PARTICIPATION OF WOMEN IN DECISION MAKING ON INCOME AND EXPENDITURE MATTERS IN HOUSEHOLDS IN TANZANIA

A Case Study of Morogoro Rural District

By

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A Dissertation Submitted in Partial Fulfillment of the

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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for examination by the University of Dar es Salaam a dissertation entitled: ***Participation of Women in Decision Making on Income and Expenditure Matters in Households in Tanzania: A Case Study of Morogoro Rural District,*** in partial fulfillment of the requirements for the degree of Master of Arts in Statistics of the University of Dar es Salaam.

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Dr. D. M. B. Rugaimukamu

(Supervisor)

Date. 17 October 2011

DECLARATION

AND

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I, **Ruth Elirehema Malisa** declare that the dissertation is my own original work and has not been presented to any other university for similar or any other degree award.

Signature.....

DEDICATION

This work is dedicated firstly to my Daughters Glori and Gladness, my parents Elirehema J. Malisa and Elise Elirehema, my brothers Lawrence Malisa and Bryson Malisa and my sister Grace Malisa.

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and therefore should not be attributed to the people and institutions who have been acknowledged.

ABSTRACT

This study was conducted to address women's participation in decision making on household income and expenditure items in Morogoro Rural District. The study identified major households' income sources and expenditure items. It examined the level of participation of women on households' decision making and the factors that affect women's decision-making on household income and expenditure items. The multistage stratified sampling design was adopted in selecting 384 respondents (married women) from two villages; Fulwe and Lubungo. 247 were selected from Fulwe and 137 from Lubungo. Data were analysed by using cross tabulation as a preliminary test of association and Logistic Regression (binary and multinomial).

The descriptive analysis shows that 41.7% of women participate in decision making while the rest 58.3% did not participate. Results from binary logistic regression on whether respondents participated in decision making or not revealed that, respondents with primary education (Odds Ratio (OR)=0.419), polygamy type of marital union (OR=2.345) and respondents with average daily income >4000 Tshs (OR=0.462) were statistically significant in describing women's participation in decion making at 5% significance level with $p<0.05$. Further, the Multinomial Logistic Regression (MLR) on who decide on major household's expenditure with categories; mainly husband as a reference category, mainly wife and both husband and wife was done. The results show that wives with average daily income of <4,000 Tshs who make decision with their husbands, as well as wives who make their own decision were less likely to decide on households major expenditure items compared to wives whose households decision is made by husband only. Other variables; occupations, type of marital union and education were significant in explaining on who decides on households major expenditure items in the study area.

It is recommended that since women's participation in household decision on income and expenditure items is low; and their participation is contingent upon the type of income sources, more women should be encouraged to engage themselves in self-help (direct) income generating activities.

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LIST OF ACRONYMS AND ABBREVIATIONS

BLRM:	Binary Logistic Regression Model
CI:	Confidence Interval
CWIQ:	Core Welfare Indicators Questionnaire
DFID:	Development Fund of International Development
FAO:	Food and Agricultural Organization
ILO:	International Labour Organization
MLM:	Multinomial Logit Model
MLR:	Multinomial Logistic Regression
NDHS:	Nepal Demographic Health Survey
OR:	Odds Ratio
SPSS:	Statistical Package and Software System
UN:	United Nations
UNICEF:	United Nations Children's Fund
UNSD:	United Nations Sustainable Development
URT:	United Republic Of Tanzania

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Tanzania is predominantly an agricultural economy because about 80 per cent of its population lives in the rural areas, cultivating communal and small family farms (United Republic of Tanzania (URT), 2001). Women play a substantial role in Tanzania's economy and are more active in agriculture, which accounts for 82 per cent of the labour force. Of the 17.8 million economically active people, 16.9 million are considered employed, and of these, women constitute 50.6 per cent. The overall labor force participation rate (including the informal sector) of women is at 80.7 per cent which is slightly higher than that of men (79.6 per cent) (URT, 2006).

It was asserted that rural development in Africa is inconceivable without the active participation of women (ILO, 1986). In rural Tanzania it is found that women are not only cultivators but also peasants who are engaged in other non-farm economic activities, contributing substantially to the household budget and economy (ILO, 1984). This situation is also said to apply in many African countries. For example, in Ghana, Liberia, Namibia and Sierra Leone to mention but a few, over 50 per cent of the women belong to traditional agricultural tasks (ILO, 1985).

1.1.1 Participation of Women in Rural Economy

Women carry the major responsibility for both subsistence agriculture, especially food crops production, and domestic work. Time use studies consistently show that women spend more hours per day than men in both productive and reproductive activities. Traditionally, women are responsible for almost all livestock activities of dairy husbandry (feeding, milking, milk processing, marketing, etc.) (FAO, 1986).

Bardouille (1981) found that 94% of the women in Lusaka were concentrated in petty trading activities, mainly in the retailing of food and related items. He concluded that women as a social group are a marginalized class. Although these "petty-trading" activities are very important in the economies of the people, they are normally not included in the national census on economic activities. Thus, they are not recognized as having a significant contribution to the household economy, hence the national economy (Bardouille,1981).

In addition, FAO (1994) reported that in Zanzibar women comprise 74 per cent of the labour forces in agro-enterprises. They also predominate in on-shore fisheries, while men perform almost all the work in off-shore fisheries except for some cleaning and processing.

1.1.2 Income Generating Activities among Rural Women

The World Bank Group (WBG) recognizes the critical importance of women's contribution to shared economic growth, especially in Africa. For example, it is estimated that women, especially rural women, provide about 80 per cent of labour force in rural areas and produce 60 per cent of food production in Tanzania. Farm and non-farm activities have changed in Tanzania during the last ten years, because an increasing number of women have become active in market-oriented activities, and more responsible for providing cash needs of the household. Women are also in the fore front in expanding micro and small enterprises in what is often referred to as the informal sector. (www.tanzania.go.tz/gender.html).

Non-farm income generating activities undertaken by women range from seasonal and intermittent wage employment on farms of others, making and selling thatch/mats, local brewing, selling buns, food crop marketing, shop business to running small restaurants. Seasonal and intermittent work on the farms of others is one of the most important non-farm income sources. Women sell their labour to supplement income from agricultural activities. Labour selling among women is common during food shortages. During this period, members of a particular household are compelled to work on the farms of others to get cash that is used to purchase food for the household. Sometimes the payment can be in kind in form of food. One of the problems facing women who depend on selling labour for their livelihood is that there is a tendency of spending more time working on

others farms than their own. They consequently remain in a cycle of poverty and continue to sell labour every year in order to earn a living (Rweyemamu, 2003).

1.1.3 Expenditure Decisions in Households

Rural women perform a variety of operations in the farm and home system and have basic indigenous knowledge, skill, potential and resources which can prove helpful to establish and manage enterprises. What they need is decision making, motivation, technical skill and support from family, government and other organizations. With the right assistance they can strengthen their capacities besides adding to the family income and national productivity (Sidhu, and Kaur, 2006).

The decision- making for which women can control their income in the household varies widely depending on the social relationships and the type of activity carried by a woman in the household. For instance, women control, or believe that they control, income which they earn directly, much more than that earned by, for instance, their husbands (Hart, 1992).

Mbilinyi (1997) has also noted that a true, access and control of resources and benefits vary depending on gender, age, marital status and relationship to the household head. This is the site of growing gender conflict, but also the terrain upon which women have increased their negotiating strength and resulting economic power at household level.

The majority of the households headed by men show that husbands have full control and decision on income on farm outputs while with income earned from non-farm activities the majority of women who sold their labour, control the income from their waged work. (Rweyemamu, 2003). This suggests that women engaged in non-farm income generating activities make decisions over their income than those on farm activities, hence are better off and may have a better livelihood in the future.

1.1.4 Gender and Decision Making Among Rural Women

Females face different constraints due to their involvement in the rural economic production. Activities like producing flour using the traditional sources, fuel and water collection, food preparation and childcare leave very little time for women to participate in income generating activities. Despite their substantial role in rural and agricultural development, they are gravely disadvantaged in terms of access to opportunities, such as credit, land, appropriate technology and health services, education, training, formal employment and at the decision-making level (ILO, 1993).

Women have also limited access and control over household resources (physical and financial assets), low level of individual assets, heavy domestic workloads, restricted mobility and inadequate knowledge and skills thus leading to women's vulnerability (Sebstad and Cohen, 2000).

1.2 Statement of the Research Problem

Women's important contribution to economic activity in Tanzania is well recognized. Women are the major participants in the economic production in the rural areas through agriculture that is, own farm production and also non-farm activities. Despite the women's important roles as producers and household managers, they are often marginalized when it comes to allocation of resources and decision-making.

Although literature on women participating in decision making exists, it is not yet known on the factors that affect the women's participation in decision making on household income and its expenditure. This study was intended to examine the degree of women participation in decision making on household income and its expenditure.

1.3 Significance of the Study

Since women are the major participants in the rural economy, decision-making on household's income and expenditure of what they produce is significant towards women economic empowerment. The empowerment of women, in particular at the household level, is an essential precondition for the elimination of world poverty and the upholding of human rights (DFID, 2000) because it helps in building the base for most of the women's ability to improve their well-being.

This study provides some information on the extent of women's participation in household decision-making on income and its expenditure. It also highlights on the factors that affect rural women's decision-making on households' income and its expenditure. It encourages women in the households to consider increasing production, participate in the decision making, set priorities of household expenditure of the earned income; hence move towards economic development and poverty alleviation in the household.

This study is in line with the third goal of the United Nations Millennium Development Goals (UN, 2005) that calls for promotion of gender equality and empowerment of women. It is also reflecting on both the national gender policy (www.tanzania.go.tz/genger.html) and Tanzania Development Vision 2025 (URT, 1999).

1.4 Objectives of the Study

1.4.1 General Objective

The main objective of this study was to examine the level of participation of women in the households' decision-making on income and matters related to its expenditure.

1.4.2 Specific Objectives

Specific objectives were to:

a. Identify major households' income sources in the study area.
b. Identify major households' items of expenditure in the study area.
c. Examine the level of participation of women on households' decision making.
d. Determine the factors that affect women's decision-making on household income and its expenditure in the study area.

1.4.3 Research Questions

a. What are the major households' income sources in the study area?
b. What are the major households' items of expenditure in the study area?
c. To what extent do women participate in the households' decision making?
d. What are the factors that affect women's decision-making on household income and its expenditure in the study area?

