

**The Magnitude of Poverty among Female Headed
Households in Yathui and Central Division, Machakos
District**

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C50/7738/03

**A thesis submitted in partial fulfillment of the requirement for
the award of a Master of Arts (MA) Degree of the University of
Nairobi**

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DECLARATION

This thesis is my original work and it has not been presented for award of a degree in any other University.

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DEDICATION

This thesis is dedicated to my son Emmanuel Musa whose presence in my life motivates me to work hard and my lovely parents who inculcated a sense of hard work, obedience, dedication and love for God.

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ABBREVIATIONS

AIDS	-	Acquired Immune Deficiency Syndrome
CSHO	-	Citizen Self Help Organisation
FAO	-	Food and Agricultural Organization
FGD	-	Focused Group Discussion
FHH	-	Female Headed Household
HIV	-	Human Immunodeficiency Virus
GDP	-	Gross Domestic Product
GNP	-	Gross National Product
GoK	-	Government of Kenya
ILO	-	International Labour Organisation
KEPI	-	Kenya Expanded Programme on Immunization
PRSP	-	Poverty Reduction Strategy Paper
UNICEF	-	United Nation Children's Fund
UNDP	-	United Nation Development Programme.
USAID	-	United States Aid for International Development
US\$	-	United Sates Dollar
ILO	-	International labor Organization
SAPs	-	Structural Adjustment Programmes

ABSTRACT

The focus of the study was establishment of the magnitude of poverty among female headed households in Yathui and Central Divisions of Machakos District. The study objectives were to determine poverty indicators, the level of poverty and how female headed households cope with poverty and famine in Yathui and Central division, Machakos district.

The study was based on a sample of 80 female headed households and data was collected from five key informants, four focused group discussions, six case studies and secondary data. Stratified sampling was used to select the division of study namely; Yathui and Central divisions. On the other hand, systematic random sampling was used to select the units of observation.

The findings showed that there were variations in terms of age, level of education and the number of dependants in a household. The study established that over 91% of the female heads earned less than one US dollar a day, meaning that the majority of the female heads experienced absolute poverty. Famine episodes were also high and over 80% had at one time gone without food.

Based on the study findings, the researcher recommends that an effort should be made to cushion the female household heads in Machakos district from the effects of recurrent famine and poverty. Focus should be on building innovative, commercially viable and modern crop and livestock sector through support to female household heads and boosting off-farm activities including social capital and social networks in the rural economy, irrigation infrastructure for crop and livestock farming should also be promoted.

CHAPTER ONE: INTRODUCTION

1.1 Background to the study

Since Kenya's independence in 1963, one of the problems that were cited as facing Kenya that needed to be tackled in the post independent era was poverty. However the problem has persistently recurred in the country and its magnitude has been increasing year after year (Mary, 1999).

The UNDP in the year 2005 indicates that poverty stems from death of a bread-winner, low literacy level and productivity, unemployment, lack of credit facilities, HIV and AIDS: macro causes such as impact of structural adjustment programs, poorly performing economies, corruption as well as population increase. In many rural contexts in Kenya, for instance, rather than cash savings and earnings, wealth is often reflected in animal holdings, the quality of agricultural implements, housing material, labor resources, access to land and ability of a household to produce food (UNDP, 1999).

The poor have fewer assets and are unable to accumulate either physical or human capital, thus may be excluded from their community's social capital. In addition, an estimated 2 million African children die in Africa before their first birthday owing to malnutrition. The scale of poverty in Africa is staggering and behind it lies an immense scale of individual tragedy and human suffering (World bank, 1990).

Poor economic performances of many African countries in the last two decades imply that these recent changes reflect a long running trend. In addition, economic stagnation has caused much poverty and worsening distribution has exacerbated the situation. Virtually all African economies have responded weakly to the economic possibilities offered by globalization (Howard, 2001).

Despite the importance of the agricultural sector in Kenya and in most Sub-Saharan African countries, (World Bank, 1981) report indicates that the performance of the sector has been progressively declining since 1970 and its gross domestic product has been dwindling. Statistics shows that during the period 1964-1974 the sector contributed 36.6% of the GDP and in 1974-79 it contributed 33.2% while in 2003 the sector contributed 25.3% of the GDP (Kenya National Bureau of Statistics, 2003).

Kenya on its part is confounded with a situation whereby the agricultural sector the backbone of its economy, has been registering declining performance over a long period of time. What is worrying is the fact that the situation is not getting better, instead it is worsening. Recent data that have been availed over the last decade validates the conclusions of the (World Bank, 1990) report and points to a continuation, perhaps acceleration of the same trend. In addition it is only 6% of agricultural parcels that irrigation farming is practiced.

The poor can ill afford the complimentary inputs to enhance productivity of the assets they have, be it fertilizers or new technology for farming and the ones with few assets are most vulnerable. In essence, this leads us to understand the nature of mechanism by which once people become poor, they fall into poverty trap (Howard, 2001).

The (World Bank, 1990) report shows deep poverty in amidst plenty. The world's 2.8 billion people live on less than 2 dollar a day and 1.2 billion live on less than 1 dollar a day. In relation to this, PRSP report of 2001 observes that poverty remains a pervasive national problem in Kenya.

(Odegi, 1994) notes that there are high incidences of hunger in relation with poverty in Kenya and hardly a day passes without one hearing talk of looming food crisis across the country and that there is always a famine situation unprecedented in the history in the country, threatening the survival of millions of people.

This problem is not unique to Kenya but it is widespread in Africa where the continent is notorious for its inability to feed its people, hence, it has to depend on the food-rich developed nations to feed the hungry in Africa, even in good harvest times. There is no denying that poor families in drought prone areas are likely to experience famine (Odegi, 1994).

(Food and Agriculture Organization, 2010) notes that 925 million people are undernourished, the number of hungry people has increased since 1995-1997 and nearly all of the undernourished are in the developing countries. In addition Food and Agriculture Organization, 1981) depicts the food situation in Africa as being abnormal. It puts the total cereals needs of the 26 worst stricken countries including Kenya at 6.5 million tones during the 1981-82 period, The Eastern Africa sub-region is significantly affected by inadequate rainfall exacerbated by massive deforestation as evidenced by the frequent shortage of food and starvation of its people which have attracted world attention frequently and in the recent past (Devereux, 2000).

(Oroda, 2001) observes that one of the main resultant consequences of draught has been the escalating famine. A preliminary assessment shows that those affected by draught include an estimated 3.5 million in Kenya, 1.75 million in Ethiopia, 1.4 million in Somalia and 60,000 in Djibouti (Mitchell, 2006).

(Mitchell, 2006) notes that the total failure of the November- December 2005 rains pushed some areas in the region from alert into emergency status. Stress signs include unusual movement of people over long distances and livestock around water sources characterized by livestock mortality and cases of malnutrition. Poor people in marginal areas of rainfall are more vulnerable to famine because they depend on high risk, low returns livelihoods systems.

The poor heavily relies on rain fed agriculture and their livelihoods are less resilient because they lack asset buffers against natural disasters and economic crises hence poverty at national and household level increases vulnerability to livelihood shocks such as famine (Devereux, 2000).

A household ability to recover from livelihood shocks such as famine depends on assets level as well as social networks such as community based -organizations or women groups that female headed households would have joined in the community to act as safety nets in times of food crises (Davies, 1996).

Poor rainfall pattern in Kenya have left many families living at a knife's edge and more so among female-headed households. For example in 2005, the rains failed completely leading to a rise in food prices beyond affordability of the poor while the value of prized livestock (a major source of income for pastoralists) plummeted. Food purchase is a growing component on household particularly among the poorer households such as those of female heads (Mitchell, 2006).

In assessing the origin of famine (Braun, 1998) notes that famine prone countries tended to have poorly performing economies and weak states while poverty is clearly a predisposing condition, he argues that there is a relationship between poverty and famine, which affect most of the developing countries.

In addition (Boserup, 1993) offers the contra Malthusian argument that low population densities in Africa increase vulnerability to famine by inhibiting investment in infrastructure and in agriculture technology, however famine is largely a function of institutional, organizational, policy failure, economic as well as political factors.

Livelihood based analysis of linkages between poverty and famine (Haddad and Gillespie, 2001) shows that poverty and vulnerability to famine is systematically

affecting all aspects of female heads rural livelihood. Vulnerability to famine outbreaks among female-headed households in rural areas cannot be understood if poverty is not factored into the analysis. Moreover poor households suffer marked reduction in agricultural production largely due to climatic shocks and lack of income generations hence the cumulative impact of poverty and vulnerability to famine among female-headed households are compounded (Kabeer, 1999).

(Gakuru 2002) notes that in traditional Africa, the African family was the center of a wide network of relatives who had strong social and reciprocal relationships, which were an expression of dominant social values of mutual and collective responsibility and assistance among members.

The family had vital control of its members since they were custodians of the heritage of the community, including the control of the means of livelihood and cultural identity. Arising from this structure the most hit by poverty and famine are women and children especially female-headed households. Children on the other hand are hopelessly compromised by insufficient nutrition.

Various arrangements are notable in the care and management of the traditional family (Ondiek, 2002) points out that in most traditional African societies, men are the heads of the households. The man's duty involves providing for the welfare of the family in all matters including welfare of children of all ages, and making decisions on access to and control of all means of production resources in any given household. (Ndengu, 1995), on the other hand, notes that in a polygamous family, each wife had her own house and land, as each house was considered as a separate economic unit.

(Kayongo & Onyango, 1984) notes other arrangements notable in the traditional African society especially among the Luo was where a brother could inherit the widow of a deceased brother in the spirit of protection, of the widow and her children. This hindered

development of female headship among the Luo women. At the family level, traditional work among the Kamba of Kitui involved mainly agricultural production, animal husbandry and routine house work at home which was basically the responsibility of women (Kalule, 1986).

(Mbula, 1984) states that in the Akamba traditional society, women practiced woman to woman marriage where a woman could marry another woman, (*iweto*) over whom and whose offspring's she had full control. In essence, such kinds of marriages yielded female-headed households where a woman controlled all the family resources.

In general, the direction of change has been the weakening if not total replacement of collective and communal values with individualistic ones whose active agents and forces include the school, church, mass media and place of work (Gakuru, 2002).

(Kayongo Male and Onyango, 1984), (Hay, 1976) and (Fisher, 1950) observes that there is changing social and economic roles among women. They note that more and more women could be seen doing men's work due to the out migration of men from the villages which are caused by wage employment. In situations where the migration involved a more permanent move from the villages to the town, men started forming new families in the urban centres. (Murray, 1981) notes that labor migration make the household unit very unstable.

(Kayongo Male and Onyango, 1984) further notes that the majority of these female headed households have male heads who are absent migrants, and because of the unreliability of cash remittances from their husbands, these women face more insecurity in their lives, and their children have higher risks of malnutrition. They further observe that even when the men did return home, their overall authority over division of labor seems to have weakened considerably because of the wife's experience in running the household independently.

Notable challenges for women include the low level of economic support they receive from their husbands. (Kongstad and Monsted, 1980) observes a strong relationship between the Kenyan wife's entrance into trading and the low level of economic support they receive from their husbands either because the husband is poor a supporter or once they enter trading the husband reduces his support to the family.

In all these changes, a new phenomenon, that of female-headed households is emerging in Kenya. Previously female headed households were only an urban phenomenon, but over they have emerged and they are increasing in numbers in rural areas as well (Ondiek, 2002).

1.2 Problem statement

(Kabeer, 1996) observes that over the previous four decades, the number of female headed households has increased worldwide. They are important and identifiable group in the rural areas. Female headed households have high dependency ratio and fewer assets and less access to resources including greater history of social and economic disruptions. Virtually, all female headed households are usually disadvantaged in the form of access to land, livestock, assets, credit facilities, education and healthcare. Their average age and low education level may limit their opportunities for escaping poverty (IFAD, 2000).

Much attention has been drawn to the feminization of poverty. The (UNDP, 1995) documents that more than 70% of the world's poor are women more importantly, (Lipton and Ravallion, 1995) reports that women work longer hours to attain the same level of welfare as men do. (Buvinic, 1997) suggests that women may be bearing more than their fair share of poverty in terms of health, nutrition and education; in addition poor female headed households invest less in health, nutrition and education.

The Kenya Economic Recovery Strategy Paper (ERS) of 2003 estimates that poverty levels among rural female-headed households were 54.1%. This shows that limited or

total lack of property rights and control by women increases their likelihood to experience poverty and are food insecure. Related to this is lack of collateral, lack of ownership and control over productive assets such as land.

(Kabeer, 1999) observes that vulnerability to famines among female-headed households in Sub-Saharan Africa is the consequence of long run neglect of women farming roles in the subcontinent where women perform 70% of labor in food production. In addition to this, in the Kenya's Poverty Reduction Strategy paper (PRSP) of 2001, it indicates that women provided most of the agricultural labor and they did not have control over or access to the benefits accrued from the sale of crops.

The Machakos District Development Plan of 2002 indicates that the domestic and social burden falls on women. This is most evident in times of famine when women constitute over 88% of those who queue for supplementary food supply. Even in the food for work programs where men would be expected to be more, the women constitute more than 78% of those working for food. Similarly, (UNICEF, 1982) notes that women in agricultural production have a greater role in assuring the food requirement of their dependants in situation of economic deterioration.

Most of the female labor goes undocumented and unpaid, even though it is vital to family survival and national economies and in most cultures women have fewer opportunities than men to develop their capabilities although most food is produced by women. Female headed households account for the majority of rural households and they lack ownership or effective control over land, water and other resources (Oxfam, 1995).

The Machakos development plan further notes that drought has become a common occurrence in Machakos forcing the residents to heavily rely on relief food to sustain its people. During the dry season, women especially female headed households are the most affected by increased burden of taking care of their families as men travel to urban

centers in search of casual employment.

The study aims at establishing the magnitude of poverty among female headed households and further understanding on them.

1.3 Research Questions

The research questions for this study were:

1. What are the poverty indicators among rural female-headed households?
2. What is the level of poverty among female-headed household?
3. How do female headed households cope with poverty and famine?

1.4 Broad objective

The broad objective of this study was to explore poverty among female headed households, in Yathui and Central divisions of Machakos District.

