not significant ranging from a significance level of 0.5892 for children performing domestic tasks to 1.000 for most other actors and tasks.

Table 4.4 shows that in Tausa Sub-location, the frequency distributions between the two types of households show a similar pattern as in the other sub-locations, with the women respondents being the main actors in all the activities irrespective of the residence of the household head.

The observed chi-square results for women do not show any significance in all the tasks, with levels of significance ranging from 0.3393 to 1.0000. The effect of male out-migration on the women performing rural household tasks is not significant in this sub-location. That is, women continue to play key roles in rural activities irrespective of whether the household head has migrated

or not.

The chi-square results for the other main task performers are not significant, ranging from significance levels of 0.3759 to 1.0000. This implies that the residence of the male household head has no effect on the other main actors in performing household tasks.

Table 4.5 shows a similar pattern with the other sub-locations, that is, in Ghazi Sub-location, women in both types of households mainly perform all the household activities as shown by the percentage frequencies. When these results are tested against the chi-square, the observed significance levels in all the activities show that male out-migration does not have any significant effects on women performing these activities. These significance levels range from 0.0723 in livestock grazing to 1.0000 for most other activities. The null hypotheses of no association between the male out-migration and women performing these roles are accepted, implying that there is no difference between the two households with respect to performance of these roles.

The chi-squares for household heads performing the task of grazing, fetching fodder, planting/weeding and harvesting/storage are all highly significant at expected levels of 0.01 and 0.05 at 1 d.f. Thus, male out-migration has a significant effect on the household heads performing the tasks related to livestock and farming. That is, whereas the non-migrant household heads do perform these tasks, the migrant households miss out on this labour by virtue that their households are away (out-migrated). Hence, the male out-migration removes the house-heads who would otherwise have

played significant roles in performing these activities.

The chi-square values for other tasks and main actors are not significant and range from 0.5496 to 1.0000 significance levels. The male out-migration has no significant effects on the other persons performing the household tasks.

In summary, women in both migrant and non-migrant households continue to play key roles in the household economies (Pala, 1975). Given this fact, the out-migration of the household heads does not create major changes in women's activities. The wives workload may increase somewhat, while the basic subsistence pattern remains unchanged (Findley and Williams,1991). The out-migration of male household heads creates labourforce problems for male-typed and shared tasks in these households (Goldstein,1979) especially in livestock and farming related tasks, where increasingly more women have to take up such tasks. It is of interest to note that, in grazing livestock, a traditionally male task, women play an important role in this activity even in non-migrant households. Fewer men than women in these households were found to be key actors in these tasks.

Table 4.2: Main persons performing different household tasks in migrant and non-migrant households in Mraru Sub-location

Household tasks	Type of h/hold	Who mainly performs the following activities in your household?					
		Respondent	House-head	Children	Hired labour	Relatives	Other
Domestic	Mig.	137 (96.3)	0 (0)	3 (2.2)	2 (1.5)	0 (0)	0 (0)
	N/mig.	98 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Grazing	Mig.	71 (51.8)	0 (0)	2 (1.5)	13 (9.5)	0 (0)	0 (0)
	N/mig.	39 (39.8)	25 (25.5)	0 (0)	10 (10.2)	0 (0)	0 (0)
Fetching fodder	Mig.	7 (5.1)	0 (0)	0 (0)	2 (1.5)	0 (0)	0 (0)
	N/mig.	6 (6.1)	6 (6.1)	0 (0)	0 (0)	0 (0)	0 (0)
Planting/ weeding	Mig.	132 (96.4)	0 (0)	3 (2.2)	8 (5.8)	0 (0)	1 (1.4)
	N/mig.	95 (96.9)	29 (29.6)	1 (1.0)	0 (0)	0 (0)	0 (0)
Fetching water	Mig.	103 (75.3)	0 (0)	1 (0.7)	2 (1.5)	0 (0)	1 (1.6)
	N/mig.	80 (81.6)	0 (0)	2 (2.0)	0 (0)	0 (0)	0 (0)
Harvesting/ storage	Mig.	133 (97.1)	0 (0)	3 (2.2)	6 (4.4)	0 (0)	0 (0)
	N/mig.	95 (96.9)	22 (22.4)	1 (1.0)	0 (0)	0 (0)	0 (0)
Fetching firewood	Mig.	136 (99.3)	2 (1.5)	3 (2.2)	2 (1.5)	0 (0)	0 (0)
	N/mig.	96 (98.0)	0 (0)	2 (2.0)	0 (0)	0 (0)	0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

Table 4.3: Main persons performing different household tasks in migrant and non-migrant households in Ndome Sub-location

Household Tasks	Type of h/hold	Who mainly performs the following tasks in your household?					
		Respondent	House-head	Children	Hired labour	Relatives	Other
Domestic	Mig.	70 (98.6)	0 (0)	0 (0)	1 (1.4)	0 (0)	0 (0)
	N/mig.	88 (96.7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Grazing	Mig.	27 (38.0)	0 (0)	0 (0)	29 (9.5)	0 (0)	1 (1.4)
	N/mig.	56 (61.5)	5 (5.5)	0 (0)	16 (17.6)	0 (0)	0 (0)
Fetching fodder	Mig.	1 (1.4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	N/mig.	2 (2.2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Planting/ weeding	Mig.	70 (98.6)	0 (0)	0 (0)	1 (1.4)	0 (0)	0 (0)
	N/mig.	90 (98.9)	2 (2.2)	1 (1.1)	0 (0)	0 (0)	0 (0)
Fetching water	Mig.	70 (98.6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	N/mig.	89 (97.8)	0 (0)	1 (1.1)	0 (0)	0 (0)	0 (0)
Harvesting/ storage	Mig.	70 (98.6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	N/mig.	90 (98.9)	0 (0)	1 (1.1)	0 (0)	0 (0)	0 (0)
Fetch firewood	Mig.	170 (98.6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	N/mig.	90 (98.9)	0 (0)	1 (1.1)	0 (0)	0 (0)	0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

Table 4.4: Main persons performing household tasks in migrant and non-migrant households in Tausa Sub-location

Household Tasks	Type of h/hold	Who mainly performs the following tasks in your household?					
		Respondent	House-head	Children	Hired labour	Relatives	Other
Domestic	Mig.	61 (98.4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.6)
	N/mig.	84 (97.7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Grazing	Mig.	28 (45.2)	0 (0)	0 (0)	2 (3.2)	1 (1.6)	0 (0)
	N/mig.	32 (37.2)	19 (22.1	0 (0)	7 (8.1)	0 (0)	0 (0)
Fetching fodder	Mig.	5 (8.1)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.6)
	N/mig.	5 (5.8)	1 (1.2)	1 (1.2)	0 (0)	0 (0)	0 (0)
Planting/ weeding	Mig.	61 (98.4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.6)
	N/mig.	86 (100)	2 (2.3)	0 (0)	0 (0)	0 (0)	0 (0)
Fetching water	Mig.	60 (96.8)	0 (0)	1 (1.6)	0 (0)	0 (0)	0 (0)
	N/mig.	82 (95.3)	0 (0)	3 (3.5)	0 (0)	0 (0)	0 (0)
Harvesting/ storage	Mig.	61 (98.4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.6)
	N/mig.	86 (100)	2 (2.3)	0 (0)	0 (0)	0 (0)	0 (0)
Fetching firewood	Mig.	60 (96.8)	0 (0)	1 (1.6)	0 (0)	0 (0)	1 (1.6)
	N/mig.	86 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

Table 4.5: Main persons performing household tasks in migrant and non-migrant households in Ghazi Sub-location

Household tasks	Type of h/hold	Who mainly performs the following tasks in your household?					
		Respondent	House-head	Children	Hired labour	Relatives	Other
Domestic	Mig.	71 (97.3)	0 (0)	2 (2.7)	0 (0)	0 (0)	0 (0)
	N/mig.	61 (98.4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Grazing	Mig.	32 (43.8)	0 (0)	0 (0)	7 (9.6)	0 (0)	0 (0)
	N/mig.	17 (27.4)	24 (38.7	0 (0)	5 (8.1)	0 (0)	0 (0)
Fetching fodder	Mig.	4 (5.5)	0 (0)	1 (1.4)	1 (1.4)	0 (0)	0 (0)
	N/mig.	2 (3.2)	7 (11.3)	1 (1.6)	0 (0)	0 (0)	0 (0)
Planting/ weeding	Mig.	71 (97.3)	0 (0)	0 (0)	1 (1.4)	1 (1.4)	0 (0)
	N/mig.	61 (98.4)	11 (17.7)	0 (0)	1 (1.6)	0 (0)	0 (0)
Fetching water	Mig.	71 (97.3)	0 (0)	2 (2.7)	0 (0)	0 (0)	0 (0)
	N/mig.	61 (98.4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Harvesting/ storage	Mig.	71 (97.3)	0 (0)	0 (0)	1 (1.4)	1 (1.4)	0 (0)
	N/mig.	61 (98.4)	11 (17.7)	0 (0)	1 (1.6)	0 (0)	0 (0)
Fetching firewood	Mig.	71 (97.3)	0 (0)	2 (2.7)	0 (0)	0 (0)	0 (0)
	N/mig.	61 (98.4)	0 (0)	1 (1.6)	1 (1.6)	0 (0)	0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

4.1.2 TYPE OF LABOUR ADJUSTMENTS IN WOMEN'S WORKLOAD

Women to avoid suffering losses in income or food production due to out-migration of their household heads have to make various alternatives. The strategy she adopts to cope with her husband's absence depends on whether she seeks to augment or maintain the level of agricultural activities on her holdings (Findley and Williams,1991). In this study, such options includes labour assistance received and other types of labour adjustments employed, such as hiring labour, reduction in farming acreage, renting out land, and so on.

i) Type of assistance accorded to the women respondents

This sub-section reports the type of assistance accorded to the women respondents in the two types of households. The relationship between the out-migration of the male household heads and the kind of assistance accorded to the women is tested by use of the chi-square. This is used to show the differences between the two types of households. For all the sub-locations, the null and alternative hypotheses read as follows:

H_0: There are no differences between migrant and non-migrant households with respect to the types of assistance accorded to the women respondents.

H_A: There are differences between migrant and non-migrant households with respect to the types of assistance accorded to the women respondents.

Table 4.6 shows the nature of assistance accorded to both migrant and non-migrant women respondents in Mraru Sub-location.

The chi-square values for women not receiving any form of assistance in their daily tasks are all insignificant (except in livestock grazing where the significance level is 0.0242). Therefore, only the null hypothesis relating to livestock grazing is rejected, implying that male out-migration leaves behind a significant proportion of women without any form of assistance in livestock tasks.

Children's assistance is significant in domestic activities and in fetching firewood in migrant households. The observed chi-square values are 4.60154 and 3.90859 respectively tested against an expected value of 3.841 at 0.05 significance level. In the other activities, the calculated significance levels for children's assistance falls short of the expected value of 0.05 by a small margin (see Appendix ii), indicating that, to some extent, the out-migration of the male household heads has an effect on the children in migrant households in assisting their mothers.

The chi-square results for the household heads' assistance are quite significant in all livestock and farming-related activities. All the chi-squares values are highly significant at all levels of accepted significance. Whereas, a few migrant household heads may visit their rural homes during such times when there are peak farming activities such as weeding and harvesting, it remains clear that such form of assistance is not significant compared to one accorded to women in non-migrant households by their house-heads.