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This Chapter presents a review of the available literature on participation of women in decision making on household income and expenditure matters and the factors that might be responsible for making them to participate or not participate. Section 2.2 reviews the participation of women in the household decision making focusing on the decisions that they are involved in. In section 2.3, a review on major household's income sources and expenditure is provided particularly in developing countries like Tanzania. In section 2.4, factors influencing women's decision making on household income and expenditure are reviewed. Section 2.5 is a summary of the chapter.

2.2 Participation of Women in the Household Decision Making

Traditionally women's position in Tanzania has been lower than that of men and this prevented women from participating in decision making processes from household to the national levels. (www.idrc.org.sg).

De Palma et al. (2006) focused on the question of which spouse has more influence on joint decisions. Based on observations of 22 couples, they concluded that husbands generally have a stronger influence on joint decisions than wives, although wives gain

influence if they control the computer keyboard when entering the joint decisions in the experiment.

In much of rural Tanzania women bear the full burden of household maintenance, they have the major concern of making sure that the family has enough food to be fed throughout the year and make sure that the family gets its daily meal. They are also able to give estimates on how much food is sufficient for the family throughout the year, and so determine how much to sell (Morgan, 2000).

However, women have little or no say in decision on land, production or cash. In many African societies including Tanzania, owning land and controlling the household money is the traditional role of men. Women have access only to the most marginal land (medicinal plants are collected along road banks and fencerows and fuel is collected in the de facto common - land too far from villages for men to claim it). This was also reflected in the laws and the legal structures (Howard, 2003).

The importance of women participation in household decision making cannot be over emphasized. Women's work patterns, economic and social activities are all influenced by the decision making process and the control of household resources. Control of essential resources is necessary for effective action in all economic and social activities. Many important decisions made by women cannot be implemented because they do not control the resources necessary to implement those decisions. Even their own time which is an important resource is controlled by the forces of production, reproduction and care of the household (Kavishe, 1993).

Gender issues involving access to and control of income and expenditure of the household is a social, not simply an economic process. A strong linkage between women decision making on income and expenditure in the household is imperative to recognize the role of women in development activities. (Ezemeanari et al, 2000).

The United Nations conference on Environment and Development's Agenda 21 calls for women to be fully involved in decision making and in the implementation of sustainable development activities (UNSD, 1992). Women development contribution in the household is based on the assumption that development proceeds much better if women are fully incorporated into the development action (Moser, 1993). However, gender in development emphasizes that to focus on women in isolation is inadequate and ignores the real problems which are associated with roles and responsibilities of male and female within in the household. Therefore, gender analysis focuses on both women and men and best interventions that empower to improve their position relation benefit and transform household and society as a whole. So, the best approach to be adopted in household development will be a powerful tool for motivation to work for equity and respect potential contribution from all household members (Pollack and Hafner-Burton, 2000). Since gender issues aim at analyzing the position of women and men in society in order to identify their specific potentials and needs, women's empowerment in isolation of their male counterpart is not possible. So the gender analysis method is to be applied in planning, monitoring and evaluation in order to ensure the participation of men and women is done in accordance with their specific potentials and needs (Pollack and Hafner-Burton, 2000).

In Tanzania women's participation in income and expenditure decision making at both the household and community levels is minimal as shown by a study in Iringa and Kagera regions (Kavishe, 1993). In most of the households studied, husbands did not trust their wives when it came to spending of the money. Almost all use of household income had to be approved by the husband. A wife had very little freedom to decide even on slaughtering of a chicken for the family meat. Even sending a sick child to a paying health unit had to get the approval of the husband who may not be around at the time the child is sick. However, women were increasingly adopting strategies to earn independent incomes which they at least control although husbands could be consulted or informed where large sums of money were involved. The major strategy women adopted was to engage in economic group activities or in horticultural activities.

The 2003 Core Welfare Indicators Questionnaire (CWIQ) data survey of Nigeria suggest that, as is the case in many other African countries, the country is still a male-dominated society. There are significant differences in roles played by men and women in Nigeria that influence their capacity to earn monetary income, and thus their intra-household decision-making power: women do most of the work in the subsistence agricultural sector and unpaid housework (41%), while men are given opportunities in the commercial sector (48%). As a consequence of the differences, household decision-making power in Nigeria remains concentrated among men, especially in poor households. Most decisions on the use of productive assets (land use, crop sales, and shelter) are taken by men (over 50%) Although women participate more in decision making on food expenditures, health, and education, men are still the main decision

makers in these areas as well (92%, 94% and 79% respectively. (Angel-Urdinola et al., 2010).

2.3 Major Households' Income Sources and Items of Expenditure

Rural women play a critical role in the rural economies of both developed and developing countries. In most parts of the developing world, they participate in crop production and livestock care, provide food, water and fuel for their families, and engage in off-farm activities to diversify their families' livelihoods. In addition, they carry out vital reproductive functions in caring for children, older persons and the sick (UN, 2008). This is in spite of them having a little say in the decision making process due to lack of independent income source at their disposal.

According to the 2001 Household Budget Survey of Tanzania, agriculture contributed 60% of the rural household incomes, followed by non-farm self employment contributing 18% while employment contributed only 7% of the rural household income. The mean monthly income for rural men was T shs.29, 212 while for women was T shs.17, 148. These differences in income reflect a number of factors. One of them may be the level of participation in the labor market, since some of the women may not work full-time because of household responsibilities. Another will be education. More educated individuals have higher earnings and men have higher levels of education than women.

Looking at the expenditure patterns of rural Tanzania, the study found that food expenditures made 67% of the household monthly expenditure. Education and medical care both comprised only 2% of the monthly expenditure. Generally, women allocate household income differently than men. For example, women almost always spend their income on nurturing activities and the provision of basic goods and services (Pinstrup-Anderson and Pardya-Lorch, 1998).

2.4 Factors Influencing Women's Decision Making on Household Income and Expenditure

The factors that determine which family member will have the strongest say in household income and expenditure decisions vary among households and across cultures. Every family is unique, and there is no simple set of rules that can explain the dynamics of decision-making processes. Studies that examine the dynamics of family decision-making often focus on the household. While this focus does not necessarily represent all interactions among family members, it does provide a practical means of understanding and analyzing everyday family dynamics. To understand the dynamics that influence household decision-making processes, it is useful to consider the factors that determine the structure of the family unit, as well as each family member's role within the household.

Gender discrimination in household decision making is often rooted in patriarchal attitudes that value the social status of men over women. But the extent to which

individual households conform to 'traditional' ideas about the roles of men and women varies. The ability of family members to impose their own preferences in household decisions (bargaining power) is influenced by social attitudes and other, more tangible, factors.

Based on past studies, we analyze the major determinants of influence in household decision making which include: control of income and assets, age, access to and level of education, marital status, and occupation in terms of participating in the labor force as a way of contributing to the household income. Past studies have also found that women and men work in joint consultation in the household decision making process.

For example, using a Bargaining model Manser and Brown (1980) found that the family member who controls the greatest share of household income and assets was found to have the strongest say in deciding whether those resources will be used to meet household needs. In this case in both industrialized and developing countries, women continue to lag behind men in terms of income-earning opportunities, ownership and management of assets.

Also, cooperative bargaining theory suggests that expenditure decisions are proportional to resource contribution (McElroy and Homey, 1981). In this respect, as a woman's income increases as a share of total household income, so does her bargaining and decision-making power.

Lyimo-Macha and Mdoe (2002) in a survey carried in Kilosa and Morogoro rural districts of Tanzania, recorded that 88 per cent of the women indicated that they had access to the income but not full control of it. Ninety four percent (94 per cent) said the husband had full control of the income from the agricultural outputs. Some drunkard men for example, may spend most of the income on alcohol. For this reason, little or no money will be available for home consumption and/or re-investment in agriculture. The situation was different with income earned from non-farm activities. The findings from the study showed that the majority (91 per cent) of women who sold their labour control the income from their waged work and only nine percent (9 per cent) of these had their wage income controlled by their husbands. This suggests that women engaged in non-farm income generating activities are better off than those without any income generating activities and may have a better livelihood in the future.

The distribution of household bargaining power is also influenced by a woman's age at marriage and the age difference between a woman and her husband. Evidence from around the world shows that the age gap between husbands and wives can vary enormously among households. The average age at first marriage in Western Europe is estimated to be 27 for women and 30 for men. In developing countries, age differences are far greater. In South Asia, for example, husbands are approximately five years older than their wives; the gap rises to six years in sub-Saharan Africa excluding southern Africa (UNICEF, 2006).

In cases of child marriage (defined as customary or statutory union where one or both of the partners is under the age of 18 years old), when the age gap between spouses is most extreme, the burden of domestic work and childcare severely constrains the life choices available to married girls and child mothers (UNICEF, 2006). This, in turn, affects the power that women have over household decisions. For example, in a study of 8 Nigerian states in 2003, the results of the bivariate probit model used indicated that the probability of women participating in decisions regarding education, health, food and crop sales significantly increase with the woman's age.

This may in part be a result of gains by women in terms of income generating activities as they age. The share of women who are the main source of income in their households increases from less than 1 per cent among women of the age of 17 to between 5 per cent and 10 per cent for women above 30 years of age (Angel-Urdinola et al., 2010).
Similar results were obtained in another study on rural farming decision making in Nigeria by Damisa et al. (2007a) using an ordered probit model, which found that age significantly influences the level of participation in farm management decision making. Older women participated more in the decision making than their younger counterparts.

In addition to increased levels of knowledge, self-confidence and assertiveness, education confers social status and increases income-earning potential. As with age gaps between married couples, the levels of education of spouses vary among households. The findings of a study undertaken in 40 developing countries indicate that, on average, men tend to spend more time in education than women (UNICEF, 2006). The education

gap is widest in South Asia, where men on average spend 2.5 years more in school than women, declining to 1.3 years in sub-Saharan Africa, and 1 year in Latin America and the Caribbean. Disparate levels of education between men and women may reinforce household gender inequalities, ensuring that women remain disadvantaged (Friedberg, and Webb, 2006).

Education has a positive significant relationship for women participation in farming decision making (Damisa et al., 2007b). This might be attributed to the high level of knowledge and experience about improved farm practices acquired by the educated woman farmer which helps her to influence major decisions being taken in the home and on farm management as well.