1.5 specific objectives

1. To determine poverty indicators among female headed households in Yathui and Central division, Machakos district, Kenya. .
2. To assess the level of poverty among female headed households in Yathui and Central division, Machakos district, Kenya
3. To determine how female-headed households cope with poverty and famine in Yathui and Central division, Machakos district, Kenya.

1.6 Scope and limitation of the study

This study focused specifically on married women who are heads of households, reside in the rural areas and have assumed the responsibility of providing for their households thus being viewed as defacto female households heads. The study excluded female heads

whose husbands were not members of the households then and female household head who were not in marriage (divorced, separated, and single by choice) de jure female household heads.

The scope of this study was limited to understanding poverty and famine among female-headed households in Yathui and Central divisions of Machakos district. This study conceptualized poverty by referring to the welfare indicators. This included economic indicators such as income levels, education, food security, as well as social indicators such as healthcare, availability of water and safety nets used by the female heads.

Outcome measures in this study included poverty indicators among female-headed households; the variables were the local terminologies of poverty by the female heads, assets owned by the female heads as well as the available community resources, level of education of the female heads and that of their children.

Level of poverty was determined in terms of absolute poverty in which female-headed households living on less than one US dollar a day were considered and relative poverty was items that other households had that the female-headed households did not have which made them to be considered poor in the community.

The study focused on seasonal stressors such as food insecurity influencing vulnerability to famine among female-headed households. The variables in the study included crop seasonality and dependency on relief food. Food intake included the following; types of food, number of meals in a day as well as amount spent on food. Using seasonality calendars, the study analyzed major events that had taken place in the community in the past five years (2001-2005).

The study also focused on how female-headed households coped with poverty. The variable in study included women groups joined by the female-headed households. The

study aimed at understanding the socio economic gains that the female household-heads got by being a member of the women self-help groups.

Some of the challenges faced while collecting data was that the female headed households were scattered in the community which forced the researcher to walk for long distances. Some households were very poor hence they expected the researcher to provide some food for them, a budget the researcher could not cater for. However the challenges did not have a significant effect on the quality of the study.

1.7 Significance of the study

This study was conducted in Machakos district of Kenya. The suitability of Machakos district was based on its perennial poverty and recurrent famines in addition to the researcher's familiarity with the socio-economic problems in the district (study area). This calls for a need to define and understand the socio-economic handicaps of the district towards development and self-reliance.

Machakos district suffers from frequent extreme and harsh weather events which exacerbate rural poverty with devastating impact on subsistence farmers among them being female headed households, these phenomena have had a cumulatively reduced household food availability, purchasing power and coping capacity impoverishing the rural population and more so female headed households in Machakos District (Duran 2000).

1.8 Definition of key terms

Female head - refers to a woman whose duty is to provide for the welfare of the family by assuming the responsibility of the household thus being viewed as defacto female head. The person in this case is the married woman residing in the rural areas of Machakos district. The study excluded female heads whose husbands were not members of the households then and female household who were not in marriage (divorced,

separated, widowed and single by choice) de jure female household head.

Defacto- refers to what is in practice but not ordained in the law, in the study it refers to married females who have assumed the responsibility of providing for their households.

Dejure- refers to existing female households, this includes divorced separated widowed and single, the study excluded female heads who were not in marriage.

Household - refers to a group of people who are bound by kinship ties and who stay together in the same homestead, under one roof or several roofs in a compound and have the same source of food.

Poverty - refers to the inability to meet basic needs. Some of the characteristics that were used as indicators of poverty include the following: Absolute poverty –refers to FHH whose daily budget when calculated live on less one US dollar a day. Relative Poverty – refer to items FHH do not have that other community members have that make them to be considered poor.

Assets owned by the female heads –refers to the tangible materials the women have such as cattle holdings, farm implements, land ownership and quality of agriculture implements.

Education –In this study Education of the children of the female heads is considered as a basic need. The number of children that the female head is educating both in primary, secondary or college level was considered. Any female head who was unable to raise school fees for her children was considered as poor.

Level of income –was calculated from the amount of money the rural women earns either from off-farm or on farm activities.

Women Groups - refers to the associations, Organizations or the women groups that the female head joins in the community. The following indicators were used to measure whether membership to a women's group reduces vulnerability to experience famine on the female heads.

Intervention –refers to any form of help or assistance from any relevant stakeholders or interested groups given to the female head.

Credit facilities –refers to any form of soft loan given to female head.

Type of food they eat – refers to maize, beans and cassava which are the local foods consumed in the area. The amount of money that is spent on food per day was calculated as well as the number of meals taken in a day.

Food availability – in this study food availability refers to existence of food to feed the household till the next season. The following indicators were used to measure food availability, famine outbreaks, relief food and food shortages.

Famine –refers to long periods without food in the area.

Relief food –refers to food given for free to sustain the female household.

Vulnerability- refers to the degree to which people are susceptible to famine.

CHAPTER TWO: LITERATURE REVIEW

2.1 Female household headship and poverty

Poverty has diversified itself into various categories within the society and it's recognized as a major threat to the survival of a very significant section of the Kenyan households. The Kenya Poverty Eradication Plan of 1999 cites that the poor tend to be classified as the landless, handicapped, female headed households, households headed by people without formal education, pastoralist, Aids orphans, streets children and beggars.

(UNDP, 2004) notes that poverty has multiple sphere and can be understood as a complex set of deprivations; it includes shortage of income and deprivations in other aspects, for instance in knowledge, in life expectancy, in standard and quality of life as well as in food security. Different types of deprivations in human lives are interrelated and they reinforce each other, for instance lack of education often defines the conditions of a poor person but it also an obstacle to other important aspects of a person's wellbeing such as employment, and income, good health and other basic amenities such as clean water and sanitation (World bank, 2004).

In this frame work, poverty is the deprivation side of human development, the denial of basic choices and opportunities to lead a long life, healthy, creative, free life and to enjoy decent standards of living. Poverty has many faces changing from place to place and across time and has been described in many ways and in most cases is a situation people want to escape (World Bank, 2004).

The Kenya Economic Recovery Strategy Paper of 2003 estimates that 50% of Kenyans live below poverty line; 80% of these are in the rural areas, among the poor households, subsistence farmers and pastoralists account for over 50% of poverty stricken Kenyans. The over dependence on subsistence farming by women explains why they are extremely

vulnerable to poverty, from the above, female headed households are classified as one of the groups of the poor in Kenya hence there is need to understand these group of women in relation to poverty. Similarly the paper on Strategy for Revitalizing Agriculture (2004) notes that about 80% of its population especially women live in the rural areas and derive their livelihood largely from subsistence agriculture.

Mwabu (2009) notes that women have relatively low entitlements such as their restricted access to land ownership, credit facilities and other means of production, in addition they have limited access to education resulting in low education levels. Women also face barriers in terms of becoming large- scale farmers or business- women due to inadequate accessibility to capital and land. Similarly, (UNICEF,1982) situation analysis of Kenyan women and children presents women as a marginalized lot compared to men in the area of decision-making, property ownership and management of agriculture; in essence such deprivations prediposes women to experience poverty.

In addition there are millions of marginalized, deprived, starving and malnourished children, including school dropouts and those out of school in addition there are also children who are in desperate need of medical and healthcare, street children, orphans, working children and children born to poor mothers (Gakuru, 2000)

(Ndengu, 1995) notes that property ownership was one of the major economic structures, which either hindered or promoted women's participation in development. He further notes that rural development is predominantly attribute to women because women are numerically dominant in many parts of Kenya's countryside with its historical pattern of male rural-urban migration. Since women have limited access to the ownership of property, this presumably affects the entire agricultural and rural development strategy.

(Chavangi, 1998) in his study on land husbandry on female managed farms notes that women from Busia and Mwingi have little access to credit facilities whereas Murang'a

women have access to credit facilities through the coffee societies. This explains why there is high development and low poverty levels incidences in Central province compared to women in Eastern and Western province.

2.2 History of famine in Machakos District

Famine is one of the major historical events that are remembered in Machakos District consequent to which there is always a major draught and famine every 4 out of 10 years as indicated in (table 1).

Table 1: Historical famine events in Machakos District

No	Famine (Kamba names)	English names	Years
1	Yua ya Ngovo	(famine of hides and skin)	1840-1843
2	Yua ya Ndata	(famine of star)	1878-1882
3	Yua ya Muvunga	(famine of rice)	1897-1901
4	Yua ya Munyi	(famine of livestock dysentery)	1898-1899
5	Yua ya Kuka kwa Kilovia	(introduction of rupee as a currency)	1912
6	Yua ya Malete	(famine of beans)	1913-1914
7	Yua ya Kau wa Thyaka	(famine of the first world war fought with bows and arrows)	1914-1918
8	Yua ya Ngie Syaya Liu	(crops invasion by locust)	1928-1929
9	Yua ya Nzalukangye	(famine full of blinks due to high expectation of food)	1929-1930
10	Momboleo	(floods)	1930-1931
11	Yua ya Kau wa Italia	(famine of the second world war-war with Italians in Ethiopia)	1940-1944
12	Yua ya Mbulun'ga	(beans brought from kikuyu during famine)	1942

13	Yua ya Munyoloko Upesi	(famine of cassava)	1943
14	Yua ya Wimbi	(famine of millet)	1943-1944
15	Yua ya Makonge	(famine of sisal)	1949
16	Yua ya Mbua ya Kanzi	(The rains that destroyed crops and the situation saved by an Asian businessman kanzi who was supplying food stuffs)	1951- 195
17	Yua ya Ndeke	(famine of aeroplane or helicopter which supplied food)	1960-1962
18	Yua ya Atta	(famine of reddish wheat flour-Atta)	1965-1966
19	Yua ya Longosa	(famine of disruption)	1975
20	Yua ya Nikwa Ngwete	(I die when I have money famine)	1980
21	Yua ya Ndukambikwatye	(famine of army worms)	1984

Table 1 above shows famine occurrences since the year 1840- 1984 which are documented as having occurred in Machakos district. The famines were named after the event which occurred at that particular time. The food insecurity episodes seem to have occurred during interval of two, three or five years. In additions the famines seems to have been named after an event that was happening at that particular moment, for instance the famine that occurred during the First World War was named after the World War 1.

Table 2: Recent documented famines events in Kenya

Years	Regions	Remarks
1987	Eastern and Central Kenya	Severe food shortages in Eastern less in Central
1997-1998	Countrywide e l nino event heavy rains followed by prolonged drought	

1992-1994	Northern, Central and Eastern province	Severe in Eastern province
1999-2000	Country wide famine except west and coastal belts	4.7 million people depend on relief food, power and water rationing
2009	Country wide	Prolonged draught severe food shortage for humans and livestock

Table 2 above shows the recently documented famine occurrences in Kenya representing the famine situation in the country in the recent years. This indicates that famines have affected Kenya leading to severe food shortages. When there is famine, children suffer from being underweight, stunting and malnutrition. In addition, there is also a portion of people in Kenya that is depended on relief food. The recent famine episodes in Kenya seem to have occurred every ten years.

In light of this according to World Vision 2011, the year 2011 was the most pressing draught to have faced the people of Kenya. Access to food and water became very scarce and millions of livestock died. The sever draught across Kenya, Ethiopia, Somalia and Uganda left an estimated 11.5 million people on the brick of starvation. In most days people ate one meal in a day.

In addition consistently poor rainfall in 2009 and 2010 did have a cumulative effect and the land has been unable to recover, 2011 has so far been the driest in the region since 1951, As a result families have virtually run out of food and water, crops have failed and water holes have dried up.

Consequently there has been increase of child malnutrition rates amid high food prices even in the areas expecting some harvest. The draught has led to little arable grazing land or water for animals; families have to watch the livestock their main way of feeding their

families weaken or die (Mirugi, 2011).

Kenya is the only region in the world in which food production has been declining rapidly compared to its population growth rate leading to inadequate food supply. According to Dey (1984), various reasons rather than just population growth are responsible for the declining trends in food production in the region. Such factors include natural disasters, declining rainfall, climate change, land fertility, civil strife, rural urban migration, poor marketing and pricing policies that favor cash crops.

In relation to other African countries Kenya is the fifth poorest when headcount is used as a poverty measure however when poverty is used Kenya emerges as the fourth poorest (World Bank, 2007). According to (IMF, 2011) poverty was higher in the rural areas 49.1% compared to urban areas 33.7%. This affects the female headed households since the majority of people in the rural areas comprises of women.

Odegi (1994) observes that there was growing danger in the third world countries among them Kenya included to think first of food aid when suggesting means of fighting hunger, yet the consequences of food aid could be extremely devastating economically. Thus he states "Food aid generates dependency and thus erodes the people's initiative to produce sufficient food locally.

This leaves room for exploitation by the agribusiness concerns interested in dominating the food market and repaying huge benefits, more over in many cases food given as food Aid has been in store too long and is not fit for human consumption and even unfit for animal consumption in America." (Odegi, 1994) notes that experiences from famine stricken areas of Kenya dramatizes the negative effects of famine relief rations for instance large quantities of dried maize grain pour into the famine stricken districts and some times the maize is eaten with little protein supplements which leads to malnutrition.

Poverty in households including those of female headed households are characterized by insufficient food, perpetual hunger and heavy reliance on handouts. In addition cutting of meals to one or two per day, involuntarily changing diets, sending children to eat at neighbors homes and children performing poorly in schools as hunger makes them miss classes and affect their attention in class.(World Bank, 2007).

Bauman (1894) described the plight of Maasai victims in these terms: “In the meantime a crowd of scattered scarecrows, now typical of the Maasai country, gathered outside the thorn fence of our camp. There were women reduced to walking skeletons out of whose sunken eyes looked the madness of hunger, children resembling deformed frogs rather than human beings, warriors who could hardly crawl on all fours, and moronic emaciated grey beards. These people ate everything available; dead donkey were a delicacy to them; but they also devoured the skins, bones and even horns of cattle.”

Although this was written about the Maasai in 1894, it applies today to a people when faced with extreme famine outbreaks. Famine has the capacity to reduce people to nothing, to steal the dignity and the humanity that is in a people as well as causing widespread human misery. Odegi (1994) felt that a hungry people are highly vulnerable to manipulations by the rich lootocrats who hold the food basket.

According to (GoK 1998), the poor have large households than less poor. The average household size for the poor is 6.4 members compared with 4.6 members for the non poor, large family size dilute family resources and divert resources from long term investment. Female headed households are among the poor households that comprise of large family size and dependency from relatives.

