GENDER RESPONSIVE STRATEGIES EMPLOYED IN BANANA PRODUCTION AND MARKETING IN IMENTI SOUTH DISTRICT, MERU COUNTY

By

LYDIAH MIRITI, BA

A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF HUMANITIES AND SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN GENDER AND DEVELOPMENT STUDIES OF KENYATTA UNIVERSITY
Declaration

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

Signature: ____________________________ Date 31/10/2011
Name: Lydiah Ciangai Miriti
      C50/PT/11164/2008

Supervisors:
This project has been submitted for review with our approval as university supervisors.

Signature 1. ____________________________ Date 31/10/2011
Name: Dr. Grace Wamue Ngare
      Department of Gender and Development Studies

Signature 2. ____________________________ Date ________________
Name: Dr. Casper Masiga
      Department of Gender and Development Studies
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Abstract

This study was done in Imenti South District, Meru County. The study sought to analyze the gender responsiveness of the strategies employed in banana production and marketing and then recommend on the way forward. This was achieved through identifying the roles and responsibilities played by men and women in banana production and marketing as well as assessing the gender constraints therein.

A random sample of 125, 62 men and 63 women farmers cum traders were drawn from the 3 larger divisions in Imenti South namely Nkuene, Abogeta and Igoji. Purposive sampling was used to select eight key informants while 47 farmers were randomly sampled for FGDs. Structured and semi-structured questionnaires were used for the household surveys. The questionnaires were administered face to face as this provided an opportunity for further probing. Interview schedules for the FGDs and Key Informants were prepared depending on the topics to be covered. The activities in banana farms as well as marketing in various channels were observed. Secondary data on banana production and marketing was collected from the Ministry of Agriculture offices in the region.

The study found that women play a vital role as banana producers and marketers, and as agents of food security and income. Yet relative to men they have less access to productive assets such as land, labour, inputs, credit, transport, trainings and extension services. The study also shows that the strategies that are employed in banana production and marketing are not gender responsive.

Women have access to and control of banana income, and they are hiring more land to plant bananas. However, this has caused gender conflict in the intra-household allocation of duties especially in resource poor households. Men have been disempowered while women are more burdened since they solely perform household chores and at the same time, are actively participating in productive activities. Men are leading in banana production and marketing due to various factors that favour them as compared to women. E.g. they are in organized banana marketing groups where they receive banana production and marketing trainings, own TC nurseries and are adding value to bananas due to membership in organized groups. Resource poor women are unable to join organized banana groups due to reproductive roles as well as lack of capital to pay the group’s fee.

The study therefore suggests that towards sustainable production and marketing of bananas amongst the small scale farmers for realization of poverty reduction, it is paramount to empower men and women especially after the shift to commercial. This will ensure that the needs and concerns of men and women are considered. The study recommends collaboration of the existing agencies, NALEP and SHEP to initiate gender trainings through gender responsive farmer groups.
# Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AEZ</td>
<td>Agro-ecological Zones</td>
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<tr>
<td>ALV</td>
<td>African Leafy Vegetables</td>
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<tr>
<td>CBOs</td>
<td>Community Based Organisations</td>
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<tr>
<td>DAO</td>
<td>District Agricultural Officer</td>
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<tr>
<td>ECA</td>
<td>Economic Commission for Africa</td>
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<td>FAO</td>
<td>Food Agricultural Organisation</td>
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<td>FFS</td>
<td>Farmer Field Schools</td>
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<td>FGDs</td>
<td>Focus Group Discussions</td>
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<td>FTCs</td>
<td>Farmer Training Centres</td>
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<tr>
<td>GAD</td>
<td>Gender and Development</td>
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<tr>
<td>GoK</td>
<td>Government of Kenya</td>
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<td>GNP</td>
<td>Gross National Product</td>
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<tr>
<td>ICRW</td>
<td>International Centre for Research on Women</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>JKUAT</td>
<td>Jommo Kenyatta University of Agriculture and Technology</td>
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<tr>
<td>KARI</td>
<td>Kenya Agricultural Research Institute</td>
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<tr>
<td>MoA</td>
<td>Ministry of Agriculture</td>
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<tr>
<td>NALEP</td>
<td>National Agriculture and Livestock Extension Programme</td>
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<td>NASEP</td>
<td>National Agricultural Sector Extension Programme</td>
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<tr>
<td>NGOs</td>
<td>Non Governmental Organisations</td>
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<tr>
<td>O.Is</td>
<td>Oral Informants</td>
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<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategic Programme</td>
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<tr>
<td>RRP</td>
<td>Regional Research Programme</td>
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<td>SAPS</td>
<td>Structural Adjustment programmes</td>
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<td>TC</td>
<td>Tissue Culture</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WID</td>
<td>Women in development</td>
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<td>WAD</td>
<td>Women and Development</td>
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Chapter One

Definition of Terms

**Gender**
Socially constructed roles and responsibilities assigned to men and women, boys and girls in the society. Gender is cultural, assumed, acquired, learned and is changeable with time.

**Gender Equality**
Equal access to equal opportunities, status and resources for both men and women.

**Gender Equity**
Process of being fair to men and women. To ensure fairness, measures must often be put in place to compensate for the historical and social disadvantages that prevent women and men from operating on a level playing field. Equity is a means. Equality is the result.

**Gender Division of Labour**
The result of how each society divides work among men/boys and among women/girls according to what is considered suitable or appropriate to each gender.

**Gender-Mainstreaming**
Process of assessing the implications for women and men of any planned action, we mainstream gender concerns to achieve gender equality and improve the relevance of development agendas.

**Gender Responsive Strategies**
Programs, plans, and project objectives that are non-discriminatory, equally benefit women and men, and aim at correcting gender imbalances.

**Household Member(s)**
A person or group of persons who reside in the same homestead/compound but not necessarily the same dwelling unit, and are answerable to the household head.

**Household head**
This is the most responsible/respected member of the household (as at the time of interview) who makes key decisions in the household on a day to day basis, and whose authority is honoured by all members of the household.

**Tissue Culture Propagation**
The process used to propagate plants under sterile conditions for plant shoot-tips in a laboratory until they are ready for transplant into the field.
Introduction

1.0 Background to the Study

Small-scale farmers produce much of the developing world’s food, yet they are generally much poorer than the rest of the population in these countries, and are less food secure than even the urban poor. Although the majority of the world’s population will live in urban areas by 2030, farming populations will not be much smaller than they are today (FAO, 2006). For the foreseeable future, therefore, dealing with poverty and hunger in much of the world means confronting the problems that small scale farmers face in their daily struggle for survival.

From the mid-eighties, there has been a shift from the major cash crops to other subsistence crops in Kenya. Small-scale farmers, who depended heavily on traditional cash crops like coffee for their livelihood, had to explore other sources of income through diversification and commercialization of traditional food crops. A majority have replaced the cash crops with banana farming, making its production prominent as a sustainable enterprise with unique advantages (FAO, 2006).

In terms of production, bananas are the world’s fourth most important food crop, mostly grown and consumed in the tropical and subtropical zones. The crop is grown in more than 120 countries, with an annual world production of around 104 million tons; around a third is produced in the African, Asia-Pacific, Latin American and Caribbean regions. Eighty-seven per cent of all the bananas grown worldwide are produced by small-scale farmers for local consumption as a food security crop, and for local markets rather than for international trade. Thirteen per cent of worldwide banana production is destined for the export market. The banana fruit is extremely important as an export commodity especially in Latin America and the Caribbean, which contribute over 83% of all the bananas in the international market (FAO, 2004:5).

According to FAO (2004), bananas supply more than 25% of the carbohydrate requirements for over 70 million people in Africa. East Africa is the largest banana-producing and consuming region in Africa with Uganda being the world’s second leading producer after India, with a total production of about 10.5 million tons. In some African countries such as Uganda, the daily consumption of bananas may exceed 1.6 kilogrammes per person, (highest
in the world). Nutritionally, fresh bananas contain 35% carbohydrates, 6-7% fibre, 1-2% protein and fat, and major elements such as potassium, magnesium, phosphorus, calcium, iron, and vitamins A, B6, and C. Bananas are also used to manufacture beer, wine, and other products and form an important part of the cultural life of many people (FAO, 2004:6).

In Kenya, banana is an important food and cash crop grown all over the country (MoA, 2008). It is good for nutrition and an important source of income for small scale subsistence resource-poor farmers who produce about 83% of the crop. Banana was one of the five pro-poor agro-enterprises (Banana, African Leafy Vegetables [ALV], passion fruit, indigenous chicken and bee keeping), selected during a three-month scoping study by KARI. The stakeholders agreed that the five enterprises were best placed to lead to improved household welfare and increased incomes among resource poor farmers and vulnerable groups, especially women (KARI, 2009). However, producers do not always gain their due share of monetary benefits from this enterprise as a result of poor market systems.

Previously, banana was considered a semi-subsistence women’s crop that provided more or less continuous income flow throughout the year even under a low input regime. The crop is a source of income throughout the year as opposed to traditional cash crops where payments were made once or twice a year (Nguthi, 2008). The shift from traditional cash crops has attracted men and women in banana production and marketing in many parts of Kenya. Results from a socio economic research indicated that as men realize bananas are earning more money than their traditional cash crops; they are releasing more land for planting bananas to women or shifting to banana production (Milu and Muyanga, 2008).

A study by Miruka and Maina (2009) in Imenti South District indicated that banana marketing has always been primarily a woman’s activity. Women used to take the surplus bananas especially ripened ones, for sale to the local small markets and men never engaged in any banana activity. An interesting observation to note is that despite bananas being a predominantly woman’s crop, the possibility of high yields would attract more men than women. However men and women are now engaged in banana marketing especially at roadside markets. A majority of female farmers indicated that bananas have empowered women due to the fact that they have bank accounts and bananas are food and cash (Miruka and Maina, 2009).

Pro-poor agro-enterprises are those that have an impact on both food security and income generation.
The banana’s increase in production and the shift to commercial farming has attracted men and women to banana production and marketing. This shift has changed the intra-household resource management, allocation of duties as well as the power relations in the household. The challenge therefore is to ensure that women, who perform most of the productive activities, do not lose out in the process, and that the empowerment they are talking about abounds. Consequently, various strategies which include Tissue Culture Project, Farmer Field Schools, Agricultural Extension Service Provision and Improved infrastructure, targeted to improve banana production and marketing must be gender-responsive if the bananas’ potential to provide food and income has to be realised.

For example, tissue culture propagation, coupled with agronomic practices significantly reduces disease and dramatically improves yield. Bananas were chosen for the Tissue Culture project because of the crop’s ability to provide income to small scale-farmers for a prolonged period of time, usually about 10 years (Wambugu et al., 2002). Improved varieties, however, require a lot of education to farmers for effective adoption. Unfortunately, women who are mainly in production activities rarely attend the education seminars. In addition, the strategies to counter adoption constraints are gender-biased. For instance, applying sufficient inputs means more income; yet literature has shown that there is gender imbalance in access and control of income, which is mainly in the favour of men. Availability of clean land means more land to women who are the main producers of bananas yet access and control of land is by the male gender (FAO, 2006).

Research indicates that, agricultural policies and approaches affect men and women differently. This is due to gender inequalities in access to and control of economic and social resources, information and decision-making. Despite the fact that women grow half of the world’s food, a survey conducted by Food and Agriculture (FAO) indicated that 95 percent of agricultural extension services worldwide are directed at men (FAO, 2006).

Improved infrastructure is one of the marketing strategies. Employment generation and poverty reduction, production costs, competitiveness and access to markets, depend upon quality of infrastructure. Men and women may not utilize the infrastructure at the same level. In most cases, men access it better. In most areas, especially the rural ones, the mode of transport is by use of bicycles, carts or donkeys, which are mainly owned by men. In agricultural policy, more emphasis is placed on prominent means of transport, air, marine and
railway. Thus, gender issues as far as basic infrastructure is concerned seem to have been overshadowed. The allocations of money depict a similar pattern.

These strategies, among others, are meant to improve production and marketing of small scale farm enterprises, bananas included. However, the strategies are not gender-responsive hence the prospect of the pro-poor agro-enterprises, to have an impact on both food security and income generation cannot be realized effectively. Thus, this study intended to analyze these strategies and recommend on how to have gender-responsive strategies in banana production and marketing for reduction of poverty which depends to a large extent, on the ability of small scale farmers to respond effectively to changes brought about by improved production technologies and local market development.

1.1 Statement of the Problem
The general decline in traditional cash crop production has contributed to a major shift to commercialization of food crops like bananas. Bananas were traditionally a woman’s crop but after the shift to commercial, men are penetrating its production and marketing. Consequently, women are not benefiting as they should despite the fact that they do most of the productive activities. The strategies that had been foreseen to improve banana production and marketing are not gender- responsive.

Men have shifted to banana production and since they control land mostly for commercial crops, women are left with no option but to adhere to the decisions made in the household, hence their potential as banana producers is compromised. Though women are largely engaging in banana marketing, control of income in the household is by men.

Regardless of the fact that women, who are already burdened by reproductive and productive roles, are giving the impression of an extra time to be at the roadside markets to sell bananas, men seldom assist in the household chores. As such, despite the commercialization of bananas, poverty continues to loom among the small scale banana producing farmers in the rural areas and the study area is no exception.

1.2 Objectives
General Objective
To identify the social implications of the gender shift in banana production and marketing in Imenti South District and suggest the way forward.
Specific Objectives

1. Identify the roles and responsibilities played by women, men, boys and girls in banana production and marketing in Imeni South District.

2. Analyse the gender responsiveness of the strategies that have been used to increase banana production and marketing.

3. Assess the gender constraints that banana farmers are experiencing in the study area.

4. Suggest effective strategies to make banana production and marketing gender responsive.

1.3 Research Questions

1. What are the roles and responsibilities played by women, men, boys and girls in banana production and marketing along in Imeni South District?