In Nepal, education also has a positive significant relationship with women's participation in decision making. Using the Nepal Demographic Health Survey-NDHS, Acharya et al. (2010) found that as the level of education increases from no education to post secondary level, the percentage of women who participated in healthcare, household major purchases and household daily purchases decisions also increased. However, this was not significant at the post secondary level of education and this therefore creates a complex scenario that needs further research.

Marital status of women is another factor affecting the decisions of women in economic participation. Their decision to participate in the labor force may be seen as an indicator of their ability to be involved in the making of other household decisions. In Pakistan, married women are less likely to participate in economic activities. The opposite is true

for the widow or divorced women. Results indicate that married women are 4.2 % less likely to participate in an economic activity. However, divorced women are more likely to participate in economic activities by 5.2%. Being a divorcee is also another significant factor, which positively increases the possibility of women's economic participation by 16%. This may be attributed to the fact that divorced or widowed women remain to be the household heads and thus will have to participate in the household decision making (Naqvi et al., 2002)

Women constitute half of any country's human endowment. In most countries, however, women contribute less than men toward the value of recorded production-both quantitatively, in labor force participation, and qualitatively, in educational achievement and skills. The underutilization of female labor has obvious implications for economic welfare, growth and household decision making (Jakubson, 1992).

Based on a study conducted in Colorado on married women, it was found that Women's involvement in household finances was significantly positively related to their share of total household income. Using a probit model, Bernasek et al. (2002) found that the negative sign on the coefficient for male share of household income and the positive sign on the coefficient for female share of household income indicate that the household moves toward lower female involvement in financial decision-making as the man's share of income increases, and higher female involvement as the woman's share of income increases.

Lazaro (1996) carried out a detailed analysis of income and expenditure patterns in workers' households on Morogoro plantations. The study found that as women earned more cash income, they were increasingly involved in decision-making. Single women, like single men, had more or less complete control over how they used their income, and over other resources. Married men were faced with a new situation in the study, they were responsible for providing for household consumption food needs on the basis of cash earnings, whereas as farmers, they could have relied more on their wives to provide.

Although men continued to dominate key decisions, especially concerning production, some recent studies indicate that women also participated in the decision-making process, contrary to the situation in the past. For instance, Mwanyika (1993) in a study carried out in Mbozi district revealed that the majority of both husband and wife decided together what to produce and what to sell in the households. Literature also showed that men controlled sales of crops, with joint consultation in some households. Also, decisions over allocation of cash proceeds from crops were dominated by men, with the possibility of consultation in some areas (Mbilinyi, 1997).

2.5 Summary

This chapter has identified the various factors that influence the participation of rural women in household decision making regarding income and expenditure. Whereas most

studies have found similar direction regarding the variables, it is imperative to find out if the case holds true for rural Tanzania.

Education was found to be insignificant beyond the secondary level (Acharya et al., 2010). This study will therefore seek to find out if the case also holds true for rural Tanzania but will, in addition, examine the influence of adult education on decision making in some African countries including Tanzania.

However, it is worth emphasizing that this study also focuses on a situation where women make their own decisions on major household income and expenditure and factors which affect them towards the realization of this objective.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This Chapter describes the methodology applied in the process of the study; it describes the study area, target population, sampling units, sampling design/procedure, sample size, data collection and data processing and analysis.

3.2 Study Area

This study was conducted in Morogoro Rural District, which is one of the six districts of Morogoro region in Tanzania. It is located in the North-East of the region between 8°00-10°00 South of Equator and between 37°00-28°22. It has an average area of 11,920 km^2 which is 16.34 per cent of the whole Morogoro region which is 72973 km^2. Morogoro Rural is bordered to the East by the Coast region, to the South by the Morogoro Urban district and to the West by Mvomero district.

According to the Tanzania National Census of 2002, the population of the district was 263,920. The total populations composed of 129,285 males and 134,635 females (URT, 2006). The district has been chosen because its people engage themselves in different activities such as agriculture, fishing, forestry, animal keeping and small business. Therefore, there was a variety of economic activities which are potential for the study. In addition, the area was selected to represent other rural areas in Tanzania and typical rural Africa in general, since most of them have a more or less similar situation.

3.3 Target Population and Sampling Unit

The target population for this study was the married women in the selected households. For the practicalities of data collection and meaningful analysis, some kind of social unit was defined, and a minimal residential household with a physical presence that is bounded and distinct (Hosegood and Timaeus, 2006).The sampling unit was a married woman in a household or any household with a couple.

3.4 Sampling Design/Procedure

A multi-stage stratified sample design was used for this study. This sampling design involved four stages. In the first stage, simple random sampling was used to select one division among the five divisions in Morogoro Rural. During the second stage, one ward was selected purposively in order to minimize the cost of traveling. In the third stage two villages were randomly selected. From these two selected villages, a sampling frame was constructed which comprised a list of all households with a couple. From this list, observation units (households) were selected systematically for interview. The number of households selected from each village was proportional to the total number of households in each village. The reporting unit in the household based on the study is a married woman in the household.

3.5 Sample Size

Given the assumption of drawing random sample and a particular level of confidence, it is easy to determine the sample size needed to achieve a specified margin of error for a proportion. Cochran (1977) addresses this issue by stating that "one method of determining a sample size is to specify margins of error for the items that are regarded as most vital to the survey" The number of household sampled can be obtained from the following expression:

$$n = \frac{NZ_{\alpha/2}^2\ pq}{(N-1)e^2 + pqZ_{\alpha/2}^2}$$

The terms in the formula are defined as:

$Z_{\alpha/2}$ is the standard normal variate corresponding to a confidence level of 95 per cent.

$p =$ The estimated participation of women in decision making

$e =$ Specified margin of error

$N =$ The total number of household in Morogoro rural

$n =$ Required sample size

In this study $Z_{\alpha/2} = 1.96,\ N = 56723,\quad p = 0.5,$ and $\quad e = 0.05$

According to the formula the sample size is calculated as:

$$n = \frac{56723 \times 1.96^2 \times 0.5 \times 0.5}{(56722-1) \times 0.05^2 + 0.5 \times 0.5 \times 1.96^2} = 383.9068 \approx 384$$

As expected, the applied finite sample formula above gives the same result as the large sample formula $n = \frac{Z^2_{\alpha/2}\, pq}{e^2}$ because N = 56,723 is large.

Two villages were included in the study, which are Fulwe and Lubungo. The sampling frame was based on a village register and respondents were selected by the random sampling procedure. The sample size was proportionally allocated to the two villages as shown in Table 1 below.

Table 1: Sample Size Allocation

Village	**Number of village households(N_h)**	**Number of sampled households** $n_h = \frac{nN_h}{N}$	**Percent of sampled households**
Fulwe	1076	247	64.3
Lubungo	594	137	35.7
total	N **=1670**	n **=384**	**100**

Source: Survey data 2011

3.6 Source of Data and Instrument for Data Collection

The research used a structured questionnaire which was designed for the purpose. The questionnaires were administered to the respondents after pre-testing.

3.6.1 Record Review

The intended information from the respondent included factors affecting rural women decision making on household's income and expenditure, major household's economic activities carried out by women in the study area and the link between decision-making and control and type of income generating activities undertaken by women in the study area.

3.6.2 Pre-test of Questions

To assess the validity of the questions in the questionnaires, ten married women from ten households in Fulwe village were interviewed using the questionnaire. The main reason for pre-testing is to check whether or not there are shortcomings in questions before undertaking the actual data collection.

3.6.3 Filling in of Questionnaires

Structured questionnaires were administered to the respondents by either the researcher or research assistants after the multi-stage random sampling. The researcher or research assistants recorded the responses.

3.7 Data Processing and Analysis

Data processing and analysis was done at the University of Dar es salaam by using Statistical Package and Software System (SPSS) version 16. Both descriptive and analytical methods were used in the study. In the descriptive method, frequencies were presented and analyzed in order to get the preliminary results of the respondents (married women). In the analysis, the Pearson's Chi-square test was performed to test the significance of the association between dependent variables and a list of independent variables. All independent variables which were significant at the 5% level of significance using the chi-square statistic were subsequently used in the logistic regression model analysis.

3.7.1 Chi-square (χ^2) Test

The Chi-square statistic is the primary statistic used for computing the statistical significance of the association in the cross-tabulated data. The Chi-square test is useful in testing the compatibility of observed frequencies in two way tables for the purpose of studying the relationship or association between the two variables of classification (Hoel, 1983).

The chi-square (χ^2) test is defined as

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(O_{ij} - E_{ij})^2}{E_{ij}} \quad \text{with degrees of freedom } df = (c-1)(r-1)$$

Where

df = Degrees of freedom

O_{ij} =Observed frequency in the i^{th} row and j^{th} column or $(i,j)^{th}$ cell.

E_{ij} = Expected frequency in the i^{th} row and j^{th} column

r = Number of rows

c = Number of columns

3.7.2 Measurement of Variables

Women's participation in the household's decision regarding income and expenditure is examined by analyzing the various household level factors. Socioeconomic, demographic and human capital components are also considered. This study looked at two types of decisions that women make. One type of decision is whether women are informed on major income and expenditure matters or not. The second level of decision-making is related to who makes the decision on major household's income and

expenditure items– either they decide on their own or the husbands decide, or both decide.

The independent variables include level of education of the respondent, type of occupation among women, gender discrimination in household's decision, society's attitude towards household income and expenditure, age at marriage, number of years in the marriage, age of the spouse, spouse age difference, and type of union.

3.7.3 Logistic Regression Analysis

A Logistic Regression Model was used to determine whether there were any significant relationship between dependent and independent variables (Chan, 2004).

In this study two regression models were estimated: a Binary Logistic Regression Model (BLRM) and a Multinomial Logistic Model (MLM) respectively.

3.7.4 Binary Logistic Regression Function

The Binary logistic regression function is given by

$$f(z)=\frac{e^{z}}{1+e^{z}}=\frac{1}{1+e^{-z}}$$

Note that the function can alternatively be stated as $\log\left[f(z) / 1 - f(z) \right] = z$.

The logistic function is useful because it can take as an input any value from negative infinity to positive infinity, where the output is confined to values between 0 and 1. The variable z represent the exposure to some set of independents variables, while $f(z)$ represent the probability of a particular outcome, given that a set of explanatory variables is available. The variable z is a measure of the contribution of all the independent variables used in the logistic model.