Ndengu (1995) points out that for any agricultural development to take place, the indispensable role of women should not be ignored. He observes that this is particularly so in the Sub-Saharan Africa where women provide most of the labor force in agricultural

production. Despite the fact that data on the role of women in Africa is not clearly consolidated, the International Labor organization (ILO) estimates that 78% of the females are economically active in agriculture as compared to 64% of males. The government of Kenya further echoes this in the Machakos District Development Plan (2000) where the important role of women in agriculture is further highlighted.

At face value, these observations may lead one into assuming that the Kenyan agricultural economy is effectively under the control of women and not men. However the true position is that the role played by women though substantial is in most cases restricted to the provision of labor, while most men control both the means and surplus production. In addition men have a lead in the control of the formal or the monetary sectors of the economy hence it becomes obvious that Kenya's economic power lies in the hands of men and not women.

According to the Kenya population census (1979), 1.7 million rural households who were enumerated out of these, 525,000 were headed by women. The 1989 Kenya's population census enumerated about 3.2 million rural households. A total of about 5 million households were enumerated both in the urban and rural areas. Out of these over half of them had females as heads; most of the household with female heads were found in the rural areas thus almost 50% of the households in the rural areas of Kenya were headed by women.

Recent data (2009) from Kenya population census indicates that there are more youthful 4.086888 females than 3.877758 males in the society. The report also indicates that there are 115,094 males with university education compared to 83025 females, there are also more 555445 females in Machakos than 543,139 males. According (2009) Kenya's population census report, 67.7% of Kenya's population resides in the rural areas compared to 32.3% in the urban areas.

This position prompts Boserup (1970) to argue that Africa is the region of female farming par excellence. Kenya Demographic and Health Survey (1993) estimates that female headed households to be more in the rural areas than in the urban areas (35%:22%). This in essence justifies that in the event of famine outbreaks female headed households are not spared too due to the presence of majority of them in the rural areas.

Kenya Demographic and Health Survey (2003) shows that 30% of children under five are short for their age or stunted indicating chronic malnutrition, 6% of children are wasted or thin for their height indicating severe malnutrition, in addition one in every five children is underweight. Similarly in the Kenya Demographic and Health survey (2008-2009), it shows that 35% of children under five are stunted, 16% underweight and 7% are wasted. Stunting, wasting and underweight are common in the rural areas and among families of lower socioeconomic status, among them being the FHH.

Kenya's economy relies heavily on its agricultural sector within which the non-formal rural sector assumes the dominant role. This forms the basis of a need to understand the relationship between female headship and famine. Based on the above arguments, food production is currently dependent on women and the percentage of female headed households is increasing. The burden of family survival is shifting to the women and more so female-headed households who have a new and demanding role to play.

2.3 Social capital and networks

Food and Agricultural report of 1994 notes that social safety nets are support systems designed to alleviate food and financial insecurities, they are community networks that support people facing difficult times. Generally they include a variety of charities and non-governmental organizations (NGOs), church groups and associations which link rural inhabitants, In addition these community support systems include government transfers that provide food or cash directly to needy population such as emergency food relief, supplementary feeding programmes and food for work programmes. Other

programmes that help people without giving them direct aid are price controls by the governments, job creation, placement and micro-credit.

(Maas, 1986) observes that in many Third world countries, women organize themselves in women's groups, many of which are based on traditional forms of cooperation's created in response to the common position of women in the division of labor as well as their desire to pursue change in their status and prospects. In addition, Muzzucato and Niemeijer (2002) indicate that the prime determinants of social capital comprises of decisive and focus on the role of informal institutions such as land tenure systems as well as customs, norms and networks.

(Chitere, 2004) views an organization as individuals in a given situation who mutually agree to work together to achieve certain objectives. In this case, their members would have the same interest that the group seeks to pursue. The UNDP report (2004:47) reported thus: "CBOs have mushroomed in Kenya following increased poverty and low human development. They represent the increased awareness of communities and specific groups regarding their plight as well as their willingness to take initiative to correct matters". This however highlights further the reasons for the emergency of women groups to meet their social welfare as well their economic problems.

(Maas, 1986) notes that the mobilization of women in Kenya could be traced as far back as women's councils of the Kikuyu in the 19th century. He further observes that during the colonial period, the first half of the 20th Century women in areas like Kiambu, Muranga and Machakos formed assistance groups. Women continually used these groups as a basis to solve problems.

For instance a study conducted by (Musyoki and Gatara, 1985) on evaluation of income generating activities in Kenya, they argue that the traditional roles of women have long been recognized in the society due to the extensive division of labor. Women's dominant

role has persisted despite the rapid changes that have taken place in fact the researchers argue that male migration to urban centers increased women participation in the society and the heading of families.

(Masinde, 1987) in his study on women groups in Kenya observed that agricultural projects could generate small but stable incomes. However, women's groups lacked marketing facilities management skills, equipment as well as capital. He further echoed this. He argued that women's lack of sophistication about fundraising procedures and good proposal writing greatly hampers their performance. This was due to low levels of education, which led to avoidance of priority setting.

(Kamar, 2001) notes that women groups' projects have played a key role in community development in Kenya, The *mwethya* women groups of Machakos district are best known for the role they played in soil and water conservation activities in addition, women formed women groups and addressed any problem affecting them or their community as group rather than individual.

2.4 Theoretical framework

The purpose of this section was to establish a link between theory and the proposed study.

2.4.1 Patriarchy and feminist theory

Patriarchy is a social system in which the role of the father is central to social organization and where the father holds authority over women, children and property; historically patriarchy is a cultural phenomenon. Patriarchy is a multidimensional condition of power and status. Some of indicators for patriarchy include lack of property control by women, lack of power of women in kinship context, low value placed on the labor of women, lack of domestic authority of women and lack of male-female joint participation warfare work and community decision making.

Within feminist theory, patriarchy refers to structure of modern cultural and political system which is ruled by men. Most forms of feminism characterize patriarchy as unjust social system that is oppressive to women, In addition in feminism theory, the concept of patriarchy includes all forms of mechanism that exert male dominance over women.

In contrast feminism theory aims at understanding the nature of gender differences and inequalities. It examines women's social roles and lived experiences and promotes women's rights, interests and issues. Patriarchy not only explains how our society functions but how it controls women. Patriarchy is best defined as control by men.

However social and cultural conditioning is primarily responsible for establishing male and female gender roles. Patriarchy is the result of sociological constructions that are passed down from generation to generation; these constructions are most pronounced in societies with traditional cultures and less economic development. Even in modern developed societies, however gender messages conveyed by family, mass media and other institutions largely favor male having a dominant status.

2.4.2 Basic needs approach

Basic needs approach is one of the major approaches to the measurement of absolute poverty. It attempts to define the absolute minimum resources necessary for long term usually in terms of consumptions of goods. The poverty line is then defined as the amount of income required to satisfy those needs. A traditional list of immediate basic needs is food shelter and clothing however the modern list emphasizes the minimum level of consumption of basic needs of not just food, water and shelter but also sanitation, education and healthcare.

2.4.3 Andragogy theory by Malcom Knowles

Andragogy theory consists of learning strategies focused on adults. It is the process of engaging adult learning with a structure of learning experience. According to Knowles

theory, it can be stated with six assumptions related to the motivation of adult learning.

1. Adults need to know the reason for learning something (need to know).
2. Experiences including errors provide the basis for learning activities (foundation).
3. Adults need to be responsible for their decisions in education; involvement in the planning and evaluation of their instruction (self concept).
4. Adults are most interested in learning subjects having immediate relevance to their work and personal lives (readiness).
5. Adult learning is problem centered rather than content orientated (orientation).
6. Adults respond better to internal versus external motivators (motivation).

2.4.4 Livelihood Assets

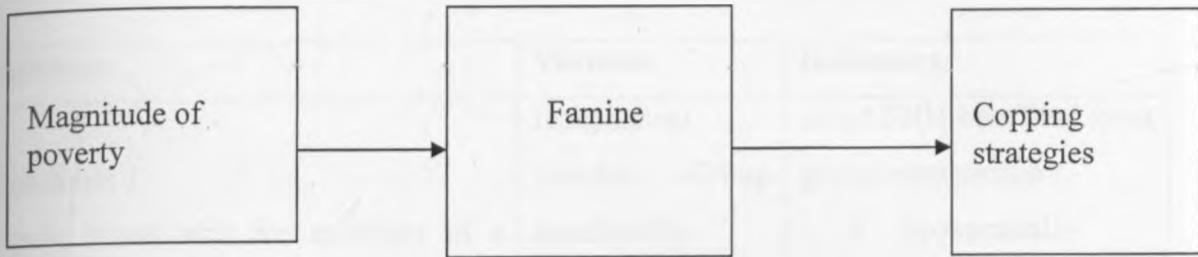
This approach breaks assets into five categories: human, social, natural, physical and financial capital (Hefferman and Misturelli 2003)

- Human capital; skills, knowledge, ability to labor and good health
- Social capital; networks, connections and self help groups
- Natural capital; land and water
- Physical capital; this is the basic infrastructure and producer goods needed to support livelihoods; infrastructure includes secure shelter, adequate water supplies and sanitation.
- Financial capital; savings and credit and inflow of money

Considering the FHH, this approach can be used to show the strength and weaknesses of different types of assets their relative importance and the linkages between them.

2.5 Conceptual frame work

Conceptual framework employs the use of diagrams or drawings to explain the interrelation between variables (Orodho; 2004) see diagram below.



The conceptual frame work was based on the magnitude of poverty among FHH. Poverty indicators included: lack of food, school fees and employment, lack of property and livestock including having a drunkard husband. Poverty in the study was looked at in to the multi dimensional concept by referring to economic indicators as well as social indicators.

Female headed households were vulnerable to famine. This was indicated by the no of meals eaten in a day, periods without food and farm output, they had coping mechanisms such as group membership and doing casual jobs.

2.6 Hypotheses

1. Female heads who are members of a group are less likely to be vulnerable to famine.
2. Female heads with low level of education are likely to be vulnerable to famine.

In hypothesis one, the independent variable is group membership whereas the dependent variable is famine.

In hypothesis two, the independent variable is education level whereas the dependent variable is famine

Table 3: Poverty and famine among female headed households

Hypothesis	Variable	Indicators
<p>Hypothesis 1 Female heads who are members of a group are less likely to be vulnerable to famine</p>	<p>Independent variable -Group membership Dependent variable- vulnerability to famine</p>	<p>no of FHH benefited from group membership</p> <ol style="list-style-type: none"> 1. Economically 2. Socially 3. Knowledge 4. Fellowship
<p>Hypothesis 2 Female heads with low level of education are likely to be vulnerable to famine</p>	<p>Independent variable- Level of Education Dependent variable- vulnerability to famine</p>	<ol style="list-style-type: none"> 1.) no of FHH attained primary education 2.) no of FHH attained secondary education 3.) no of FHH educated their children 4.) % of FHH with formal education

2.7 Operationalization of variables

Poverty; Its indicators include level of poverty (relative and absolute), the local terminologies of what the FHH think of poverty as well as property they own.

Famine; Its indicators include trend of harvest of food for the last five years from 2001

to 2005, periods gone without food, the daily food expenditure, no of meals and the type of food they eat.

Group membership; Its indicators include being a member of a women group and the benefits accrued due to being a member such as knowledge, financial assistance or education.

Education level; Its indicators include the highest level of formal education attained by the female headed households.

Vulnerability to famine; Its indicators include severe hunger, starvation and food shortage. It is used to describe how FHH are weak and liable to famine in addition it also refers to a drastic widespread far reaching food shortage, severe hunger and starvation in an area leading to human suffering.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter gives the methodological approach that was followed to conduct the study. It describes the details of the study design and process, the methodological process of data collection that was followed is also stated, including data presentation and analysis. This study was undertaken over a one year period, from March 2005 to March 2006.

3.2 Physiographic and natural conditions of Machakos district

3.2.1 Topography

It varies from 700m above sea level on the Southern part of the District to 1,700m above sea level in the west.

3.2.2 Rainfall

A huge proportion of the District is semi-arid with annual average rainfall varies from 500-1300mm. It is concentrated in the months of March, April and May, during the long rains season, and in October, November and December in the short rain season, however, more reliable rainfall usually falls in the so called short rains season.

In conditions of inadequate and variable rainfall what becomes important is how to maximize the use of available rainfall (precipitation). There are cases in which relatively much rain falls within a short period of time. Rainfall distribution over the two seasons is not therefore evenly distributed making it necessary for farmers to make quick judgment as far as which crops they should plant. In some seasons rainfall comes either too early or too late or it stops raining too early.

There are three major handicaps in planting with the first rains, thus attempting to maximize on the use of moisture available. The first one arises from the fact that the Kamba rely on the ox-plough for cultivation and planting. In most cases, the two activities are carried out simultaneously.

Since cultivation is difficult before the rains comes due to long dry spells, the people reduce their workload by beginning to cultivate as they plant after several days of rainfall. Those who rely on others for the use of the ox-plough, have to delay their planting, resulting into reduced crop yields.

Secondly, because of the long dry spells between the two wet seasons, planting time usually arrives when people have already exhausted their grain stocks, meaning that those who do not have cash to buy seeds delay their planting or they plant seeds which have not been selected carefully.

Thirdly, intensive inter-planting is practiced in the district. This is an attempt to maximize yields of variety of crops from the same plot of land. These factors among others have adversely contributed a cycling nature of drought and famine in the district. FHH are therefore more vulnerable to poverty in the district.

3.2.3 Settlement patterns

Land use and settlement patterns are based on the agro-ecological zones and are influenced by soil fertility and rainfall. The high density settlement is along the hill masses of Matugulu, Kangundo, Kathiani, Central and Mwala Divisions.

These hill masses receive moderately high rainfall and have very high agricultural potential and fertile soils. Spatial settlement is found in the low plains of Masinga, Yathui, and Kalama divisions which fall under low ecological zones and are the most affected by poverty than other divisions.