2. Are the strategies that have been used to increase banana production and marketing gender responsive?

3. What are the gender constraints that small scale banana farmers are experiencing in the study area?

4. Are there effective ways of making these strategies gender responsive?

1.4 Research Premises

1. That women, men, boys and girls perform different roles and responsibilities in banana production and marketing.

2. That the strategies to improve banana production and marketing are gender blind.

3. That small scale farmers experience gender constraints in banana production and marketing.

4. That there are effective ways of making these strategies gender responsive.

1.5 Justification

Bananas have an impact on both food security and income generation hence poverty alleviation. The potential of bananas to alleviate poverty among the rural poor has not been effectively exploited due to the fact that the approaches meant to increase production and marketing are gender biased. It is noted that although banana production has turned commercial, the standard of living among a majority of small scale banana farmers is still very low. This is due to the fact that there is a gender conflict on banana production and marketing in the household.
In reality, women do most of the productive activities, yet they do not benefit as they should. Besides, banana production was traditionally a women’s crop but men have taken over due to its cash value. Several studies have been done on bananas but so far none has considered gender issues in banana production and marketing despite gender being an important factor if poverty alleviation among small scale farmers is to be realised. Different interventions are giving diversities of how to alleviate poverty by use of the pro-poor agro enterprises, bananas included. However as long as policies and strategies employed in these enterprises remain gender biased, poverty alleviation by 2015 is in vain. There is therefore immediate need to generate knowledge that will assist the government and stakeholders on how to mainstream gender into these policies and approaches for the full potential of bananas to be realized, to raise the standard of living among the rural poor, and for both men and women to benefit equally.

1.6 Scope and Limitations

Scope

According to 2009 Kenya Population and Housing Census Preliminary Reports (KNBS, 2010), Imenti South has a total population of 179,604, 90,291 males and 89,313 females. The target population was drawn from a sample of farmers, mainly banana farmers in the district. Respondents comprising banana farmers and banana traders were interviewed. The study was conducted from October 2010 to January 2011.

Limitations

Gender is a sensitive area especially getting information on use of income among the household members mainly husband and wife. Farmers involved in banana production and marketing do other activities in their farms hence are very busy people. Thus we used triangulation to achieve as much information as possible.
Chapter Two

Literature Review

2.1 Introduction

This chapter focuses on the existing literature on gender imbalances in agriculture, banana production and marketing, the strategies in banana production and marketing, and the gender constraints in agriculture. The gaps in the literature reviewed are identified therein and how the study is to fill the gaps. Theoretical orientation of the study and conceptual framework are specified.

2.1.1 Gender Imbalances in Agriculture

Boserup (1970:8) looked at the redistribution of labour between women and men that resulted from agricultural change, and how the reallocation of work affected women's status within the family. She argued that when tools and other techniques are upgraded, female labour is systematically replaced by male labour. As soon as an operation becomes mechanised, men take over while women continue to use hand tools. In some cases, women work increases with mechanisation because the machine could cover a much larger area than could the old techniques. The decision makers, whether they are male farmers or male agricultural experts and advisors, take little account of the backbreaking work for the women in the family, and the women themselves have no say in the choice of techniques.

On access to land, she observed that men allocate the best land for their cash crops while the women's food crops are grown on the poor land or the land that is far away from the village. As the cultivated area is expanded, all the additional work is usually also the responsibility of women and children. Despite this gender imbalance, she concluded that women are not passive partakers of development but they actively participate in development (Boserup, 1970:48).

Women's patterns of agricultural production and the value of women's work have been verified and documented since the 1970s when Boserup (1970) first drew attention to women's roles in agriculture. At the time, she also highlighted the failure of development agencies to incorporate women into development programmes mainly because the prevailing thought was that women worked within the household and not in economic activities such as
agriculture. Much of the research since then has been directed at showing how these flawed assumptions led to project failures. A classic example of such a failure was that of a Bolivian llama and wool development project where women were responsible for fundamental economic activities such as llama herding and shearing, but instead were given “training in what were considered women’s tasks – cooking, embroidery, knitting, crochet and artificial flower making” (Mehra and Rojas, 2008:6).

Although Boserup’s assessment was done about four decades ago, the situation has not changed especially Kenya’s agricultural sector. For example, the agricultural experts, as Boserup calls them, rarely target women yet as her study concluded; women are the main producers in the sector. There are still imbalances in allocation of duties in the production and marketing of agricultural commodities especially in small-scale agriculture, access and control of resources and decision making. However, Boserup did not explore how equitable balance can be achieved and this is what this study explored.

In 2000, Anita Spring analyzed commercialization strategies for local and export markets used by women and men small-scale farmers, mostly in Western and Central Kenya (Spring, 2000). She noted that women’s access to land for subsistence and income in Kisii District, Western Kenya, has been greatly reduced by men growing cash crops, in which one-third of all acreage is taken up by coffee, tea, and pyrethrum. Similarly, Suda (1996:76) argues that rural Kenyan women “are among the most disadvantaged groups in terms of their structural position in the household and working conditions on the farm.” She argues that they have “inadequate access to labour, technology, credit, and other productive inputs” and most women “have only possession but not legal rights to land, therefore they fall outside the collateral needed for credit and loans”.

Spring (2000) also notes that many studies, as well as government officials, estimate that women supply 70-75 per cent of agricultural labour in Kenya, meaning that those women’s contributions are the backbone of both commercial and household production. Yet this barely translates into helping women with market access, new technologies and land access. Male labour migration influences household farm enterprises in terms of available labour and other resources. When husbands are present, male and female labour contributions to agriculture are about equal, although women work two hours longer per day than men because of their non agricultural responsibilities. Women usually control their own and their children’s,
especially female children’s labour, but they have little claim on the labour of other family members. In poor households, children may be kept or drop out of school to perform household or wage-earning employment. Increased commercialization requires more labour, and women, especially in horticulture and dairy enterprises carry out most of the work.

On access to credit, Spring (2000) noted that obtaining credit is even more difficult for women than for men smallholders. In rural areas, women participate in rotating savings and credit associations called ‘merry go rounds’. Some input suppliers and stockists provide credit for input purchases, but this benefit tends to be more available to men than to women. Men also have better access to inputs through cooperatives societies. Due to government financial constraints, extension services were not being offered to smallholders (Spring, 2000). In addition, other studies indicate that of the credit disbursed to women, only a limited amount is for agriculture. For example, in Indonesia, women receive approximately 13 per cent of formal credit, but only 2 per cent is for agricultural investments (Doss et al., 2008).

On access to inputs, Spring (2000) noted that men use more inputs than women. By law, the large bags of fertilizer are not supposed to be opened until purchased, and the product is not supposed to be repackaged into small units. In reality, a great many stockists break the 25 kilogramme (or lager) bags and repackage the contents into 1 or 2 kilogramme bags to make it affordable to most of their customers. This is especially done for women farmers, who want small amounts for horticultural plots or are cash-poor. Finances, knowledge and crop problems influence usage of inputs like agrochemicals and fertilizers for cereal and horticultural crops.

This study intended to assess the gender issues in access to credit as well as inputs in banana production and marketing and suggest the way forward.

Results from a study done by FAO (2006) showed that in Kenya’s small-scale agricultural sector, women provide 75 per cent of the labour; 80 per cent of labour for food production, over 50% for cash crop production and 95 per cent of household reproduction. In spite of all this, resource accesses favour the male gender. Women spent 70 per cent of their time on food production, 50 per cent on food storage, 50 per cent on marketing, 90 per cent on beer brewing, 90 per cent on fetching water, and 80 per cent on fetching wood. Despite all this, development planners overlook women, hence failure to increase agricultural productivity (FAO, 2006:24).
FAO (2006) acknowledges that the gendered division of labour that is assigned to women off-farm, on-farm and household tasks lead to heavier workloads for women in comparison to men. Most of this work is unrecognized and unpaid, so that women are often overused in terms of hours worked and underemployed in terms of income received. This has implications on food production and commercialization. In most cases, all labour belongs to the husband or the male head within a homestead or a household. Thus, women and children serve as unpaid servants. Rarely do women, especially those from poor households, access extra labour outside the home. For example, though banana production has been commercialized, its potential is not yet realized due to the gender imbalances in its production and marketing. This study has assessed this, and suggested on how to realize this potential.

Ali (2005) showed that many local credit institutions in Kenya have collapsed, leaving a few international banking institutions that have increased their minimum lending rates. This is beyond most women’s ability to repay. Some group lending approaches that mainly target women have redressed this, but gender relations continue to sabotage the lending schemes as the men utilise their wives’ loans for their own projects, leaving women to act as mere guarantors. According to Ali, women face gender specific barriers to credit facilities due to lack of collateral (often land), low levels of literacy, less time and sometimes lack of cash to enable them to travel to lending institutions (Ali, 2005).

The findings of this study support Ali’s especially on barriers that hinder women’s access to credit facilities. Credit facilities enhance farmers’ ability to hire resources like land and labour. Women are disadvantaged due to various gender constraints since bananas production turned commercial. This study intended to identify such constraints. The aim is to assist stakeholders to mainstream gender in policies and strategies employed in banana production and marketing.

A report by World the Bank indicates that time is a resource which is often very scarce for women farmers. In general, women’s productive activities on the farm often compete for time with reproductive roles and community management. Women in most parts of the world have a longer working day than men. Consequently, they often lack time which becomes a major cause of declining food production (World Bank, 2004).
A study in the Central Province of Kenya reported that whilst women in the area have taken over many of the roles that men used to perform in agricultural activities, men still make the major decisions and control the income (Kiriti et al., 2003:119).

Results of a recent case study on tissue culture bananas in Kenya showed that for a woman to inherit her husband’s land in the Gikuyu community, there are certain customary conditions that have to be met; one being that all the customary requirements of bride wealth must have been settled (Nguthi, 2008). Aliber and Walker (2006:715) recorded similar findings in Thika, Embu, and Bondo Districts of Kenya where they observed an intergenerational shift in attitudes towards greater tolerance of the possibility of daughters inheriting land from their parents.

These studies confirm the assertion that access and control of resources like land and time, especially in agricultural production and marketing is gendered and the result is that women are mainly disadvantaged, a fact that this study sought to verify in the case of banana production in Imenti South District.

Most of these studies highlight the importance of secure property rights for increased agricultural productivity. Secure land ownership increases women’s incentives for agricultural investments, leading to higher productivity. Further, women who own land are also more likely to have access to other essential assets including credit, technical assistance and information. Globally, women’s land ownership rates lag behind those of men. In much of sub-Saharan Africa, few rural women own agricultural land: only three per cent in Zimbabwe, 11 per cent in Benin, and 25 per cent in the Democratic Republic of the Congo. Women’s landholdings are also smaller than men’s; for example, the average size of women’s landholdings in Zimbabwe is 1.86 hectares (compared to 2.73ha for men) and 0.98 hectares in Benin (compared to 1.76ha for men) (Alderman et al., 2003:26).

According to the World Bank (2008), responses to the changing rural livelihood system has been highly gendered. Male-centred occupations such as cash-crop production, pastoralism and migrant labour have been eroded while new opportunities such as food crop production, petty trade and beer brewing have favoured women. This has led to an economic marginalisation of men and the burdening of women with ever more tasks. The study further noted that rural livelihood changes such as the decline of cash crops previously under the control of men, has economically disempowered rural men. Consequently, such trends should
be monitored. Rural development projects need to take account of both men’s and women’s needs to rectify the widening of gender gaps. Thus, this study assessed the impact of the changing trends from traditional cash crops to commercialisation of bananas and suggested the way forward.

2.1.2 Gender Factors in Banana Production and Marketing

Nguthi’s (2008) study in Maragwa, Kenya, indicated that women seem to have a large measure of control over banana income. In traditional cash crops, the study affirmed that despite women providing labour for management and harvesting, they neither knew how much cash was paid, nor had any access to, or control of the income. This was due to the fact that it was paid to the male household heads either through the bank or the coffee society. She indicates that variations were however observed in the control of income from bananas in different households as was indicated in different case studies. Nguthi, however, did not explore how these variations affected the household and this study sought to address this fact.

Results from a socio-economic research on smallholder adoption and economic impacts of Tissue Culture banana in Kenya, indicate that as men realize bananas are earning more money than their traditional cash crops, they are releasing more land for planting bananas to women or shifting to banana production (Milu and Muyanga, 2008). Land among small-scale farmers is scarce especially due to population increase. This study aimed at finding out how access and control of land is affecting banana production in Imenti South District.

Miruka and Maina’s (2009) research in our study area noted that bananas have empowered women. The study observed that women have access to banana income and own bank accounts. The challenge for this study was to assess and ensure that women who perform most of the productive activities have equal access and control of banana income, and the empowerment they are talking about abounds.

2.1.3 Strategies in Banana Production and Marketing

Strategies and investments to improve food production among small-scale farmers, such as increasing crop yields, are needed to ensure food security and economic growth. These strategies also must account for women who in many regions are vital to small-scale and increasingly cash crop agriculture. This is especially true in sub-Saharan Africa where "women play a pivotal role in agriculture, being responsible for nearly all food production, 60
per cent of marketing, and at least half the tasks involved in storing food and raising animals. In Latin America, smallholder agriculture also increasingly is comprised of women (Mehra and Rojas, 2008:6).

According to Wambugu et al., (2002), tissue culture propagation reduces disease and dramatically improves yields when coupled with good agronomic practices. It contrasts with the current African practice of transferring banana suckers between farms which increases the risk of transmitting pests, and spreading disease among the crops, hence reducing yields by about 90 per cent. This means a major income loss for farmers. Additionally, land scarcity limits the opportunity for rotational production, so many crops are planted in infected soils further perpetuating disease and pest problems. Tissue culture bananas increase production thereby, improving food security. Consequently, employment opportunities arise from the new banana businesses that are developed and reduce gender inequality by providing opportunities for women (Wambugu et al., 2002).