The variable z is usually defined as

$$z = \beta_0 + \beta_1 x_1 = \beta_2 x_2 + \beta_3 x_3 + ... + \beta_k x_k$$

Which is also known as the linear prediction where,

β_0 is the intercept and $\beta_1, \beta_2, \beta_3, ..., \beta_k$ are regression coefficients of independent variables, $x_1, x_2, x_3 .....x_k$ respectively, whose conditional effects on the response variable Y are measured through the regression coefficient on the logit scale or $\log\left[f(z) / 1 - f(z) \right]$

In this study

$z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5$ where,

x_1=Income

x_2 = Level of education

x_3 = Occupation

x_4 = Type of union

x_5 = Economic activity

3.7 5 Multinomial Logit Model (MLM)

MLMs are used to model relationships between a polytomous response variable and a set of regressor variables. The polytomous model can be classified into two distinct types, depending on whether the response variable has an ordered or unordered structure.

In this model, typically the dependent variable is women participation on making decision in major household expenditure. The dependent variable in this model was categorized into three mutually exclusive categories. Women participation in the household decision making on expenditure of income can take various options:

First, women mainly decide themselves, secondly, husbands mainly decide and thirdly, mainly both (husbands and women) decide.

These alternatives are categorized as 1, 2 and 0 respectively and specified correctly as multinomial logit model which was suggested by Greene (1992). The above choice does not matter; one could start by any of them.

The independent variables potentially influencing this participation are age, marital status, type of union, education, occupation, income and economic activity.

Assuming that the errors in this model are independently and identically distributed with Weibull distribution then the difference between the errors has a logistic distribution and the Multinomial Logistic model is the appropriate technique of estimation. (Greene, 1992)

The probabilities in the multinomial logit model are given by

$$\Pr ob(Y = j) = \frac{e^{\beta_j x_i}}{1 + \sum_{k=1}^{J} e^{\beta_{jk} x_i}}$$

$$\Pr ob(Y = 0) = \frac{1}{1 + \sum_{k=1}^{J} e^{\beta_k x_i}} \qquad for\ j = 1,2,3.....$$

Where coefficients ß's are normalized to zero and x is the vector of explanatory variables

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents both descriptive and analytical findings of the study. It begins by describing the study sample, followed by the test of associations where by chi-square test was used. The Chapter ends with multivariate logistic regression analysis of factors to determine their statistical significances in explaining the participation of rural women in decision making on household income and expenditure.

4.1 Sample Demographic Characteristics

In this study, primary data which were collected from the households with married women were used. A total of 384 married women was interviewed from two villages of Fulwe and Lubungo. Out of which, 247 were from Fulwe and 137 from Lubungo. The respondents from Fulwe were 64.3% and Lubungo 35.7% as indicated in Table 1. Generally, the settlements in Lubungo are scattered because the majority of the residents engage in both pastoralism and farming activities. In Fulwe, the majority of households are concentrated at the centre of the village where they do petty business and farming activities.

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Table 2: Sample Distribution for Households on the Village

Village	frequency	Percent
Fulwe	247	64.3
Lubungo	137	35.7
Total	**384**	**100.0**

Source: Survey data 2011

4.2 Socio- Economic Characteristics of Respondents

The socio-economic characteristics of the households in the study were obtained from 384 respondents who were interviewed. These characteristics included variables such as, age of respondent and age of the spouse; marital status, type of marital union and age of respondent at marriage; level of education; occupation and main economic activity of the respondent in the study area. (see Tables 3, 4, 5 and 6)

4.2.1 Age of Respondent and Spouse

The respondents were grouped to four age groups as shown in Table 3. Over 39% of respondents in the study area were of the ages of between 26 and 35 years. This category was followed by the age group of between 15 and 25, which was more than 24% of the total population in the sample population. The age group of above 46 was the lowest as it was found only to be about 15% of the total respondents. According to the census report (URT, 2006), age and sex structure reflects the accumulation of fertility, mortality

and migration experienced by the population. The distribution according to age groups is shown in shown in the table 3 below.

As regards age of the spouse, over 30% of respondents have spouses older than 46 years of age. While only 7.3% have spouses with the age between 15 and 25. Most spouses fell in age groups 46 and above, 25-35 and 36-45 with percentage 34.1%, 32.8% and 25.8% respectively.

Table 3: Age of Respondent and the spouse

Variable(N=384)	Frequency	Percent
Age of respondent		
15-25	95	24.7
26-35	151	39.3
36-45	77	20.1
46 and above	61	15.9
Total	**384**	**100.0**
Age of spouse		
15-25	28	7.3
26-35	126	32.8
36-45	99	25.8
46 and above	131	34.1
Total	**384**	**100.0**

Source: Survey data 2011

4.2.2 Level of Education

According to the study results, about 51% of the population in the study area had no formal education while 16.9% had the secondary school education. 32.1% of the

population had attended primary school education. However, in the current study, the level of education was considered with the variation between formal and informal education. Thus, about 51% of the population clasified as non-educated had not received formal education although they expressed to have received other forms of informal education, including traditional healing, in which some of respondents were found to be well versed with a number of herbs, hunting gear and equipments and others.

Table 4: Level of Education

Variable (N=384)	Frequency	Percent
No formal education	196	51.0
Primary education	123	32.1
Secondary education	65	16.9
Total	**384**	**100.0**

Source: Survey data 2011

4.2.3 Marital Status, Type of Marital Union and Age at Marriage

In this study, marital status is defined relative to the time of marriage, age of marriage and the type of marital union. Categorization was done between those who were married within a period of five years and those above five years. About 70% of respondents in the study area were married for a period of more than five years. Age at marriage and the age of spouse were a key to the study of household decision. In this case, about 40% of respondents got married before the age of 18 years. It has also been found that over

80% of respondents' marriages are monogamy. Results for marital status are shown in Table 5 below.

Table 5: Marital Status, Type of Marital Union and Age at Marriage

Variable(N=384)	Frequency	Percent
Marital status		
Recently married (Below 5 years)	114	29.7
Earlier married (Above 5years)	270	70.3
Total	**384**	**100.0**
Type of marital union		
Polygamy	70	18.2
Monogamy	314	81.8
Total	**384**	**100.0**
Age at marriage		
10-17	162	42.2
18-25	186	48.4
26 and above	36	9.4
Total	**384**	**100.0**

Source: Survey data 2011

4.2.4 Occupation and Main Economic Activity

The study area was basically a rural area. Therefore, more than 50% of the total population in the study area is not wage employed. Apart from farming, about 40% of the population is engaged in other non-farm activities including livestock keeping, brick

making, selling of cold drinks such as ice cream, water, and juice and food canteen vending. The different forms of occupations are shown in Table 6 below.

The main economic activities of the respondents include selling food, selling cash crops, livestock keeping, mat making and making brews. This implies that, a half of the respondents in the study areas were engaged in some type of non-farm and farm income generating activities. The rest were not engaged in any type of non-farm and farm income generating activities. Those who were not engaged indicated that most of the income generating activities was performed by the male members of their households.

Table 6: Occupation of Respondent and Main Economic Activity

Variable (N=384)	Frequency	Percent
Occupation		
Not Working	211	54.9
Working	173	45.1
Total	**384**	**100.0**
Main economic activities		
Petty business	105	27.3
Livestock production	54	14.1
Selling cooked food	38	9.9
Beer brewing	39	10.2
Mats making	10	2.6
None	62	16.1
Cash crops	76	19.8
Total	**384**	**100.0**

Source: Survey data 2011

4.3 Income Sources and Major Expenditure Items

4.3.1 Income Sources

It was found that the most common sources of women income in the study area is selling cooked food, beer brewing, farming (cereals, cassava, maize sweet potatoes, finger millet and water melon) and livestock production (dairy cattle, poultry keeping and piggery). In the study area, 27.1% of respondents earned an average income between Tanzania Shillings 500-1000/= per day. However, a few respondents indicated that they did not earn any income. But they depended on their husband's income earnings. (See Table 7 below)

Table 7: Average Daily Income of the Respondent

Variable (N=384)	**Frequency**	**Percent**
Average daily income(T shs)		
500-1000	104	27.1
1001-2000	45	11.7
2001-3000	101	26.3
3001-4000	27	7.0
4001 and above	107	27.9
Total	**384**	**100.0**

Source: Survey data 2011

4.3.2 Major Expenditure of Income

Table 8 below reveals that expenditure of income from non-farm activities as well as from farm produce varies depending on the needs and preferences of the individual families at a particular time. Some families re-invest their income from a source (for example, spending money from agriculture on farm inputs) while others spend money elsewhere. Women in the study area were asked whether they spend what they earn from agricultural activities differently from money earned from non-farm income generating activities or waged work. The majority of the women (51.3%) spent their income freely on buying food regardless of the source of income. The remaining 48.7 % of the women in the study area spent their money on other needs like paying children's school fees (21.6%), paying for health services (8.1%), buying livestock (12.8%) and buying household facilities (6.2%).

Table 8: Major Expenditure Items of the Income Earned

Variable	Frequency	Percent
What are the major expenditure items of the income you earn?		
Paying children's school fees	83	21.6
Paying health services	31	8.1
Buying livestock	49	12.8
Buying household facility	24	6.2
Buying food	197	51.3
Total	**384**	**100.0**

Source: Survey data 2011

4.4 Factors Affecting Decision Making on Household Income and Expenditure

This study also sought to know the respondents' opinion (the question was optional for those who are not informed) on why women were not informed about the major expenditure of income earned in the household. Results summarized in Table 9 below show that out of all respondents who responded to this question, 21.9% mentioned cultural influence restrictions (man is the pillar of the house so he is every thing), 15.1% responded that because of their low income as compared to that of the husband and 18.5% mentioned the restrictions from their husbands. The majority of men respondents reported that in their society a woman was not required argue to with a man. This was especially the case in areas that were settled by Maasai, who were also involved in this study.

Moreover, this study sought the information from the respondents about their perception of the extent to which women participated in the household decision making. Table 9 shows that, the majority of the respondents (51.6%) reported that, women must participate equally in decision making as men and 28.9% of the respondents reported that women must fully participate in decision making in future and hence have greater involvement than it is today. The remaining 9.4%, 9.4% and 0.8% of the respondents said that women should participate less than they do now, less than men and not participate at all, respectively. This implies that most women participated in decision making, but their participation was not greater compared to their husbands.