The chi-square values for assistance by hired labour and by communal (social) self-help groups are also significant between the two types of households in all farming-related tasks. The significance levels for both forms of assistance are less than 0.05. Hence, the null hypotheses of no association between the out-

migration of the household head and assistance by hired labour and communal groups are rejected and the alternative accepted, that is, male out-migration has a significant effect on the two forms of assistance in migrant households in farming activities. This observation concurs with Findley and Williams(1991) that women left behind would either hire labour to replace migrant labour and/or become active in mutual labour exchange groups mostly in agricultural activities.

Differences between the two types of households with respect to assistance by relatives was not found to be significant in this area. The migration of household heads does not lead to significant increase in assistance by the relatives, although Palmer(1985) indicated that they are an important source of assistance to the women left behind. Communal groups similarly are not significant in domestic and livestock activities.

Table 4.7 shows the distribution of types of assistance accorded to women respondents in Ndome Sub-location. Children accord the most important form of assistance in both types of households, but their chi-squares values are only significant in the task of livestock grazing, where the significance level (0.0309) is lower than 0.05. This shows that male migration has a significant effect on their (children's) assistance towards livestock grazing.

In farming related activities, the chi-squares values are significant for those women with no kind of assistance accorded to them. The significance levels (0.0428 and 0.0479 for planting/weeding and harvesting/storage tasks respectively) are lower than the 0.05 significance level. In all the other activities

assistance is tested with the chi-square, there was no significant association observed between this type of assistance and the out-migration of the household heads in all the activities. Thus, male migration cannot explain the differences in assistance accorded to the women respondents by the children in the migrant and the non-migrant households in this sub-location. The same case applies to women respondents with no form of assistance accorded to them.

The chi-square for assistance by household heads is highly significant for all livestock-related and farming-related activities. Apart from the significance levels of fetching fodder which is 0.0025, all other forms have significance levels of 0.0000, denoting a very strong association between the out-migration of the household heads and the assistance they accord to the women in the area.

In this sub-location, relatives were found to accord significant assistance to the women. In the harvesting and storage tasks, the calculated significance level is 0.0422 which is lower than 0.05 significance level. The migration of the household head is significantly associated with the relatives assisting the women in this task. All other forms of assistance were found not to be significantly associated to the migration of the household head.

As noted by Palmer(1985), this study similarly found that male out-migration presents the women left behind with a diminution of labour especially in male and shared tasks. Women in migrant households were found lacking in this form of assistance, but hired labour was more prevalent than in non-migrant households, - a possible attempt to replace migrant labour (Goldstein,1979). Children also accord their mothers with important form of assistance especially in livestock related activities.

Table 4.6: Type of assistance accorded to the women in migrant and non-migrant households in Mraru Sub-location

Household tasks	Type of h/hold	Who mainly assists you in performing the following tasks?						
		No one	House-head	Children	Hired labour	Relatives	Social groups	Other
domestic	Mig. N/mig.	60 (43.8) 31 (31.6)	0 (0) 0 (0)	69 (50.4) 64 (65.3)	10 (7.3) 2 (2.0)	1 (0.7) 2 (2.0)	0 (0) 0 (0)	0 (0) 0 (0)
Grazing	Mig. N/mig.	21 (15.3) 5 (5.1)	0 (0) 30 (30.6)	44 (32.1) 36 (36.1	23 (16.8) 12 (12.2)	1 (0.7) 1 (1.0)	0 (0) 0 (0)	0 (0) 0 (0)
Fetching fodder	Mig. N/mig.	0 (0) 0 (0)	0 (0) 9 (9.2)	4 (2.9) 4 (4.1)	2 (1.5) 1 (1.0)	1 (0.7) 0 (0)	0 (0) 0 (0)	0 (0) 0 (0)
Planting/ weeding	Mig. N/mig.	21 (15.3) 6 (6.1)	6 (4.4) 66 (67.3)	64 (46.7) 58 (59.2)	48 (35.0) 17 (17.3)	3 (2.2) 6 (6.1)	43 (31.4) 13 (13.3)	0 (0) 1 (1.1)
Fetching water	Mig. N/mig.	44 (32.1) 27 (27.6)	0 (0) 0 (0)	68 (49.6) 62 (63.3)	10 (7.3) 1 (1.0)	0 (0) 2 (2.0)	0 (0) 0 (0)	0 (0) 0 (0)
Harvesting/ storage	Mig. N/mig.	23 (16.8) 7 (7.1)	6 (4.4) 63 (64.3)	66 (48.2) 60 (61.2)	42 (30.7) 11 (11.2)	3 (2.2) 5 (5.1)	37 (27.0) 12 (12.2)	0 (0) 0 (0)
Fetching firewood	Mig. N/mig.	57 (41.6) 31 (31.6)	0 (0) 0 (0)	72 (52.6) 65 (66.3)	11 (8.0) 2 (2.0)	0 (0) 2 (2.0)	0 (0) 0 (0)	0 (0) 0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

Table 4.7: Type of assistance accorded to the women in migrant and non-migrant households in Ndome Sub-location

Household tasks	Type of h/hold	Who mainly assists you in performing the following tasks?						
		No one	House-head	Children	Hired labour	Relatives	Social groups	Other
Domestic	Mig.	21 (29.6)	0 (0)	45 (63.4)	1 (1.4)	2 (2.8)	0 (0)	1 (1.4)
	N/mig.	32 (35.2)	0 (0)	58 (63.7)	1 (1.1)	0 (0)	0 (0)	0 (0)
Grazing	Mig.	6 (8.5)	0 (0)	23 (32.4)	34 (47.9)	4 (5.6)	1 (1.4)	1 (1.4)
	N/mig.	5 (5.5)	37 (40.7)	46 (50.5)	20 (22.0)	1 (1.1)	0 (0)	0 (0)
Fetching fodder	Mig.	1 (1.4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	N/mig.	0 (0)	1 (1.1)	2 (2.2)	0 (0)	0 (0)	0 (0)	0 (0)
Planting/ weeding	Mig.	14 (19.7)	13 (18.3)	47 (66.2)	17 (23.0)	23 (32.4)	24 (33.8)	1 (1.4)
	N/mig.	7 (7.7)	71 (78.0)	61 (67.0)	8 (8.8)	16 (17.6)	28 (30.8)	0 (0)
Fetching water	Mig.	20 (28.2)	0 (0)	46 (64.8)	0 (0)	5 (7.0)	0 (0)	1 (1.4)
	N/mig.	30 (33.0)	0 (0)	60 (65.9)	0 (0)	1 (1.1)	0 (0)	0 (0)
Harvesting/ storage	Mig.	19 (26.8)	13 (18.3)	46 (64.8)	2 (2.8)	17 (23.9	15 (21.1)	1 (1.4)
	N/mig.	12 (13.2)	54 (59.3)	60 (65.9)	3 (3.3)	14 (15.4	12 (13.2)	1 (1.1)
Fetching firewood	Mig.	19 (26.8)	0 (0)	47 (66.2)	0 (0)	0 (0)	0 (0)	1 (1.4)
	N/mig.	29 (31.9)	0 (0)	61 (67.0)	0 (0)	0 (0)	0 (0)	0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

Table 4.8: Type of assistance accorded to the women in migrant and non-migrant households in Tausa Sub-location

Household tasks	Type of h/hold	Who mainly assists you in performing the following tasks?						
		No one	House-head	Children	Hired labour	Relatives	Social groups	Other
Domestic	Mig.	12 (19.4)	0 (0)	48 (77.4)	0 (0)	1 (1.6)	0 (0)	1 (1.6)
	N/mig.	23 (26.7)	0 (0)	8 (67.4)	2 (2.3)	3 (3.5)	0 (0)	0 (0)
Grazing	Mig.	4 (6.5)	0 (0)	22 (35.5)	4 (6.5)	1 (1.6)	1 (1.6)	0 (0)
	N/mig.	1 (1.2)	30 (34.9)	8 (32.6)	8 (9.3)	2 (2.3)	0 (0)	0 (0)
Fetching fodder	Mig.	0 (0)	0 (0)	5 (8.1)	0 (0)	0 (0)	0 (0)	1 (1.6)
	N/mig.	1 (1.2)	5 (5.8)	1 (1.2)	0 (0)	0 (0)	0 (0)	0 (0)
Planting/ weeding	Mig.	8 (12.9)	10 (16.1)	39 (62.9)	15 (24.2)	5 (8.1)	26 (41.9)	2 (3.3)
	N/mig.	3 (3.5)	75 (87.2)	44 (51.2)	11 (12.8)	8 (9.3)	28 (32.6)	0 (0)
Fetching water	Mig.	10 (16.1)	0 (0)	51 (82.3)	0 (0)	1 (1.6)	0 (0)	0 (0)
	N/mig.	20 (23.3)	0 (0)	61 (70.9)	2 (2.3)	2 (2.3)	0 (0)	0 (0)
Harvesting/ storage	Mig.	11 (17.7)	8 (12.9)	46 (74.2)	1 (1.6)	2 (3.2)	4 (6.5)	1 (1.6)
	N/mig.	5 (5.8)	60 (69.8)	51 (59.3)	3 (3.5)	4 (4.7)	1 (1.2)	0 (0)
Fetching firewood	Mig.	11 (17.7)	0 (0)	50 (80.6)	0 (0)	0 (0)	0 (0)	1 (1.6)
	N/mig.	22 (25.6)	0 (0)	59 (68.6)	2 (2.3)	3 (3.5)	0 (0)	0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

Table 4.9: Type of assistance accorded to the women in migrant and non-migrant households in Ghazi Sub-location

Household Tasks	Type of h/hold	Who mainly assists you in performing the following tasks?						
		No one	House-head	Children	Hired labour	Relatives	Social groups	Other
Domestic	Mig. N/mig.	17 (23.3) 16 (23.3)	0 (0) 0 (0)	56 (76.7) 45 (72.60	0 (0) 1 (1.6)	0 (0) 0 (0)	0 (0) 0 (0)	0 (0) 0 (0)
Grazing	Mig. N/mig.	2 (2.7) 0 (0)	0 (0) 30 (48.4)	29 (39.7) 24 (38.7)	9 (12.3) 7 (11.3)	1 (1.4) 1 (1.6)	0 (0) 0 (0)	0 (0) 0 (0)
Fetching fodder	Mig. N/mig.	0 (0) 0 (0)	0 (0) 9 (14.5)	4 (5.5) 6 (9.7)	1 (1.4) 0 (0)	0 (0) 0 (0)	0 (0) 0 (0)	0 (0) 0 (0)
Planting/ weeding	Mig. N/mig.	9 (12.3) 2 (3.2)	1 (1.4) 43 (69.4)	51 (69.9) 37 (59.7	16 (21.9) 9 (14.5)	11 (21.9) 3 (4.8)	3 (4.8 0 (0)	0 (0) 0 (0)
Fetching water	Mig. N/mig.	15 (20.5) 17 (27.4)	0 (0) 0 (0)	56 (76.7) 44 (71.0)	0 (0) 1 (1.6)	2 (2.7) 1 (1.6)	0 (0) 0 (0)	0 (0) 0 (0)
Harvesting/ storage	Mig. N/mig.	9 (12.3) 4 (6.5)	1 (1.4) 35 (56.5)	52 (71.2) 36 (58.1)	6 (8.2) 6 (9.7)	11 (15.1) 2 (3.2)	0 (0) 2 (3.2	0 (0) 0 (0)
Fetching firewood	Mig. N/mig.	16 (21.9) 18 (29.0)	0 (0) 0 (0)	55 (75.3) 43 (69.4	0 (0) 0 (0)	1 (2.7) 0 (0)	0 (0) 0 (0)	0 (0) 0 (0)

Legend: Mig. and N/mig denote migrant and non-migrant households respectively
Figures in brackets denote percentage frequencies

ii) Other types of labour adjustments

The respondents were asked whether they experienced time constraints due to their numerous responsibilities in undertaking their daily tasks and what kind of adjustments (other than that related to nature of assistance) they undertake. To find out whether there are any significant differences between the adjustments made by the women in migrant and non-migrant households, the chi-square test is applied to test the following null and alternative hypotheses:

H_0:There are no differences between migrant and non-migrant households in employing the different types of labour adjustments.