A study to identify the determinants of tissue culture banana technology adoption among smallholder farmers in the Mount Kenya region revealed that even though literature generally indicates that biotechnology has the potential to increase smallholder farmers’ incomes, this dream is not yet realized among the tissue culture banana growers in the region. The standard of living for a majority of small scale farmers in the region is still very low (Muyanga, 2008).

According to USAID (2009) National Agricultural Sector Extension Programme (NASEP) has adopted a sector-wide approach which addresses all sectors related to agriculture. However, a gender analysis done by Tegemeo Institute of Agriculture shows that NASEP has a neutral vision and objectives and unsystematic logical framework. This shows that extension services, just like before, cannot serve the small scale local farmers equitably (USAID, 2009). Research by FAO indicates that agricultural policies and approaches affect men and women differently due to gender inequalities in access to and control of economic and social resources, information and decision-making. Despite the fact that women grow half of the world’s food, the survey indicated that 95 per cent of agricultural extension services worldwide are directed to men (FAO, 2006).
Lahai and Goldey (2009) conducted a study to determine the effectiveness of male and female extension agents in reaching farmers with extension services in Nigeria, especially women farmers. Results showed that women farmers who are supervised by female agents have more access to extension services than women farmers who work with male agents. Specifically, women farmers, who had females for extension agents, had relatively higher levels of awareness and participation of the organised extension activities. They had higher adoption and technical knowledge of recommended technologies and practices. Consequently, they were satisfied with the quality of agents' services and credibility. The researchers recommended that these differential effects of female and male agents on women's access to extension are significant for the delivery of extension services to women farmers. Extension organisations must therefore encourage and recruit more females for extension work done, at the same time evolve strategies that will help male agents to work better with women farmers.

Spring (2000) noted that women groups are being used to channel enterprises developments, credit and extension. Most women groups and NGOs in Kenya are involved in small enterprise development, but many of these groups function at sub-optimal levels or dissolve after a short time. Women farmers are aware of the private sector preference to contract with them for high quality production. Wilson (2000) indicated that private sector organisations, have noticed that women follow directions better than men and can produce high quality products that have high returns in the export market. Women turn to private services for problem solving, which they could not get from the male extension service.

Farmer Field Schools (FFS) are a learner-centred approach in which farmers learn through observation, experimentation and evaluation leading to acquisition of skills in addressing challenges and introducing appropriate changes to managing their farms (Duveskog et al., 2008). In this learning process, the facilitators and sources of information include extensionists, researchers and non-governmental institutions (Kaaria et al., 2009).

These strategies, among others, are the ones employed to increase banana production and marketing. All of them are facilitated by extension officers, researchers and non-governmental institutions. They also require farmers' availability to attend seminars in order to gather more information. Most of their objectives are gender biased. Literature has shown that extension workers and other agricultural experts rarely target women farmers. In
addition, literature indicates that women are burdened by triple roles hence have less chances of attending the seminars. Research also indicates that agricultural policies and approaches affect men and women differently due to gender inequalities in access to and control of economic and social resources, information and decision-making (FAO, 2006). The study by Lahai and Goldey (2009) confirms that these strategies need to be gender responsive if they have to effectively meet the realization of bananas' potential in poverty reduction.

Were and Karingi (2002) did a gender analysis of the Poverty Reduction Strategy Programme (PRSP) of 2002 to 2004 and concluded that although gender imbalance is acknowledged in the PRSP document, there is no detailed cognisance of gender dimensions of the proposed policies, or anticipation of gender implications of the outcomes in reference to the different poverty dimensions. This indicates that women are relatively more disadvantaged than men in virtually all dimensions of poverty. However, women's high vulnerability to poverty in relation to men is acknowledged and some of the factors that exacerbate it, as brought out through the PRSP evaluations, are highlighted. Gender imbalance is cited as one of the major factors in propagating poverty. As indicated in the PRSP “men dominate the access and control of household resources/assets and decision making patterns while women control only minor resources and assets such as chicken, furniture and utensils”. The recognition of the importance of implementation, monitoring and evaluation in the Kenyan PRSP is commendable but it does not entail a gender sensitive approach, which is crucial and useful in the entire process (Were and Karingi, 2002).

All these strategies, together with others not reviewed are meant to increase production and marketing of agricultural commodities, bananas included. To exploit full potential of bananas as a commodity that will assist in poverty reduction among the small scale farmers, these strategies must be gender responsive.

2.1.4 Gender Constraints in Agricultural Production and Marketing

According to UNDP (2008) observations from studies conducted on agriculture in East Africa, including Maragwa in Kenya, have revealed that despite the contribution of women in terms of labour, time and their role in the entire production cycle, there are gender asymmetries and biases. Women more than men experience the following constraints: Land ownership, poor rural infrastructure, limited capital and access to financial services, inadequate access to information and high illiteracy, inadequate supporting services and
networking opportunities, lack of markets and marketing system, lack of technology, irrigation, processing and storage facilities and HIV/AIDS.

Literature has shown that most agricultural produce is highly perishable and so roads and marketing infrastructure are crucial. In general, rural roads are of poor conditions and often impassable during the rainy season. Most of the rural and urban market places lack appropriate structures to store and display produce. Hence, sellers sort and grade produce for exporters and processors on the ground. Virtually all such selling points lack cooling facilities, hence post-harvest loses are numerous. Small holders lack reliable market information on targeting the best urban markets, and the relatively many women farmers’ produce worsen their chances of obtaining good prices. Spring and McDade (1998) note that this is a major constraint on women’s participation and suggests that governments should focus on infrastructure and leave marketing to the private sector.

Spring (2000) indicated that access to land for commercial production is noted by most WID/GAD scholars, by women farmers themselves, and by national decision makers as the most important factor in women’s limited productivity. Lack of access to and control over land in general as well as lack of appropriate land for commercial farming (in terms of soil fertility, location and slope) is a major constraint that women face. She noted that numerous policy documents also identify women’s lack of ownership rights as the largest constraint on production. Men’s control of title to land gives them access to such agricultural intensification resources such as credit that are not available to women.

During the 1980s, Jean Davison (1988) argues, women’s lack of title was the major constraint on agricultural production. In the 1990s Mwale (1996) placed this as third priority arguing that few smallholders receive credit and that land titles often are not accepted as effective collateral for agricultural loans by commercial banks. This position is supported by a major paper on gender (ASIP, 1996) that points out that regardless of tenure/ownership, women manage land and make agricultural decisions. Women, in fact, have access to land because they develop multiple strategies that include purchasing, hiring, borrowing, joining parcels, pooling land and squatting (Chaiken, 1997; Khasiani, 1995). In her study in Kakamega, Kenya, Chaiken (1997) noted that available family labour may be insufficient to satisfy smallholder labour demands. Female-headed households were more constrained by inadequate supply of family labour. They lacked resources to hire the additional labour and
many had to send members to seek casual work. On the other hand, wealthy female commercial farmers hired both male and female labourers, the former often as permanent labourers and the latter as day labourers for cultivating, weeding and harvesting (Chaiken, 1997).

Spring et al., (1998) analyzed commercialization strategies for local and export markets used by women and men small-scale farmers in Western and Central Kenya. She concluded that there is less recognition by the government, researchers and donors, that the gender ideology that equates women with food production and men with cash crop production is outdated. Consequently, holding to this outdated gender ideology has serious effects. She noted that smallholder commercial women farmers are constrained by lack of capital from making additional agricultural investments, as well as obtaining the optional amount of inputs. In this sense, intensification is limited, and underdeveloped capitalism contributes to stagnation. As a result, the design of policies and programmes that both target and do not target women are limited in their design. Thus, she concluded that in future, it is likely that the private rather than the public sector will offer extension and marketing services equally to women and men farmers.

This study concurs with the above scholars whose literature largely concurs with current gender challenges that are faced by small scale farmers. For example on poor infrastructure, women’s products perish before marketing, and bananas, especially ripe ones, perish very quickly. As Spring (2000) concludes, there is need for government policies and programmes to target small holder commercial women farmers. This study intended to validate these constraints and find out more gender constraints as women venture into commercial banana farming.

2.2 Theoretical and Conceptual Framework

2.2.1 Theoretical Framework

The study used Chafetz’s theory of gender equity. Chafetz (1990) argues that two types of forces sustain a system of gender inequality: (1) those that are coercive; and (2) those that are voluntaristic acts by individuals. The two are interrelated, but Chafetz initially theorizes about them as separate forces. Under the coercive forces of gender inequality, Chafetz (1990) argued that gender stratification is related to macro-level division of labour in society where work is defined and distributed based on a person’s sex. In such a state, men tend to receive
more resources than women, and this material resource advantage will translate into more power for men than women at the micro level. The more men have a material and power advantage over women, stemming from the gendered division of labour, the more they will use this power to perpetuate their domination over women in all spheres of life. As a result, women are burdened with domestic chores, which undermine their effective competition with men for resource-generating work outside the household, a situation that, in turn, sustains the macro-level gendered division of labour.

When men have advantages in the micro-level division of labour, they are more likely to ascend to leadership positions through which they accrue even more power and resources. Domination of leadership positions in society by men implies that the distribution of opportunities for power and work will favour men to women. This reinforces attitudes and behaviours which continue to undermine women's efforts to improve their status. Indeed, the attributes of women will often be negatively evaluated, thereby perpetuating the advantage of men in competition with women for those positions generating material and power resources. As men control material and power resources, while using this resource advantage to define and, hence, ideologically control the work situation, men can use this same definitional power to regulate micro encounters between themselves and women. If women accept their male interaction partners’ definitions of reality, they are more likely to defer to men and to play gender-traditional domestic roles that, in turn, support the macro-level bias in other spheres of life.

Under the voluntary situation, the more the division of labour and the cultural definitions of a society reveal a gender bias, the more likely members of the adult generation are to experience gender differentiation in their work and home activities. As a result, adults become active socializing agents for engendering the next generation in their behaviours, expectations and definitions of reality. Through socialization process, individuals act voluntarily to sustain the macro-level division of labour and cultural definitions about differences between men and women, while reproducing these gender differences in micro-level encounters between men and women. However, Chafetz (1990) emphasizes that, once the forces maintaining a system are understood, the critical targets for change are also identified. From the theory, the targets for changing a system of gender inequality include gender division of labour, the resulting superior resource power of men, the social definitions comprising gender ideologies, norms, and stereotypes, and the engenderment process that differentiate the orientation, expectations, and behaviours of men and women (Chafetz, 1990).
2.2.2 Conceptual Framework

In objective one, this study has assumed that the roles and responsibilities of men, women, boys and girls at the micro or household level are gendered such that the division of labour and power control in the production and marketing of bananas give material resource advantage to men. In this case access and control of land, banana sales and decision-making favour men despite the fact that women play a bigger role in productive activities in the household. This continues such that socialization, as the theory argues, makes men more advantageous at the macro level in the society. Since the same men control the decisions made at the macro level, in this case the strategies and policies made in agriculture, are gender biased. However, Chafetz (1990) argues that the situation can be transformed. The study assessed the gender responsiveness in the strategies employed in banana production and marketing to verify this fact, and suggested the way forward. This is conceptualised in figure 2.1 below.

![Conceptual Framework Diagram]

**Figure 2.1: Conceptual Framework**

Figure 2.1 indicate that the independent is gender biased strategies in banana production and marketing. All the other three variables depend on it such that if strategies employed in banana production and marketing are gender-biased, then there is imbalance in roles and responsibilities, gender constraints increase leading to increased poverty. Research has
revealed that men and children, and therefore society at large, stand to benefit when women are brought more centrally into policy on economic development. For instance, female education leads to better nutrition, education for children and family welfare (World Bank, 2001, 2004; Spring, 2000; King, 2001). Gender equity theory supports this fact. Once the policies and strategies in banana production and marketing are gender responsive they will lead to balanced gender roles and responsibilities. This empowers men and women in banana production and marketing which leads to gender equity in access and control of resources thereby minimizing gender constraints. The standard of living for the farmers is raised leading to poverty alleviation.
Chapter Three

Research Methodology

3.1 Introduction

This chapter starts with a brief description of the study site followed by a detailed sampling procedure, the methods of data collection, data processing, analysis and presentation. The chapter concludes with ethical issues considered in data collection.

3.2 Study Site

The study area was Imenti South District which is in Meru County. It borders Meru Central to the North, Meru South to the South, Tharaka District to the East and Mount Kenya Forest to the West. The total area of the District is 661.4 km², with a density of 272 persons per square kilometre. The altitude of Imenti South ranges from 5200 meters above sea level at the peak of Mt. Kenya to 600 meters in the lower areas. The District has a bi-modal rainfall pattern with rains falling during the months of March to May (long rains) and October – December (short rains).

The main economic activity here is farming. Its growth has, however, been retarded due to factors such as population increase, land fragmentation and deterioration of the traditional cash crops. Crops grown are maize, bananas, beans, cassava, sweet potatoes, and yams, among others. Some farmers also keep poultry, cattle, sheep, goats, pigs and chicken.