Another inquiry of this study was on empowerment of women in decision making. Results from Table 9 show that out of 384 respondents who were interviewed, 17.7% of them reported that in order to empower women there is a need for the provision of loan with low interest, 19.3% requested the law against women harassment by men be enacted, 26.8% requested more gender education to both women and men. Finally, 26.0% said that husbands must give the priority to their wives and a small per cent (10.0%) had a different opinion which advocated that women need not be empowered since husbands can manage to take care of their families.

Table 9: Perception of Respondents on Decision Making in Household

Variables	Frequency	Percent
Factors of not participating on household decision making		
Restriction from the husband	71	18.5
Culture influence restriction	84	21.9
Low income compared to men	58	15.1
Not applicable	171	44.5
Total	**384**	**100.0**
In your personal view, to what extent should women participate in family decisions?		
Less than now	36	9.4
More than now	111	28.9
As much as men	198	51.6
Less than men	36	9.4
Should not participate at all	3	0.8
Total	**384**	**100.0**
What are to be done to empower women in decision making?		
Access to low interest credit	68	17.7
Law against women harassments by men	74	19.3
More gender education	103	26.8
Husbands must give priority to their wives	100	26.0
others	39	10.2
Total	**384**	**100.0**

Source: Survey data 2011

4.5 Decision Making on Household Income Expenditure by Gender

The results in Table 10 summarize information on the decisions on household income expenditure. Decisions on purchase of household necessities (like salt, sugar) and kitchen items were dominated by women. Purchase of household items like furniture and luxury things like radio were dominated by men. The findings of this study differ from those by Due and Anandajayasekeram (1982) in Tanzania and Phiri (1990) in Zambia, which reported that the decision of income expenditure was made jointly between spouses. However from the results, it seems apparent that some of the decisions were dominated by women while others were dominated by men. It is also a fact that some decisions in the study area were also jointly made by both husband and wife.

In general, the findings in Table 10 reveal that husbands made decisions in almost all major expenditure of income in most households, followed by decisions made jointly and then decisions made by the wives. However, the women who were involved in decision making said that particular major issues, husbands made the decision and women were simply informed later. This implies that compared to men, women spent a lot of their time in income generating activities like non-farm and farm, but they do not make final decisions on the income earned. It is worth noting that although there was no man recorded to be involved in activities like mats making, hair dressing, selling cooked food etc, men however controlled and made decisions on expenditure of income earned from such activities that were mostly women dominated. This seems to be a bit unfair to women who earn income from such activities.

Table 10: Decision Making on Household Income Expenditure by Gender

Variables	Frequency	Percent
Who decide on household major expenditure of income like;		
Paying children's school fees		
Mainly husband	112	29.2
Mainly wife	22	5.7
Both	139	36.2
Total	**384**	**100.0**
Buying food		
Mainly husband	168	43.8
Mainly wife	34	8.9
Both	182	47.4
Total	**384**	**100.0**
Paying health services		
Mainly husband	196	51.0
Mainly wife	31	8.1
Both	157	40.9
Total	**384**	**100.0**
Buying livestock's		
Mainly husband	192	50.0
Mainly wife	23	6.0
Both	169	44.0
Total	**384**	**100.0**
Buying kitchen items		
Mainly husband	61	15.5
Mainly wife	176	45.8
Both	147	38.3
Total	**384**	**100.0**
Household items		
Mainly husband	121	31.5
Mainly wife	40	10.4
Both	223	58.1
Total	**384**	**100.0**

Source: Survey data 2011

4.6 Cross Tabulations and Logistic Models

4.6.1 Cross Tabulations

The variables such as, age of respondent, marital status, age at marriage, type of union, level of education, occupation, economic activities, and income are considered to be factors that affect participation or non participation of women in decision making on household income and expenditure. Each of these variables was cross tabulated with participation variables (Participation in decision making and decision on major household expenditure).

4.6.2 Relationship between Participation and Age Structure of the Respondent

The findings in Table 11 show that 21.9% of women within age group 15 - 25 years participated in decision making while 26.8% did not participate, 41.9 of the women in the age group 26 - 35 years participated in decision making while 37.5% of them did not participate in decision making, 23.8% of the women in the age group 36 - 45 participated in decision making while 17.4% did not participate, and finally 12.5% of the women in the age group of 46 and above years participated in decision making while 18.3% of them did not participate. However the association of age and participation in decision making is not significant (p-value=0.157)

The findings on the relation between age at marriage and participation show that 42.5% of women married at the age between 10 and 17 years were participated in decision making while 42% did not participate. 46.2% of the women married at the age of between 18 and 25 years, participated on decision making while 50.0% of them they were not participating. It was also shown that 11.2% of the respondent who married at the age of 26 years and above participated in decision making while 8.0% did not participate (see also Table 11)

Overall, results in Table 11 point to the fact that the age and age at marriage of the respondents had insignificant association with participation on decision making since both p-value are greater than 5%.

Table 11: Relationship between Participation in Decision Making and Age Structure

Variables	Participation		P-value	χ^2-value
	Yes	No		
Age of respondent				
15-25	35(21.9)	60(26.8)		
26-35	67(41.9)	84(37.5)	**0.157**	**5.214**
36-45	38(23.8)	39(17.4)		
46 and above	20(12.5)	41(18.3)		
Total	**160(100)**	**224(100)**		
Age at married				
10-17	68(42.5)	94(42.0)		
18-25	74(46.2)	112(50.0)	**0.521**	**1.306**
26 and above	18(11.2)	18(8.0)		
Total	**160(100)**	**224(160)**		

Source: Survey data 2011

4.6.3 Relationship between Participation and Level of Education

Women participation in decision making in household matters in relation to education was also investigated. The results summarized in Table 12 below show that while 37.5% of women with no formal education participated in decision making 60.7% do not participate. The result also show that 38.8% of the respondents with primary education participated in decision making while 27.2% of them did not participate. It was also found that 23.8%of the respondents with secondary education participated in decision making while 12.1% of them did not participate.

The relationship between level of education and participation in decision making was statistically significant at the 5% level of significance (p-value=0.000).

Table 12: Relationship between Participation and Level of Education

Variables	**Participation**		**P-value**	χ^2 **-value**
	Yes	**No**		
Level of education				
No formal education	60(37.5)	136(60.7)		
Primary education	62(38.8)	61(27.2)	**0.000**	**21.263**
Secondary education	38(23.8)	27(12.1)		
Total	**160 (100)**	**224(100)**		

Source: Survey data 2011

4.6.4 Relationship between Participation and Marital Status

The relationship between marital status in relation with participation in decision making was also investigated. Marital status was here defied as either earlier or recently married (with five years). Table 13 shows that 31.9% of the women who had married within the period of five years, participated in decision making while 28.1% of them did not participate. Also the study shows that 68.1% of those who had married within a period above five years participated in decision making while 71.9% did not participate.

The variable in this particular study was statistically insignificant since the p-value is greater than 5%. This implies that the length of marriage, however, has no impact on participation in decision making. This result questions the layman's view that couples who have lived together for a longer become more similar in their behavior. A couple's joint decision is typically closer to the husband's individual decision, which has already been as documented by De Palma et al., (2006).

Table 13 also shows the type of union and how it relates to participation in decision making where all women in a polygamous family were interviewed. The results show that 11.2% of the partners in a polygamous marriage where there are more than two partners participated in decision making while 23.2% did not participate. The study also shows 88.8% in the households with two partners (monogamy), couples participate in

decision making while 76.8% did not participate. The variable in this study was statistically significant at 5% level of significance.

Table 13: Relationship between Participation and Marital Status

Variables	Participation		P-value	χ^2 -value
	Yes	No		
Marital status				
Earlier married	109(68.1)	161(71.9)	**0.428**	**0.629**
Recently married	51(31.9)	63(28.1)		
Total	**160 (100)**	**224(100)**		
Type of union				
Monogamy	142(88.8)	172(76.8)	**0.003**	**8.963**
Polygamy	18(11.2)	52(23.2)		
Total	**160 (100)**	**224(100)**		

Source: Survey data 2011

4.6.5 Relationship between Participation and Occupation

Results summarized in Table 14 below show that 40.0% of women who were working participated in decision making while 48.7% did not participate. Similarly, 60.0% of the women who are not working participated in decision making while 51.3% of them did not participate.

The study also wanted to establish whether the economic activity carried out by married women had any impact on participation in decision making. Table 14 shows that, 49.4% of women who engaged themselves in non farming activities participated in decision making while 45.9% of them did not participate. Likewise 28.8% of the group of women who were engaged in farming activities participated in decision making while 42.4% of them reported that they did not participate. It was also observed that 21.9% of the respondents who are full time house wives participated in decision making compared to 12.1% who did not participate. These variables were statistically significant at the 5% level of significance.

Table 14: Relationship between Participation and Economic activity

Variable	Participation		P-value	χ^2-value
	Yes	No		
Occupation				
Working	64 (40.0)	109 (48.7)	**0.057**	**2.828**
Not working	96 (60.0	115 (51.3)		
Total	**160 (100)**	**224 (100)**		
Economic activity				
Non-farm activity	79 (49.4)	102 (45.5)		
Farming activity	46 (28.8)	95 (42.4)	**0.005**	**10.611**
None	35 (21.9)	27 (12.1)		
Total	**160 (100)**	**224 (100)**		

Source: Survey data 2011

4.6.6 Relationship between Participation in Decision Making and Daily Average Income

The findings in the Table 15 below show that 41.2% of the women with average daily income which was Tanzania shillings 4001/= and above participated in decision making

compared to 22.5%, 12.5%, 16.2% and 7.5 % of the women with average daily income of Tanzania shillings 500-1000,1001-2000, 2001-3000 and 3001-4000 respectively. This shows that the higher the income of the woman the higher the probability of participating in decision making.

Moreover, 18.3% of the women with an average daily income of Tanzania shillings 4001 and above reported that they did not participate in decision making compared to 30.4%, 11.2%, 33.5% and 6.7% of women with an average daily income of Tanzania shillings 500-1000, 1001-2000, 2001-3000 and 3001-4000 respectively. This shows that the women with small income were less likely to participate in decision making compared to those with higher income. The association between women's income and participation in decision making was statistically significant at the 5% level of significance.

Table 15: Relationship between Participation in Decision Making and Daily Average Income.