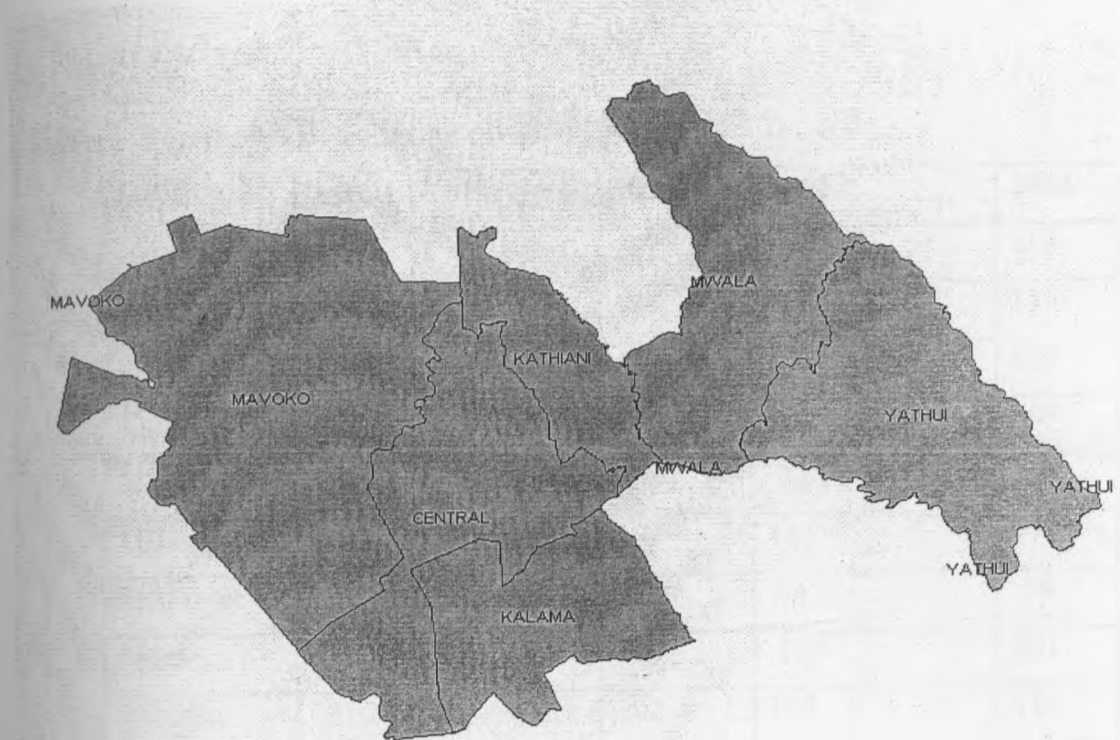
3.3 The study Design

This was a descriptive and cross-sectional study. It describes the situation as it is of the female headed households and cuts across the population. It refers to a snapshot of a population at a particular point in time. The units of analysis were the female heads whereas the units of observation were the key informants.

(Map 1

MAP 1: MACHAKOS DISTRICT

DIVISIONAL BOUNDARIES



3.4 Sampling

The population in this study consisted of married female household heads living in Yathui and Central divisions in Machakos District for the last 10 years and provide for the welfare of their families.

Stratified sampling was used in selecting the divisions for the study. The divisions were stratified into two, namely the high density ecological zones. They included Kangundo, Matungulu, Kathiani, Central and Mwala divisions while others fell below low ecological zones includes Kalama, Masinga, Athi river, Ndithini, Yathui, Katangi and Yatta (see table 4).

Table 4: Population densities by division

DIVISION	AREA (KM2)	1990	2002	2004
Central	491.5	292	307	518
Kalama	330.2	124	130	135
Kangundo	178.2	512	539	557
Kathiani	205.8	462	486	503
Masinga	1094.1	68	72	74
Matungulu	634.3	157	165	171
Athi river	957.0	57	54	56
Mwala	481.5	185	195	201
Ndithini	316.8	102	107	111
Yathui	533.0	123	129	334
Katangi	568.0	86	90	94
Yatta	491.0	156	164	170
TOTAL	6281.4	144	152	1957

Source- Ministry of planning and national development

Central division was randomly selected from among the high ecological zones whereas Yathui division was randomly selected from among low ecological zones. Central division has 9 locations and 31 sub-locations. Yathui has 6 locations and 27 sub-locations. Random sampling was used to select two locations from each of the two selected divisions. The locations were Kiima Kimwe and Mumbuni in Central division whereas in Yathui, Miu and Muthetheni were selected.

Systematic random sampling was used to select the study participants among the selected administrative division from the low and high ecological zones. A sampling frame of 400 was used. A total of 80 adult female headed households were sampled. (See table 5)
 $400/80 = 5$ every 5th female headed household was sampled.

Table 5: showing no of FHH as per location.

Central division High ecological zone	No of FHH in a location	Yathui division Low ecological zone	No of FHH in a location
Mumbuni	5	Muthetheni	5
Kasinga	5	Miu	5
Manza	5	Kangemi	5
Kiima kimwe	5	Ngamba	5
Iveti	5	Iyecha	5
Mungala	5	Kyethivo	5
Mutituni	5	Utithini	5
Mua	5	Ikalasa	5
	40		40

3.5 Data collection methods

3.5.1 Structured interviews

It contains a set of questions logically related to the problem under study. It is a quantitative research method used for collecting data for statistical survey Lindlof (2002). The interviews were structured. In a typical survey, the researcher selected a sample of respondents and administered a standardized questionnaire to them Babbie (1995:257). In this study the interviews used questionnaire as a tool of collecting data.

3.5.2 Key informant interviews

The key informant interviews are a selected group of people who are especially knowledgeable or experienced about a certain issue or a problem and are willing to share their knowledge. A key informant interview involves talking to a person such as extension worker, local government official and community leaders who know the area or certain aspects of the problem Jimenez (1985). The key informant's interviews were conducted with the local administrators (chief) as the community entry persons and adult female leaders of women's groups. The key informant guide was used in the study.

3.5.3 Focus group discussions (FGDs)

A focused group discussion is a form of qualitative research in which a group of people are asked about their perception, opinions, belief and attitude towards a concept or experience. FGD produce data and insights that would be less accessible without interaction found in group setting, It involves listening to others verbalize experiences, stimulates memories, ideas and experiences in participants Robert Merton (2003). This form of data collection technique employs discussion in a non standardized manner and observations as its sources of data. Focus group discussions (FGDs) were conducted on suitably and well selected homogenous adult female participants from among the female household heads. In the study a FGD guide was used.

3.5.4 Case studies

A case study is a research method based on in-depth investigation of a single individual, group or event. They provide a systematic way of looking at events, collecting data, analyzing information and reporting the results. Case study is an empirical inquiry that investigates a phenomenon within its real life context Robert stake (1995). Case studies of six (three from each of the six divisions) female headed households were studied. The study collected information about their experiences as female household heads, their background and the challenges they faced. The tool used was observation and checklist.

3.6 Data analysis methods

All data collected was entered into the template for analysis at the end of each day in preparation for cleaning and subsequent analysis. The study used statistical package for social sciences (SPSS) and excel to analyze and present data. The study used both descriptive and inferential statistics.

3.6.1 Descriptive statistics

These statistical tools perform the first function of statistics, that is to say, they afford condensing and summarizing description of units with regard to innumerable or measurable characteristics Hagood (1996). They are therefore used in condensing raw data into forms, which supply information efficiently. In this study, percentages, frequency tables, graphs, charts, social maps and seasonality calendars were used.

3.6.2 Inferential statistics

Inferential statistics deal with methods of drawing conclusions or making decisions about a population on the basis of samples. The main aim of such statistics is to infer the truth or falsity of hypothesis. For purposes of this study the chi square is used either test goodness of fit or test independence. This test enables research to see how well the assumed theoretical distribution fit to the observed data Babbie (1995).

In this study chi square was used to establish how education level and group membership were related to vulnerability to famine.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the study findings and their interpretations. For the purpose of analysis, the frequencies of responses of each question were obtained and presented in numbers and or in percentages for interpretation and reporting. This chapter is organized according to the research questions that guided the study. As mentioned under methods of data collection, the data was from questionnaires administered to the study participants who were household heads in Yathui and Central divisions in Machakos district. Four focus group discussions (FGDs), six case studies and five key informant interviews were conducted and or administered to the study participants.

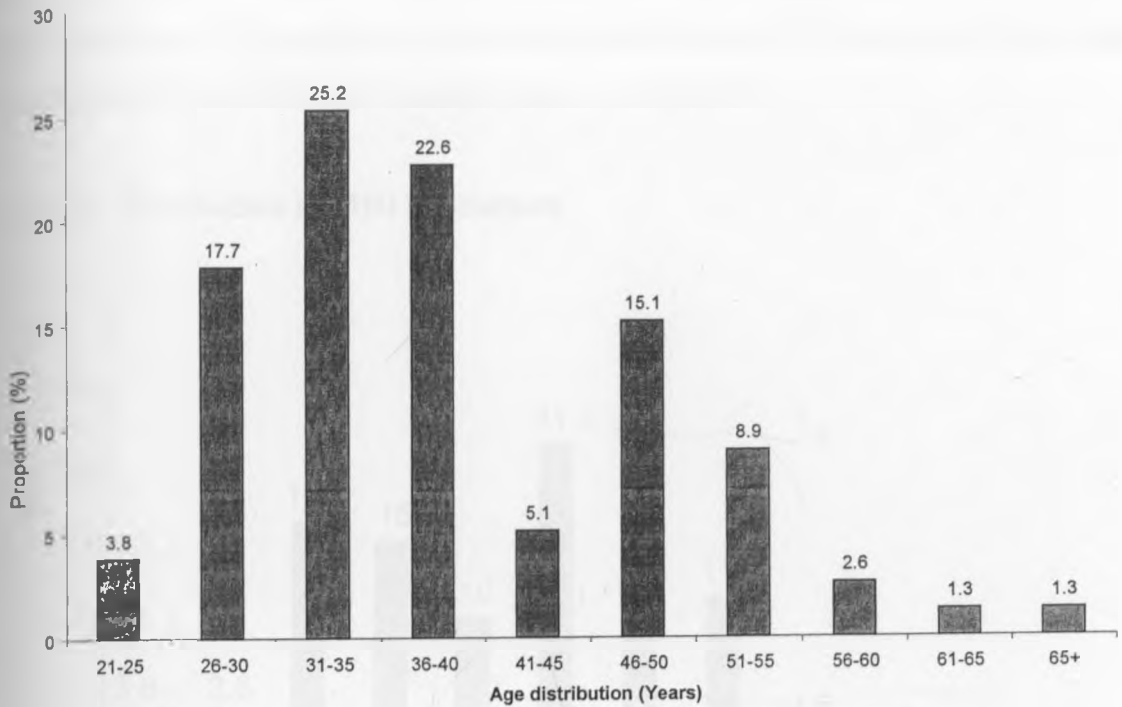
4.2 Socio demographic characteristics of respondents

The researcher administered questionnaires to a total of 80 female headed households, all of whom responded fully to the questionnaires. Apart from the fact that all the respondents were female household heads, they were analyzed using varying characteristics (age, education, income, number of children and dependents) in each household and their main form of economic livelihood. The distributions of the female household heads by these variables are the subject of this section.

4.2.1 Age of female household heads

The youngest respondent was 23 years while the oldest was 65 years of age. The mean age was 38 years. Age-group distribution of those interviewed female household heads showed that (25.2%) fell within the age-group 31- 35 years and 36-40 years formed (22.6%) of the sample. However, the modal age was (35 years). (See figure 1).

Figure 1: Female Household Heads by ages



The majority (70%) of the sample population fell in the age bracket 21-40 years and about 90% were in the sexually active, child bearing age group (21-50 years). Hence, about 74.4% of the female household heads had young families, burdened with educating their children.

4.2.2 Number of years in marriage

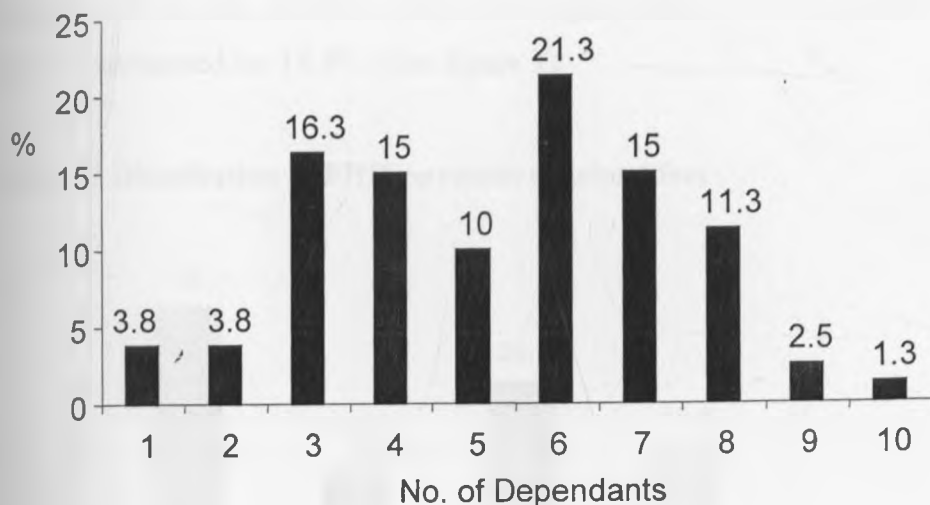
The minimum number of years in marriage among the respondents was 4 and the maximum was 46 years. The average number of years in marriage was 15. The majority (60%) of the respondents had been married for 18 years.