The study area was chosen because first, it has three roadside markets, namely, Ntharene, Miruriri and Mwichine, which concentrate on selling both ripe and green bananas as their major commodity. Second, for a long time banana was considered a semi-subsistence crop, but has become an important commercial crop in the area serving the local and urban markets. Third, unlike many other areas where middlemen dominate the markets, this area is characterised by men and women farmers who sell their bananas from their farms. Banana production and marketing has attracted men and women and a majority of women spend most part of their days selling bananas at the roadside markets.
3.4 Sampling Techniques and Sample Size of the Household Survey

To achieve the desired representation from banana farmers cum traders in the population, random sampling was used for the survey. This was to avoid bias in selection of respondents from the target population. According to Imenti South Deputy DAO, the district has 40,000 banana farmers with at least 20 banana stools each (personal communication). The extension officers in the Divisions said the figure is supposed to be low due to the fact that majority of farmers have stopped growing TC bananas. However, going by the list, extension officers in the Divisions, with assistance of those in the locations, were aware of the farmers who had at least 60 banana stools in their Divisions. To minimize the target population, the researcher considered other factors in accordance to the aim of the study. These factors are:

- Men and women farmers who owned separate banana farms
- Men and women farmers who were actively involved in marketing of bananas either in the roadside markets, in organised markets or any other means.

With assistance from extension officers, the target population was prepared and respondents for the survey were randomly selected from the list.

Nkuene had a target population of 300 banana farmers, 140 men and 160 women. From this, 29 men and 33 women were randomly selected. This translated to 21% of the target population. Abogeta had a target population of 200 banana farmers, 90 men and 110 women from which 19 men and 20 women were selected translating to 20% of the target population. Igoji had a target population of 120 banana farmers, 70 men and 50 women from which 14 men and 10 women were selected translating to 20% of the target population. The study interviewed 125 men and women banana farmers, 62 men and 63 women translating to 20% of the total target population. This is summarised in tables 3.2

<table>
<thead>
<tr>
<th>Division</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
<th>%</th>
<th>Target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nkuene</td>
<td>29</td>
<td>33</td>
<td>62</td>
<td>21</td>
<td>300</td>
</tr>
<tr>
<td>Abogeta</td>
<td>19</td>
<td>20</td>
<td>39</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>Igoji</td>
<td>14</td>
<td>10</td>
<td>24</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>63</td>
<td>125</td>
<td>20</td>
<td>620</td>
</tr>
</tbody>
</table>

Table 3.1: Sample Composition of the household Survey
3.5 Methods of Data Collection

3.5.1 Household Survey

Structured and Semi-structured questionnaires were used for the household surveys. The researcher engaged four research assistants. The questionnaires were administered face to face as this provided an opportunity for further probing.

3.5.2 Key Informants and Focus Group Discussion Interviews

Interview schedules for the FGDs and Key Informants were prepared depending on the topics to be covered. The principal researcher facilitated all FGDs with the help of a research assistant who took notes and audio-recorded the discussions.

For key informants, purposive sampling was used and eight were selected from extension officers, FFS leaders and Administrative officers. Sampling procedure is presented in Table3.3.

<table>
<thead>
<tr>
<th>Table 3.2: Sampled Composition of Key Informants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Extension officers</td>
</tr>
<tr>
<td>Farmer Field Schools Leaders</td>
</tr>
<tr>
<td>Administrative Officers</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Members in the FGDs were randomly sampled from banana FFS, organised banana groups and roadside market banana traders. Composition and selection of the group members was based on the topic that each group was to discuss. A total of 47 men and women farmers were interviewed (Table 3.4).

<table>
<thead>
<tr>
<th>Table 3.3 Sampled Composition of Focus Group Discussions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Gaatia Umoja FFS</td>
</tr>
<tr>
<td>Wendo Enterprises</td>
</tr>
<tr>
<td>Ntharene market traders</td>
</tr>
<tr>
<td>Bora banana production</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Secondary data on banana production and marketing was collected from the Ministry of Agriculture offices in the region in order to assess the status of banana production and marketing constraints.
3.5.3 Observations
The activities in households, banana farms as well as marketing in various channels were observed.

3.5.4 Data Processing, Analysis and Presentation
Qualitative data were organized around themes related to research questions and analyzed manually. Quantitative data were processed through manual editing and coding and eventually analyzed using the SPSS computer software. Findings are presented in form of percentages, charts and frequency tables.

3.6 Ethical Considerations in Data Collection
Gender issues especially those to do with households are sensitive hence need for confidentiality was paramount during the interviews. For the household surveys we had to get permission from the relevant authorities who included Deputy District Agricultural Officer (DDAO) as well as the administration officers. The team had to build confidence of the respondents by explaining the need and importance of the survey. This was achieved by ensuring respondents are interviewed privately where necessary. For example in FGDs and case studies, we had to ask for permission from the participants ensuring their freedom in participation.
Chapter Four

Gender Responsiveness in the Strategies Employed in Banana Production and Marketing in Imenti South District

4.1 Introduction

This chapter presents the study findings. The chapter provides an overview of the roles and responsibilities played by men and women in banana production and marketing. It also identifies the gender constraints in banana production and marketing. Gender responsiveness of the existing strategies is assessed and the chapter summarises with effective strategies to make banana production and marketing gender responsive. Every objective is divided into two key sections: (1) banana production and, (2) banana marketing.

4.2 Gender Roles and Responsibilities in Banana Production and Marketing

4.2.1 Roles and Responsibilities in Banana Production

In order to understand the gender roles and responsibilities in banana production, the study sought to document various variables in banana production. These were categorized into the following: Level of education, place of bananas as food availability as well income generation enterprise, banana growing trend, motivation to start growing bananas, and the most preferred banana varieties.

i) Level of Education

In identifying this variable, we took note of the fact that research has shown that education plays a vital role in the socio-economic well-being of society. Results are shown in Table 4.1.

Table 4.1: Education Level by Gender

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Primary</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>Secondary</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>College</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Informal skills</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>50</td>
</tr>
</tbody>
</table>
While 90% of the respondents could read and write, it also emerged that the women are generally less educated than their male counterparts. It is noted that more women are able to access secondary education but in comparison to men few are able to access post secondary education. The high percentage of farmers with primary education in the study area indicates high level of school dropout especially among women. This obviously has a negative impact on the socio-economic well-being of the area.

(ii) Place of Bananas as Food Availability and Income Generation

The study achieved the results by posing a question that required the respondents to rank their food as well as income enterprises. Results are shown in Figures 4.1 and 4.2.

Figure 4.1 Place of Bananas as Food Availability

Figure 4.2: Place of Bananas as Income Generation Enterprise
Bananas were ranked third as a readily available food, after maize and beans. As an income generation, bananas were ranked number one by a significant majority of respondents 45.2%, where a major cash crop coffee and maize came a distance second and third, 12.9% and 11.5%, respectively.

This scenario shows that banana is an important enterprise for small scale farmers both as food security as well as income generation. In the study area, it supports the fact that there is a gender shift from traditional cash crop, coffee, to banana enterprise which was a subsistence crop, largely managed by women. Consequently, it is crucial for development partners to make sure that strategies in banana production and marketing are gender responsive. This will ensure that women who owned the crop and are actively involved in the value chain benefit equally. Studies have shown that when a crop turns commercial, men tend to take over its ownership thereby marginalizing women further from agricultural production.

(iii) Banana Growing Trends
The study also sought to determine the banana growing trend for a period of 10 years. This was to understand the participation of men and women, especially before and after the crop turned commercial, hence comprehend the responsibilities played by both. This was done by categorizing the respondents in three levels, those who started growing bananas less than 5 years ago, 5 to 10 years ago and more than 10 years ago. The results are shown in Figure 4.3.

![Figure 4.3: Banana Growing Trend by Gender](image)

The findings show that a majority of the farmers (85%) started growing bananas less than 10 years ago. In a period of more than 10 years ago more women (9%) as compared to men (6%) were in banana production. This could be attributed to the fact that banana was traditionally
perceived as a woman's crop. However, with the collapse of coffee, men joined in the production and in the last 5 to 10 years, there has been a gender shift with more men than women growing bananas, 24% and 15%, respectively. This gender shift in banana production could be attributed to the fact that after the collapse of coffee, men joined banana production for cash value.

These results differ from those in a report by Smallholder Horticulture Empowerment Project (SHEP), which indicated the gendering of crops grown in Kisii, Nyandarua, TransNzoia and Bungoma Districts. The perceived crops for women were sorghum, bananas, vegetables and other horticultural crops while the crops for men are tea, maize, coffee, and pyrethrum. Basically the women's crops\(^2\) involved mostly those that are consumed in the household while men's crops categorically fell in the larger scale of cash crops. These usually bring more income to the household. Work done by women mostly involves planting and weeding, as well as other roles that involved more bending. On the other hand, men did mostly land preparation and spraying (Mugo et al., 2011). The results support those by Muyanga, (2008) who argue that when a subsistence crop turns commercial, men tend to shift to its ownership and bananas are no exceptional. This usually causes conflict in the household especially in gender roles and responsibilities and access to, and control of benefits from the crops. This has further burdened women more who are already solely engaged in reproductive roles since they have to cope with the productive roles in banana production as a commercial crop.

(iv) Motivation to Start Growing Bananas

The study also sought to establish and document factors that motivated men and women farmers to start growing bananas. In particular, the aim was to find out the reasons that motivated men to shift their roles and responsibilities from traditional cash crops to banana enterprise (Figure 4.4).

\(^2\) This denotes crops that should be grown and marketed by women
The results indicate that about half (52%) of the farmers were motivated to start growing bananas due to its cash and food value. Those who started growing due to its cash value were 45.1%, while only 2.9% farmers indicated that they adopted the enterprise due to its food value. Analysis by gender reveals that the 2.9% farmers who adopted the crop due to its food value are women. It is interesting to note that there are no men who were motivated to start growing bananas for the mere sake of food; rather, most started growing it due to its value as food and cash. Others joined the venture due to its cash value. Among the women, 24.5% started growing bananas due to its cash value while 22.5% due to its value for cash and food.

The study also reveals that after the shift, men are producing bananas due to ready cash, high returns and improved transportation. They can hire transport. Unlike in coffee production, men do not have to depend on women to carry coffee on their backs to the factory. Men and women are able to hire extra land to plant bananas.

(v) Gender Shift in Banana Production and Marketing

It was noted that men in the study area are doing better than women in banana production and marketing. There are factors that have contributed to this scenario as indicated by O.Is Moses Njagi and Helen Mwii. These factors are:

- Growing selective banana varieties that are demanded by the buyer;
- Organized marketing groups;
- Organized tissue culture nurseries;
- Access to collateral to hire more land to plant bananas;
- Seeking for technical expertise from African Harvest, Technoserve and MOA through FFSs;
• Adding value to bananas due to membership in organised groups, hence, able to receive value addition trainings.

These factors favour men more than women due to various constraints that make women more vulnerable. These include access to credits, access to information as well as joining organised production and marketing groups due to reproductive roles. Thus, for women to compete effectively and benefit like their male counterparts, gender responsiveness of all the partners and stakeholders in banana production and marketing is paramount.

In order to further understand why men are doing better than women in banana production, the study sought to document the gender implications on the most preferred banana varieties. Some varieties are known to fetch more cash than others hence it is important to find out which varieties are grown by each gender. This was achieved by posing a question that required the respondents to rank the varieties, starting with most preferred, together with the reasons why they are preferred. The results are presented in Figure 4.5.

![Figure 4.5: Preference of banana varieties by gender](image)

The results show that a majority of men preferred Valery (Kampala variety) and Grand Nain while a majority of women preferred Lacatan (Nyoro) and Uganda green (Kiganda) varieties. This could be attributed to the fact that men ventured in banana production due to the enterprise cash value, hence the preference for Kampala and Grand Nain (TC). As earlier observed, a majority of women indicated that they started growing bananas due to cash and food value, hence preference for Nyoro and Kiganda varieties. This could be explained further by the fact that a majority of women are not able to join organised groups due to their reproductive roles and lack of capital, hence are not able to buy tissue culture plantlets. Men are in organised tissue culture nurseries.
4.2.2 Gender Division of Labour in Households and Banana Farms

The study assessed the gender division of labour at the household level by applying the twenty-four hour activity framework. This enabled documentation of the actual roles performed by men, women, boys and girls in banana production and marketing. Results are presented in Box 4.1.

<table>
<thead>
<tr>
<th>Time</th>
<th>Female activities</th>
<th>Male activities</th>
<th>Children activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 to 7 am</td>
<td>Milking</td>
<td>Wakes up</td>
<td>Leave for school</td>
</tr>
<tr>
<td></td>
<td>Deliver milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare children for school</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take tea with children</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare items for cooking lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feed the cows</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Store tea in thermoses</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare lunch for husband and store in hotpot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 to 8.30 am</td>
<td>Attend to some productive activities in the farm after which leave for the market</td>
<td>Go to work if working</td>
<td>In school</td>
</tr>
<tr>
<td>8.30 am to 5 pm</td>
<td>Selling at the roadside market</td>
<td>Either at work or idling with other men at the shopping centre</td>
<td>In school</td>
</tr>
<tr>
<td>5 to 6 pm</td>
<td>Leave for home</td>
<td>Arrive at home</td>
<td>Arrive from school</td>
</tr>
<tr>
<td></td>
<td>Make fire</td>
<td>Bathe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boil water for husband to bathe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bathe children</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and make supper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 to 7 pm</td>
<td>Serve food</td>
<td>Resting if already at home</td>
<td>Take supper</td>
</tr>
<tr>
<td>7 to 8 pm</td>
<td>Take supper</td>
<td>Take supper if at home</td>
<td>Do homework</td>
</tr>
<tr>
<td></td>
<td>Assist children with home work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 to 9 pm</td>
<td>Wash utensils</td>
<td>Resting and watching television or listening to radio</td>
<td>Go to sleep</td>
</tr>
<tr>
<td></td>
<td>Prepare for the following day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 to 10 pm</td>
<td>Relaxing</td>
<td>Relax and discuss if at home</td>
<td>Sleeping</td>
</tr>
<tr>
<td></td>
<td>Wait for husband if not arrived</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 pm to 12 am</td>
<td>Sleep or if husband not arrived yet wait for him</td>
<td>Arrive late, bathe, take supper and sleep</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrival of husband sometimes drunk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The pictures above show some of the women who sell at roadside markets selling ripe bananas as well as performing reproductive roles of taking care of their children who are not in school.