Variable	Participation		P-value	χ^2-value
	Yes	No		
Average daily income				
500-100	36(22.5)	68(30.4)		
1001-2000	20(12.5)	25(11.2)		
2001-3000	26(16.2)	75(33.5)	**0.000**	**30.530**
3001-4000	12(7.5)	15(6.7)		
4001 and above	66(41.2)	41(18.3)		
Total	**160 (100)**	**224(100)**		

Source: Survey data 2011

4.6.7 Conclusion on Cross Tabulations

Some variables that are associated with decision making on household matters, namely level of education and average daily income were highly significant at 1% level of significance. Type of union and economic activity were also significant at the usual 5% level of significance but occupation was significant at the 10% level of significance.

4.6.8 Logistic Regression Analysis

In this section the interest is on modeling the predictor for participation of women in decision making in household income and expenditure. Results from this study show that only variables which were found to be significant by the chi-square test at 5% and

10% level of significant were retained for further analysis to see how much they contribute to the dependent variable. A logistic regression was used to model this relationship. The final logistic model includes only variables having significant coefficients.

4.6.8.1 Definitions of Variables

The dependent variables in this study were participation of women in decision making and who decides on household major expenditure of income. The first dependent variable which was "participation of women in decision making for the married women in the household" was given two options (**Yes** and **No**). The second dependent variable which was "who decides on major household expenditure" was given the options **mainly husband, mainly wife and both husband** and **wife.** The respondent was required to select one of the three options, mainly husband if the husband was the one who decides, mainly wife if the wife was the one who decides, or both if the husband and wife make the decision together/jointly on major household expenditure of income.

Dependent Variable (for binary logistic model)

Do you normally participate in major household decision? **(pmhd).** Thus binary variable was created taking values:

1 if woman participates in major household decision

0 if she does not participate

Dependent Variable (for Multinomial Logistic model)

Who decides on household major expenditure of income? **(expend)**

Mainly wife =1 if woman decides on major household expenditure and 0 otherwise.

Mainly husband =1 if husband decides on major household expenditure and 0 otherwise.

Both =1 if the decision made by both husband and wife and zero otherwise.

Explanatory Variables

Type of union **(tofu)**

0 if Monogamy

1 if Polygamy

Level of education **(education)**

0 if No formal education

1 if Primary education

2 if Secondary education

What is your occupation? **(occup)**

0 if Not working

1 if Working

What is your main economic activity? **(ecoact)**

1 if non farm activity

2 if farm activity

3 if None (depends on the husband activity)

What is your average daily income? (income)

1 if T shs 4000 and less

2 if above T shs 4000.

A categorical dichotomous outcome (Table 16)

Table 16: Frequency Distribution of Participation of Women in decision making

Variables	Frequency	Percentage
Do you normally participate in major household's decision?		
Yes	160	41.7
No	224	58.3
Total	**384**	**100**

Source: Survey data 2011

Based on this criterion, binary logistic regression analysis was default the appropriate method. All 384 cases were included in the analysis; no cases were omitted from the analysis because of missing data problems. The dependent variable outcome was 1 if the respondent participates in decision making and 0 if does not participate.

The results are presented in Table 17 below. The **Wald** estimate gives the importance of the contribution of each explanatory variable in the model, the higher the value the more important it is. Table 17 shows that in respect to average daily income, level of education and type of union were found to be important factors (statistically significant) in the contribution to participation on decision making in the household, with p-value of 0.009, 0.008, and 0.007, respectively at significant level of 0.05 or 5%. For the

remaining variables, occupation was significant at 10% level of significant and economic activity was not found to have a significant contribution at reasonable levels of statistical significance.

The study was also considered with the variable which in many studies was reported as a key variable (age and age gap). It appears to be very significant in many studies, but was not significant in this study. This can be either because of an error in collecting the data or that respondents were not free to talk/discuss about it as respondents normally consider age as a confidential or sensitive issue.

Theoretically the logistic regression model relates the log odds to predictor variables. Therefore for categorical predictor variables the column denoted by **Exp(B)** gives the odds ratios with the reference category for the particular variable which is given by 1, thus for education level, the reference group is those with no formal education, for occupation group it is those who are not working, for type of union group, monogamy was considered as the reference and for income of the respondent, the group that earned less than Tanzania shillings 4000/= per day was used as a reference.

4.6.8.2 Estimates of Binary Logistic Model

The results in Table 17 indicate that women with primary education were $24\left(=\frac{1}{0.419}\right)$ times less likely to participate in decision making compared to those with the group without formal education (p=0.008 and CI=0.219-0.800). Also it was observed that women with secondary education are $1.4\left(=\frac{1}{0.70}\right)$ times less likely to participate in decision making compared to women with had no formal education (p=0.680 and CI=0.450-1.682). This means that women with no formal education and those with secondary education are similar in participation in decision making

It was expected that as education level increases, the participation in decision making would also increases. However, a different trend has been observed in this study regarding the relationship between the education levels and the participation of women in decision making. Primary and secondary education affects the participation of women in decision making negatively. This implies increasing the women's level of education reduces her participation in decision making. It is believed that once women have been educated they are not ready to make reconciliation. This might mean that wives with no formal education are mostly house wives therefore involved more in day to day household decisions.

The results in Table 17 show that occupation status of the respondent affects participation in decision making. For example women who are working were1.521 times more likely to participate in decision making compared to women who were not working (p=0.067 and CI=0.972-2.382). This could be because a working woman could contribute income in the household, so with her husband they can decide what can be done from what is earned. But not that the confidence interval include, therefore statistically speaking no difference between who work and who do not work.

It has also been observed in Table 17 that the women living in polygamous families were 2.345 times more likely to participate in decision making compared to those living in monogamous families (p=0.007 and CI=1.266-4.343). The results of this study indicate that the absence of a permanent male member in the household increases the possibility of women to participate in decision making.

The economic status of the household is another factor indicating the need for additional economic resources in the household. Women engaged on farm activity and those not engaged in any activity were 1.15 $\left(=\frac{1}{0.868}\right)$ and 1.366 $\left(=\frac{1}{0.732}\right)$ times less likely to participate, respectively, in decision making. ((p=0.657 and 0.364) and CI=0.464 -1.624 and 0.373 and 1.436) respectively) compared to women engaged in non farm activity. However, the variable was not statistically significant.

It was expected in this study that the women with high income would be more likely to participate in decision making than those with low income. However, the results contradict with this expectation and show that women with income above 4000 T shs average daily income were $2.164\left(=\frac{1}{0.462}\right)$ times less likely to participate in decision making compared to women who earned an average daily income of 4000 T shs and below(p=0.009 and CI=0.256-0.823). This could be explained by the fact that women with high income can decide on how to spend their money without consulting their husbands.

Table 17: Estimation of Binary Logistic Regression Model

	B	Exp(B)	Wald	95%C.I(B)		P-Value
				Lower	Upper	
Education level						
No formal education		1				
Primary education	-0.870	0.419	6.954	0.219	0.800	**0.008**
Secondary education	-0.139	0.70	0.170	0.450	1.682	0.680
Occupation						
Not working		1				
Working	0.420	1.521	3.364	0.972	2.382	**0.067**
Type of union						
Monogamy		1				
Polygamy	0.852	2.345	7.350	1.266	4.343	**0.007**
Economic activity						
Non farm activity		1				
Farming activity	-0.142	0.868	0.197	0.464	1.624	0.657
None	-0.312	0.732	0.823	0.373	1.436	0.364
Average daily income						
Less than 4000 T shs		1				
Above 4000 T shs	-0.773	0.462	6.857	0.259	0.823	**0.009**
Constant	-0.762					

Source: Survey data 2011

4.6.8.3 A prediction Model

The interest here was to use the logistic model to predict the outcome for any new observation. An assessment on how good the model is for prediction is given in Table 18 below:

Table 18: Model Discrimination

Classification table (a)

Observed		**Predicted**		
		Participation		% correct
		No	**Yes**	
Participation	**No**	175	49	78.1
	Yes	86	74	46.2
Overall percentage				**64.8**

Source: Survey data 2011

The classification table shows that this rule allows us to correctly classify $46.2\% = \frac{74}{160}$ of the subject where the predicted event (Participation) was observed. This is known as sensitivity of prediction, P (correct/event did occur), that is percentage of occurrences correctly predicted. Also we see that this rule allows us to correctly classify $78.1\% = \frac{175}{224}$ where the predicted event was not observed. This is known as the specificity of prediction, p (correct/event did not occur) that is percentage of non

occurrences correctly predicted. Overall our predictions were correct 249 out of 384 times for an overall success rate of 64.8%.

4.6.8.4 Estimate of Multinomial Logistic Regression Model

The multinomial Logistic regression model was estimated with the odds ratio estimation procedure on a set of explanatory variables such as type of union, education, occupation, economic activity and average daily income as the main causal factors behind women making their own decisions about major household expenditure.

Table 19 presents the estimates of the model in which four sets of numbers are reported which are coefficients, p-value, odds ratio and 95% C.I. The coefficient indicates the change in probability due to one-unit change in a given independent variable after holding all the remaining variables as constant at their mean. Husband is the reference category with which the estimated coefficients are to be compared.

The results in the Table 19 indicate that, the wives with average daily income 4000 T shs and below were 6.02 $\left(=\frac{1}{0.160}\right)$ times less likely to make a decision on major household expenditure on their own compared with wives who earned an average daily income of more than 4000 T shs. (p=0.000 and CI=0.064-0.430)

Also, the results indicate that, the wives with average daily income 4000 T shs and below were 2.82 $\left(=\frac{1}{0.354}\right)$ times less likely to make decision on major household expenditure with their husbands compared with women who earned an average daily income of more than 4000 T shs (p=0.002 and CI=0.186-0.675)

Table 19 shows that, the average daily income has a negative and significant effect on wives' decision in both cases either when they decide themselves or with their husbands. This implies that as the income of a wife goes below T shs 4000, the probability of a husband and wives to decide on major household expenditure jointly decreases compared to the probability of mainly husband decision on household expenditure.

Also, results from the study indicate that as income falls below T shs 4000, the probability of a mainly wives to decide on major household expenditure also is reduced compared to the probability of mainly husband to decide. One explanation for this is that income below T shs 4000 is low and may indicate that only one person (husband) is contributing to it. A household with only one breadwinner will therefore suggest that there is only one decision maker.

In order to understand the position of a wife in decision making on household major expenditure of income the type of union (monogamy and polygamy) was included in the regression. From the estimation results in Table 19, it is observed that the household

with one wife (monogamous), the wife was 2.147 times more likely to decide with their husband on household major expenditure of income compared to households with more than two partners (polygamy) (p=0.015 and CI=1.157-3.985).