4.2.3 Number of dependants

More than half (51%) of the female households heads had large numbers of dependants (more than 5) of resident persons under their care and support. The dependants included the respondent's own children and their relatives (extended families). Those with up to 3

people in their households constituted 24%; 4-6 people (46%); 7-9 people (29%) and 10 or more people (1.3%. Considering the average number of children (5) per household and with more than 51% households having more than 5 persons, it means that there is high of dependency on the female household heads (see figure 2)

Figure 2: Distribution of FHH dependants



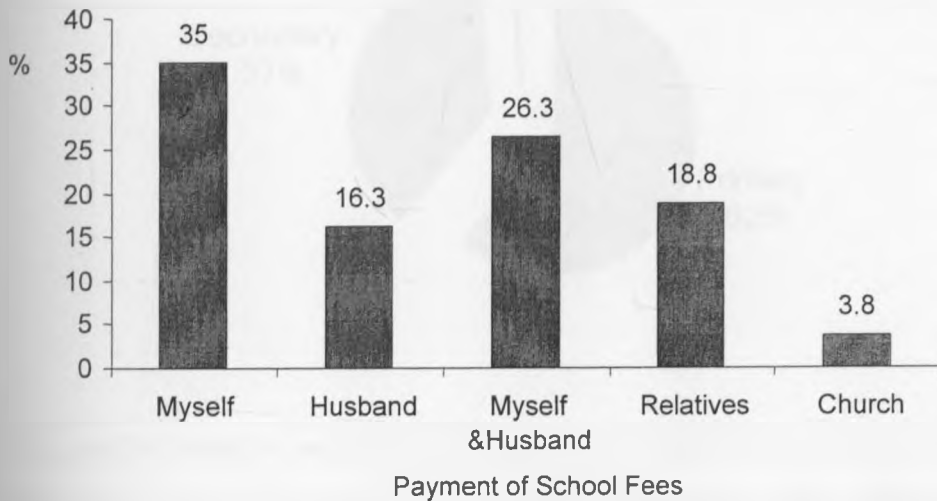
It was established that over two thirds (67.3%) of the female household heads had large family sizes (4-8 children) and large number of dependants. This finding concurred with the PRSP report of 2001 by Gok which stated that poor households in Kenya had large families. According to the PRSP report of 2001, the average household size for the poor in Kenya was 6.4 members compared to 4.5 in non poor households. In addition, dependency increases household's vulnerability to livelihood shocks such as poverty and recurrent famine.

This indicates that the level of dependency was high and relatives were perceived as investment or security against famine and poverty. This scenario is likened to what Hyden (1985; 5) referred it 'economy of affection' which he claimed it continued to undermine individual advancement in many African societies.

4.2.4 Payment of School Fees

Most of the female household heads catered for the school fees of their children which accounted for 35% of their incomes, a combined effort of the respondents and their husbands of 26.3%, churches and other organizations 3.8%, husbands alone 16.3%, relatives accounted for 18.8%. (See figure 3).

Figure 3: Distribution of FHH payment of school fees

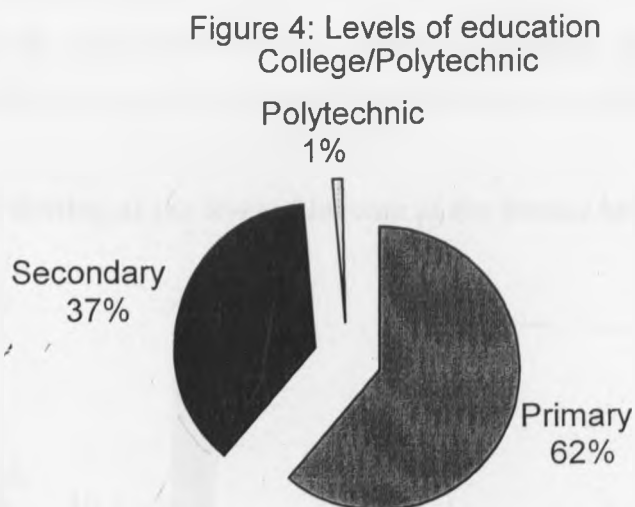


It was established that the female household heads paid school fees for their children and only a few of them received assistance from the community due to the fact that they were viewed as married hence capable of managing their families independently. Most assistance from the community went to orphaned children and widows who were seen as more needy according to the community's perception of the scale of needs. According to these findings, the majority of the female household head's average income was kshs

1475.20 (US\$20) per month, making payment of school fees for their children a difficult undertaking. Therefore, due to the low level of income of the female headed households, the majority of their children were unable to complete their secondary school education.

4.2.5 Education level of the female heads

In this study, the level of education was measured as for the highest level of formal education attained by the study participants. The educational attainment categories were, primary, secondary and college levels (See figure 4)



Education in Kenya is regarded as a vehicle of emancipation from poverty, especially among the poor. In this study, 62% of the participants had attained primary level education. This was confirmed in an interview with a women group leader from Central division in Machakos district, who stated that the majority of the female household heads had primary level of education. In the PRSP report of 2001, poverty was found to be highest among people without any schooling (illiterate). Out of the remaining respondents, only 37% have secondary education and a mere 1% with post secondary education. The poverty reduction strategic paper GoK (PRSP), 2001 showed that there

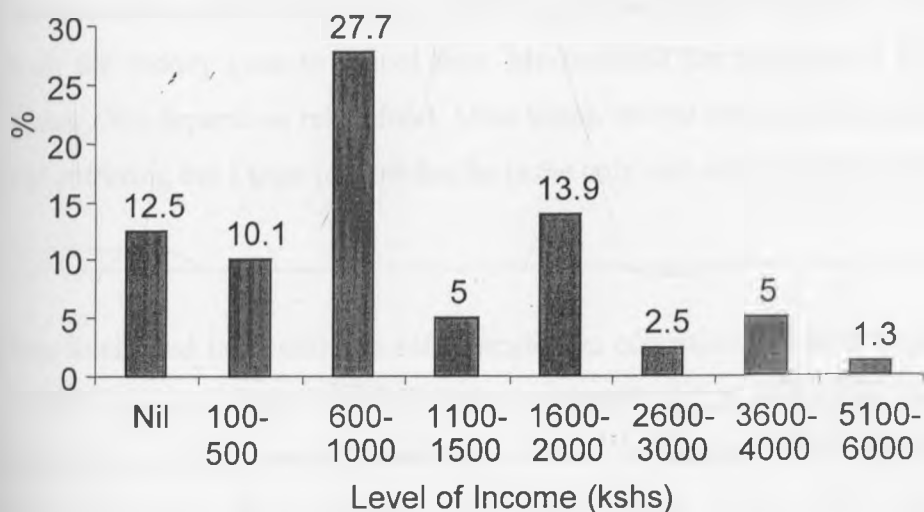
was virtually no poverty among households headed by university graduates. It was established that in general, literacy among female household headed in the rural areas was low due to the fact that majority of the respondents had not gone beyond primary school level.

4.3 Main findings

4.3.1 Distribution of the female heads by income

The first objective of the study sought to establish levels of poverty among FHH. In this study the levels of household income were used to measure the respondent's economic status. Among the categories identified ranged from those female heads who had no source of income to a maximum income of kshs 6,000 per month (See figure 5).

Figure 5: Distribution of the level of income of the female heads



As evident from the figure 5, the minimum monthly income per female household head was nil (kshs 0) while the maximum was kshs 6,000.00. The mean income was kshs 1,474.00. Only 1.3% earned above 2US\$ per day while 7.5% earned above one dollar per day. Figure 5 shows that over 91% of the female household heads experienced absolute poverty (less than US\$1 per day). These findings are similar to those in the World Bank

report of 1990 which showed that out of the world's 6 billion people, 2.8 billion live on less than 2 dollars a day and 1.2 billion (a fifth) live on less than 1 dollar a day. This means that the female household heads were characterized by poverty.

Case study 1

The respondent was a 38 year old female. She had eight children and she gave the following narration.

"I came from a family where there were many children. My parents could not afford to pay my school needs, so they mandated my class 8 class teacher to cater for me as I was schooling. After schooling she employed me as her house help. I got married after two years and currently I have eight children. My first born child works as a shamba boy while my second child is in secondary school but the school fee is being paid by my employer and my third born went to work as a house help in Nairobi. I earn kshs 2,000.00 but all the money goes to school fees. My husband has no job and I am the only one working. We depend on relief food. Most times, we eat one meal in a day. I go through a lot of suffering but I trust in God that he is the only one who can help me".

When livelihood fails, children suffer neglect in education and have to give up schooling in order to work either for low wages or unpaid at home in order to replace parents seeking to augment households earnings outside the home. This case study elaborates the level of poverty among FHH, in the above table 5; over 91% of female headed households were living in absolute poverty (less than US\$ 1 per day) an indication that female headed households were characterized by poverty.

4.3.2 Sources of livelihood

In this study, the livelihoods of the female household heads were analyzed. This referred to farm activities, employment, or business activities that the female household heads do as a source of their livelihoods (See figure 6).

Figure 6: Sources of livelihood of the female heads



As evident from figure 6 the main source of livelihood was farm-work (60.8%) followed by employment which was 20%, 10.4% of the respondents were involved in small scale businesses and 8.8% depended on their friends and relatives and charitable organizations such as churches. For African women, combining farm and non farm earning activities has long been a survival strategy in their attempts to reduce the risk of starvation among their families during periods of food insecurity (Mutangadura 1995).

Case study 2

The respondent was a 36 years female. She gave the following narration.

“I dropped out of class eight due to lack of school fees from my parents. They searched for me a job as a house help. In the process of working I met my husband and we got married in 1987 and in 1988, we were blessed with a baby boy. In 1990 we got our second child and he moved to Kisumu, It reached a point whereby he stopped sending money to support his family for seven years. During those years I was doing business. He came home after the seven years and he started working here in the rural areas. After a few months, he started drinking and many problems started when he became a heavy drinker. He never used to bring anything to the family. My mother in-law used to support us. In the year 2000 he went to Nairobi and he again started sending money when his income improved. However in 2001 the same problems started again. In 2002 I started working in a school as a house help. In 2003 he come back home jobless. My children have ended their studies at class eight since I could not afford to take them to secondary school. I have continued to work to date to sustain my children even today. I still support my family even when my husband is around”.

It was established that, there are high levels of poverty among female headed households. This is attributed to their low level of education and in addition, the majority had started work either because their husbands income was insufficient due to sickness, drunkardness or mere irresponsibility of their husbands which led to low remittance once their husbands travels to urban areas or when the husband was jobless.

Case study 3

The respondent was a female aged 42 years. The lady had seven children and she gave the following narration.

“I got married in 1990, having attained class seven level of education. My husband and I have had a problematic marriage since 2000 when he returned home from Nairobi. He

never used to send me any money even when he was working.

But when he returned home jobless, I had to look for casual work to support my family. Recently he sold a piece of land without my knowledge and now we are left with an even smaller piece for cultivation. He made me to be arrested when I raised the issue in the family. I was very offended and am looking for ways of how I can reclaim the sold piece of land from the buyer”.

While poverty forces women to work outside the home, increased household prosperity may lead to their withdrawal into it again, at the same time the active role that women play in the home based economies tend to be socially and statistically insignificant. Even though the majority of the female household heads were poorly paid, their earnings were used to meet basic needs of the household. More importantly they were not sufficient to pull households out of poverty.

However due to various constraints female household heads in the rural areas have a far more limited set of economic options than men. The kind of work and earnings they get may thus be a more powerful indicator of poverty than the fact that they work. Their only option is to enter into off-farm activities that require little capital and fewer skills. Women's low wages reflected a combination of domestic work load, their responsibility for the food needs of their families and their lack of bargaining power given their limited alternatives. There is a higher frequency of “distress” sales on the part of women due to their responsibility for meeting basic needs within the households. That is, they accepted less than the going rate of pay because of urgent need for food or income.

4.4 Poverty and female headship

The second objective of the study sought to establish poverty indicators. This section presents the findings of the relationship of poverty and female headship. Poverty had many meanings according to the respondents in this study; it was defined through interviewing female household heads, focus group discussions (FGD) and case studies.

As evident from table 5 varied indicators were given as definitions of poverty including lack of basic needs.

4.4.1 Poverty indicators

The six most quantifiable indicators of poverty were reported as scarcity and absence of food, clothing, shelter, lack of money, land and jobs. Social issues were also raised with regard to husbands who could not provide for the needs of their households and those who were uncooperative in household management. Unavailability and high costs of farm inputs were the other major indicators of poverty.

Table 6: Poverty indicators

	Responses	Frequency	%
1	Lack of money, food and school fees	26	31.3
2	Lack of property like land, livestock	28	32.5
3	Lack of rain, seeds & fertilizer	13	13.8
4	Lack of food	4	11.3
5	Lack of food and employment	3	3.8
6	Having nothing at all	1	2.5
7	Having a drunkard husband who does not assist you	6	5.0
		80	100

Of the respondents 32.5% of the respondent's considered poverty as indicative of lack of property such as land and livestock. It was established that land as a natural resource was highly valued among the female household heads. However, in the Gok PRSP report of 2001, property ownership was mainly controlled by men while the women remained users of the land. Therefore, without property of their own, female household heads become vulnerable. Another 31.3% of the respondents considered poverty to indicate lack of money, food and school fees. It was established that the inability of the female household heads to raise school fees for their children was a major indicators of poverty

since the majority of their children had attained primary school level of education. Moreover, poor households suffer marked reduction in agricultural production largely due to lack of seeds or fertilizer during planting seasons. Consumption of alcohol among the husbands of the female household heads was seen as an indicator of poverty. Husbands who were dependent on alcohol had low level of support to their families.

Case study 4

The respondent was a 40 year old female. She had six children and gave the following narration.

“I was married in 1990 when I was working as a house help after completing class 8 studies. I was blessed with two children, a boy and a girl. We lived with my husband together doing business in Webuye, Western Kenya. When we started making profit he started having affairs with other women which made him change.

He became violent and did not allow me to go to the business which we started together. He used to beat me and he could not allow me to go to the business again. He beat me up and then I returned to my parents and then he married another woman. My dad told me not to go back to my marital home. Thereafter, I was invited by my cousin to Mombasa to work as a house help. I met my current husband near where I was working. We used to send my mother money when we were friends and we used to love each other very much. When we married I realized that he used to drink heavily, though he used to assist me financially. Then we were blessed with a baby boy in 1997 and in 1999, we were blessed with a baby girl and then problems started. He started beating me, sleeping outside home and drinking a lot. In 1999 he gave me money which I used to build our house in the rural areas. I visited him again in Mombasa after a few months when he was not sending anything but he was still very violent. I then went to the rural areas and left him in Mombasa. From the year 2000 to 2003, I did casual work out of which saved kshs 500.00 which I used to start a kiosk business. I continued with the kiosk business until the

owner of the premise decided to take it back. By then, I had saved kshs 2,400.00 which I used to build my own business premise (kiosk). In December, 2004, I decided to visit my husband in Mombasa; we were blessed with another child. He apologized for not providing support. In 2005 we were blessed with a baby girl. I became sick and I sent for him, he did not come and I was assisted by my neighbours. My mother passed away in 2005 when I was 8 months pregnant. I had left my son with my mother when he was still in the rural areas in Webuye. I really wanted to go to my mother's funeral because in my culture, one has to go to the grave and pray for the deceased physically. I saved kshs 2,000.00 for going to see the grave of my mother and take my son. I went to Mombasa to see if I could get some bus fare to return to Webuye but I found my husband very sick. We took him to hospital then he recovered. We then came back home without anything in my hands, my husband did not bring me anything. I worked in a school as a cook for teachers. I know that one day God will bless me even in my problems. I trust completely in God. My husband is still in Mombasa.”