H_A: There are differences between migrant and non-migrant households in employing the different types of labour adjustments.

Table 4.10 shows the distribution of other types of adjustments made by the women respondents as a result of their heavy workload. The most common type of adjustments in most sub-locations according to the percentage respondents include hiring labour and reducing the size of acreage for crop cultivation. Renting out part of the land and reducing the numbers of livestock are not common practices in all the sub-locations as well as the assistance from friends.

When the results are tested with the chi-square, most of them do not show any significant differences between the two types of households. For example, the observed chi-square significance levels for renting out part of cropping land ranges 0.8861 (in Mraru) to 1.0000 (in Ndome).

The chi-square value for reducing the numbers of livestock is highly significant only in Ghazi Sub-location at a value of 7.40285 and a significance level of 0.0065. This shows that women in non-migrant households are more likely to adjust by reducing the numbers of their livestock than those in migrant households. The results may infer that differences in male residence has significant implications on the nature of decisions that the women are probably unable to make on their own, of which sale of livestock be one.

Hiring of labour is significant in all the sublocations where the observed chi-square values exceed the expected value of 3.841 at 1 degree of freedom. The values are significant even at 0.01 significance level. Male out-migration has an effect of causing more migrant households to employ hired labour than in non-migrant households.

The chi-square values are not significant for reducing the acreage cultivated except in Mraru (chi-square value is 8.26789 and a significance level of 0.0040 which is significant even at 0.01 level). Hence, except in Mraru, the null hypotheses of no difference in acreage cultivated are accepted.

Table 4.10: Other types of labour adjustments employed by the women in migrant and non-migrant households.

Type of household	What other types of labour adjustments do you employ due to heavy workload?						
	Sub-location name	Rent part of land	Hire labour	Cultivate less acreage	Reduce livestock numbers	Get assis-tance from friends	No alter-native
Migrant households	Mraru	0 (0)	33 (44.0)	41 (67.2)	2 (2.7)	0 (0)	25 (33.3)
	Ndome	0 (0)	24 (53.3)	37 (62.7)	0 (0)	1 (2.2)	13 (28.9)
	Tausa	1 (11.1)	4 (44.4)	5 (33.3)	0 (0)	1 (11.1)	2 (22.2)
	Ghazi	0 (0)	15 (30.0)	29 (74.4)	12 (24.0)	0 (0)	21 (42.0)
Non-migrant households	Mraru	1 (1.6)	19 (13.1)	32 (42.7)	1 91.6)	0 (0)	15 (24.6)
	Ndome	1 (1.7)	15 (25.4)	20 (44.4)	1 (1.7)	2 (3.4)	10 (16.9)
	Tausa	0 (0)	8 (53.3)	4 (44.4)	0 (0)	0 (0)	3 (20.0)
	Ghazi	0 (0)	9 (23.1)	33 (66.0)	24 (61.5)	0 (0)	4 (10.3)

Legend: Figures in brackets denote percentage frequencies

The chi-square results for those who did not have any alternative to labour shortage was only significant in Ghazi Sub-location (at a value of 9.63495, significance level of 0.0019), implying that women in Ghazi are more likely to have no alternatives in adjusting for loss of labour (through male out-migration) than those in non-migrant households.

The study revealed that the women left behind make some adjustments in relation to their workload. Such adjustments include cultivation of less acreage and hiring of farm labour (Palmer,1985). However, reduction in the numbers of livestock and renting out part of the land were not found to be significant adjustments undertaken in most sublocations. This would perhaps reflect the type and nature of decisions that the women could undertake, as infact, more non-migrant households were found to reduce the numbers of their livestock than the migrant households. The decision to reduce the livestock numbers is therefore not dependent on male out-migration.

ii) Participation in women's groups and other social activities

This section addresses the issue of participation in women's groups and other social activities in relation to women's workload. It is theorised that due to male out-migration, the women left behind experience heavy workload in such a way that their participation in women's group is made more difficult compared to those women in non-migrant households (Pala, 1975). In the same vein, as a result of the workload situation, women from migrant households are more likely to participate in other social activities, not only due to the benefits accrued from group work, but also because their male household heads are not present to do

so.

In order to attest whether male out-migration affects women's participation in these groups and activities, the differences between the women in the two households are tested by use of the chi-square. Any significant differences observed between the two types of households with respect to participation is attributable to effects of male out-migration. As in the cases before, observed significance levels are tested against the expected level of 0.05.

a) Participation of women into Women's Groups

The operational hypothesis states that women in migrant households are less likely to participate in women's groups (due to their heavy workload situation).

The H_0 states that there is no difference in participation between women in migrant and non-migrant households.

The H_A states that there are significant differences in participation between women in migrant and non-migrant households. Table 4.11 gives the results from the four sub-locations:

Table 4.11: Participation structure in women's groups

Type of households	Are you a member of any women's group?							
	Yes				No			
	Sub-location name				Sub-location name			
	Mraru	Ndome	Tausa	Ghazi	Mraru	Ndome	Tausa	Ghazi
Migrant h/holds	52 (38.5)	30 (42.3)	29 (46.8	31 (43.1	83 (61.5	41 (57.7)	33 (53.2	41 (56.9
Non-migrant h/holds	36 (36.7)	34 (37.4)	46 (53.5	35 (58.3	62 (63.3	57 (62.6)	40 (46.5	25 (41.7

Legend: Figures in brackets are percentage frequencies

From the results presented in Table 4.11, there is almost similar group membership structure in the two types of households. In both types of households, there are more women-non members than are members. In Mraru and Ndome Sub-locations, there are slightly more women members in migrant households than in non-migrant households, while in both Tausa and Ghazi, percentage women members in migrant households are less than those in non-migrant households.

The chi-square significance levels for different sub-locations are all greater than 0.05, ranging from 0.1157 in Ghazi to 0.8884 in Mraru Sub-location. Thus, the null hypotheses of no differences for all the sub-locations are accepted, implying that male out-migration has no effect on whether or not women would participate in women's groups.

The reasons given for non-participation in women's groups are given in Table 4.12.

Table 4.12: Reasons for non-participation in women's groups by women in migrant and non-migrant households

Reasons for non-participation	Type of household	Mraru sub-location	Ndome sub-location	Tausa sub - location	Ghazi sub-location
Busy with own activities	Migrant:	43(31.4)	34(47.9)	25(40.3)	34(46.6)
	Non-migrant:	25(25.5)	41(45.1)	27(31.4)	16(25.8)
Household head refused	Migrant:	4 (2.9)	1 (1.4)	0 (0)	1 (1.4)
	Non-migrant:	9 (9.2)	6 (6.6)	0 (0)	2 (3.2)
Not interested in groups	Migrant:	19(13.9)	2 (2.8)	2 (3.2)	6 (8.2)
	Non-migrant:	11(11.2)	6 (6.6)	1 (1.2)	4 (6.5)
Health problems	Migrant:	6 (4.4)	5 (7.0)	1 (1.6)	2 (2.7)
	Non-migrant:	10(10.2)	17(18.7)	9 (10.5)	6 (9.7)
No benefit in groups	Migrant:	0 (0)	3 (4.2)	0 (0)	0 (0)
	Non-migrant:	0 (0)	2 (2.2)	0 (0)	0 (0)
New in the area	Migrant:	0 (0)	3 (4.2)	4 (6.5)	1 (1.4)
	Non-migrant:	0 (0)	0 (0)	1 (1.2)	1 (1.6)
Financial problems	Migrant:	18(13.1)	1 (1.4)	0 (0)	0 (0)
	Non-migrant:	14(14.3)	4 (4.4)	3 (3.5)	0 (0)

Legend: Figures in bracket are percentage frequencies

Table 4.12 shows the distribution of reasons for non-participation in women's groups by the women respondents in the two types of households. The percentage distributions do not show much differences in the reasons given by the respondents in the two types of households.

The chi-square results show no significant differences in all the reasons given by the respondents in the two types of households (except in Ghazi Sub-location where the reason for being busy with own activities is significant at 0.05 level of significance). The significance values for the various reasons range from 0.0556 for

health reasons (X^2 = 3.66530 while expected is 3.841) to 1.000 for 'new in the area' reason.

The null hypotheses for all the sub-locations, (except for the reason of 'busy with own activities' in Ghazi Sub-location) are thus accepted and conclude that male out-migration has no significant effect on women's participation in women's groups.

b) Participation in other social groups and activities

This sub-section seeks to find out whether male out-migration has any significant effects on women's participation in other social groups and activities, such as soil conservation groups, school development activities, and so on. The operational hypothesis theorized that women from migrant households are more likely to participate in these groups activities than women from non-migrant households not only due to the benefits accrued from such groups, but also since their household heads are not present to do so.

The H_0 reads: There are no significant differences between the women from the two households in participating in these groups and activities; while the H_A reads that the differences between the women in the two households participating in these groups and activities are significant.

The H_0 for reasons of non-participation reads: There are no significant differences in the reasons given for non-participation in these groups by women from the two types of households; while the H_A read that there are differences in the reasons given for non-participation in these groups by women in the two types of households.

Table 4.13: Participation in other social activities

Type of household	Do you participate in other social activities?							
	Yes				No			
	Sub-location name				Sub-location Name			
	Mraru	Ndome	Tausa	Ghazi	Mraru	Ndome	Tausa	Ghazi
Migrant h/holds	62 (45.3)	43 (60.6	57 (91.9	52 (71.2	75 (54.7	28 (39.4	5 (8.1)	21 (28.8)
Non-migrant h/holdS	35 (35.7)	49 (53.8	57 (66.3	38 (61.3	63 (64.3	42 (46.2	29 (33.7	24 (38.7)

Legend: Figures in bracket denote percentage frequencies

Table 4.13 shows the distribution of participation structure in other social activities in Mbololo Location. The percentage distributions, except in Tausa Sub-location, do not show much differences between the two types of households.

The chi-square results show significant differences between the two types of households in all the sub-location where the chi square values calculated are greater than expected values at 0.05 level of significance.

In all sub-locations, the null hypotheses are rejected and the alternative accepted, implying that there are significant differences in the two types of households with respect to participation and the differences can be attributed to male out-migration. That is, there are significantly more women from migrant households in the study area who participate in these groups than those in non-migrant households.

The reasons given by the women respondents for non-participation in these groups are tabulated in Table 4.14.

Table 4.14: Reasons for non-participation in other social groups and activities

Reasons for non-participation	Type of household	Mraru sub-location	Ndome sub-location	Tausa sub - location	Ghazi sub-location
Busy with own activities	Migrant:	24(17.5)	18(25.4)	1(1.6)	5(6.8)
	Non-migrant:	13(13.3)	26(28.6)	2(2.3)	2(3.2)
Household head participate	Migrant:	0 (0)	0 (0)	0 (0)	0 (0)
	Non-migrant:	14(14.4)	13(14.3)	9 (10.5)	9(14.5)
Too old to participate	Migrant:	15(10.9)	2(2.8)	0 (0)	4 (5.5)
	Non-migrant:	13(13.3)	10(11.0)	10(11.6)	6 (9.7)
Health problems	Migrant:	18(13.1)	4 (5.6)	1 (1.6)	4 (5.5)
	Non-migrant:	20(20.4)	12(13.2)	4 (4.7)	5 (8.1)
Hire labour instead	Migrant:	9 (6.6)	2 (2.8)	1 (1.6)	1 (1.4)
	Non-migrant:	1 (1.0)	2 (2.2)	6 (7.0)	0 (0)
Participat-ion not compulsory	Migrant:	28(20.4)	21(29.6)	0 (0)	9 (12.3)
	Non-migrant:	18(18.4)	26(28.6)	0 (0)	6 (9.7)

Legend: Figures in bracket denote percentage frequencies

Table 4.14 shows the distribution of the reasons given for non-participation in other social activities by women respondents. Except for the reason given as 'household head participates', the frequency distributions of other responses do not seem to vary much between the two households.