Similarly, the results indicate that for monogamous unions, husbands and wives are more likely to jointly decide on household major expenditure compared to mainly husband deciding on household expenditure.

Table 19 shows that the wives who were not working were $2.31\left(=\frac{1}{0.433}\right)$ times less likely to make a decision themselves on major household expenditure compared to those who are working (p=0.048 and CI=0.189-0.992).

However, the results in Table19 indicate that, for wives who are not working, husband and wife were 1.695 times more likely to jointly decide on major household expenditure compared to decision made by mainly husband (p=0.025 and CI=1.069-2.690). One explanation of this could be that the decision for the woman to have no occupation could be a voluntary decision which has involved both the husband and wife such that both also participate in other household decision making.

Education plays an important role in women's decision on household major expenditure of income. Education qualifications enhance prospects of an individual and also for

wives. The study shows that the wives with no formal education and those with primary education were 5.197 and 5.139 respectively, more likely to decide on household major expenditure of income compared to wives with secondary education. (p=0.030 and 0.033 and CI=1.171-23.23.068 and 1.144 and 23.081).

However, the study indicates that, as the education level increases, the probability of wife to decide on major household expenditure decreases compared to the probability of mainly husband to decide. One explanation of this is that because most of women (51%) interviewed reported that they had no formal education but had received some form of informal education, then the participation in decision making was not based on the amount of formal education one had acquired. Participation in decision making could also have been acquired by observing their friends/neighbours who participated and not necessarily from having formal education.

Economic activity was another variable studied. Table 19 reveals that wives who are engaged on non-farming activity were 1.863 more likely to decide themselves on household major expenditure of income compared to wives depends on their husband's activity (p=0.362 and CI=0.489-7.089). Also the results show that wives who are engaged on farming activity were 1.047 more likely to decide themselves on household major expenditure of income compared to wives who depend on their husband's activity (p=0.950 and CI=0.248-4.423).

The wives who are engaged on non farm activity were 1.087 $\left(=\frac{1}{0.920}\right)$ times less likely to decide jointly with their husband on major household expenditure compared to wives who depend on husband's activity (p=0.797 and CI=0.485-1.742). Also, results show that, wives who engaged themselves on farming activity were 1.0493 $\left(=\frac{1}{0.953}\right)$ times less likely to decide with their husbands on major household expenditure compared to those who depended on their husband activity (p=0.891 and CI=0.482-1.884). The negative sign of the coefficients indicates that an economic activity that is carried out by the wife, in the case where the decision is made by both husband and wife, gives less opportunity to the wife to decide on major household expenditure compared to the opportunity when decision is made by mainly husband. However, there is no statistically significant difference between women decision making on major household expenditure and their economic activities.

Table19: Estimation of Multinomial Logistic Regression Model

Who decide on household major expenditure of income?[a]		B	Wald	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
						Lower Bound	Upper Bound
Both (husband and wife)	Intercept	-.169	.134	.715			
	[Income=0]	-1.037	9.973	**.002**	.354	.186	.675
	[Income=1]	0[b]	.	.	.	.	.
	[Ecoact=1]	-.084	.066	.797	.920	.485	1.742
	[Ecoact=2]	-.048	.019	.891	.953	.482	1.884
	[Ecoact=3]	0[b]	.	.	.	.	.
	[Education=0]	-.563	1.957	.162	.569	.258	1.254
	[Education=1]	-.294	.546	.460	1.342	.615	2.929
	[Education=2]	0[b]	.	.	.	.	.
	[tofu=0]	.764	5.860	**.015**	2.147	1.157	3.985
	[tofu=1]	0[b]	.	.	.	.	.
	[occp=0]	-.528	5.025	**.025**	1.695	1.069	2.690
	[occp=1]	0[b]	.	.	.	.	.
Mainly wife	Intercept	-1.732	3.657	.056			
	[Income=0]	-1.794	13.670	**.000**	.166	.064	.430
	[Income=1]	0[b]	.	.	.	.	.
	[Ecoact=1]	.622	.832	.362	1.863	.489	7.089
	[Ecoact=2]	.046	.004	.950	1.047	.248	4.423
	[Ecoact=3]	0[b]	.	.	.	.	.
	[Education=0]	-1.648	4.697	**.030**	5.197	1.171	23.068
	[Education=1]	-1.637	4.561	**.033**	5.139	1.144	23.081
	[Education=2]	0[b]	.	.	.	.	.
	[tofu=0]	-.335	.515	.473	.715	.286	1.786
	[tofu=1]	0[b]	.	.	.	.	.
	[occp=0]	-.838	3.919	**.048**	.433	.189	.992
	[occp=1]	0[b]	.	.	.	.	.

a. The reference category is: Mainly husband.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This Chapter presents the summary of major findings, conclusions and recommendations towards the necessary intervention and the way forward for further research projects. Finally, the research points out some areas for further study.

5.1 Summary

This study examined the factors that affect rural women's participation in decision making on household income and expenditure. The study developed a the functional relationship between participation in decision making and who decides on major household expenditure as dependent variables and level of education, type of marital union, economic activity, average daily income and occupation as independent variables. The statistical methods used to archive this goal are binary logistic regression and multinomial logistic regression models.

The study had four specific objectives, notably (i) to identify major households' income sources in the study area, (ii) to identify major households' expenditure in the study area, (iii) to examine the level of participation of women on households' decision

making, (iv) to determine the factors affecting women's decision-making on household income and expenditure in the study area.

The study was done because no similar study has been done with respect to problem dealt with in this study. The findings are of great value and importance in that they contribute to knowledge in the field of statistics and society as a whole, and indeed, should result in improving women empowerment and facilitating poverty alleviation at household level.

Various studies were reviewed to identify household related factors that lead to the women's participation in the decision making in the household as well as who decide on major household expenditure of income. Those studies focus on factors which are educational, socio-economic, cultural, and the like. Specifically, the factors include, age of respondent, marital status, type of marital union, age of spouse, age at marriage, income generating activities, major household expenditure and average daily income.

A total of 384 married women from Fulwe and Lubungo villages in Morogoro Rural were sampled. These villages dictated the kind of data that were collected with regard to the factors affecting participation of rural women in decision making. The data were collected through questionnaires and analyzed by statistical tests and logistic models. The main instrument used in data collection included questionnaires.

In the study area various sources of income were identified. Among respondents, about 27.3%, which is the highest proportion, were engaged in petty business as their main

source of household income. Only 19.8% of respondents depended on their husbands for the household incomes.

Major expenditure items in the study area included buying food, paying children's school fees, buying livestock, paying health services and buying household facilities. Among them food items consisted of the highest proportion of the household expenditure (51.3%), while the lowest expenditure was allocated to buying household facilities.

The study revealed various factors that determine women's decision making in household major income and expenditure in rural areas. Three main factors were found to be very pertinent in hindering participation of women in households' decision on income and expenditure items in the study area. These factors are restriction from their husbands, cultural influence restriction and low income of women compared to men.

Other factors were provided through statistics and logistic analyses. In the study area, variables such as, marital status, age of respondent, age at marriage and age of spouse did not play any significant role in determining women's decision-making on household. In contrast, type of marital union, level of education, economic activity, employment status and income of respondents seem to have significant influence on women's participation in decision making in the household and determine who decides on major household expenditure items of income.

5.2 Conclusion

This study made an attempt to examine the factors that affect rural women's participation in decision making on household income and expenditure items. Factors like restriction from the husbands, cultural influence restriction and low income of women compared to men can explain why women did not participate in decision making. Many of these factors were suggested by the respondents themselves as the main causative factors. These factors indicate that still there is a long way ahead through educating both husbands and wives in order to mitigate the impact of participation of women in decision making. It has also been noted that the level of women's participation in the household decision on income and expenditure items is highly influenced by the type of income sources earned by women in the households. This suggested the more the women engage themselves in a direct income generating activities the more they get the chances to influence household decision on income and expenditure items.

5.3 Recommendations

Due to the major findings, this study recommends that:

- The Government should formulate a policy which would assist rural women to be empowered against husband restriction and cultural restriction.

- Since women's participation in household decision on income and expenditure items is low; and their participation is contingent upon the type of income sources, more women should be encouraged to engage themselves in self-help (direct) income generating activities.

- Greater emphasis should be given to support the increase of participation in decision making on household income and expenditure for rural women. This should be emphasized due to the fact that the majority of women are located in rural areas and it is in these areas that issues affecting women's participation are most critical.

- The analysis of the study has shown that while progress has been made to ensure that women are given equal space and voice in household decision-making in their respective countries, this has not been uniform across all countries and levels especially in rural areas. The study recommends provision of training opportunities for males and females as a way of discouraging socio-cultural factors influence discrimination against women.

- The study also recommends the creation of conducive rural environment which encourages diversification of farm income with non-farm income generating activities, in which rural women can participate.

5.4 Areas for further study

In the light of the discussion above the following areas are recommended for further research:

- The study was confined to Morogoro rural district. It could be better in the future to include urban settings so as generalize the results to the whole country.
- A comparative study should also be done to determine the extent of influence of the type of income sources among women on the household decisions.
- Since women's participation on income sources activities is instrumental towards household decision on income and expenditure, in the future the study should be carried out to examine factors that influence women's formations of small households' self help projects.

REFERENCES

Acharya, D., Bell, J., & Simkhada, P., van Teijlingen, E., Regmi, P. (2010), "Women's Autonomy in Household Decision-making", *Journal of Demographic Study*, Vol. 7, No 15. pp 7- 15

Angel-Urdinola, D.F. Semlali, A. and Brodmann, S. (2010). *Non-Public Provision of Active Labor Market Programs in Arab-Mediterranean Countries: An Inventory of Youth Programs*, Washington DC, The World Bank

Bardouille, R. (1981), "The Sexual Division of Labour in the Urban Informal Sector: The Case of Some Townships in Lusaka" in *African Social Research*, Lusaka, University of Zambia, pp. 29-54

Bernasek, A. and Weiler, S. (2002), "Dodging the Glass Ceiling? Networks and the New Wave of Women Entrepreneurs", *The Social Science Journal* Vol 38, pp 85-103

Chan, Y. H. (2004), "Biostatistics 202 Logistic Regression Analysis", *Singapore Med Journal,* Vol.45 pp 53-149

Cochran, W. G. (1977), *Sampling Techniques* 3rd Ed, New York, John Willey & Sons, Inc.