As a result of alcohol, depression and violence the children of FHH also absorb most of the social and psychological costs of poverty within a household. An additional element commonly referred to as an intergenerational transmission of disadvantage is that the deprivation of female household heads is passed on to their children (Chant, 1997)

4.4.2 Property ownership

Land is considered as the most fundamental resource to women's living conditions and economic empowerment Hamson (2001). In this study, 8% of the female household heads owned land, 20% were using it and 72% owned and use land. It was established that most women in matrilineal customary system had access to farm land only through their husbands or fathers as they were only granted usufructuary rights as land titles pass through the male line Mutangadura (1995).

In this study, most of the FHHs owned small pieces of land. The majority 80% of them owned less than 1.5 hectares each. Owning small pieces of land impacts directly on the women's ability to meet their households' food needs through their own production. It was established that female household heads inaccessibility to land or education denied them the exposure to and control of new technologies that might help them out of mire poverty.

In situations where women can own and control land such as when one can buy land from the open market, women are constrained by several socioeconomic factors including illiteracy, lack of capital and implements including lack of collaterals and farm management experience (Hamson, 2001). They own houses although most of them are semi permanent i.e. made of mud walls and iron sheets. With regard to livestock and poultry, 90% had at least one chicken, a goat or a cow while the remaining 10% only had only either of them.

4.4.3 Economic ranking among the female headed households

Crop production, household food security and livestock ownership are used as indicators of wealth/poverty in the rural areas. In the focused group discussion wealth was ranked in terms of less poor, middle poor, poor and very poor.

Table 7: Economic ranking among the female heads

- Issue -	Less poor	Middle poor	Poor	Very poor
Crop production, food security	produce large surplus from crop production, most of which is marketed	produce small surplus from crop production. Food self-sufficient all year.	food self-sufficient for less than six months a year. Meet food needs in deficit months by casual	Food insecure for many months a year.

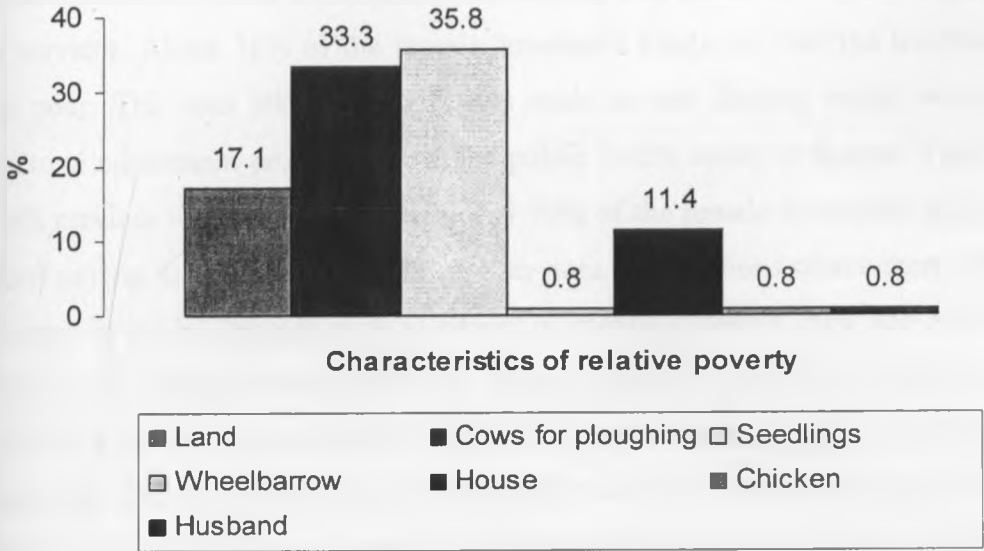
			work		
Livestock	own cattle's, chicken,	many goats,	Many have a few cattle. Own goats, chicken	Own a few small animals (goats, chicken)	Very few or none

This study's focused group discussion concurs with the UNDP report of 1999 that in the rural context wealth is often reflected in cattle holdings, the quality of agriculture implements and ability of a household to produce food. From the focused group discussions, The majority of the female heads are very poor because they were food insecure for most of the month and had to supplement by doing odd jobs even though they earned less than one US dollar a day.

4.4.4 Characteristics of relative poverty

Relative poverty in this study referred to items that other households in the community had which the female household heads did not have that made them to be considered as poor. Among the items that were mentioned by the female household heads during focus group discussion included land, farm inputs such as seeds during planting season, oxen for ploughing, a house and other domestic animals (See figure 7).

Figure7: Distribution of characteristics of relative poverty



Based on the female household heads interviewed, 17.1% considered themselves poor in relation to other households in the community since they did not own land or owned land which was not sufficient to cater for their needs. About a third 33.3% also considered lack of oxen for ploughing and 35.8% considered lack of seeds as the factors contributing to their poverty. This was because oxen in the community are used for ploughing and their absence contributed to late crop planting leading to low productivity and compounding poverty levels. This made female household heads more vulnerable to famine episodes.

4.4.5 Access and use of basic social services

Disturbing trends of poverty and their impact on access to and the provision and use of the basic services essential for the development of the areas concerned was noted. The services of significant importance were healthcare and water. The decline in these services and the fall in quality continue to be a major poverty concern.

4.4.5.1 Health care

Healthcare refers to the availability, accessibility and affordability as well as quality of the services. About 78% of the female household heads felt that the healthcare system was poor. This was attributed to factors such as cost sharing which was a result of structural adjustment programmes in the public health sector in Kenya. The charges for health services were high and the majority 70% of the female household heads could not afford paying for their basic health care services. In situations where there were chronic illnesses in the households such as cancer or mental illnesses, HIV and AIDS, diabetes mellitus or medical emergencies, the female headed households experienced human suffering and poverty levels were high. A period without income caused by illnesses meant that the female household heads had to sell off even the few assets they had to defray the cost of illnesses. Inability to appropriately cater for the cost of health care in the event of illnesses left the female household heads permanently debilitated or disabled. In essence, acute or prolonged sickness risk making female household heads permanently poorer through distressful sale of assets which reduced family earnings.

4.4.5.2 Health ranking

Health ranking classifies households into health categories and aims at obtaining an overview of: i.) households suffering from bad health (disadvantaged groups); ii.) local definitions of health, and; iii.) How wide-spread this problem is for the community and how it impacts on the female heads.

Table 8: Health ranking in the community

Worst health	Worse health	Good health	Very good health
- Chronic illness	- Often sick	Seldom	Almost never
- Too weak to perform household chores	- Do heavy work only when not sick	sick	sick
			Strong

It was established during the focused group discussion that female headed households have poor health, this could be attributed to due to the majority in the discussion responded being sick ling either themselves or their dependants and they were limited in terms of accessibility and affordability. Even a mild sickness was complicated by its affordability. In the study findings 78% of the respondents felt that the healthcare systems were poor because they were inaccessible and unaffordable.

Case study 5

The respondent was a female aged 34 years and she had three children. She gave the following narration.

“I got married in 1997 after finishing my form four education. My husband and I were doing very well at first. I was running a salon while my husband operated a general shop in the nearby market. In the year 2003 my husband became ill and he was hospitalized. He was diagnosed with HIV and AIDS. It was very devastating at first but now we have learnt to live with the illness. My husband is paralyzed on one side, he is unable to work. I too work on and off in my salon depending whether am sick or not.”

Female headed households experience poor and weak health as in case 5, in the event of an illness, they have to carry the burden of taking care of a sickling husband as well as being sick themselves and working to support the family.

Case study 6

The respondent was a 34 year old female and her husband. She had five children and she gave the following narration.

“I got married in 1995, having gone to school up to form 2. I dropped out of school due to lack of school fees. My main worry now is my husband’s illness since 2002 due to diabetes mellitus. Ever since, he has not being able to work. Am the only person who works in this household and I do casual jobs. My husband’s diet is very complicated and we are unable to afford it. I earn kshs 2,000.00 and at times less the amount depending on whether I get work or not. All my children attained class 8 level of education. We are poor because I feel I am straining in life. My husband currently went blind and he depends on me for everything.”

The above case studies indicate that FHH had poor health and it became complicated whenever there was a terminal illness such as HIV AIDS or diabetes in the household. The FHH suffered because of affordability and accessibility of services.

4.4.5.3 Water

Due to perennial dry spells caused by irregular rainfall, the residents of Machakos district have learnt to survive with the available, inadequate, poor quality water and digging earth dams to scoop rain water, which is shared between human beings and animals. This is worse especially in the dry season as the *silangas* (dams) also dry up. About 78% of the respondents felt that water was inaccessible in Machakos district.

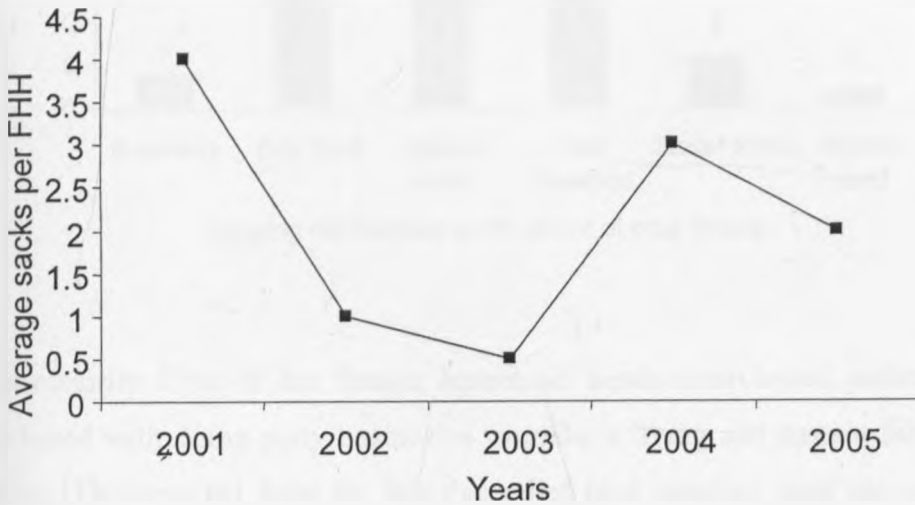
4.5 How female headed household cope with poverty and famine

The third objective of the study sought to establish how female headed households cope with poverty and famine. This section presents the findings of the relationship of poverty and famine among FHH, it analyses the farm output and food security.

4.5.1 Farm Output

The farm output for a period of five years between 2001 and 2005 is analyzed. As evident from (figure 8) farm produce has been declining instead of increasing. This is so due to unpredictable rain seasons and lack of proper and affordable farm inputs (See figure 8).

Figure 8: The produce for years 2001 to 2005

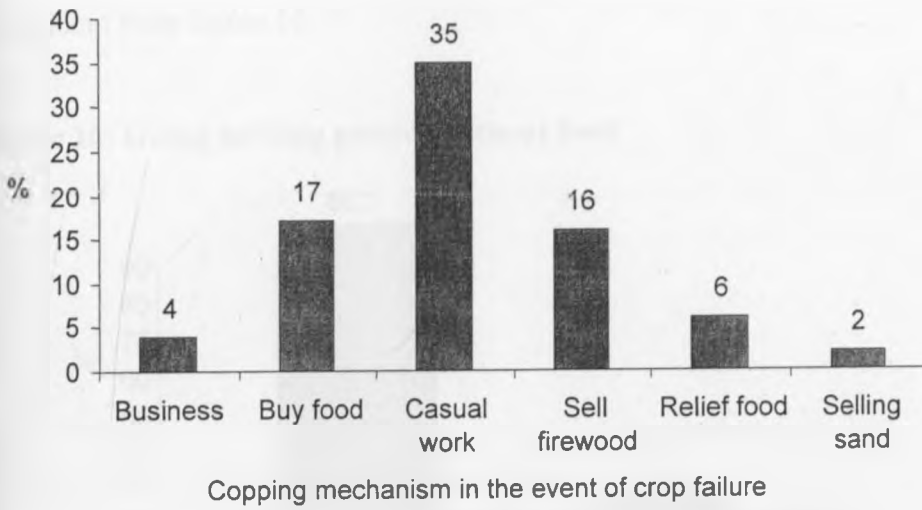


In the year 2001, the female heads got an average of 4 sacks of maize per household, in 2002 due to poor erratic rainfall, the produce declined to 1 sack per household and 0.5 sacks in 2003, there was change of climate in 2004 leading to the female heads getting an average of 3 sacks in a household and in 2005 the yield declined to 2 sacks per household. In assessing the trends of crop production, this study findings concurs with (Devereux 2000) that poor people in marginal areas of rainfall are more vulnerable to famine because they depend on high risk low returns livelihood systems and this group heavily relies on rain fed agriculture.

4.5.2 Coping strategies in the event of crop failure

In this study coping mechanism in the event of crop failure was receiving relief food supplies, doing casual jobs, doing business and buying the food (See figure 9)

Figure 9: Copping mechanism in the event of crop failure



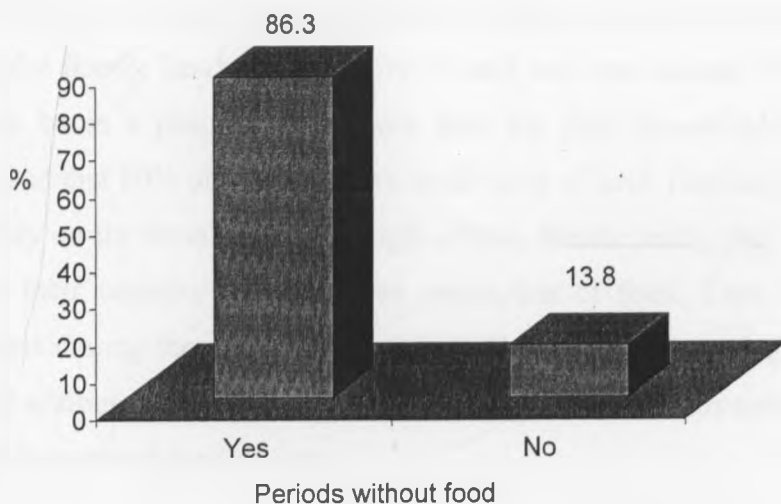
The majority 53% of the female household heads interviewed undertook odd work combined with doing petty businesses to make a living and sustain their families food needs. This resulted from the fact that relief food supplies were not sufficient to feed them. These findings were similar to that found in the welfare monitoring survey of 1997, that the poor devoted a higher proportion 77.4% of their incomes on food purchase in 1997 compared to 60% for the non poor.