The chi-square distribution for old age problems in Tausa are significant at level of significance 0.05 (the chi-square calculated value is 5.99623 at significance level 0.0143) while the expected is 3.841. This implies that for old age problems, there are significant differences between the two types of households, although it would be absurd to attribute this to effects of male

out-migration. Perhaps, the women from non-migrant households are more likely not to participate due to such problems, whereas, those in migrant households may not complain too much, if no suitable alternatives are forthcoming or if the problem is bearable.

The calculated chi-square values for household head participating in the activities are significant in all the sub-locations, more highly so in Mraru, where the calculated X^2 value is 18.33949 at significance level of 0.0000. The other chi-square significance levels range from 0.0090 (in Ndome), 0.0100 (in Ghazi) and 0.0226 (in Tausa) Sub-locations. The male out-migration certainly removes the household heads who would otherwise have participated in these social activities. We reject the null hypothesis of no difference between the two types of households for household heads participation and accept the alternative of differences.

Pala(1975) pointed out that women's groups and other social activities have increasingly become important in the rural areas but participation in these groups is inhibited by the heavy workload situation experienced by the women in migrant households. This study noted that no significant differences existed between the two types of households with regard to participation into women's group, but existed with regard to participation in other social activities. Findley and Williams(1991) acclaimed that the women left behind are likely to join together in mutual exchange groups in bid to solve the labour problems.

4.2 WOMEN IN HOUSEHOLD'S DECISION-MAKING STRUCTURES

This sub-section analyses the decision-making structure in migrant and non-migrant households in the study area. The section

aims at examining whether male out-migration significantly affects the women left behind in the area of households' decision making structures. It is hypothesized that women in migrant households attain greater independence in making households' decisions related to farming activities.

As in the preceding section, chi-square analysis is used to test whether there is any significant association between the out-migration of the household head and the structure of decision making in Mbololo Location. The significance level of 0.05 is used against the observed levels for testing the null hypothesis.
The H_0 reads that there are no significant differences in decision making structures between the two households;
while the H_A reads that significant differences in decision- making structures exist between the two households.

Table 4.15: The households' decision-making structure in Mraru Sub-location

Activity / Decision-maker		Respondent	House-head	Respondent & house-head	Others
Planting schedule	i)	125 (91.9)	0 (0)	11 (8.1)	0 (0)
	ii)	52 (53.1)	6 (6.1)	39 (39.8)	1 (1.6)
Hiring labour	i)	7 (12.1)	30 (51.7)	21 (36.2)	0 (0)
	ii)	4 (15.4)	14 (53.8)	7 (26.9)	1 (3.8)
Farm income use	i)	104 (76.5)	13 (9.6)	19 (14.0)	0 (0)
	ii)	19 (19.4)	37 (37.8)	41 (41.8)	1 (1.0)
Extension message implementation	i)	86 (92.5)	2 (2.2)	5 (5.4)	0 (0)
	ii)	35 (57.4)	5 (8.2)	20 (32.8)	0 (0)

Legend: 1) Figures in bracket denote percentage frequencies
2) i) and ii) denote migrant and non-migrant responses respectively

The percentage distributions of respondents in Mraru Sub-location in decision making structures (Table 4.15) portray

significant differences between the two types of households. There are more women in migrant households who make independent decisions in farming activities than in non-migrant households (except in the area of hiring labour). In non-migrant households, there are more household heads making the decisions than there are in migrant households. Except in hiring labour, the percentage frquencies of joint-decisions made by the house-head and the respondent in non-migrant households are more than in migrant households. The percentages of 'others' who include daughters-in-law, fathers-in-law, or elder brother are quite small and not significant.

The chi-square distributions in Mraru Sub-location show that there are significant differences in the persons making decisions in the two types of households. For the planting schedules, the chi-square values exceed the expected value of 3.841 at 0.05 significance level. The null hypothesis of no difference is rejected and the alternative accepted. The women in migrant households are more likely to make independent decisions related to planting schedules than those in non-migrant households.

The chi-square values for use of farm income are also significant. The values for respondent are all significant at significance level of 0.05. This shows very high significance denoting that women in migrant households are more likely to make independent decisions of use of farm income than those in non-migrant households. The chi-square values for labour hire for respondents show no significant differences between the two households.

Table 4.16: The households' decision-making structure in Ndome Sub-location

Activity / Decision-maker		Respondent	House-head	Respondent & house-head	Others
Planting schedule	i)	64 (90.1)	4 (5.6)	3 (4.2)	0 (0)
	ii)	20 (22.0)	20 (22.0)	51 (56.0)	0 (0)
Hiring labour	i)	6 (14.3)	24 (57.1)	12 (28.6)	0 (0)
	ii)	0 (0)	12 (52.2)	11 (47.8)	0 (0)
Farm income use	i)	33 (52.4)	15 (23.8)	15 (23.8)	0 (0)
	ii)	3 (3.4)	40 (45.5)	45 (51.1)	0 (0)
Extension message implementation	i)	41 (87.2)	0 (0)	5 (10.6)	1 (2.1)
	ii)	12 (16.7)	28 (38.9)	32 (44.4)	0 (0)

Legend: 1) Figures in bracket denote percentage frequencies
2) i) and ii) denote migrant and non-migrant responses respectively

The frequencies and the percentages in Table 4.16 show a lot of differences between the decision-making authority between women in the migrant and non-migrant households. Women in migrant households make independent decisions in most of the listed activities than those in non-migrant households. In this sub-location, there are more women in migrant households making independent decisions on use of farm income than there were in Mraru Sub-location.

Compared to other decision making aspects, all the women respondents are most disadvantaged in making decision related to hiring labour, although such decision are fewer. In non-migrant households, these few decisions are either made by the women or made jointly.

The chi-square values are all highly significant at significance level of 0.05, thus rejecting the null hypothesis because the observed significance levels are lower than 0.05 level of significance.

Thus, except in the area of hiring labour where household heads are mostly the decision-makers, women from migrant households seem, however, to enjoy a proportionate higher freedom in making independent decisions than those in non-migrant households.

Table 4.17: The households' decision-making structure in Tausa Sub-location

Activity / Decision-maker		Respondent	House-head	Respondent & house-head	Others
Planting schedule	i)	61 (98.4)	0 (0)	0 (0)	1 (1.6)
	ii)	72 (83.7)	3 (3.5)	11 (12.8)	0 (0)
Hiring labour	i)	5 (27.8)	12 (66.7)	1 (5.6)	0 (0)
	ii)	1 (5.6)	14 (77.8)	3 (16.7)	0 (0)
Farm income use	i)	20 (32.3)	40 (64.5)	2 (3.2)	0 (0)
	ii)	2 (2.3)	72 (83.7)	12 (14.0)	0 (0)
Extension message implementation	i)	33 (86.8)	1 (2.6)	2 (5.3)	2 (5.3)
	ii)	24 (45.3)	20 (37.7)	9 (17.0)	0 (0)

Legend: 1) Figures in bracket denote percentage frequencies
2) i) and ii) denote migrant and non-migrant responses respectively

Table 4.17 depicts a similar observation as that found in the preceding two sub-locations, though in this sub-location, there are more women making decisions related to hiring labour than those in Ndome Sub-location. In this type of decision and in the use of farm income, the household head, whether migrant or not, is the main decision maker in the two types of households. There are few cases where decisions are made jointly.

With respect to the differences between the two types of households, chi-square values at the observed significance levels for decisions related to farming schedules and implementation of extension messages are quite large denoting a significant difference in the two households. Households heads have significant

authority in making decisions related to hiring of farm labour and use of farm income in both types of households.

Table 4.18: The households' decision-making structure in Ghazi Sub-location

Activity / Decision-maker		Respondent	House-head	Respondent & house-head	Others
Planting schedule	i)	71 (97.3)	2 (2.7)	0 (0)	0 (0)
	ii)	35 (56.5)	11 (17.7)	16 (25.8)	0 (0)
Hiring labour	i)	7 (12.1)	10 (40.0)	9 (36.0)	0 (0)
	ii)	0 (0)	11 (73.3)	4 (26.7)	0 (0)
Farm income use	i)	65 (89.0)	5 (6.8)	3 (4.1)	0 (0)
	ii)	1 (1.6)	30 (48.4)	31 (50.0)	0 (0)
Extension message implementation	i)	36 (97.3)	1 (2.7)	0 (0)	0 (0)
	ii)	6 (20.7)	16 (55.2)	7 (24.1)	0 (0)

Legend: 1) Figures in bracket denote percentage frequencies
2) i) and ii) denote migrant and non-migrant responses respectively

As in the other sub-locations, women in Ghazi Sub-location have considerable authority in making decisions related to farming activities, except in hiring of farm labour (Table 4.18). In migrant households, such decisions relate to farming schedules and implementation of extension messages. More than 50% of women in non-migrant households make independent decisions related to farming schedules, while their household heads are seen to be more prevalent in making decisions related to hiring farm labour and implementation of extension messages. A larger percentage of women (89.0%) from migrant households in this sub-location make independent decisions related to use of farm income.

The chi-square calculated values for most decisions are very large and significant at both 0.05 and 0.01 significance levels except in decision making related to hiring labour (which is only

significant at 0.05 level of significance).

These results concurs with those of Lipton(1976) that the out-migration of the household heads leads to women acquiring independent decision making structures in most farming activities. Findley and Williams(1991) also underscored the importance of women (in both migrant and non-migrant households) in making decisions related to agriculture as they are responsible for the major agricultural tasks. However, few women were found to make decisions related to labour hire, whereas, men in non-migrant households are the main decision-makers in labour hire, use of farm income and in some cases, implementation of extension messages.

4.3 UTILIZATION OF MIGRANTS' REMITTANCES

Oucho and Mukras(1983) and World Bank (1985) noted that migrant's remittances are an important source of rural incomes. However, its argued whether these remittances actually go towards replacing migrant labour. This section seeks to address objective 3, that is, to find out how migrant's remittances are utilized in relation to women's workload and decision making structures in migrant's households.

4.3.1 Utilization of migrants' remittances

It is hypothesized that the migrant remittances normally go towards consumption expenses rather than in hiring labour to replace migrant labour.

The uses of remittance are classified into three groups:

i) Food expenses

ii) Other household expenses, include clothes, soaps, house

repairs, and so on.

iii) Farm expenses, mainly labour hire.

The research found out that remittances towards school fees expenses are normally earmarked by the sender whenever need arises, and normally sent together with the other un-earmarked lot. Hence, school fees component always forms a part of the remittances, but this research set out to investigate the utilization of remittances that excludes the school fees component.

Table 4.19: Proportion of respondents from migrants' households receiving migrant's remittances

Sub-location name	Do you receive any remittances from your house-head	
	Yes	No
Mraru	124(93.9)	8 (6.1)
Ndome	70(98.6)	1 (1.4)
Tausa	59(96.7)	2 (3.3)
Ghazi	68(97.1)	2 (2.9)

Results from Table 4.19 show that in every sub-location, over 90% of respondents received migrant's remittances from their household heads. Oucho and Mukras(1985) found out that migrant's urban-rural remittances are an important component of rural incomes.