Damisa, M.A, Samndi, J. R, and Yohanna M. (2007b), "Role of Rural Women in Farm Management Decision Making Process: Ordered Probit Analysis", *World Journal of Agricultural Sciences*, IDOSI publication Vol. 3, No.4, pp543-544

Damisa, M.A, Samndi, J.R, and Yohanna, M. (2007a), "Women Participation in Agricultural Production: A Probit Analysis", *Journal of Applied Sciences*, IDOSI publication Vol. 7, No.3, pp 412-416

De Palma, A., Picard, N., Ziegelmeyer, A. (2006), *Individual and Couple Decision Behavior Under Risk: The Power of Ultimate Control,* Punjab, Agricultural University Ludhiana

DFID (2000), *Report on Poverty Elimination and the Empowerment of Women. Stairway Communications,* UK

Due, J.M. and Anandajayasekeram, P. (1982), Women and Productivity in Two Contrasting Farming Areas of Tanzania, *Canadian Journal of African Studied.* Vol 18 No. 3 pp 583-598

Ezemeanari, K., Chaudhury, N and Owens, J (2000), *Gender and Risk in the Design of Social Protection Interventions*, Washington D.C., World Bank Institute

FAO (1986), *Fact sheet: Women, Agriculture and Rural Development*, http://www.fao.org/sd/wpdirect/WPre0016.htm, retrieved on Wednesday, 22nd September, 2010

FAO (1994), *Fact sheet: Tanzania-Women Agriculture and Rural Development*, http://www.fao.org, retrieved on 22nd March, 2011

Friedberg, L. and Webb, A. (2006), "Determinants and Consequences of Bargaining Power in Households." Working Paper no. 12367, Cambridge, NBER

Greene, W. H. (1992), *Econometric Analyses*, New Jersey, Macmillan Publishing Company

Hart, G. (1992), *Household Production Reconsidered, Gender, Labor, Conflict and Technological Change in Malaysia's Muda Region*, Berkeley, University of California, pp 25-27

Hoel, D. G. (1983), "Conditional Two Sample Tests with Historical Controls in Contributions to Statistics", in Sen P.K (ed), *Essays in Honour of Norman L. Johnson*, Amsterdam, North Holland Publishing Company, pp 229-236

Hosegood, V. and Timaeus, I.M. (2006), "Household Composition and Dynamics in Kwa Zulu Natal, South Africa: Mirroring Social Reality in Longitudinal Data Collection, in E. Preston-Whyre E and Van de Walle, E (eds), *African Households: An Exploration of Census Data*, Indiana, Indiana University Press, pp 57 – 79

Howard, P. (2003), *Women and Plants, Gender Relations in Biodiversity Management and Conservation*, London, ZED Books

ILO (1984), Rural *Development and Women in Africa*, Geneva, ILO

ILO (1985), *Women in Economic Activity: A Global Statistical Survey 1950-2000*, Santo Domingo, Dominican Republic

ILO (1986), "Women Workers and Development." In women at work, no.2, Geneva, ILO

ILO (1993), *ABC of Women Workers Rights and Gender Equality*, Geneva, Switzerland.

Jakubson, G. (1992), "The Effect of Education on Female Labor Force Participation and Earnings in Ecuador", in Z. Tzannato (ed), *Women's Employment and Pay in Latin America: Country Case Studies*, Washington, DC, The World Bank

Kavishe, F. P. (1993), *The role of TFNC as a Major Nutrition Institute in Tanzania,* Dar es salaam, Tanzania Food Nutrition Centre

Lazaro, E. (1996), *Women in the Household Economy: The Case of Agricultural Plantations in Morogoro Region, Tanzania*, PhD Thesis, Sokoine University of Agriculture

Lyimo-Macha, J. and Mdoe, N. (2002), "Gender and Rural Poverty in Tanzania: Case of Selected Villages in Morogoro Rural and Kilosa Districts". LADDER Working Paper No.18

Manser, M. and Brown, M. (1980). "Marriage and Household Decision Making: A Bargaining Analysis", *International Economics Review*, Vol 21, pp 31-34

Mbilinyi, M. (1997), "Women Workers and Self-Employed in the Rural Sector" Paper prepared for ILO Workshop on Women's Employment Promotion in the Context of Structural Adjustment Programme in July 1997, Dar es salaam, Tanzania

McElroy, M. B. and Homey, M. J. (1981). "Nash-bargained Household Decisions: Toward a Generalization of the Theory of Demand", *International Economic Review*, Vol 22, No 2, pp 333-49

Morgan. R. (2000), "Regional overview", in Kethusegile, M. B. et, al (eds), *Beyond Inequalities*, Harare

Moser, C.O. (1993), *Gender Planning and Development: Theory, Practice, and Training*, London, Routledge

Mwanyika, D. (1993), *Economic Analysis of the Role of Women in the Traditional Farming Systems in Mbozi District*, Tanzania, MSc Dissertation, Sokoine University of Agriculture

Naqvi et al., (2002), "How Do Women Decide to Work in Pakistan?" *The Pakistan Development Review Part II*, Vol 41, No 4, pp 495-513

Phiri, E. (1990), "Women in Agricultural Extension; Problems and Prospects: Zambia Case Study", Paper Presented at the Regional Course on Administration and Management of Agricultural Extension Services, Morogoro, Tanzania

Pinstrup-Anderson and Pardya-Lorch (1998), "Achieving the 2020 Vision with Special References to Gender Issues", Paper presented for the ACC/SCN 25th session and symposium on challengers for the 21st century: A Gender Perspective on Nutrition through the Life Cycle Oslo, Norway.

Pollack, M. and Hafner-Burton, E. (2000), "Mainstreaming Gender in the European Union", *The Journal of European Public Policy,* Vol. 7, No.1 pp 114-138

Rweyemamu, D. (2003), "Reforms in the Agricultural Sector: The Tanzanian Experience", Research Report Submitted to GDN Under the "Global Development Award Competition" Theme – Agricultural Reforms and Rural Development in LICs, Dar es salaam, Economic and Social Research Foundation

Sebstad, J. and Cohen, M. (2000), *Microfinance, Risk Management, and Poverty,* Washington, D.C., Management Systems International

Sidhu, K and Kaur, S. (2006), *Development of Enterpreurship among Rural Women,* Punjab, Punjab Agricultural University

UN (2005), *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals,* New York, United Nations

UN (2008), *Rural Women in a Changing World: Opportunities and Challenges*, New York, United Nations.

UNICEF (2006), *The State of World's Children 2007 Women and Children: The Double Dividend of Gender Equality*, New York, UNICEF.

UNSD (1992), United Nations Conference on Environment and Development" , Rio De Janeiro, Brazil, 3 to 14th June 1992, Agenda 21.

URT (1999), *Development Vision 2025*, http://www.tanzania.go.tz retrieved on 5th October, 2010.

URT (2001), "Rural Development Strategy: Main Report Final", Prime Minister's office, Dar es Salaam.

URT (2006), "Tanzania Census 2002: Analytical Report Volume X", National Bureau of Statistics Ministry of Planning Economy and Empowerment, Dar es Salaam.

www.idrc.org.sg, retrieved on 25th October, 2010.

www.idrc.org.sg, retrieved on 8th November, 2010.

www.tanzania.go.tz/gender.html, retrieved on 27th October, 2010.

APPENDIX: QUESTIONNAIRE FOR SURVEY

The purpose of this questionnaire is to collect your views concerning the Participation of married women in decision making on income and expenditure matters in huoseholds in Morogoro Rural District, Morogoro.

I request your cooperation for filling this questionnaire/ agreeing to be interviewed and I assure you that the information will be treated with strict confidence.

Village.....

SECTION ONE: SOCIAL ECONOMIC CHARACTERISTICS OF RESPONDENT

1.1. Age of respondent: .....years

1.2. Age of the spouse.....years

1.3. Marital status

1) Currently married [ ]

2) Previously married [ ]

1.4. Age at marriage

1) Less than 15 years [ ]

2) 15-20 years [ ]

3) 20 and above [ ]

1.5. Type of union

1) Monogamy [ ] 2) Polygamy [ ]

1.6. Level of education (Tick appropriate answer)

1) No formal education [ ]
2) Adult education [ ]
3) Primary education [ ]
4) Secondary education [ ]
5) Tertiary (but not university) [ ]
6) University [ ]

1.7 What is your occupation? (Tick the appropriate answer)

1) Employed [ ]
2) Self employed [ ]
3) Full time housewife [ ]

SECTION TWO: INCOME SOURCES AND MAJOR EXPENDITURE ITEMS

2.1. What is your main economic activity?

1) Livestock production [ ]
2) Selling cooked food [ ]
3) Beer brewing [ ]
4) Husband's activities [ ]
5) Cash crops [ ]

2.2 What is your average daily income from that activity?

1) 500 -1000 Tshs [ ]

2) 1001-2000 Tshs [ ]

3) 2001-3000 Tshs [ ]

4) 3001-4000 Tshs [ ]

5) 4001+ Tshs [ ]

2.3 Is your earnings enough for your household's daily expenditure?

1) Yes [ ]

2) No [ ]

2.4 If not, what are the other sources of income?

1).....

2).....

3).....

2.6 What are the major expenditure items of the income you earned?

1) Paying children's school fees [ ]

2) Paying health services [ ]

3) Buying livestock [ ]

4) Buying household facility [ ]

5) Buying food [ ]

SECTION THREE: RURAL WOMEN'S DECISION-MAKING ON HOUSEHOLD'S INCOME AND EXPENDITURE

3.1 Are you always informed major expenditure is made?

1) Yes [ ]

2) No [ ]

3.2. On household major expenditure of income who decides on:

	Mainly husband	Mainly wife	Both
Buying household furniture?			
Buying kitchen items?			
Paying children's school fees?			
Paying health services?			
Buying food?			
Buying livestock?			

SECTION FOUR: FACTORS THAT DETERMINE WOMEN DECISION-MAKING ON

HOUSEHOLDS' INCOME AND EXPENDITURE

4.1 In your personal view, to what extent should women participate in family decisions?

1. More than now [ ]
2. Less than now [ ]
3. As much as men [ ]
4. Less than men [ ]
5. Should not participate at all [ ]

4.2 Do you normally participate in major household decisions?

1) Yes [ ]

2) No [ ]

If no, say why?

.....

.....

.....

.....

4.3 What should be done to enable women to participate fully in decision-making on household income and expenditure?

1) .....

2) .....

3).....