This indicates that women play multiple roles as mothers, homemakers, attending to family basic needs, producers and contributors to the family income as well as community organizers. The main adverse implication of each of these activities adds up to a sizeable demand in their families as a consequence of reduced health and level of education of the female heads.

4.5.3 Food security

In this study, the respondents were asked if they had gone for long periods without food. As evident from figure 10

Figure 10: Going for long periods without food



A large majority proportion 86% of the respondents had gone for long periods without food. This was confirmed by interviewing the local administrative officer (Chief) who confirmed that there were many female headed households who had gone for long periods without food. The chief further informed the researcher that he had experienced a challenge during distribution of relief food because the female household heads were poor and he had to consider them more than other households for food allocation. This indicates that the majority of the female headed households were food insecure. Obviously, this led to food insecurity a situation in which people's food intake falls below their minimum daily calorie (energy) requirement as well as those who exhibit physical symptoms caused by energy and nutrients deficiency or unbalanced diet.

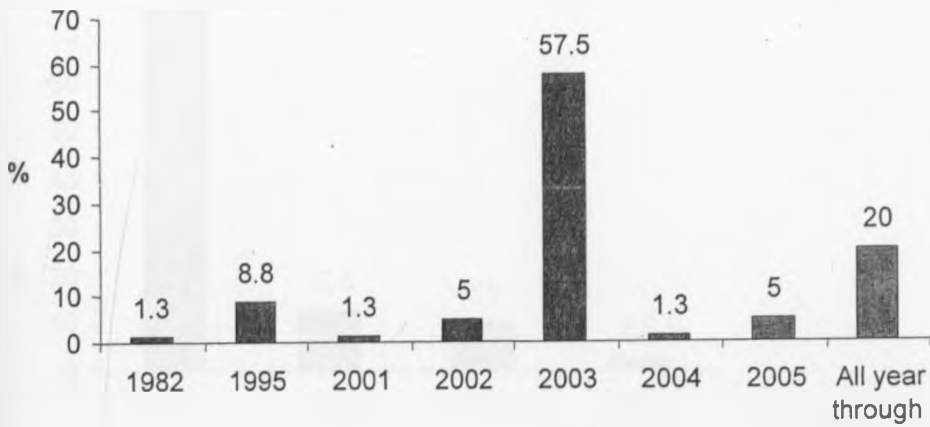
During the focused group discussion it was established that among female headed households food insecurity was ranked as the most problematic issue followed by access to land was ranked second, followed by lack of knowledge and high cost of inputs was ranked the fourth.

This indicates that availability of food and ones access to it is considered a priority need among the female heads. Availability of land and ones access to it enables the female heads to be in a position to produce food for their households. In the study it was established that 80% of the FHH own small sizes of land. Limited access to land impacts negatively on the female heads. In light of this, female heads with limited access to land reduces their capacity to boost own production of food. Lack of knowledge is less prioritized among the female headed household in the focused group discussion. This could be attributed to the immediate needs for the female heads entails sustenance of their families in terms of food security.

4.5.4 Period without food

In this study, the respondents were asked to state the years they had gone without food, as shown in figure 11

Figure 11: Periods without food

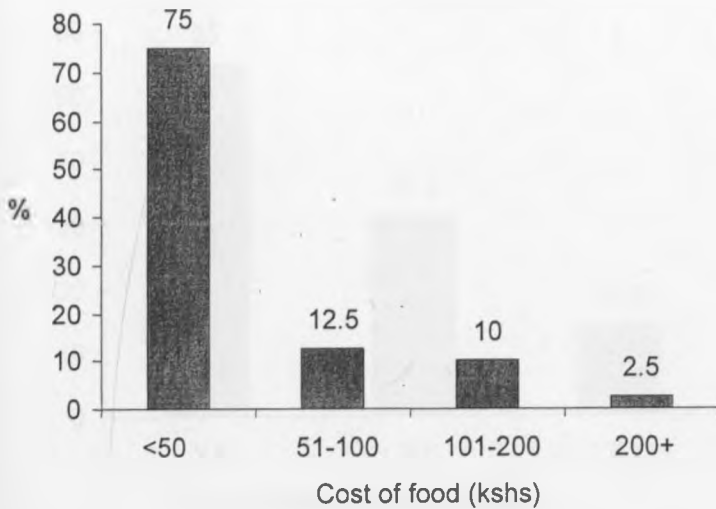


The majority 57.5% of the female household heads reported that the year 2003 was the worst hit by famine due to lack of food from their *shambas* (small farms). Others 20% went without food for most of the year. From the study findings 46% of the respondents engaged in small scale businesses such as selling of vegetables and fruits to sustain their families. Over 95% of the female household heads had at least, at one given time gone without food in their life time.

4.5.5 Cost of Food

In this study, the amount of money that the female household heads spent on food was calculated and the results are shown in figure 12.

Figure 12: Average Household expenditure per day



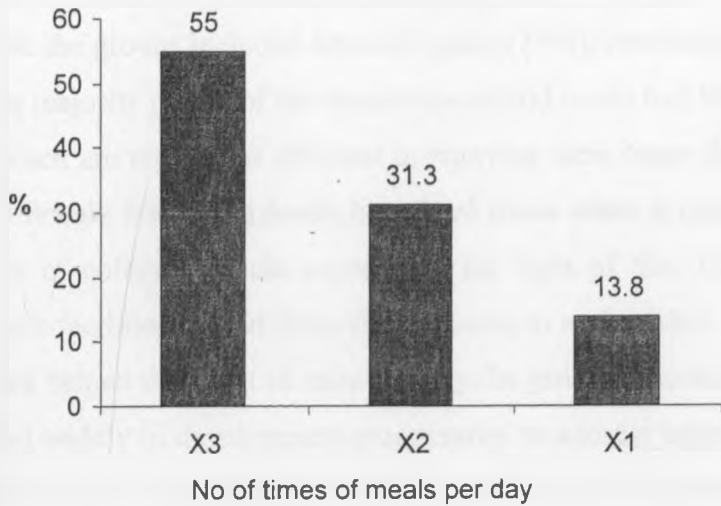
The above figure 12 shows that three quarters 75% of the respondents spent between kshs 11.00-50.00 on food alone per day. However, the money is not sufficient for the female household heads to meet their food needs. An inverse relationship existed between food consumption level and poverty. Families with financial resources to escape extreme poverty rarely suffer from chronic hunger due to food shortage while poor female headed households not only suffer the most from chronic hunger but also from the segment of the population most at risk during food shortages and famines. Moreover, in this study vulnerability to hunger and famine were found to be directly related to the number of dependants. The female headed households were more likely to be vulnerable to famine because they had many dependants in the midst of poverty in each household (See figure 2).

4.5.6 Meals per Day

In this study the number of times that the female household heads took food was analyzed.

As shown in figure 13

Figure 13: Number of times the female head ate food in a day



Just over half 55% of the female household heads have three meals per day whereas 31.3% have two meals per day and 13.8% have meals once per day. Most (74%) of their meals contain carbohydrates but little proteins and lacks the essential minerals that are necessary for good health. In times of famine they had to do with two or one meal of *githeri* (a mixture a beans and maize) in a day. If left unaddressed, hunger sets in motion, an array of outcomes that perpetuate malnutrition, reduce the ability of adults to work and to give birth to healthy children and it erodes children's ability to learn at school and to lead productive lives (Mitchell 2006). This truncation of human development undermines a country's potential for economic development for generations to come. In essence the children of female headed households experiencing hunger manifest malnutrition which leads to high infant and child mortality rates. Once child stunting has occurred, improved nutritional intake later cannot reverse the damage satisfactorily.

4.6. Group Membership

This section presents the findings of how group membership uplifted the female headed household socially and economically. Membership to a group refers to any women group or organization that female household heads had joined that enabled them to uplift their

standards either socially or economically. Most of the female household heads (70%) were members of women groups referred to as “*mwethia*”. Some of the benefits realized from the groups included financial gains (75%), knowledge (21%) and fellowship (25%). The majority (60%) of the female household heads had little access to credit facilities yet women are reputed as efficient in repaying their loans (Mann 2001). Ironically, 90% of the female household heads have hard times when it came to securing loans because of lack of collateral, male consent. In the light of this, these women’s inaccessibility to credit facilities denied them the exposure to and control of new technologies that would have helped them out of mire poverty. In general, income generating projects have been used widely in development programmes to address issues affecting women such as lack of access to food, primary economic access and as a major poverty reduction strategy (Mutangadura, 1995).

4.7 Discussion of the findings

Education in Kenya is regarded as a vehicle of emancipation from poverty, especially among the poor. In this study, 62% of the participants had attained primary level of education. In the PRSP report of 2001, poverty was found to be highest among people without any schooling (illiterate). Out of the remaining respondents, only 37% had secondary education and a mere 1% with post secondary education. The poverty reduction strategic plan (PRSP), 2001 showed that there was virtually no poverty among households headed by university graduates. The female household heads found it difficult to afford basic needs such as food, clothing, education and healthcare. The findings of this study concur with the World Bank report of 1990 which concluded that female headed households had inadequate incomes. Hence, they experienced absolute poverty and they were unable to fulfill their basic needs such as food, health care and education. The FHH diversify their income generating activities. Majority 72% of the FHH have small pieces of land (0.5 to 2 hectares) and most 95% of them regard themselves as small scale farmers and even though many depend on non-farm income for cash. This is in tandem with the ILO estimate that 78% of the females are economically active in

agriculture (Kabeer, 1996). It further notes that 70% of labor force in food production is performed by women. About 11% of the respondents considered poverty as indicate of lack of rain, seedlings or fertilizer. This was in agreement with Haddad (2001) that vulnerability to famine out breaks among female headed households could not be understood if poverty was not factored into the analysis. About 49% of the female heads did odd work to make a living and sustain their families. This resulted from the fact that relief food was not sufficient to feed the female headed households and their dependants. More importantly, this concurs with the welfare monitoring survey of 1997 that the poor devoted a higher proportion of their incomes on food purchase (77.4% in 1997 compared 60% for the non poor). It was established that 88.9% of the female household heads had between three and eight children and dependants. This finding concurred with the PRSP report of 2001 which stated that that poor households in Kenya had large families. According to the PRSP report of 2001, the average household size for the poor in Kenya was 6.4 members compared to 4.5 in non poor households. Over 91% of the female heads experienced absolute poverty (less than US\$1 per day).

These findings are similar to the World Bank report of 1990 which showed that out of the world's 6 billion people, 2.8 billion live on less than 2 dollars a day and 1.2 billion (a fifth) live on less than 1 dollar a day. There are, therefore high levels of poverty among female household heads. The dominant source of livelihood for the female household heads was farm-work (61%), of which about 31.3% was casual labour, 10.4% of the respondents were involved in small scale businesses and 8.8% depended on their friends and relatives and charitable organizations such as churches. For African women, combining farm and non farm earning activities has long been a survival strategy in their attempts to reduce the risk of starvation among their families during periods of food insecurity (Mutangadura 1995). As a result of alcohol abuse by husbands, depression and violence the children also absorb many of the social and psychological costs of poverty within a household. An additional element commonly referred to as an intergenerational transmission of disadvantage is that the deprivation of female household heads is passed

on to their children (Chant, 1997). In assessing the trends of crop production, these study findings concurred with (Devereux, 2000) that poor people in marginal areas of rainfall were more vulnerable to famine, because they depended on high risk low returns livelihood system.

4.8 Testing of hypotheses

4.8.1 Introduction

This section deals with inferential statistics basically the chi square analysis of selected variables which were used to test the hypotheses. The data presented in the previous chapter were examined in detail with a view to illustrate the relationship between the various major variables of the study. Specific attempts are made to test the various hypotheses which this study advanced in chapter two.

Relationship between educational level and famine experiences.

Ho: Female heads with low level of education are likely to be vulnerable to famine

Ha: Female heads with education are less likely to be vulnerable to famine

This hypothesis was tested using chi square. The dependent variable was famine while the independent variable was education level of the female heads. Information was collected from 80 female heads to find out if there was a relationship between their levels of education and famine; the results are summarized in table 9.

Table 9: Observed and expected frequencies and deviations of the relationships between education and famine.

Observed frequencies	Expected frequencies	Deviations	Deviations squared	X^2
40	28	12	144	$144/28=5.142$
10	22	-12	144	$144/22=6.545$
5	17	-12	144	$144/17=8.470$
25	13	12	144	$144/13=11.076$
				31.233

In the above table, the calculated chi square value is higher than the table value chi square ($\chi^2 = 31.233$, $df=1$ $p<0.05$), this indicates that the two attributes have a relationship.

These statistics confirmed that there was poverty and vulnerability to famine among female headed households with low level of education. Education in Kenya is regarded as a vehicle of emancipation from poverty, especially among the poor. In this study, this was confirmed in an interview with a women group leader from Central division in Machakos district, who stated that the majority of the female household heads had primary level of education.

In the PRSP report of 2001, poverty was found to be highest among people without any schooling (illiterate). The poverty reduction strategic paper GoK (PRSP), 2001 showed that there was virtually no poverty among households headed by university graduates. It was established that in general, literacy among female household headed in the rural areas was low due to the fact that majority of the respondents had not gone beyond primary school level.

Education and training are fundamental determinants of employment outcomes in any labor market. Generally, higher levels of educational attainment for female headed households contribute to their greater capacity to access higher skilled and more rewarding employment opportunities in both the agricultural and non-agricultural sector. Lower levels of educational attainment among female headed households contribute to their being unable to compete with men for better and more skilled jobs.