The daily calendar indicates that the resource poor women who spend all day at roadside markets selling bananas are heavily burdened by household responsibilities. Men, on the other hand, take no part in the chores. A majority of these women spend all day at the market, arrive home so tired yet are expected to be active in reproductive roles too. It was noted that husbands to these women spend most of their time drinking, thus adding more burden to the poor women who are actively involved in reproductive, productive and community roles. This has a negative impact on the socio-economic well being and food security of the community.

These results support Chafetz (1990) theory of gender equity. The theory argues that division of labour in society is defined and distributed based on a person’s sex which gives men a material and power advantage over women. As a result, women are burdened with domestic chores, which undermine their effective competition with men for resource-generating work outside the household.

Gender roles are important social determinants of the availability of labour. It is widely recognized that disparities in access to and control over labour can impede productivity. Social expectations underpin the gender division of agricultural and household tasks. These social expectations can lead to unequal bargaining power that distorts intra-household allocation of labour and productive resources.
Using the Harvard Analytical Framework, the study assessed the productive activities in banana production from land preparation to marketing (Figure 4.6).

Figure 4.6: Banana Production and Marketing Activity Profile

Figure 4.6 indicate that men are highly involved in banana production and marketing activities. Land preparation to desuckering, loading and harvesting, are predominantly performed by men. Women are largely involved in weeding, ripening and marketing activities.

These results affirm a study\(^3\) conducted in Kenya that women are assigned the perceived less tasking roles such as weeding, harvesting, and ripening while men are assigned the more perceived difficult tasks like ploughing, planting, and others that appear technical in cash crops. The results further affirm that banana production and marketing has shifted from subsistence to commercial enterprise as observed earlier. This explains why men are highly engaged in banana production and marketing activities. This has further caused a gender conflict in the intra-household allocation of duties where women are more burdened since they solely perform household chores and at the same time, are actively participating in productive and community activities.

4.2.3 Access to Productive Resources in Banana Production and Marketing

Land, as a productive resource, is crucial in every agricultural production. In order to understand gender implications in access to and control of land in banana production, the

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\(^3\) NALEP, (2009). With regard to duties in agricultural productivity, women are assigned the perceived less tasking roles such as weeding, harvesting and ripening while men are assigned the more perceived difficult or technical tasks like
study sought to document the following variables: land ownership by size, ownership of land title deeds and ownership of land title deeds by age.

(i) Land Ownership by Size and Gender
The respondents were categorized into two levels, male-headed households and female-headed households. The results are presented in Table 4.2.

Table 4.2: Land ownership by Male Headed and Female Headed Households

<table>
<thead>
<tr>
<th>Hectares</th>
<th>Total frequency</th>
<th>% of total</th>
<th>Male headed</th>
<th></th>
<th>Female headed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>0.2 to 0.4</td>
<td>51</td>
<td>41</td>
<td>25</td>
<td>37</td>
<td>26</td>
<td>46</td>
</tr>
<tr>
<td>0.5 to 1</td>
<td>38</td>
<td>30</td>
<td>19</td>
<td>28</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>1.1 to 1.9</td>
<td>18</td>
<td>14</td>
<td>11</td>
<td>16</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>2 and above</td>
<td>18</td>
<td>14</td>
<td>13</td>
<td>19</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
<td><strong>100</strong></td>
<td><strong>68</strong></td>
<td><strong>100</strong></td>
<td><strong>57</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The results in Table 4.2 indicate that a majority of households (71%) possess land ranging from 0.2 to 1 hectare. More female-headed households (46%) as compared to 37% male-headed households possess the smallest pieces of land. Comparatively, therefore, male-headed households possess bigger pieces of land than female-headed households.

Bananas are among the enterprises chosen for its ability as food security and income generation to small-scale farmers. In the study area, it is rated third as food availability and first as income generation. The findings indicate that land sizes are small in Imenti South. This explains why further results reveal that men and women are hiring more land to plant bananas as a strategy to cope with the land shortage. However, women are underprivileged since, while men use title deeds as collateral to get credits, women rely on the income they save through "merry-go-rounds" and other means that do not require collateral. However, these sources do not give enough capital compared to banks and cooperatives thereby marginalizing women further in agricultural production.

(ii) Ownership of Land Title Deeds by Gender
Ownership of land title deeds is important in any agricultural activity. It enhances access to credit. Many sources of credit require collateral. In order to document the ownership of land title deeds by gender, the study categorized the respondents into two groups, husband/
father/son and wife/mother/daughter. This was done by allowing the respondents to answer a question concerning the person possessing the land title deed in the household. The results are shown in Figure 4.7.

![Diagram showing ownership of land title deeds by gender: 94% of title deeds are possessed by men, 6% by women.]

**Figure 4.7: Ownership of land Title Deed by Gender**

The findings indicate that 94% of title deeds are possessed by men, meaning that only 6% women own land title deeds. Thus, it could be concluded that inheritance of land in the study area is highly through sons. Despite the fact that farmers in the study area are hiring more land to plant bananas, women are vulnerable due to the fact that land title and tenure tend to be vested in men. Land reform and resettlement have tended to reinforce this bias against tenure for women. Land shortage is also common among women. Women cultivate smaller and more dispersed farms than men. Therefore, they are less likely to acquire title, secure tenure, or the same rights to use, improve, or dispose of land. Consequently, this has a negative implication to women who are equally involved in banana production and marketing especially in accessing credit to develop their farms.

(iii) Ownership of land Title Deeds by Age

The same parameters were analysed by age by categorizing the respondents into age groups, below 20 years, 21 to 35, 36 to 45 and 46 and above (Figure 4.8).
In identifying this variable, we took note of the fact that young men and women are actively involved in banana production and marketing hence, it is crucial to document their position in access to and control of land. The study reveals that a majority of those who possess title deeds are over 36 years. Young women in the study area are also actively involved in banana production and marketing. Lack of collateral like land title deeds has a negative impact on their participation in agricultural production. They also need security to acquire loans to boost their banana production and marketing. Further, it was observed that a majority of young men are involved in transporting bananas to the market. They own motor cycles and solely depend on farming as a business. They can only depend on banana enterprise which is leading as a cash crop in the area. There is therefore need for intervention from the stakeholders involved to make sure that young men and women benefit equally as their elder counterparts, as well as participate fully to improve on the standard of living in the area.

(iv) Cultural Views on Ownership of Land Title Deeds
Most women respondents stated that land title deeds are owned by their husbands. Asked whether they would like to possess title deeds, O.Is Stellah Muriithi, Rosaline Gikunda, Betty Mwiti, et al. had this to say:

_We would not like to possess land title deeds so long as our husbands are alive. The society believes that women are not supposed to possess title deeds. However, if we could discuss as a household, we would like to have our land with a title deed._

Most men respondents argued that women are not supposed to own title deeds. Asked why, O.Is Geoffrey Murithi, Jurinale Karemu, Chales Mutua, et al. said:
Women are emotional, selfish and not open. They do not entitle their property to anybody. If given power in form of land ownership, the first priority would be to secure credit with it. They do not consider the implication that comes with failing to clear the loan.

O.I Joseph Mutua had other views:

There are households that are now separated after the wife “grew horns” due to banana income. These are the farms we are hiring to plant more bananas because the land is idle. Such men are already disempowered and paying for giving too much power to their wives. Most of them are idling and taking local brews as a result.

The following is a landownership case concerning Agnes Ruguru, a widow in the study area:

Agnes Ruguru is 65 years old. Her three sons took all her land by force after the death of her husband insisting that through custom, they are entitled to their father’s land. They forcefully took the title deed. Agnes informed us that she has no more energy and income to follow the case and has since left it to rest. She owns one banana stool near her house. Her sons have taken the rest. She occasionally buys bananas from other farmers to sell and uses the profit to hire land once in a while to plant maize and beans for her daily use.

The above findings indicate that land ownership is important as it is considered a major capital asset which can be utilized as collateral for improving farming production and accessing additional assets for agricultural production. Subsequently, key decisions around farming are influenced and controlled by men. It is the men therefore who make decisions on how the land should be utilized, secured or disposed of. Rights of control over land are important since they determine access to other assets and benefits, such as credit and membership to farmer’s organizations. Current empirical evidence has underscored the economic cost of ignoring gender and human rights issues in development. By equalizing factors of production (land, inputs and skills) between men and women, productivity goes up by as much as 20 per cent (ECA, 2004).

The study further noted that men in the study area highly control other productive resources in banana production and marketing. Women have equal access to labour and time. However, control of labour and time is by men as the Table 4.9 below shows.
The findings in Figure 4.9 suggest that inputs are predominantly accessed and controlled by men. The study also reveals that decision-making is highly controlled by men.

Asked whether they can decide on where to plant bananas, O.Is Stellah Muriithi, Rosaline Gikunda, Betty Mwiti, et al. had this to say:

*If we plant bananas without consulting our husbands, they will uproot them. In homes where women have separated their bananas from their husbands', it has resulted in serious gender conflict in the household. To avoid this, one has no choice but to adhere to her husband's decisions.*

The above scenario suggests that men in the study area highly control the productive resources and also make decisions on where to plant bananas. For example, clear decisions are paramount in the management of banana production, from land preparation to harvesting. Chafetz (1990) theory of gender equity argues that the more men have a material and power advantage over women, stemming from the gendered division of labour, the more they will use this power to perpetuate their domination over women in all spheres of life. In this case, access and control of land, labour, inputs, and decision-making favour men despite the fact that women play a vital role in productive activities. This has a negative impact to increase banana production since adequate and timely access to productive resources is critical for improving productivity.
(v) Access to Credit

Access to credit is crucial especially in commercial agriculture. The study sought to find out access to credit in the study area by gender. The results are represented in Figure 4.10 below.

![Figure 4.10: Access to Credit by Gender](image)

The results in Figure 4.10 indicate that 25% of those who had accessed credit through groups are men while 34% are women. The importance of financial capital in agricultural production is well established. For example, a field study in Kenya tested the effects of providing fertilizer credits on maize yields. The study found that when women’s groups were given credit for fertilizer, their maize yields increased significantly on the group plots and the resulting additional income was reinvested to purchase fertilizer and other inputs in later seasons (Mikalista, 2006). Access to finance therefore remains a key impediment for women farmers.

Women have less access to formal financial services because of high transaction costs, limited education and mobility, social and cultural barriers, nature of their businesses, and collateral requirements, such as land title. The findings in Figure 4.10 show that only 1% of women had accessed credit through banks. There are no men who had accessed credit through merry-go-rounds. As women have less access to collateral they access credit through sources that do not require such, hence the more amorphous “merry go rounds”. However, women are hiring more land to plant bananas meaning that if they had access to extra credit they would achieve more in banana production and marketing than they are currently undertaking. On the other hand, men have access to collateral like land title deeds. However, few men and women had accessed credits due to various factors that are documented in Table 4.3 below.
As indicated in Table 4.3 above, more women (19.9%), than men (8.9%) gave lack of security as the reason for not seeking credit for the last five years. More women (23.2%) than men (14.3%) gave lack of sufficient information on the sources available, while 17.9% women and 16.1% men indicated fear of high interest rates as the major reason for not seeking credit.

Credit is an important ingredient to increased agricultural production. A number of sources of credit are available in the study area which benefits men and women banana farmers. However, banks and other similar sources, which require collateral, are not favourable for women. The study also observed that there are some conditions that militate against women’s access to credit from sources that require collateral. As earlier observed only 1% women had accessed credit through banks. These conditions are:

- Lack of full time employment;
- Lack of land title deeds (as is evidenced in land title deeds ownership);
- Lack of membership in registered groups; many are in merry go rounds groups;
- Lack of regular/consistent cash flows due to recurrent nature of expenditure on daily basis even though they may have businesses.

Women are able to hire land using banana income they save through bank accounts and ‘merry-go-rounds’. However, women lack collateral to enable them access credit from banks. Women are therefore deprived off such benefits yet they are equal participants in banana production and marketing.
4.2.4 Access and Control of Benefits From Bananas

The study analysed access to and control of benefits from bananas within the household. The findings are presented in Figure 4.11 below.

Figure 4.11 indicates that women have access to and control of banana benefits. For example, women are able to access and control banana income. This scenario is attributed to the fact that women own bank accounts and hire separate farms to plant bananas. For example, O.Is Stellah Muriithi, Rosaline Gikunda, Betty Mwiti, et al., indicated that they save banana income in bank accounts without their husbands’ knowledge due to the fact that the latter are drunkards. However, as the study found out, the empowerment of women in access to, and control of banana income, as well as possessing bank accounts, has contributed to gender conflicts in many households. This is due to the fact that, culturally, men are the heads of households and, hence, supposed to control resources like income and bank accounts.

O.Is Geoffrey Muriuki and Hellen Mwii had this to say concerning banana income:

*Despite women claiming to have been empowered by banana income, they are more burdened instead. Out of frustrations from failure to control banana income, men are spending their time idling in local markets and taking local brew. Wives in these households are further burdened by performing the reproductive and productive roles. In households where men are forcing their wives to surrender the income, it has led to separate banana farms for the wife and husband hence, causing gender conflict in the household. This has caused breakage to many marriages.*
O. Is Stellah Muriithi, Rosaline Gikunda, Betty Mwiti, et al., had this to say:

In many households, husbands and wives are no longer in good terms ... Some of us have taken men's roles. We own separate bank accounts. We take care of the household and our children no longer ask for school fees from their fathers. Our husbands drink the money they get from bananas. They have also become lazy... They spend their time at local markets playing the "Maune". They suspect us of infidelity hence do not allow us to source for markets elsewhere. Women who have freedom are sourcing for banana markets in Nairobi and Isiolo.