Table 4.20: Prioritization for Utilization of migrant's remittances in migrants' households

Expenses priority	Name of sub-location	Types of expenses		
		Food	Household	Farm labour
Rank 1	Mraru	123(99.2)	1 (0.8)	0 (0)
	Ndome	69(98.6)	1 (1.4)	0 (0)
	Tausa	59(100)	0 (0)	0 (0)
	ghazi	68(100)	0 (0)	0 (0)
Rank 2	Mraru	1 (0.8)	108(87.1)	12(9.7)
	Ndome	1 (1.4)	64(91.4)	4 (5.7)
	Tausa	0 (0)	57(96.6)	0 (0)
	Ghazi	0 (0)	67(98.5)	0 (0)
Rank 3	Mraru	0 (0)	13(10.5)	39(31.5)
	Ndome	0 (0)	4(5.7)	38(54.3)
	Tausa	0 (0)	0 (0)	19(32.2)
	Ghazi	0 (0)	0 (0)	20(29.4)

Table 4.20 gives the ranking for the prioritization of migrants' remittances in the four sub-locations. Evident from the results is that food expenses takes the first priority in use. In all the sub-locations, over 98 percent of the respondents mentioned food expenses as their first priority. Other household expenses such as clothing, furniture and so on, took second position while farm-labour expenses mostly came in third position.

In Mraru and Ndome Sub-locations, few respondents mentioned labour hire expenses in the second positions. The marginality of the area would perhaps contribute for the kind of picture depicted in the area. Food shortages brought about by the area's aridity would necessitate that food expenses be given the first priority. Labour hire would come second where remittances may be large

enough, or where the labour shortage crisis dictates that it must be hired. Timing of remittances would also determine the purposes for which it is utilized, that is, if the remittance is normally received after off-peak seasons, labour hire might not be appropriate.

These results concurs with those of Caldwell(1969) that most of this remittance go towards consumption expenses such as food, clothes, and other household expenses. Rempel and Lodell(1978) further pointed out that the remittances do not necessarily go towards replacing migrant labour, but more important is that they stabilize rural incomes and sustain rural households especially during difficult times.

4.3.2 Decision-making on utilization of migrants' remittances

This study also set out to investigate whether the women left behind by their out-migrant household heads have any authority in making decisions regarding utilization of migrants' remittances.

Table 4.21: Decision making structure on the utilization of migrants' remittances.

Sub-location Name	Who decides on how migrant's remittances should be utilized?			
	Resp.	H/-head	Resp/h-head	Other
Mraru	119 (96.7)	3 (2.4)	0 (0)	1 (0.8)
Ndome	62 (88.6)	1 (1.4)	1 (1.4)	6 (8.6)
Tausa	58 (98.3)	1 (1.7)	0 (0)	0 (0)
Ghazi	64 (94.1)	2 (2.9)	0 (0)	2 (2.9)

Table 4.21 depicts the decision making structures on the utilization of migrants' remittances in the migrants' households. In all the sub-locations, majority of the women left behind were found to be the main decision-makers regarding the utilization of migrants' remittances. In Ndome, 8.6% of the respondents mentioned their son's wife, fathers-in-law, and so on as the main decision-maker. In a few cases, the household heads were found to make the decisions.

Thus, women in migrants households were found to be the main decision-makers regarding the utilization of migrants' remittances. The areas aridity could perhaps explain the reason why the first priority for the use of remittance goes towards food expenses. Women in rural areas are the main producers and processors in the food economy (Republic of Kenya, 1985). The problem of food shortages would dictate that the obvious direction for the remittances be towards food. Hiring of labour would be a secondary priority in as far as food availability is concerned. Even where the decision for labour hire is mainly made by the household head, labour cannot be hired if food is not available.

The results regarding decision making in the study area do not concur with other findings, for example, Palmer(1985), who noted that in Pakistan, migrants' normally earmarked the use of their remittances. The variation would be explained by perhaps the size of the remittance and the nature of problems experienced in these places. In Pakistan, the remittances are large and food expenses are easily provided from the farm production.

CHAPTER 5
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter gives the summary of research results on the effect of male out-migration on women's workload aspects, decision making aspects and utilisation of migrants' remittances. The chapter also makes the conclusions based on the results already presented in the previous chapter. Included in the chapter also are the recommendations for policy as well as for further research.

5.1 SUMMARY

5.1.1 Women's workload aspects

The main objective to be investigated was to find out if the migration of households heads affects the workload of women left behind. To achieve this, women from migrant and non-migrant households were interviewed. The results were also tested by use of chi-square test. Any significant differences found in the frequency distributions of the two types of households were attributed to effects of male out-migration.

The operational hypotheses with respect to the workload aspect related to manageability of the workload, labour hire and participation in social activities. These hypotheses are measured by the significance of who mainly performs specified household tasks, the kind of assistance accorded to the women respondents, types of labour adjustments undertaken, and women's participation in social activities.

The task of ploughing was found to be insignificant in the study as ploughing in the area is rarely undertaken before planting, except when it involves ploughing of new areas.

The results did not reveal any significant differences between

migrant and non-migrant households with regard to the women performing domestic, farming and livestock activities. As noted by Findley and Williams(1991), departure of household heads where women are the key agricultural producers may not necessarily alter the basic subsistence workload pattern, although the intensity of the work might increase.

In non-migrant households, labour contributions by the household heads was quite significant in farming and livestock activities, which was almost practically unavailable in migrant households (except in few instances where migrant household heads made home visits during agricultural peak seasons). Women from non-migrant households were also found to play a key role in the livestock and farming activities. Thus, the out-migration of male household heads does not alter the role of women as the main key players in rural activities (including livestock), though it deprives the rural households the supplementary male labour necessary to undertake some of the tasks. Children were also found to be an important source of assistance to their mothers in both types of households (Pala,1975).

The out-migration of male household heads creates labourforce problems for male-typed and shared tasks in migrant households (Goldstein, 1979) especially in livestock and farming related tasks, where increasingly more women have to take up such tasks. It is of interest to note that, in grazing livestock, a traditionally male task, women play an important role in this activity even in non-migrant households. Fewer men than women in these households were found to be key players in these tasks.

Regarding the labour adjustments made due to the workload situation that the women face, the study found out that the

household heads play an important role in assisting the respondents while the women from migrant household are of course denied this kind of assistance by virtue of their household head's out-migration. Hired labour was an important source of assistance for the women left behind (Goldstein, 1979). Significantly more women from migrant than in non-migrant households were found to hire labour. This may be attributed to male out-migration, which necessitates hiring of labour to assist in some of the activities previously undertaken by the migrants (though less than half of the respondents were found to hire labour). Communal groups were also found to be significant in assisting the migrant households in farming related activities. This observation was also noted by Palmer(1985).

Other significant types of labour adjustments undertaken by the women from migrant households included cultivation of less acreage and hiring labour. A significant percentage of women from these households were found to have no alternative in adjusting to the increased workload situation except in trying to cope up with the situation.

Women's participation in social activities, especially women's groups was not found to be significantly different between the two types of households. In other types of communal-based groups, the difference in participation between the two types of households was found to be significant where there were significantly more women from migrant households participating in these groups than there were from non-migrant households (Findley and Williams, 1991). The only significant reason attributable to the differences between the two types of households was that in non-migrant households, household heads were found to participate in these groups, in the

process relieving the women of this task. The other reason that could be attributed to this difference was that women from non-migrant households were found to significantly make use of these groups during peak farming seasons, sometimes paying a fee for their services.

5.1.2 Women in households' decision-making

The main objective here was to find out if male out-migration affected women in making decisions in day-to-day farming-related activities. Decision making was one area where the women left behind were found to enjoy considerable independence. There were significant differences between the two types of households regarding the main decision makers in selected day-to-day activities. Women respondents from migrant households enjoyed significantly more freedom in making decisions related to farming schedules, use of farm incomes and implementation of extension messages. However, although in the area of hiring labour the differences between the two types of households were significant, men were mainly the decision makers. This could be attributed to the fact that more than 95% of the women from migrant households paid hired labour with money from migrant remittances.

The differences between the two households can be seen in the fact that in non-migrant households, indeed in a good percentage of these households, decisions are either made by the household heads or jointly. Except in the case of labour hire, this is not the case in migrant households. These results show that out-migration of male households heads enables the women left behind to make independent decisions in their households, a fact also noted by Lipton(1976), Palmer(1985) and Findley and Williams,(1991).

Women in migrant households are not discriminated against by the extension officers as no difference was found between the two types of households regarding the visits made by these officers in the various activities.

5.1.3 Utilisation of migrant remittances

Majority (96.1%) of women respondents received remittances from their migrant household heads. Remittances are usually sent on a monthly basis. They form a major component of rural income (Oucho and Mukras,1983) and mainly went to consumption expenditure, food expenses being given the first priority. Farm expenses, specifically labour hire geared to replace out-migrant labour, came in third. It was also observed that 42.1% of the respondents receiving remittances hired labour. On the other hand, out of the total women who hired labour, 98.6% used the remittances to pay for its hire.

Although the first priority for utilising the migrants' remittances is towards consumption expenses (Caldwell,1969; Rempell and Lodell,1978), a proportion (42.1%) of respondents spent it on labour hire, a possible attempt to replace one lost through out-migration. The percentage engaging hired labour is however low, although almost every respondent from migrant household received remittances. The conclusion is therefore that not every household having a migrant household head engages hired labour as a way of replacing migrant labour, although as noted by Oucho and Mukras, 1983, urban-rural remittances are an important source of rural incomes.

5.2 CONCLUSION

5.2.1 Women's workload aspects

Women play a major role in most rural activities. Migration of male household heads does not necessarily increase the workload of women, but the intensity of the work does increase. This was portrayed by the fact that whereas women in non-migrant households have their household heads to assist them in farming and livestock activities, women from migrant households lack this form of assistance which was found to be highly significant in the rural areas. The male household heads may not be the main key players in these activities (even in livestock activities which were traditionally exclusively a male domain) but they assist the women considerably in undertaking these activities. Thus, migrant households suffer in this respect.

On the other hand, migrant households significantly hired labour more than the non-migrant households. Hired labour is mainly utilised in activities that were mostly undertaken by the male out-migrants and which are less compatible with domestic tasks. Such activities were mainly in livestock grazing and during peak farming seasons. This has been attributed to the desire to replace the migrant labour, although more than half of the respondents did not hire labour.

Children play a key role in assisting their mothers (mostly on weekends and school holidays). They are the main form of assistance to women in the rural areas, both in migrant and in non-migrant households. Their assistance in livestock activities, particularly in grazing, is however significant in migrant households.

Male out-migration does not have any significant effects on women's participation in women's groups, though it does have on

their participation in other types of social (communal) activities. Therefore, the out-migration of male households heads removes the men who would otherwise have participated in these activities. This in effect adds greater burden to the activities of women left behind. These groups are also an important source of farm labour in migrant households.

The study concludes that the out-migration of household heads leads to a diminution of rural labour supply especially of male-typed jobs, thus increasing the intensity of women's workload.

5.2.2 Women in households' decision making

Women in migrant households acquire considerable independence in making day-to-day farming-related decisions. These decisions include farming schedules, use of farm income and implementation of extension messages. But few women made independent decisions regarding the engagement of hired labour. The male household heads generally make decisions on such issues. This decision structure was attributed to the fact that the main source of money for paying this labour was migrants' remittances, and so the decision on whether or not to hire would depend on how large the remittances would be to cater for this expense.