It is well established that educating and providing women with opportunities to take part in skilled paid employment provides benefits to their families in form of decreased child mortality, increased child health and nutrition and improved levels of children education. In light of this, Buvinic (1997) suggests that women may be bearing more than their fair share of poverty in terms of health, nutrition and education in addition poor female headed households invest less in health, nutrition and education. An additional element commonly referred to as an intergenerational transmission of disadvantage is that the deprivation of female household heads is passed on to their children (chant, 1997)

Learning for female headed households should incorporate in depth knowledge of self and others. Andragogy theory consists of learning strategies focused on adults. It is the process of engaging adult learning with a structure of learning experience. This learning is needs based, adaptive, and holistic where personal interpretation; evaluation, decision making, reasoning and strategy are developed to give expertise. Learning strategies focus on mature learning with a mentor that encourages and enables the mature learner. Female headed households need to learn skills of how to cope and alleviate poverty in their lives. This could be in form of motivational entrepreneurship. This is based on their experience of being the heads of their households and would in the long run enable them alleviate poverty.

Patriarchal ideologies, steeped in traditional customs and culture, underlie the workings of most rural societies. In a patriarchal society the role of the father is central to organization of the family and the father holds authority over women, children and property, female headed households are worst hit by poverty due to cultural systems of organization in contrast, the feminist theory examines women's social roles and lived experiences and promotes women's rights, interests and issues. The transmission of greater bargaining power to women through more gender equitable inheritance customs contribute to the health and development of their children.

Relationship between group membership and famine

Ho: Female heads who are members of a group are less likely to be vulnerable to famine

Ha: Female heads not members of a group are likely to be vulnerable to famine

The dependent variable was famine while the independent variable was group membership of the female heads. Information was collected from 80 female heads to find out if there was a relationship between group membership and famine, as evident from table 10.

Table 10: Observed and expected frequencies and deviations of the relationships between group membership and famine.

Observed frequencies	Expected frequencies	Deviations	Deviations squared	Calculated chi square
20	16	4	16	16/16=1
20	24	-4	16	16/24=0.6
12	16	-4	16	16/16=1
28	24	4	16	16/24=0.6
				3.2

In the above table, the calculated chi square value is less than the table value chi square ($\chi^2=3.2$, $df=1$ $p=0.04$), this indicates that the two attributes are independent and not associated. In general even though there was no statistical significance between group membership and vulnerability to famine among the female heads. In the study, 70% of the female heads were members of women groups called “*mwethia*” though the group membership did not influence their vulnerability to famine. In essence income generating projects have been used widely in development programmes to address issues affecting women such as lack of access to food, primary economic access and as a major poverty reduction strategy (Mutangadura, 1995) hence being a member of a group among the female heads does not have any relationship on their vulnerability to famine.

In the study the majority (60%) of the female household heads had little access to credit facilities yet women are reputed as efficient in repaying their loans (Mann, 2001). Ironically, 90% of the female household heads have had hard times when it came to securing loans because of lack of collateral, male consent. In the light of this, these women’s inaccessibility to credit facilities denied them the exposure to and control of new technologies that would have helped them out of mire poverty.

Women face a variety of economic and social disadvantages which restrict their ability to acquire land and productive inputs, such as pesticides and fertilizers, and access to credit facilities. This limits their potential contribution to the overall rural economy. Thus, if they enjoyed the same level of inputs as men, they might produce even higher yields than men, leading to potential benefits for themselves and rural economy. The untapped nature of this potential is an opportunity cost and demonstrates the importance of gender equity measures not only for women's welfare, but also for developing rural economies at large.

According to James Coleman social capital facilitates individual or collective action generated by network of relationships, reciprocity and social norms. It promotes social cooperation for instance if FHH comes into contact with women groups there will be accumulation of social capital which may immediately satisfy her social needs and which may bear a social potentiality sufficient to the substantial improvement of the living conditions of the lives of FHH, they will find help, sympathy and fellowship.

Adoption of new ideas such as improving of social networks and social capital among the female headed households has benefits of improving the lives of the FHH and their families. The more the social networks, the more the people the FHH have to move into when in need hence enabling the female head solve her problems. Just as a screwdriver (physical capital) or university education (human capital) can increase productivity both individual and collective so do social contact affect the productivity of individuals and groups.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter summarizes the study's findings, discusses, interprets them, draws conclusions and offers intervention strategies (recommendations)

5.1 Summary

From the research findings, the higher number of children including dependants that a female household head had, the higher the vulnerability to famine episodes and poverty. In addition, low level of education among the female household heads compounded their vulnerability to famine and poverty and increased the risk of the female household head not being able to educate their own children. An element commonly referred to as an intergenerational transmission of disadvantage that the deprivation of female headed household is passed on to their children.

Female headed households had low level of income; their average income was below poverty line hence the majority of the female heads experienced absolute poverty. In general poverty is the primary cause of famine among female headed households and poverty reduction is the principle means of tackling it. Drought and other natural disaster often increase the number of people facing acute hunger. More importantly, their livelihood comprises both farm and non farm activities such as casual work which requires fewer skills but they get low wages to enable them run their families. This helps them in the short term but makes it harder to get out of poverty trap in the long run.

In this study, perception of poverty was identified to include deprivations such as lack of money, lack of basic needs to include the social issues and attitudes of the female household heads on the support they get from their husbands. Further more wealth was reflected in the ability of the female headed household to produce food and access to land. From the study, the majority of the female household heads were vulnerable to

famine episodes due to lack of access and control of resources which would enable them to escape poverty.

In this study, health care was considered to be an important element on fostering the well being of the female heads including that of their dependents. It was established that the female household heads were experiencing poor health due to lack of access and affordability including their poor response to emergencies and chronic illness. Produce from the *shambas* of the female household heads had been dwindling for the last few years leading to increased food insecurity among them. It was established that the majority of the female headed households are food insecure.

Study showed that, a direct relationship exists between food consumption levels and poverty. Families with financial resources to escape extreme poverty rarely suffer from chronic hunger while poor families not only suffer the most chronic hunger but also from the segment of the population most at risk during food shortages and famines. Group membership enabled the female head out of poverty though majority of the women's group lacked technical assistance in terms of management and finances hence access to credit facilities was limited.

5.2 Conclusions

The study established that female household heads in Yathui and Central divisions of Machakos district, Kenya, experienced high levels of poverty due to low incomes and over dependency on rain fed agriculture whereby the rainfall was low in amounts and irregular its trends, leading to periods of prolonged famine. It is therefore, likely that one of the major causes of famine is over dependency on rain fed agriculture and there is an urgent need for intervention by the government and other stake holders on the best ways of alleviating poverty and its influence on famine among female headed households in Kenya.

It was, inferred that poverty influenced vulnerability to famine among female headed households. The factors accelerating poverty were low level of education, low incomes, high relatives' dependency on the female household heads, ownership of small uneconomically productive pieces of land, lack of agricultural implements and over dependency on rain fed agriculture.

Enhancing the assets of the female household heads includes investing in physical and human capital. Access to affordable healthcare is important for the productivity of the female headed households. As recognized by their prominence among the international development targets, health and education have vital role to play in both direct and indirect poverty reduction.

For female headed households, education can provide the stepping stone out of poverty by providing access to formal sector employment and enhancing productivity in the informal sector. In general, improving the capabilities of the poor will lift them out of poverty thereby reducing overall poverty in Kenya.

More importantly, giving women access to economic resources such as credit facilities leads to their overall empowerment that translates into poverty and famine reduction.

5.3 Recommendations

In view of the findings in this study, the following recommendations are deemed important.

Community Level

1. An attempt should be made to cushion the female household heads in Yathui and Central division of Machakos district, Kenya, from the effects of recurrent famine and poverty. Focus should be on building innovative, commercially oriented and modern crop and livestock sector through support to female household heads and boosting off-farm activities in the rural economy including promoting irrigation infrastructure for crop and livestock farming.

Government Level

2. Promote access of women to entrepreneurship and vocational training through use of vocational training centers.
3. Establish and extend social protection schemes to rural areas and the informal economy.
4. Support should be identified for poor primary school students including those who come from female headed households to be included in the bursary education schemes this will facilitate children from female headed households to attain education.
5. Women groups and Self-Help Groups sometimes were assisting the poor with periodic grants (the so-called Merry-Go-Round) to start business, and sometimes with livestock (a cow or some chicken). Government should assist this process with credit loans to formally registered self-help groups. Female headed households as a particularly needy group would be greatly assisted by such a program.

Non- governmental Level

6. With respect to water, community management of water supplies has been shown to work for female household heads in many areas, including sensitivity to the needs of the poor. Subsequently, the promotion of rain water harvesting is strongly recommended.

Further Research

7. Further and large-scale research should be conducted to determine poverty and vulnerability to famine among female headed households in Kenya.

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APPENDIX

QUESTIONNAIRE

INTRODUCTION

My Name is **TERESIA MUTAVI**, a Masters student in the Faculty of Arts, Department of Sociology, of the University of Nairobi. In partial fulfillment of the requirement of the Master of Arts degree in (Sociology), I am conducting a study on ***THE MAGNITUDE OF POVERTY AMONG FEMALE HEADED HOUSEHOLDS IN YATHUI AND CENTRAL DIVISION OF MACHAKOS DISTRICT.***

I would like to ask you some questions and I assure you that the responses given by you in your participation in this study shall be treated in strict confidence and shall not be used for any other purpose other than for this study. It is further stated that your responses shall be handled with utmost care and shall not be availed to unauthorized parties whatsoever.

Thank you very much for your willingness to participate in this study.

TERESIA MUTAVI
C/50/7738/03

PART A: BACKGROUND INFORMATION

Q1. Location

Sub-Location

Village

Q2. Age of respondent (in years) _____

Marital Status Married

Widowed

Separated

Divorced

Others (Specify) _____

Q3. If married, for how long have you been married _____ years.

Q4. How many children do you have? _____

Q5. Who pays the school fees of your children? _____

Q6. Education level of the respondent

Primary

Secondary

College/Polytechnic

University/Postgraduate Degree

Q7. What is your main economic activity?

Q8. What is your level of income?

Q9. What are your major sources of livelihood?

Farm

Relatives

Employment

Others (Specify)

Q10. How many persons (including children and relatives) reside in this Household?

PART B: POVERTY IN RELATION TO FEMALE HEADSHIP

Q11. Please tell me in your own words what you perceive the term poverty?

Q12. Please tell me, the items that you have and the items that you own.

Land (Specify acreage) _____

House (Specify type) _____

Livestock (Cows, Sheep, goats, Chicken, etc)

Others (Specify) _____

Item	Own	Use only	Own and Use	Source

Q12b. Please tell me items that you don't have other households have that make you to be considered poor in the community?

Q13. What assets are owned communally in the community?

Q14. What social services are accessible within your community?

a.) Health Services _____ b.) Water _____

PART C: FAMINE IN RELATION TO FEMALE HEADSHIP

Q15. What is your average output in bags in one particular harvest?

Q16. How has been the trend of harvest in the following years?

2001	2002	2003	2004	2005

Q17. In the event of crop failure, how do you feed the family?

Q18. Have you ever gone through a long period without food from the shamba?

YES

NO

Q19. If yes, when and how did you manage it?

When (Year) _____

Management _____

Q20a. How much do you spend food per day? (In Kshs.)

Less than Kshs. 10

Kshs. 11 to Ksh 50

Kshs. 51 to Kshs. 100

Kshs. 101 to Kshs. 200

Kshs. 200 and above.

Q20b. How much do you Spend in total in a day in the household?

Q21. How many meals do you take in one day?

3 times

2 times

Once

Others (Specify) _____

Q22. What is the main diet of this household?

Carbohydrates, Proteins, Vitamins

Vitamins

Carbohydrates

Proteins

Others (Specify) _____

Q23. Are you a member of any women group/Organization?

YES

NO

Q24. If yes, what kind of benefits/assistance have you realized since you became a member?

Knowledge

Education of Children

Fellowship/empathy/comfort

Economic empowerment

Others (Specify) _____

Q25. Have you ever benefited from any organization of which you are not a member?

YES

NO

Q26. If yes, which assistance

Financial

Legal assistance

Guidance and Counselling

Education

Medical

Others (Specify) _____

Q27. If yes, from which organization?

Self-help group

CBOs

NGOs

Political Pressure group

Government Based organization

Any other (Specify) _____

Q28. What in your view are the challenges faced by Female-headed households?

Q29. In your opinion, what should be done to assist Female-headed households?

FOCUS GROUP DISCUSSION

INTRODUCTION

My Name is **TERESIA MUTAVI**, a Masters student in the Faculty of Arts, department of Sociology, of the University of Nairobi. In partial fulfillment of the requirement of the Master of Arts (Sociology), I am conducting a study on: ***THE MAGNITUDE OF POVERTY AMONG FEMALE HEADED HOUSEHOLDS IN YATHUI AND CENTRAL DIVISION OF MACHAKOS DISTRICT.***

I would like to discuss with you about the research topic. I assure you that the responses given by you in your participation in this study shall be treated in strict confidence and shall not be used for any other purpose other than for this study. It is further stated that your responses shall be handled with utmost care and shall not be availed to unauthorized parties whatsoever.

Thank you very much for your willingness to participate in this study.

TERESIA MUTAVI

C/50/7738/03

STEP ONE:

We are going to use pair wise preferential ranking among the female heads who belong to the women groups. The participants will be asked to brainstorm and list of all the problems they can think of affecting the area. They would then be asked to choose one out of every pair of problems giving reason for each choice then social mapping and ranking of poverty and famine would then be carried out of the two divisions.

STEP TWO

The participants would then be asked to list resources which were accessible to the in the community. This would provide resource mapping among the female heads.

STEP THREE

The participants would be asked to state the available services that they could assess within the community – health care

- ◆ Credit facilities

STEP FOUR

Wealth ranking

The participants would be asked to identify the household headed by a woman in the village. Identify

- ◆ Very poor
- ◆ Poor
- ◆ Average
- ◆ Rich
- ◆ Very rich

INTERVIEW GUIDE FOR KEY INFORMANT

- ◆ Name of the respondent
- ◆ Age: Address:
- ◆ Education (Primary/Secondary/College/University)
- ◆ Are there any/many female-headed households in this area?
- ◆ Can you identify those who are married female-heads?
- ◆ What is the impact of this phenomenon?
- ◆ What in your view are the challenges faced by Female-headed households?
- ◆ In your opinion, what should be done to assist Female-headed households?