Asked whether they usually share banana income in the household considering that they have separate bank accounts, O. Is Stellah Muriithi, Rosaline Gikunda, Betty Mwiti, et al., said:

Our husbands force us to give them some income, and to avoid conflicts, we give them. By the time we get to the house in the evening, one is so tired, hence not ready for any conflict. After buying the daily household items, he usually demands to know the balance. We usually cheat them since all they do with their income is to drink local brew. We often bank our income secretly.

When asked why bananas are disempowering men and causing gender conflict in households, O. Is Moses Njagi, HellenMwii and Geoffrey Muriuki had this to say:

In some of the households where husbands are drunkards, women outsource markets in Nairobi. In such homes women have taken control of other income generating enterprises, e.g. milk.

With bananas turning commercial, the immediate perception is that they will empower both men and women and raise the socio economic well being of the community. However, this is not the case in the study area especially in poorer households. This has further burdened women and brought conflicts in the household. This scenario is mostly in poorer households that solely depend on bananas as a source of income. It is noted that a majority of these women sell bananas at roadside markets while their husbands sell at farm gates.

In the course of the study, it was observed that a majority of men from poorer households were usually found idling in local markets for the most part of the day. Their wives were

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4 A game whereby they use a long board with holes and small, smooth round stones, 'Ngothi'
either performing productive activities in the farms, or selling bananas at the roadside markets. Nevertheless, a number of men from poorer households were actively involved in banana production and marketing, hence participating in raising the standard of living in the area.

Since men controlled income in traditional cash crop economies, their expectation is that the situation must remain the same in any commercial undertaking. They do not know how to behave in the current scenario where their wives have their own bank accounts and are using the income to hire land to plant bananas. Consequently, this has caused conflict in the household duty allocation. Women are perceived to be in charge of household chores. Men are perceived to be in charge of decision making, e.g., how to save income and whether to hire land.

The concept of empowerment generally refers to people’s ability to define and achieve their life goals more deliberately, using all of the resources (material, human, and social) available to them. For women specifically, the ability to increase the value of their contributions to agriculture is important. This is not only in terms of the value of the income they earn, but also the value that income has in changing gender roles and relations in the household, community, and elsewhere (World Bank, 2008).

Women in the study area have changed the gender roles by hiring their own land and having their own bank accounts, hence making decisions on how to use their income without the intervention of their husbands. It was observed that in many households where men were drunkards, women were in charge of the entire household maintenance. They are using banana income to manage the household like paying school fees and other developments, e.g., improving their houses to semi-permanent condition. This shows that women, if empowered, can fully participate in raising the standard of living in the community.

4.3 Roles and Responsibilities in Banana Marketing
4.3.1 Criteria for Sorting and Selling Bananas

The study sought to highlight the criteria used by farmers when sorting bananas in order to document gender implications therein. The findings revealed that bananas are sorted out by size, variety, and quality. However, most farmers sort them by size (65.4%). O.I Moses Njagi indicated that men usually take the good quality and bigger bananas to organized markets because they fetch more cash. Poor quality and smaller sizes are left to the women to sell at
roadside markets and therefore women, despite the fact that they are actively involved in banana production, do not benefit as much as they should. Consequently, gender disparities continue to increase or widen despite the immense banana business that men are enjoying.

Further, our study also sought to document the criteria used by farmers when selling bananas. The results are shown in Figure 4.12 below.

![Figure 4.12: Criteria used to sell Bananas](image)

Figure 4.12 indicates that a majority of farmers (80.9%) sell green bananas compared to only 19.1% who sell both green and ripe bananas. However, a majority of those who sell green bananas are men (46%) as compared to women (34.9%). This could be attributed to the fact that a majority of men are in organised marketing groups where green bananas are sold directly to buyers while others sell at farm gates. On the other hand only 2% men as compared to 17.1% women sell both green and ripe bananas. Women ripen their bananas and sell at roadside banana markets or in their local markets. Ripe bananas are more prone to post-harvest losses hence women end up in a more perilous situation.

### 4.3.2 Banana Marketing Channels

The study further sought to document the banana marketing channels used in order to document the gender implications therein. The results are shown in Figure 4.13.
The results in Figure 4.13 reveal that a majority of women sell their bananas at roadside markets while men prefer organised markets and farmgate channels. Further, results show that very few women are in organised markets (5%), as compared to 25% men. A majority of women are in roadside markets, 30% as compared to 2% men. This is due to the fact that a majority of women indicated they are not able to join organised groups due to reproductive roles, and the fact that some fee is and they do not have it. Likewise, a majority of women sell ripe bananas at roadside markets. It was observed that women at roadside markets depend on *Kibuchio*, as is commonly referred to in the area, meaning depending on luck to sell to any buyer. Consequently, this impacts negatively on women who are actively involved in banana production and marketing. *Kibuchio* as compared to organised market is unreliable and unpredictable hence the outcome of sales is uncertain. A majority of women at roadside markets indicated that at times they go back with their bananas, having failed to get any buyer. Considering that bananas deteriorate faster when ripe, this makes them more vulnerable. They cannot even plan for the income as compared to their male counterparts in organised marketing system. The outcome of sales is uncertain. This reflects negatively on their part as poor managers yet results have shown that when these women have the income, they manage their households effectively.

The study observed that roadside markets have a big role to play in banana marketing. A majority of poor women who are not able to join organized groups sell their bananas, both green and ripe, at these markets. The study therefore sought to document the activities in these markets and the gender implications therein. Box 4.2 shows the results.
Box 4.2. Women at Roadside Banana Markets in Imenti South

There are three major markets, Ntharene, Mirurini, and Mwichiune. Ntharene Market is the biggest and 90% of banana traders are women. A majority of them are unable to hire transport hence carry their bananas on their backs. They sell them to any buyer commonly known as *kibuchio*, meaning selling by luck. There are other traders, about 80 in number, who trade from Mondays to Saturdays. Among the 80, only one is a man. They have built structures for selling different commodities, bananas being a major commodity. This trend is the same at Miruriri and Mwichiune roadside markets. They use banana income to maintain the household, e.g., after sale they usually buy household items in small quantities. They also buy books for their children. They use produce like maize and beans to supplement for school fees when banana income is not enough. Some of them buy bananas from other farmers to supplement for theirs, while others hire more land to plant them.

The above scenario suggests that women at roadside markets have benefited greatly from bananas. Most of their children could not attend school before banana production turned commercial. Some of them have been able to improve their houses from temporary mud structures to semi-permanent. They indicated that they are able to eat balanced diet. A majority of them also indicated that their husbands are drunkards and lazy hence they have taken the sole responsibility of managing the household. This shows that if these women are empowered in factors of production and marketing, they would realize bananas’ potential as food security and income generation and so raise the standard of living in the area.

It is important for small-scale farmers to be able to negotiate terms and prices with powerful buyers. Because of the complex requirements of value chains such as quantity, quality, timeliness and other factors, small-scale farmers are at a competitive disadvantage in obtaining access to modern procurement chains and new markets. This affects women more than men. Women’s success in high-value agriculture also depends on their ability to
participate knowledgeably and effectively in markets. A majority of small-scale farmers, especially women, are disadvantaged in these negotiations because they tend to have limited experience and lower levels of education and mobility. Even though women engage in marketing at varying degrees and in many different ways, their access to more lucrative markets is restricted.

If women are involved in contract farming, negotiations with the buyer are likely to be handled by men who hold the contracts. Policies and interventions that accept this and assume commercial production is the province of men will miss many opportunities to tap into women’s tremendous productive potential. They also will pay a heavy price in terms of their diminished impact on rural poverty and food insecurity (World Bank, 2008).

Women may, however, not have access to these collective groups. Farmer organizations tend to be male-dominated and few women are members and/or leaders. For women to succeed as commercial farmers, development assistance and other efforts will need to support women’s participation and leadership in mixed-gender farmer groups or strengthen and support women’s associations to engage with agribusinesses.

4.3.3 Bananas and Employment

The study observed that banana enterprise has created employment for the youth. This has helped improve their livelihood and kept them away from idleness which leads to deviant ways and indulging in alcohol. O.I Moses Njagi informed us that there are about 100 young motor bike owners at Ntharene roadside market. Among these, only 1 is a young 22-year-old woman. Young women who are between 20 and 25 years are also actively involved in banana marketing at the three major roadside markets. They usually hire the young motor bike owners to transport their bananas. O.I Moses Njagi indicated that the County Council of Meru has also generated a lot of revenue from banana marketing. The study findings indicate that 60% of their revenue is from bananas which is usually collected by council employees.
4.3.4 Transporting Bananas to the Market

The study sought to highlight the means that is used by farmers in transporting bananas to the market in order to document the gender implications involved. The results are shown in Figure 4.13 below.

![Figure 4.13: Access and Control to Means of Transport by gender](image)

The findings in Figure 4.14 reveal that 88% of those who use human labour that is carry bananas to the market are women. The results also reveal that there are no women farmers who own motorbikes and vehicles. It was observed that the 22 year old young woman who owns a motor bike concentrates on transporting bananas as a business just like the young men. Thus, motor bikes are primarily owned by young men. The results further reveal that few women also use hired bicycles, hired motorbikes, hired vehicles and public vehicles.
Figure 4.14 illustrates a case where very few women are able to hire transport to market their bananas. In this scenario, they result to carrying bananas on their backs as a strategy to cope with lack of capital to hire transport. Just like in the case of the mode of selling bananas where a majority of women sell at kibuchio, carrying bananas on their backs has its own repercussion. It is tiring and time consuming especially to the poor women who are already burdened by reproductive roles. This compromises their banana sales despite majority of them being the sole managers in their households.

4.3.5 Banana Income and Saving Mechanisms

The study sought to find out whether men and women farmers save banana income after sale and the saving mechanisms used. The results are shown in Figure 4.15 below.

The results in Figure 4.15 reveal that 73% of the respondents save banana income while 27% do not. Analysis by gender reveals that more women (31.7%) as compared to men (25.6%) save banana income through bank accounts. As earlier observed, these results indicate that women are highly empowered concerning access to banana income. In traditional cash crops, e.g., coffee, bank accounts were owned by men. However, as noted earlier, this empowerment has brought gender conflict due to change of household duty allocation.

The study further sought to find out gender variations in different households on the saved banana income. This was achieved by conducting some case studies. The results are shown in Box 4.3.
Box 4.3. Case studies on Banana Income and Bank Accounts

The case of Juvenale Mutua and Stella Mbeti from Ndamene Location

The couple have 3 children aged 10, 4 and 2. Juvenale, who is a pastor, owns an account with the Cooperative the Bank in Nkubu town. Juvenale and Stella, jointly own an acre of bananas. They earn banana income amounting KES 9,000 to KES 5,000 per month. The couple saves KES 5000 per month and uses the balance for the maintenance of the household and education. They usually plan together for the family projects. For example, they have bought 2 cows during the last two years. To supplement banana income, Juvenale secured KES 40,000, as credit from K-REP (Juhundi Kilimo). To qualify for the loan, the bananas and the 2 dairy cows served as collateral. They have hired another half acre of land to plant bananas. They are not members of any organised group. They hire transport to transport bananas to the market but mostly sell at farm gate. Stella, who is a housewife, has to ask for money for her personal upkeep and household use from Juvenale. She performs the household chores alone since she has no hired labour. They indicated that many households in that area are poor, men drink a lot and women carry bananas to the market on their backs especially when they fail to get buyers at farm gates. They have a semi-permanent house and have plans to save more banana income to construct a permanent house in the next four years. They will supplement the savings with a loan from K-REP. They expect that the bananas from the hired farm will have matured.

Case of Julia Kathure and Evanson Murithi from Ntharene Sub Location

Evanson is a civil servant with the Ministry of Water while Julia is a housewife. The couple have 5 children aged 3-19 years. They own separate bank accounts. Julia controls her bank account. She earns approximately KES 20,000 per month from bananas. Julia has bought a dairy cow, a dairy goat, a machine for cutting Napier grass, biogas and has constructed rental houses at Ntharene shopping Centre. To supplement banana income, Julia secured a loan of KES 45,000 from the Coffee Sacco. To qualify for the loan, the bananas and the cow served as collateral. Julia shares her banana income with Evanson when they have a family project. On division of labour in the household, Julia had this to say:

“We do not bother to know how much each earns. We share household duties. Evanson pays school fees and I cater for other household responsibilities like food and health. Evanson assists for example, if a child is sick and admitted in hospital”.

The couple is planning to construct a permanent house. Evanson has bought stones while Julia has bought sand.
Concerning land for planting bananas for sale, Julia had this to say:

“When I asked my husband for a place to plant bananas, he refused. I planted a few at the edge of the farm. When he realised that I was no longer asking him for money especially for my personal upkeep, as well as for the items used daily in the household, he agreed to allocate a place for me to plant more bananas. He later shifted from coffee and joined in banana production though he still retains his coffee farm. He has bought his own banana farm.”

On access to labour, time and freedom Julia said:

“I have access and control of labour, time, and freedom. I have hired labour for the household as well as for banana production and marketing. We share household chores. My husband cooks fish and cassava because I do not know how to cook them. For community duties, I am a treasurer of South Imenti Banana Growers CBO. Women in this area of lower Kithangari Location, Ntharene sub location have been empowered by banana money. They have freedom with their bank accounts. Household, productive and community duties are shared”.

The two case studies show variations in the access to, and control of productive banana resources like land, income, labour and decision-making. In the case of Juvenale and Stella, the husband owns a bank account but they jointly own banana farm. The wife has to keep on asking her husband for income for her personal and household use. However, they plan together for household developments and it is observed that banana income has raised their standard of living.