Women in non-migrant households have less independence in making household decisions compared to those in migrant households. In these households, most decisions (except those related to farming schedules) are made by either the male household heads or jointly. Male out-migration therefore has considerable effects on rural households in the area of decision making, in that the women left behind acquire more independence in making most day-to-day farming related decisions.

5.2.3 Utilisation of migrants' remittances.

Migrants' remittances are an important source of rural incomes (Oucho and Mukras,1983). Majority of respondents gave food expenditure the first priority in its utilization. Other household expenses came second, while farm expenses (specifically labour hire) came in third position. Hence, migrants' remittances go mainly towards consumption expenses, especially food. This is quite important bearing in mind that the area suffers from perennial aridity.

Labour hire expenses are also important, given that 42.1% of the recipients of migrants' remittances did hire labour mostly during peak farming seasons. (Some 96.8% of the total respondents hiring labour used remittances to pay for its services). Hence, although migrants' remittances do not necessarily replace migrant labour, they do supplement rural incomes.

Women in the study area are privileged as the key decision-makers on the utilisation of the remittances. The household heads (remitters) only made decisions in a few cases mostly where labour hire was involved. The low engagement of labour hire to replace migrant labour would probably indicate that the size of remittance is too small to allow for such expenses where immediate consumption would be a priority.

5.3 RECOMMENDATIONS FOR POLICY AND FURTHER RESEARCH

5.3.1 Policy recommendations

The transformation of the rural populations will of necessity not only reach the majority of the resident population but also the women who are the backbone of the rural economy. In the light of these and given the predominance of agricultural livelihood in the

rural areas, there is need to train women in agricultural activities and technology. The rationale is that women are the ones who in fact take up the burden of agricultural development. This will in turn provide additional technical know-how in the field of agricultural innovation. Thus, the design of rural programmes which will incorporate females in the rural population as a whole will provide a strategy in line with the government policy of involving the rural population in development at the grassroot level.

Women in both migrant and non-migrant households continue to play key roles in the farming activities in the rural areas. Even where the male household heads are present, women are the key players in farming-related activities. This is such an important finding for the development planners and implementors that there is need to address the women as the eventual participants in the development efforts as they are the main sources of rural labour. What should be borne in mind is their numerous activities and at the same time, find ways of integrating them in the overall network of development strategies where they (women) are the actual participants and beneficiaries. These activities should be treated as central to the process of introducing appropriate technology and raising productivity in the rural environment.

Policy designers and implementors need to look into women's workload situation in every project area in order to understand the type of population they are dealing with. This is important in order to make necessary adjustments and provisions necessary to make the rural population (more so the women) participate effectively as desired.

The fact that women left behind seem to enjoy considerable freedom in making farming-related decisions should be treated with

caution when introducing policies aimed at enhancing the rural welfare. True, women are making decisions, but the nature of decisions made here are rather short-term. When it comes to long term investment decisions, specific cases will need to be addressed as this may differ between households and communities. This will help clear the fog on who should be approached for what decisions.

5.3.2 Recommendations for further research

As was noted in Chapter 1, this study covered only those migrants who were currently living outside their areas of origin. Mochoge(1981) noted that return migrants can be the core of socio-economic change in the rural areas because they have new ideas of change and can be easily accepted by their rural home people. There is need, therefore, to investigate the direct and indirect effects of the migrants and the return migrants on the development efforts of the rural areas.

The study showed that there was no significant differences in the daily workload management between the women in the migrant and non-migrant households. The findings may obscure certain important differences in the intensity of daily work schedules and time allocation in the various activities. Accordingly, there is need to undertake a research to investigate the time budget allocations of the women for various activities in the rural areas. How these women allocate their daily time, number of hours worked per day, months, years, and so on, labour inputs from other members, would be important in determining the deeper constraints that the women left behind experience. Other issues that would be of importance would include the amount of land cultivated before and after the migration of the household heads, whether labour was hired before

or after the migration, and so on.

The study did not differentiate between women who are return migrants and those who have never migrated. Such a study would be recommended in order to find out the socio-economic differences in the two categories of women. This would further shed light on whether significant differences exist between them with respect to workload and decision making aspects.

The study did not reveal any differences in the two types of households in receiving and implementation of short-term extension messages. There is need to investigate the extent to which rural women make independent long-term investment decisions and what constraints they face in doing so. Such decisions include credit facilities, adoption of farm technology, and so on. Such a study would shed light on the type and nature of technology employed in the different households and on the decision making structures in such aspects.

Although remittances were forthcoming to most of the rural women left behind, there is need to investigate the size of remittances and the proportion utilised for various activities. It may be that the migrant labour is not being replaced by hired labour simply because the remittances sent are not large enough to cater for such expenses.

Women's groups and other socio-economic activities are an important feature of rural areas in Kenya. A comprehensive study of such groups and activities would be important in order ascertain some features of these groups, for example, why women adopt them and the benefits that accrue from such endeavours, thus providing the base from which female roles at the micro-level can be realised and improved upon in the rural environment. Support avenues and

constraints to these groups and activities merit attention which in turn would, perhaps enhance further their integration in rural development as part and parcel of the national policy of 'Development from the grassroots level'.

BIBLIOGRAPHY

Amin Samir (ed) (1974): Modern Migrations in Western Africa: International African Institute, London: Oxford University Press.

Blalock, H. M. (1963): Social Statistics. Auckland, Australia.

Boserup, Ester (1970): Woman's Role in Economic Development. London, George Allen and Unmin Ltd, 1970.

Caldwell J. C. (1969): African Rural-Urban Migration: The Movement to Ghana's Towns. Columbia University Press, New York, 1969.

Campbell Eugene K.(n.d): Rural-Urban migration/rural Development interrelations in West Africa: Some obstacles to goal achievements (Article)

Chilivumbo, A. (1985): Migration and Uneven Rural Development in Africa: The Case of Zambia, University Press of America, Lanham. New York.

Colson, E. (1970): "Family Changes in Contemporary Africa". In Black Africa. Edited by Middleton. London: Macmillan 1970.

Findley Sally E. and Williams L. (1991): Women who go and Women who stay: Reflections of family Migration processes in a changing world. Population and labour policies Programme. Working Paper No. 176, World Employment Programme Research (WEP 2-21/WP 176)

Goldscheider, C.(1978): Modernization, Migration and Urbanization. The Hebrew University, Jerusalem, Israel pp. 34

Goldstein, Sidney (1979): Migration and Rural Development Research on Interrelations: A FAO Economic and Social Development Paper; FAO of United Nations, Rome.

Gordon, E. (1981): An analysis of the Impact of Labour Migration on the lives of Women in Lesotho. In African Women in Development Process, edited by Nici Nelson. London: Frank Cass, 1981.

Hanger J. and Morris J. (1973): Women and Household economy, in R. Chamber and J. Morris (eds). Mwea: An Irrigated Rice Settlement in Kenya Afrika- studies No. 83 IFO Muchen pg. 226

Palmer Ingrid (1985): The Impact of Male Out-Migration on Women in Farming. Women's Roles and Gender Differences in Development, Prepared Under the Auspices of the Population Council, Kumarian Press, West Hartford.

Kayere Joyce (1980): Rural Female Roles: Some Reflections. Institute of African Studies, University of Nairobi. Paper No. 142.

Lipton, M. (1976): Migration from Rural areas of Poor countries: The Impact on Rural Productivity and Income Distribution. Washington: Employment and Rural Development Division, Development Economics Department. IBRD, 1976.

Khasiani, Shanyisa. A. (1978): Rural-Urban Migration: A Sociological Interpretation. M.A. Thesis, University of Nairobi.

_____ (1982): Social and Psychological factors influencing Migration Dispositions in Kenya. The Ph.D dissertation, The Florida State University, College of Social Sciences. Nairobi.

Knowles, J. C. and Anker, R. (1977): The Determinants of Internal Migration in Kenya: A District Level Analysis.(WEP. Population and Employment). Working Paper No. 56. Geneva.

Mbithi, P. M. (1975): The Spontaneous Settlement Problem in Kenya. Ph. D. University of California. (E.A. Literature Bureau).

Mochoge, Y. (1981): Rural-urban migration in kenya and its socio-economic consequences. MA Thesis. Institute of Regional Dev., Georg August University, Goettingen,1981).

Monsted, Mette and Walji, Parvin(1978): A Demographic Analysis of East Africa: A Sociological Interpretation. The Scandivian Institute of African Studied, Uppsala.

Mukras, M.S. et al(1985): "Resource Mobilization and the household economy in Kenya", Canadian Journal of African Studies 19 (3 & 4): 207-219.

Ominde S.H. (1968): Migration and Urbanization in the Coastal Region of Kenya, (Nairobi, Geography Department)

_____ (1983): The Impact of Rapid Population growth on Social and Economic Development. Prepared by the Population Studies and Research Institute, University of Nairobi.

Oucho, J. O. (1974): Migration Surveys in Kisumu Town. M.A. Thesis, University of Nairobi.

Oucho, J. O. and Mukras, M. (1983):Migration, Transfers and Rural Development: A Case Study of Kenya. (Unpublished manuscript, University of Nairobi.

Pala, A. O. (1975): A preliminary Survey of the Avenues and Constraints on Women in the Development Process in Kenya. IDS/WP 218, University of Nairobi.

Rempel, H. (1970): Rural-urban Labour Migration and Urban Unemployment in Kenya. RR-82-24 Laxenburg, Austria: International Institute for Applied Systems Analysis.

Rempel, H. (1981): " The extent and Nature of Population Movements into Kenyan Towns, Institute of Development Studies, University of Nairobi, Working Papers No. 160, May 1974

Rempel, H. and Lobdell, R. A. (1978): The Role of Urban-Rural Remittances in Rural Development. Journal of Development Studies 14(3) 324-341

Richards, A. (1959): The Bemba of North Eastern Rhodesia". In Colson and Gluckman

Riegelman, M. A. (1974): "A Seven country survey on the roles of women in Rural Development". A report prepared for the Agency for International Development, Dec. 1974, Development Alternatives, Inc 1823, Washington D.C.

Republic of Kenya(1985): Women of Kenya: Review and Evaluation of Progress. Republic of Kenya, End of Decade, Nairobi, July 1985

Republic of Kenya(1986): The Mbololo Baseline Survey, C.B.S., Ministry of Planning and National Development, ROK, 1986.

Republic of Kenya, Taita Taveta District Development Plan, 1989-1993, Ministry of Planning and National Development.

WakaJummah, J. O. (1986): Intercensal Net Migration in Kenya: A District Level Analysis, M.A. Thesis, 1986.

World Bank, (1983): Kenya; Growth and Structural Change. Vol. 1, Washington, D.C. The World Bank.