In the case of Julia and Evanson, they own separate bank accounts and both have control of their own accounts. They also own separate banana farms which they control separately. Household duties are shared and Julia has control of her own hired labour, time and freedom. With this freedom she is able to join organised banana groups where she is a treasurer despite the fact that she is also a housewife like in the first case.

The two case studies were conducted in different areas in the District, Ndamene Location and Lower Kithangari, respectively. They represent two scenarios. In the first case, it was observed that the standard of living in Ndamene area is low. Women in the area are burdened by reproductive and productive roles. In the second case, the standard of living in Lower Kithangari area is high. Women in the area are empowered by banana income.

This difference is mainly attributed to various factors. These factors are:

- Exposure to trainings;
- Joining banana growing and marketing groups;
• Initiative and hard work of the extension officers;
• Initiative of Tecnoserve and Africa harvest (organisations that assist farmers to source for markets and initiate banana production trainings).

A majority of households in Lower Kithangari location in Abogeta Division are empowered concerning access to, and control of banana income as well as access to, and control of labour. The case of Julia and Evanston is an example. Farmers in the area attributed this to exposure they get after joining organised banana groups. A majority of men and women farmers indicated that the banana production and marketing trainings which are mainly held on- farm have a positive impact to the standard of living in the area. Noticeably, many households have improved housing. Others have dairy cattle, electricity and water projects.

It should be noted that there are inadequate extension officers in the District. Consequently, areas where there are no extension officers are lagging behind in information and the farmers are not empowered. The standard of living in these areas is low. An example is Ndumene Location. Consequently, women in these areas have no access to, and control of banana productive resources like their counterparts from improved areas. They are burdened by reproductive roles, use their backs to carry bananas and market them at roadside markets. This shows that when women are empowered through access to information, access to labour and hence, freedom to join organised groups, they equally participate in raising the standard of living in their communities.

Extension officers are crucial in any agricultural development since they pass information to farmers from various agents. In the study area, various agents like Technoserve, Africa Harvest, MOA, KARI, and other agribusiness partners reach the farmers through extension officers. The study noted that extension services are gender biased and women bear the consequence. If banana production in the area has to raise the standard of living for the poor farmers, there is need for gender responsive strategies in the value chain.
4.3.6 Banana Value Addition

The study sought to find out how men and women farmers in the study area are adding value to bananas. This was achieved through interviewing some members in banana organised groups. The findings are recorded below.

i) Umoja Farmer Field School Group

It is in Mwichiune village and was started in May 2005. The main goal was poverty eradication among the group members. The group started with a membership of 70, 42 men and 28 women. Later membership dropped to 41 members since some members pulled out. Currently it has only 26 members, 14 men and 12 women.

Through effort, the group secured a loan from Mount Kenya Pilot Project to scale up support for value addition and processing of bananas. Funding has enabled the group to buy a slicer, mill and drier for processing. Key products from the group are banana crisps and banana flour. To certify their products the group is in the process of acquiring a standardization mark quality from the Kenya Bureau of Standards which will boost their chances to explore opportunities to market their products regionally and internationally. On average, the group earns slightly over KES 10, 000 per month from banana crisps and flour. By going through continuous training, the farmers have improved their knowledge and this has consequently led to the improvement of soil fertility, leading to higher levels of banana production.

Quality production has ensured guaranteed fair prices of their bananas which range from KES 250 to 750 per bunch depending on size. All the members have bank accounts.

To survive the stiff market competition, they are exploring more markets for their bananas and banana products.
ii) Wendo Enterprises Group

This is a group of retired women. The group started in 2006 and has 21 active members; 20 women and 1 man. They are all banana farmers and all are married. They met at Kaguru ATC while attending a seminar on value addition. They shared views and formed a group. They started making banana flour together with crisps. Initially Kaguru ATC gave them a room for one year. After a year, they received some funding from the CDF amounting to Ksh.450,000. Their chairlady sourced for a donor from America who assisted in hiring the current premises. They bought all materials required for their premises. They have a certificate from the Kenya bureau of standards. They are currently exploring other regional and international markets.

Process in the factory

The bananas are sorted, weighed, washed, peeled, sliced into small pieces then taken to the drier. After drying the bananas are then taken to the mill where they are processed into powder form then packed and sealed. Other products are crisps and beverage (used like cocoa).
Adding value to bananas is an important stage in the banana value chain. It reduces competition at the market level and increases the selling power to farmers. Adding value also alleviates the challenges of overproduction. It was observed that farmers in organised banana groups are able to add value to their bananas. This is because, as earlier noted, the agencies involved make use of banana production and marketing groups to convey their trainings which include banana value addition.

Consequently, this leaves the poor women vulnerable. As earlier noted, a majority of poor women, especially those who sell at roadside markets, do not join any banana organised groups. Their husbands too are not in any groups. This leaves the women with no other option but only to add value to their bananas through ripening. As earlier observed, ripe bananas are more prone to post harvest loses than other means of adding value like banana flour, crisps and banana jam. The market value for ripe bananas is also much lower as compared to other means.

O.I Moses Njagi had this to say about Umoja FFS group:

*Members of Umoja FFS group are referred to as model farmers. This is due to the fact that due to their success, about 80% of the community members around them have adopted the banana farming enterprise. The positive impact of banana production is evident among the residents of Mwichiune Village, in that members have resulted to building more permanent houses from banana income, are more food secure and are able to meet other needs like school fees and hospital bills with ease. They have also teamed up and installed electricity in the are.*

O.I Moses Njagi also stated that the local people in this area of Mwichiune village have a positive feeling that the level of crime has reduced. The youth are employed as loaders or transporters of bananas.

O.I Moses Njagi further observed that Wendo Enterprises Group (retired women) has positively affected the community around them. Unlike FFS groups, the retired women do not come from the same community. However, as individuals, they apply the technology in educating their own communities which has produced very positive results. Ninety per cent of their trainees are women who have learnt how to add value to their bananas from members of Wendo Group. Thus, empowering men and women to form organised groups will not only
enhance their knowledge on adding value to bananas but also raise the standard of living through increase of income from the sales.

4.4 Constraints in Banana Production and Marketing

The study sought to identify and rank banana production and marketing constraints by gender. This was done by asking the male and female farmers to rank the production and marketing constraints separately, starting with the most challenging. The results are shown in Figures 4.16a to 4.16d below.

4.4.1 Banana Production Constraints

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Male Ranking</th>
<th>Female Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of time to attend trainings</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Access to information</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>Land ownership (Title deed)</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Illiteracy</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Access to financial services</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Land scarcity</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Reliance to rainwater</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>Lack of enough capital</td>
<td>60</td>
<td>20</td>
</tr>
</tbody>
</table>

Figure 4.16a: Male Rankings for production Constraints

Figure 4.16b: Female Rankings for production Constraints

The study findings show that for production constraints, men ranked lack of capital, reliance to rainwater and land scarcity as numbers one, two and three respectively. On the other hand, women ranked land scarcity, land ownership/title deed and lack of enough capital as numbers one two and three respectively.

The findings indicate that lack of sufficient capital and reliance on rainwater are the most challenging banana production constraints for men. It was earlier observed that men and
women are hiring more land to plant bananas as a strategy to cope with small land sizes. This factor has contributed to the most challenging constraint to men being lack of capital. This is because men would be comfortable to buy, other than hire land, hence acquire title deeds. It is also observed that in the study area, men are planting Tissue Culture bananas. TC banana production requires plenty of water. Rainwater is unreliable, hence a challenge to men.

The results also reveal that the most challenging banana production constraints to women are land scarcity and ownership of land title deeds. It is interesting to note that lack of enough capital and reliance to rainwater which constrain men, came third and sixth, respectively, in production constraints for women. It is seen that a majority of women in the study area are empowered through saving banana income and they are using it to manage the household. This factor makes land scarcity more challenging to women. They need more land which empowers them to plant extra bananas hence, access to income. Consequently, they are constrained by lack of capital in form of credit which they could use to hire more land. Due to this, lack of capital and access to financial services came third and fourth, respectively.

**4.4.2 Constraints in Banana Marketing**

![Figure 4.16c: Male Rankings for Marketing Constraints](image)

![Figure 4.16d: Female Rankings for Marketing Constraints](image)
For marketing constraints, both men and women ranked bad rural roads as the most challenging.

The results further reveal that bad roads are the most challenging marketing constraint to both men and women. Consequently, women are more vulnerable to bad roads especially during wet season. The study found out that majority of women use their backs to transport bananas to the market as a strategy to cope with lack of capital to hire transport. However, when it rains men are also affected since hired transportation is not available during wet season. Exploitation by middle men and lack of streamlined banana marketing systems are also challenging to men and women. Thus, this affects women more. Buyers dictate the prices at the road side markets where 90% are women. A majority of men are in organised marketing groups where they have their own buyers hence are not affected by middlemen as compared to women.

Gender inequalities constrain the potentials, capacities and spirit of poor women to meaningfully engage within the agricultural sector. The study established that women face significant barriers in banana production and marketing. In general, these barriers are faced by women in small scale agriculture, especially inequalities in access to and control over crucial resources such as land, labor, and formal finance. Women also face barriers to membership in rural organizations and cooperatives, agricultural inputs and technologies, such as improved seedlings, training and extension, and marketing services.

4.5 Strategies Used In Banana Production and Marketing

The study sought to document whether the existing banana production and marketing strategies in the study area are gender responsive. This was achieved through analysis of the existing strategies that are employed in banana production and marketing in the area.

4.5.1 Strategies Employed in Banana Production

(i) Provision of Extension Services

The study sought to analyze the provision of extension services and the gender implications therein. The results are presented in Table 4.4 below.
Table 4.4: Provision of Extension Services in Banana Production and Marketing

<table>
<thead>
<tr>
<th></th>
<th>Visited (%)</th>
<th>Not visited (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension visits for the last one year</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>Extension Visits for the last one year by gender</td>
<td>Male Female</td>
<td>Male Female</td>
</tr>
<tr>
<td></td>
<td>60 40</td>
<td>30 70</td>
</tr>
</tbody>
</table>

The statistics in Table 4.4 reveal that despite the study area having banana production as their major source of income, a majority of farmers (64%) indicated that they had not received any extension services for the last one year. This demonstrates the inadequacy of extension services to small-scale farmers. Analysis by gender revealed that more men (60%), as compared to women (40%), had received extension services. Likewise, more women (70%), as compared to men (30%), had not received extension services.

The above results are in conformity with the study by NALEP\(^5\) which found that while awareness of extension services is high among the farmers, interaction with extension services is reported to be very low especially among women where slightly more than half (52%) of the farmers who had access to extension services are men.

The above analysis shows that access to information is crucial to any agricultural production. Women farmers have less contact with extension services than men. Extension is often provided by male agents to men farmers on the erroneous assumption that the message will trickle "down" to women. In fact, agricultural knowledge is transferred inefficiently or not at all from husband to wife. Also, the message tends to ignore the unique workload, responsibilities, and constraints facing women farmers. As a result, gender disparities continue to widen, women farmers thus baring the consequence.

The study observed that a majority of extension officers are not gender sensitive since they have no gender training. It is paramount to sensitize extension officers on gender issues in agriculture in order to improve their services to small-scale farmers. This is because men and women farmers have different needs and concerns especially in commercial agriculture.

(ii) Farmer Field Schools

The study also sought to highlight and document the gender responsiveness of banana FFS in the area. Table 4.5 below shows the distribution of Farmer Field Schools in the District.

Our study revealed that FFS usually offer very enriching seminars especially on banana production. Table 4.5 shows that Gakuni banana FFS and Bora banana production has more women members than men. Gakuni FFS has more women members (65%) as compared to men (35%), while Bora FFS has more women members (63%) as compared to men (37%). This could be attributed to the fact that FFS are usually held on-farm thus, women are able to join as members.

O.I John Mulungi had this to say concerning Farmer Field Schools:

*The trainings are usually held in the chairperson’s homestead. They are usually very successful when held in the farm and they have transformed the communities therein. Out of 20 farmers who attend the meetings, 16 are usually women. However, the attendance declines when held far away from the farms where more men as compared to women attend.*

The study noted that membership in FFS is low for both men and women. O.I Moses Njagi and Hellen Mwii indicated that the low membership in FFS is due to the fact that a majority of men join banana marketing groups where they also own TC nurseries. On the other hand, a majority of women attend the trainings without committing themselves as members. FFS usually hold meetings to deliberate on their progress. Women lack time to attend the meetings due to reproductive roles.

### (iii) Field days

The study also sought to analyse the gender responsiveness of the field days targeting banana production and marketing, and the demonstration trials in the study area. The results are shown in Tables 4.6 and 4.7.
Table 4.6: Agriculture Field Days Targeting Banana Production and Marketing.

<table>
<thead>
<tr>
<th>Year</th>
<th>Area</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Male %</th>
<th>Female %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Ciumujogia irrigation scheme</td>
<td>746</td>
<td>344</td>
<td>1090</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>2009</td>
<td>Miruriri Market</td>
<td>452</td>
<td>264</td>
<td>716</td>
<td>63</td>
<td>37</td>
</tr>
<tr>
<td>2010</td>
<td>Near maraa sec. school</td>
<td>1012</td>
<td>994</td>
<td>2006</td>
<td>51</td>
<td>49</td>
</tr>
</tbody>
</table>

Table 4.7: Demonstrations/Trials

<table>
<thead>
<tr>
<th>Date</th>
<th>Strategy</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Male %</th>
<th>Female %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 September</td>
<td>Technoserve</td>
<td>49</td>
<td>33</td>
<td>82</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>2010 April</td>
<td>Africa Harvest</td>
<td>21</td>
<td>12</td>
<td>33</td>
<td>64</td>
<td>36</td>
</tr>
<tr>
<td>2009 August</td>
<td>JKUAT</td>
<td>56</td>
<td>27</td>
<td>83</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>2010 February</td>
<td>KARI (Trial)</td>
<td>21</td>
<td>15</td>
<td>36</td>
<td>58</td>
<td>42</td>
</tr>
</tbody>
</table>

The results in Tables 4.6 and 4.7 show gender bias in attendance to agricultural field days as well as the demonstrations and trials held by Technoserve, Africa Harvest, JKUAT and KARI.