Appendix i

THE STUDY QUESTIONNAIRE

A: BACKGROUND INFORMATION

1. Village Name:_____ Sublocation:_____

Name of respondent:_____

Age of Respondent: 15-19...(1) 20-29...(2) 30-39...(3)
40-49....(4) 50-59.....(5) 60 & Over.....(6)

Marital status: Single...(1) Married.....(2)
Widowed.....(3) Separated.....(4) Divorced....(5)

No. Children: Below age 18...(1) Above age 18....(2)

No. Children who stay at home: Below age 18.....(1)
Above age 18....(2)

B:GENERAL INFORMATION

2.1 Who is the household head in the family?
Respondent...(1) Husband.....(2) Elder son....(3)
Brother.....(4) Other(specify).....(5)

2.2 Does your head of household work outside your sublocation?

Yes.....(1) No.....(2)

2.3 If Yes, Where does he work?(town)_____

2.4 How often does he come home?
Lives at home.....(1) Every weekend.....(2)
Every 2 weeks.....(3) Every month.....(4)
Once in 6 months....(5) Other(specify).....(6)

2.5 If he stays away from home, since when did he migrate?
Since last month....(1) Since 6 months ago....(2)
One year ago.....(3) 2 to 3 years ago.....(4)
4 to 5 years ago.....(5) More Than 5 years ago....(6)

2.6 What's your household head's main occupation?
Unemployed.....(1) Farming.....(2)
Businessman....(4) Paid employee.....(5)
Don't Know.....6 Non-response.....(7)

2.7 Do you own livestock? Yes.....1 No.....2

2.8 If Yes to 2.7, how many: Cattle.....1
Goats.....2
Sheep.....3

C: WORKLOAD ASPECTS AND LABOUR ADJUSTMENTS

3 State who mainly performs the following tasks in your family?
(Use the following codes for correct answer: Respondent...1 Household head....2 Children....3 Relatives.....4 Hired labour....5 Other(specify).....6)

Household....1
Livestock Grazing.....2
Ploughing 3
Fetching fodder.....4
Planting & weeding....5
Fetching water....6
Harvesting & storage....7
Fetching firewood....8

4. State who mainly assists you to perform some of the tasks mentioned above?
(state the helper and code of task as given in 3.2 above)

No one....(1) Children.....(2) Relatives.....(3)

Hired labour..... (4) Communal groups.....(5)

Household head.....(6) Others(specify).....(7)

5.1 Do you hire labour? Yes.. ...(1) No .. .. 2)

5.2 Type of hired labour: Permanent.....(1) Casual.....(2)

5.3 Nature of work done by hired labour:
Domestic.....(1) Farm.....(2)
Other(specify).....(3)

5.4 Name source of money for paying hired labour:
Remittance.....(1) Farm income.....(2)
Other(specify).....(3)

6.1 Do find it difficult to manage your daily workload?

Yes.....(1) No.....(2)

6.2 If yes to 6.1, why?
Too old....(1) Too many activities ....(2)
Health problems...(3) Other(specify).....(4)

6.3 If yes to 6.1, what do you do?
Rent out part of the land.....(1)
Hire labour(Farm).....(2.1) Domestic.....(2.2)
Cultivate less acreage.....(3)
Reduce the number of livestock.....(4)
No alternative.....(5) Other(specify)..... (6)

7. If your household head has migrated, do you find it more

difficult to manage your daily workload now than before the head of household migrated?
Yes.....(1) No.....(2)

8.1 State which tasks were performed by the head of household before he migrated?.....

8.2 Of the tasks stated in 8.1 above, which ones do you now perform in his stead?.....

8.3 Who performs the rest of the activities?**(state activity and person's code as given in Q. 4)** .....
.....

9.1 Do you harvest enough food to last you to the next season?

Yes.....(1) No.....(2)

9.2 If no, how do you get food to last you until next season?
Buys.....(1) Get from relatives...(2)
Other(**specify**).....(3)

D: HOUSEHOLD'S DECISION MAKING STRUCTURE
(for question 8.0 to 8.3):
(Enter the correct code as given below)
Self...(1) Household head...(2) Other(specify).....(3)

10. Who makes the following decisions in your family?

10.1 Planting schedules (where, what, when to plant).....

10.2 hiring labour.....

10.3 use of farm income.....

11. Have you ever received any extension messages related to the following farming activities? (**Enter Yes..(1) or No..(2) for questions 11.1 to 11.4**)

11.1 Livestock improvement.....

11.2 Soil conservation.....

11.3 Tree planting.....

11.4 Use of farm inputs e.g fertilizers.....

12.1 If Yes to any of the above, did you implement as required?

Yes....(1) No.....(2)

12.2 If Yes to 12.1, who made the decision on whether to or not to implement? **(use codes given in Q. 8.0)** .....

(Section E is for those with migrant house-heads only)

E: MIGRANTS' REMITTANCES (e.g. money, food, farm implements, etc)

13.0 If your family head has migrated, does he send any remittances to you? Yes...(1) No...(2)

13.1 If Yes to 13.0, tick the nature of remittance sent:
Any money:.....(1) Farming implements....(2)
Other(specify).....(3)

13.2 How regularly is the money sent?
Monthly.....(1) When requested....(2) Irregularly....(3)
Goods sent only.....(4) More than once a month....(5)
Once in 2 months.....(6) Other(specify).....(7)

13.3 Who normally decides on how the money sent should be used?
Respondent.....(1) Sender....(2)
Other(specify).....(3)

13.4 **Rank** on the priorities for use of remittance:

Food expenses..... .....(1)
Labour Hire.....(2)
Other household expenses.....(3)
Other(specify).....(4)

(Note: other household expenses includes soaps, clothes, utensils, etc)

13.5 Who else sends you money remittances? Please specify
.....

F: PARTICIPATION IN SOCIAL ACTIVITIES

14. Are there any women's groups in the area?

Yes...(1) No...(2)

14.1. Are you a member of any women's group?
Yes...(1) No...(2)

14.2 If Not a member, why?

Too busy with own activities.....(1)
Husband refused.....(2)
Not interested in group activities....(3)
Other(specify).....(4)

15. Apart from women's group, what other types of communal self-help activities exist in your area?:

Soil-conservation activities.....(1)

School development activities..... (2)
Other(**specify**).....(3)

15.1 Do you participate in these groups activities as required?

Yes.....(1) No.....(2)

15.2 If No to 15.1, why?

Too old to participate.....(1)
Hire labour instead.....(2)
Too busy with family activities.....(3)
Participation not compulsory.....(4)
Household head participate.....(5)
Health problems.....(6)
Other(**specify**).....(7)

Appendix ii

CHI SQUARE DISTRIBUTIONS

Column I -> Sub-location name
Column II-> significance level
Column III-> degrees of freedom
Column IV -> observed X^2 value

** Applies where X^2 test not valid

WOMEN'S WORKLOAD ASPECTS

Do you normally find your daily workload manageable? YES.

	I	II	III	IV
Mraru	1.02858	1	0.3105
Ndome	0.00070	1	0.9789
Tausa	0.06271	1	0.8023
Ghazi	0.25070	1	0.6166

i) Who mainly performs domestic activities in your household?

Respondent:			
Mraru	0.06669	1	0.7962
Ndome	0.00000	1	1.0000
Tausa	0.00000	1	1.0000
Ghazi	0.00000	1	1.0000
Children:			
Mraru	0.78343	1	0.3761
Ndome	0.29256	1	0.5892
Tausa	0.00000	1	1.0000
Ghazi	0.35557	1	0.5496
Hired labour:			
Mraru	0.23146	1	0.6304
Ndome	0.00000	1	1.0000
Tausa	0.00000	1	1.0000
Ghazi	0.00673	1	0.9346
Household head:			
Mraru	0.00000	1	1.0000
Ndome	0.00000	1	1.0000
Tausa	0.00000	1	1.0000
Ghazi	0.00000	1	1.0000

ii) Who mainly performs livestock grazing in your household?

Respondent:			
Mraru	2.85465	1	0.0911
Ndome	7.90729	1	0.0049
Tausa	0.64398	1	0.4223
Ghazi	3.22980	1	0.0723
House-head:			
Mraru	33.18000		1 0.0000
Ndome	2.39799	1	0.1215
Tausa	13.80278		1 0.0002
Ghazi	31.77072		1 0.0000
Children:			
Mraru	0.23146	1	0.6304
Ndome	0.00000	1	1.0000
Tausa	0.00000	1	1.0000
Ghazi	0.00000	1	1.0000
Relatives:			
Mraru	**	*	**
Ndome	**	*	**
Tausa	0.02719	1	0.8690
Ghazi	**	*	**
Hired labour:			
Mraru	0.00000	1	1.0000
Ndome	9.62977	1	0.0019
Tausa	0.78421	1	0.3759
Ghazi	0.00005	1	0.9946
Others:			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	**	*	**
Ghazi	**	*	**

iii) Who mainly fetches fodder in your household?

Respondent:

Mraru	0.00208	1	0.9637
Ndome	0.00000	1	1.0000
Tausa	0.04256	1	0.8366
Ghazi	0.04587	1	0.8304

Household head:

Mraru	6.32261	1	0.0119
Ndome	**	*	**
Tausa	**	*	**
Ghazi	6.54785	1	0.0105

Children:

Mraru	**	*	**
Ndome	**	*	**
Tausa	0.00000	1	1.0000
Ghazi	0.00000	1	1.0000

Hired labour:

Mraru	0.23146	1	0.6304
Ndome	**	*	**
Tausa	**	*	**
Ghazi	0.00000	1	1.0000

Others:

Mraru	**	*	**
Ndome	**	*	**
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

iv) Who mainly performs planting and weeding tasks?

Respondent:

Mraru	0.00000	1	1.0000
Ndome	0.00000	1	1.0000
Tausa	0.02719	1	0.8690
Ghazi	0.00000	1	1.0000

Children:

Mraru	0.02956	1	0.8635
Ndome	0.00000	1	1.0000
Tausa	**	*	**
Ghazi	**	*	**

Household head:

Mraru	43.5529	1	0.0000
Ndome	0.29156	1	0.5892
Tausa	0.23765	1	0.6259
Ghazi	11.8296	1	0.0006

Planting and weeding contd.

Relatives:

Mraru	**	*	**
Ndome	**	*	**
Tausa	**	*	**
Ghazi	0.00000	1	1.0000

Hired labour:

Mraru	4.28160	1	0.0385
Ndome	0.01557	1	0.9007
Tausa	**	*	**
Ghazi	0.00000	1	1.0000

Others:

Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

vi) Who mainly fetches water in your household?

Respondent:

Mraru	1.03051	1	0.3100
Ndome	0.00000	1	1.0000
Tausa	0.00013	1	0.9909
Ghazi	0.00000	1	1.0000

Children:

Mraru	0.08606	1	0.7692
Ndome	0.00000	1	1.0000
Tausa	0.03258	1	0.8568
Ghazi	0.35796	1	0.5496

Hired labour:

Mraru	0.23146	1	0.9007
Ndome	**	*	**
Tausa	**	*	**
Ghazi	0.00673	1	0.9346

Others:

Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

vi) Who mainly performs harvesting and storage tasks?

Respondent:			
Mraru	0.00000	1	1.0000
Ndome	0.00000	1	1.0000
Tausa	1.02719	1	0.8690
Ghazi	0.00000	1	1.0000
Household head:			
Mraru	31.3376	1	0.0000
Ndome	**	*	**
Tausa	0.23765	1	0.6259
Ghazi	11.8296	1	0.0006
Children:			
Mraru	0.02956	1	0.8635
Ndome	0.00000	1	1.0000
Tausa	**	*	**
Ghazi	**	*	**
Relatives:			
Mraru	0.00000	1	1.0000
Ndome	**	*	**
Tausa	**	*	**
Ghazi	**	*	**
Hired labour:			
Mraru	2.82003	1	0.0931
Ndome	**	*	**
Tausa	**	*	**
Ghazi	0.00000	1	1.0000
Others:			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

vii) Who mainly fetches firewood in your household?

Respondent:			
Mraru	0.08606	1	0.7692
Ndome	0.00000	1	1.0000
Tausa	0.91294	1	0.3393
Ghazi	0.00000	1	1.0000
Children:			
Mraru	0.08606	1	0.7692
Ndome	0.00000	1	1.0000
Tausa	0.03258	1	0.8568
Ghazi	0.35796	1	0.5496

Fetching firewood contd.

Hired labour:			
Mraru	0.23146	1	0.9007
Ndome	**	*	**
Tausa	**	*	**
Ghazi	0.00673	1	0.9346
Others:			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

i) Who mainly assists you in domestic tasks?

No one:			
Mraru	3.06782	1	0.0799
Ndome	0.34027	1	0.5597
Tausa	0.71866	1	0.3966
Ghazi	0.01916	1	0.8899
Children:			
Mraru	4.60154	1	0.0319
Ndome	0.00000	1	1.0000
Tausa	1.30782	1	0.2528
Ghazi	0.12404	1	0.7247
Relatives:			
Mraru	0.08606	1	0.7692
Ndome	0.79930	1	0.3713
Tausa	0.03258	1	0.8568
Ghazi	**	*	**
Hired labour:			
Mraru	2.26531	1	0.1323
Ndome	0.00000	1	1.0000
Tausa	0.23765	1	0.6259
Ghazi	0.00673	1	0.9346
Others:			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

ii) Who mainly assists you in livestock grazing?

No one:			
Mraru	5.67733	1	0.0242
Ndome	0.18267	1	0.6691
Tausa	1.67956	1	0.1950
Ghazi	0.35796	1	0.5496
Children:			
Mraru	0.35643	1	0.5505
Ndome	4.65938	1	0.0309
Tausa	0.03809	1	0.8453
Ghazi	0.00000	1	1.0000
Relatives:			
Mraru	0.00000	1	1.0000
Ndome	1.43555	1	0.2309
Tausa	0.00000	1	1.0000
Ghazi	0.00000	1	1.0000
Hired labour:			
Mraru	0.60651	1	0.4361
Ndome	10.9101	1	0.0010
Tausa	0.10348	1	0.7477
Ghazi	0.00000	1	1.0000
Household head:			
Mraru	45.367	1	0.0000
Ndome	35.142	1	0.0000
Tausa	25.011	1	0.0000
Ghazi	42.659	1	0.0000
Others:			
Mraru	0.01557	1	0.9007
Ndome	**	*	**
Tausa	**	*	**
Ghazi	**	*	**

iii) Who normally assists you in fetching fodder?

No one:			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.00000	1	1.0000
Ghazi	**	*	**

Fetching fodder contd.

Children:			
Mraru	0.01429	1	0.9049
Ndome	0.29156	1	0.5892
Tausa	2.81596	1	0.0933
Ghazi	0.35808	1	0.5496
Relatives:			
Mraru	0.71839	1	0.3967
Ndome	**	*	**
Tausa	0.02719	1*	0.8690
Ghazi	**	*	**
Hired labour:			
Mraru	0.00000	1	1.0000
Ndome	**	*	**
Tausa	**	*	**
Ghazi	0.00000	1	1.0000
Household head:			
Mraru	10.7080	1	0.0011
Ndome	0.00000	1	1.0000
Tausa	2.16217	1	0.1414
Ghazi	9.14058	1	0.0025

iv) Who normally assists you in planting and weeding tasks?

No one:			
Mraru	3.89912	1	0.0483
Ndome	4.10200	1	0.0428
Tausa	3.37401	1	0.0662
Ghazi	2.59527	1	0.1072
Children:			
Mraru	3.07596	1	0.0795
Ndome	0.00000	1	1.0000
Tausa	1.56768	1	0.2105
Ghazi	1.11668	1	0.2906
Relatives:			
Mraru	**	*	**
Ndome	**	*	**
Tausa	0.00000	1	1.0000
Ghazi	2.75422	1	0.0970

planting and weeding contd.

Hired labour:			
Mraru	8.07262	1	0.0045
Ndome	5.90347	1	0.0151
Tausa	2.49529	1	0.1142
Ghazi	0.77613	1	0.3783
Social groups:			
Mraru	9.36202	1	0.0022
Ndome	0.05797	1	0.8097
Tausa	0.99236	1	0.3192
Ghazi	1.72882	1	0.1886
Household head:			
Mraru	103.649	0.0000	
Ndome	54.593	1	0.0000
Tausa	71.575	1	0.0000
Ghazi	67.471	1	0.0000
Others:			
Mraru	0.00000	1	1.0000
Ndome	0.91294	1	0.3393
Tausa	**	*	**
Ghazi	**	*	**

v) Who normally assists you in fetching water?

No one:			
Mraru	0.36907	1	0.5435
Ndome	0.23480	1	0.6280
Tausa	0.73419	1	0.3915
Ghazi	0.53657	1	0.3893
Children:			
Mraru	3.76054	1	0.0525
Ndome	0.00000	1	1.0000
Tausa	1.93376	1	0.1643
Ghazi	0.31580	1	0.5741
Relatives:			
Mraru	0.91995	1	0.3375
Ndome	2.45937	1	0.1168
Tausa	0.23765	1	0.6259
Ghazi	0.00000	1	1.0000
Hired labour:			
Mraru	3.73900	1	0.0532
Ndome	**	*	**
Tausa	0.23765	1	0.6259
Ghazi	0.00673	1	0.9346

(fetching water contd.)

Others			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

vi) Who assists you in harvesting and storage tasks?

No one:			
Mraru	3.94610	1	0.0470
Ndome	3.91209	1	0.0479
Tausa	4.15098	1	0.0416
Ghazi	0.74103	1	0.3893
Children:			
Mraru	3.40482	1	0.0650
Ndome	0.00000	1	1.0000
Tausa	2.90867	1	0.0881
Ghazi	2.01432	1	0.1558
Relatives:			
Mraru	0.72097	1	0.3958
Ndome	1.37552	1	0.2409
Tausa	0.00013	1	0.9909
Ghazi	4.12796	1	0.0422
Hired labour:			
Mraru	11.2641	1	0.0008
Ndome	0.00000	1	1.0000
Tausa	0.03258	1	0.8568
Ghazi	0.00000	1	1.0000
Social groups:			
Mraru	6.67632	1	0.0098
Ndome	1.28376	1	0.2572
Tausa	1.67955	1	0.1950
Ghazi	0.69100	1	0.4058
Household head:			
Mraru	95.9881	1	0.0000
Ndome	26.0186	1	0.0000
Tausa	44.6446	1	0.0000
Ghazi	49.2362	1	0.0000
Others:			
Mraru	**	*	**
Ndome	0.00000	1	1.0000
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

vii) Who normally assists you in fetching firewood?

No one:			
Mraru	2.01887	1	0.1554
Ndome	0.28410	1	0.5940
Tausa	0.86552	1	0.3522
Ghazi	0.56259	1	0.4532
Children:			
Mraru	3.90859	1	0.0480
Ndome	0.00000	1	1.0000
Tausa	2.10658	1	0.1467
Ghazi	0.34066	1	0.5594
Relatives:			
Mraru	0.91995	1	0.3375
Ndome	1.24383	1	0.2647
Tausa	0.80042	1	0.3710
Ghazi	0.35796	1	0.5496
Hired labour:			
Mraru	2.85829	1	0.0909
Ndome	**	*	**
Tausa	0.23765	1	0.6259
Ghazi	0.00673	1	0.9346
Others:			
Mraru	**	*	**
Ndome	0.01557	1	0.9007
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

Women participation in women's groups

Mraru	0.01971	1	0.8884
Ndome	0.22077	1	0.6385
Tausa	0.40891	1	0.5225
Ghazi	2.47500	1	0.1157

Women's participation in other social groups and activities

Mraru	30.4464	6	0.0041
Ndome	30.2897	6	0.0482
Tausa	17.2010	6	0.0281
Ghazi	12.1103	6	0.2072

Other types of labour adjustments

i) Rent out part of land			
Mraru	0.02844	1	0.8661
Ndome	0.00000	1	1.0000
Tausa	0.02719	1	0.8690
Ghazi	**	*	**
ii) Hire labour			
Mraru	11.2641	1	0.0008
Ndome	6.54913	1	0.0105
Tausa	5.90347	1	0.0151
Ghazi	8.07262	1	0.0045
iii) Reduce cultivation acreage			
Mraru	8.26789	1	0.0040
Ndome	2.20813	1	0.1373
Tausa	0.00000	1	1.0000
Ghazi	0.00008	1	0.9928
iv) Reduce livestock numbers			
Mraru	0.00000	1	1.0000
Ndome	0.00000	1	1.0000
Tausa	**	*	**
Ghazi	7.40285	1	0.0065
v) No alternative			
Mraru	0.17280	1	0.6776
Ndome	1.20516	1	0.2723
Tausa	0.00000	1	1.0000
Ghazi	9.63495	1	0.0019

HOUSEHOLD'S DECISION MAKING

1: Planting schedules

i) Respondent

Mraru	44.9856	1	0.0000
Ndome	71.5174	1	0.0000
Tausa	6.97421	1	0.0083
Ghazi	30.7264	1	0.0000

ii) Household head

Mraru	6.32261	1	0.0119
Ndome	7.19671	1	0.0073
Tausa	3.91209	1	0.0479
Ghazi	7.03249	1	0.0080

iii) Respondent & House-head

Mraru	32.5501	1	0.0000
Ndome	45.8877	1	0.0000
Tausa	6.80872	1	0.0091
Ghazi	18.9728	1	0.0000

iv) Other

Mraru	0.02844	1	0.8661
Ndome	**	*	**
Tausa	0.02719	1	0.8690
Ghazi	**	*	**

2: Hiring labour

i) Respondent

Mraru	0.00299	1	0.9564
Ndome	5.79222	1	0.0161
Tausa	0.07085	1	0.7901
Ghazi	0.16621	1	0.6835

ii) Household head

Mraru	6.91567	1	0.0089
Ndome	8.65081	1	0.0033
Tausa	2.81596	1	0.0933
Ghazi	3.57316	1	0.0587

iii) Respondent & House-head

Mraru	2.90920	1	0.0881
Ndome	0.41489	1	0.5195
Tausa	0.03258	1	0.8568
Ghazi	0.74103	1	0.3893

iv) Other

Mraru	0.02844	1	0.8661
Ndome	**	*	**
Tausa	**	*	**
Ghazi	**	*	**

3: Use of farm income

i) Respondent

Mraru	70.9273	1	0.0000
Ndome	40.5658	1	0.0000
Tausa	23.1957	1	0.0000
Ghazi	99.0863	1	0.0000

ii) Household head

Mraru	25.5909	1	0.0000
Ndome	8.27931	1	0.0040
Tausa	6.21296	1	0.0127
Ghazi	27.9962	1	0.0000

iii) Respondent & House-head

Mraru	22.0566	1	0.0000
Ndome	12.5327	1	0.0004
Tausa	3.66942	1	0.0554
Ghazi	35.0748	1	0.0000

iv) Other

Mraru	0.02844	1	0.8661
Ndome	)		
Tausa	)**		
Ghazi	)		

3 Implementation of extension messages

i) Respondent

Mraru	15.6821	1	0.0000
Ndome	33.9788	1	0.0000
Tausa	8.71278	1	0.0032
Ghazi	22.7625	1	0.0000

ii) Household head

Mraru	1.51358	1	0.2186
Ndome	24.3027	1	0.0000
Tausa	12.1394	1	0.0005
Ghazi	16.0362	1	0.0001

iii) Respondent & House-head

Mraru	15.1616	1	0.0001
Ndome	16.3382	1	0.0001
Tausa	8.79295	1	0.0036
Ghazi	7.54785	1	0.0042

iv) Other

Mraru	0.01557	1	0.9007
Ndome	0.91294	1	0.3393
Tausa	**	*	**
Ghazi	**	*	**