The study observed that field days are usually held at Kaguru ATC, in schools or at shopping centres. Attendance is a problem especially to women farmers who are burdened by reproductive roles. Majority of men and women indicated lack of awareness as a factor in failing to attend the field days. This could be attributed to the inadequacy of extension officers who are supposed to pass information to farmers.

The following observation is attributed to the research team:

\[ \text{The research team was in Lower Kithangari Location- Abogta Division on 2^{nd} December 2010. There was a field day at Kaguru ATC the following day, 3^{rd} December 2010. When we asked the farmers whether they will attend, all the farmers interviewed that day indicated that they were not aware of the field day.} \]

The above scenario affects women more than men. In many field days men attendance is usually higher than that of women. This affects the poor women who are equally involved in banana production yet, agricultural information is crucial in any commercial undertaking. Consequently, this has a negative impact to increasing production and food security since access to agricultural information plays a major role in increased agricultural productivity.
(iv) Improved Banana Varieties

O. Is Geoffrey Muriuki and Moses Njagi had this to say concerning improved varieties:

*A majority of farmers have stopped growing tissue culture bananas. The bananas require more inputs, are labour intensive and the plantlets are expensive.*

These results confirm an earlier study where majority of households perceived tissue-cultured bananas as more labour intensive, requiring more fertilizer, manure and water but less susceptible to diseases and pests than the conventional bananas. Most households thought that the tissue-cultured plantlets are also more expensive than conventional planting materials.

The study noted that a majority of men are in organised groups where they own tissue culture nurseries hence are able to plant improved bananas. They are also members in organised marketing groups; hence have market for their bananas. Consequently, this has a negative impact on women who are not able to join the organised groups as earlier noted. Though the poor women save banana income, a majority use it for school fees and maintenance of the household. The managerial practice for TC bananas is expensive hence a setback to the poor women.

(v) Trainings on Banana Production and Marketing

The study sought to investigate and document men and women farmers who had received banana production and marketing trainings over a period of five years. Figure 4.17 shows the results.

![Figure 4.17] Figure 4.17 Banana and Marketing Trainings over a period of five years by gender

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6 Nguthi (2008), To compare non-tissue cultured and tissue-cultured banana by farming households’ growing tissue-cultured bananas in Kenya, pp.161.
The findings in Figure 4.17 show that a majority of men (75%), as compared to 25% women, had received banana production and marketing trainings over a period of five years. These results show gender bias and women are at the receiving end. Our study found that women generally use lower levels of technology because of difficulties in access to information.

Studies show that women are less educated in parts of Africa, Asia, and the Middle East. Illiteracy hampers their access to and ability to understand technical information. Worldwide, women have less access to education and training in agriculture (World Bank, 2008). Consequently, lack of agricultural information among women farmers continues to increase gender inequality and this impact negatively in commercial farming among small-scale agriculture. In banana production and marketing it is crucial that strategies employed be gender responsive if bananas' potential as food security and income generation is to be realized.

Further, the study sought to document factors of improving existing strategies in order that they effectively benefit men and women farmers. The results are shown in Table 4.8 below.

<table>
<thead>
<tr>
<th>What to be done</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>The trainings should be held on-farm</td>
<td>20</td>
<td>33.3</td>
</tr>
<tr>
<td>The timing of the visits should be considered</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>More frequent visits by extension officers</td>
<td>9</td>
<td>9.1</td>
</tr>
</tbody>
</table>

The results in Table 4.8 reveal that more women (66.7%), as compared to 33.3% men, indicated that when the trainings are held on-farm, they are able to attend. Likewise, more women (15.1%) as compared to men (5.1%) indicated that the timing of visits should be considered.

As earlier observed, a majority of farmers in organised groups are men. They have highly benefited concerning banana production and marketing trainings. A majority of men have no problem with capital to pay groups’ fee and time is not a barrier to them. Women are less mobile than men, both because of their child care and household responsibilities and because of socio cultural norms that limit their mobility. Likewise, women face far greater time
constraints than men. They may spend less time on farm work but work longer total hours on productive and household work and paid and unpaid work, due to gender-based division of labor in child care and household responsibilities. It was noted that when the trainings are held on-farm, many women attend. Thus, for men and women to benefit equally in access to agricultural information, the trainings should be held on-farm, considering the time they are held.

4.5.2 Strategies Employed in Banana Marketing

Organized Banana Marketing Groups

As observed earlier, banana marketing groups play a major role in the study area hence the study sought to understand the activities of these groups in order to document the gender implications therein.

It was noted that banana marketing groups are initiated through Technoserve, an organisation that sources for buyers while the groups negotiate the prices. The study recorded about 20 groups with approximately 1400 members in total, who are involved in marketing. Out of these, 60% are men. Most of the activities like weighing are done by women. Group members weigh their bananas and are paid after 3 days through a bank. A majority of members have bank accounts. Grading of bananas is done on the farm. Due to poor post-harvest handling and insect bites, grade two is usually sold at the road side market. Different varieties have varying prices depending on demand and quality. It observed that tissue culture bananas are largely grown by men in these groups since they also own tissue culture nurseries. Different groups sell at different market days depending on the location of their premises.

The groups are not exploited by middle men since they sell directly to buyers. A majority of members in the organised marketing groups are men yet they do not perform the activities that are perceived to be for women e.g. weighing. These are performed by women. As observed earlier, men are also in organised banana production groups where they own Tissue Culture nurseries hence the reason why they are able to grow banana varieties which are solely commercial. Grade two is usually left to the women to sell at the roadside markets. All these factors have a negative implication on women especially in access to, and control of benefits from bananas. Men are able to access more income. A majority of women are unable to join these groups due to reproductive roles hence are highly in roadside markets where as results revealed, they sell by luck "kibuchio". Studies such as Boserup (1970) revealed that
women are active participants in agricultural economic development. Women are actively involved in banana production and marketing despite their extra role in household chores. There is need for intervention from the stakeholders in banana production and marketing if bananas’ potential is to be realised.

Office bearers of Imenti CBO marketing group in their premises.

Organized banana marketing groups selling bananas to their buyers in lorries.

A majority of men are leading in banana production and marketing due to various reasons compared to women. For example, they use of organized groups where they receive banana inputs and marketing avenues and have control of and access to credit resources which are scarce to women. Even in the case of capital to purchase inputs, they have access and are more often engaged in such activities which are commercially viable.
Chapter Five
Conclusions and Recommendations

5.1 Introduction

This chapter presents conclusions and recommendations. It wraps up the interpretation on gender responsiveness in the strategies that have been used to increase banana production and marketing in Imenti South District. It gives a summary of the findings on the roles and responsibilities played by women and men in banana production and marketing. It also sums up the findings on gender constraints that banana farmers are experiencing in the study area and suggest effective recommendations to make banana production and marketing gender responsive.

5.2 Conclusion

The study found that men and women are actively involved in banana production and marketing activities. However reproductive activities are exclusively performed by women. Key decisions around farming are also influenced and controlled by men. Likewise, productive resources in banana production and marketing are controlled by men. Women have access to and control of banana income, and they are hiring more land to plant bananas. However, men have been disempowered especially in poor households. This has further caused a gender conflict in the intra-household allocation of duties where women are more burdened since they solely perform household chores and at the same time, are actively participating in productive and community actives.

The study therefore recommends the following:

A majority of men are leading in banana production and marketing due to various factors that favour them as compared to women. For example they are in organized banana marketing groups where they receive banana production and marketing trainings and own TC nurseries. Men have access to and control of hired transport and they are adding value to bananas. The resource poor women are unable to join organised banana groups due to reproductive roles as well as lack of capital to pay the group’s fee. A majority of women are using their backs to transport bananas to roadside markets. Carrying bananas on their back is tiring and time consuming especially to the poor women who are already burdened by reproductive roles.

Men and women in organised banana marketing groups have their own buyers. These groups are initiated through Technoserve, an organisation that sources for buyers while the groups negotiate the
prices. However, the study noted that 60% of members in these groups are men. A majority of the poor women sell their bananas in “kibuchio” meaning selling by luck. Kibuchio as compared to organised markets is unreliable and unpredictable hence, the outcome of sales is uncertain.

Among the banana marketing constraints cited by majority of farmers, bad roads, especially during the rainy season are a major challenge. Women are mostly affected especially due to the fact that a majority carry bananas on their back to the market. Men are affected too since hired transport is not available when it rains.

The study found that, extension officers, farmer field schools and other existing organizations are not keen on gender issues. This is because a majority of them have no gender training. There is gender bias especially in extension services, group formation and attendance to trainings.

5.3 Recommendations

It is paramount to empower men and women in banana production and marketing especially after the shift to commercial. This will ensure that the needs and concerns of men and women are considered. The study found that reproductive activities are exclusively performed by women while key decisions around farming are influenced and controlled by men. Likewise, productive resources in banana production and marketing are controlled by men. A majority of resource poor women are managing their households with banana income. However, this has disempowered men.

The study therefore recommends the following:

1. Farmer groups are a major resource and if effectively engaged, they could be a major vehicle for bringing about gender-related change at farmer level as well as in the households. The existing agencies especially Technoserve, Africa harvest, MOA and KARI should collaborate with NALEP to initiate gender trainings through gender responsive farmer groups that focus on pooling resources and equitable budgetary allocation in the household.

2. This could be achieved through collaboration with the JICA-funded Smallholder Horticulture Empowerment Project (SHEP). The JICA-funded Smallholder Horticulture Empowerment Project (SHEP) was implemented in Bungoma, Kisii, Nyandarua and
Transnzoia districts, between 2007 and 2009. This project took a multidimensional approach: improving infrastructure (through dou-nou technology), joint training of Frontline Extension Officers and farmers, maintenance of crop calendars, local preparation of manure (bokashi), among other technologies. However, the most distinguishing factor of this project was its gender component, working with female and male farmers to enhance gender roles and reduce gender stereotypes, and building cooperation between husbands and wives to enhance farm production and earnings. SHEP maintained gender-disaggregated data on earnings throughout the project. Table 5.1 summarizes the gendered baseline earnings in April 2007, and earnings after the intervention in 2009.

**Table 5.1: Average earnings of female and male farmers in 4 districts**

<table>
<thead>
<tr>
<th>District</th>
<th>Baseline Earnings (April 2007)</th>
<th>Earnings after Intervention (October 2009)</th>
<th>% Increase after intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Female</td>
<td>Per Male</td>
<td>Per Female</td>
</tr>
<tr>
<td>Bungoma</td>
<td>9,815</td>
<td>19,494</td>
<td>41,107</td>
</tr>
<tr>
<td>Trans Nzoia</td>
<td>24,947</td>
<td>29,236</td>
<td>51,401</td>
</tr>
<tr>
<td>Nyandarua</td>
<td>35,087</td>
<td>41,244</td>
<td>71,862</td>
</tr>
<tr>
<td>Kisii</td>
<td>4,965</td>
<td>10,812</td>
<td>17,963</td>
</tr>
<tr>
<td>Average</td>
<td>18,704</td>
<td>25,197</td>
<td>45,583</td>
</tr>
</tbody>
</table>

*Source: SHEP, 2010 (Presentation by Stephen Kioko during final workshop, March 2010)*

- In April 2007, average earnings for male farmers stood at Kenya Shillings 25,197, while that of female farmers stood at 18,704. On average, a male farmer earned 6,490 than his female counterpart.
- After the multidimensional SHEP intervention, which included gender training, male earnings increased to 48,615 (increase of 104%), while those of the female farmer increased to 45,583 (increase of 198%) (Mugo et al., 2011).

**NB**: SHEP are usually willing to collaborate with institutions that are ready for their seminars and trainings on how to implement the multidimensional approach especially the gender component.

On the other hand the mission of NALEP Phase II is to provide and facilitate pluralistic and efficient extension services for increased production, food security, higher incomes and improved environment. Thus, the realization of NALEP Phase II objectives are largely dependent on effective partnerships with other Government ministries, private sector, civil society and other collaborators engaged in agriculture and rural development (NALEP, 2010).
3. When the existing agencies collaborate with NALEP as well as SHEP, such a move would improve women’s input in banana production and marketing. The study noted that women are able to manage their households effectively through the savings from banana income. Implementing SHEP’s multidimensional approach would empower men and women to access credit which will enhance their banana production hence earn more income to enable them hire transport and add more value to bananas. Further, considering that a majority of these farmers have the lowest level of education, they require education and training on commercial farming including investment and account keeping.

4. The study noted that the county council in the area generates 60% of their revenue from bananas. The study therefore recommends that the county council should recompense the banana farmers by improving the roads. This could be achieved through collaboration with other stakeholders in the area e.g. agencies that deal with rural infrastructure. They could also collaborate with SHEP to be acquainted with how they implemented their technology that improved rural infrastructure in the four districts.

5.4 Way Forward and Policy Implications

1. Banana income is meant to ease the burden of households, hence raise the standard of living to alleviate poverty. This study suggests gender mainstreaming in agricultural sector as well as institutions that will assist in gender policy formulations. Such a move will assist in defining ways of introducing any technology that changes a woman’s subsistence enterprise into commercial. This could be achieved through collaboration of all the stakeholders in agricultural sector to review existing policies as well as formulation of gender responsive ones. For example, every agricultural organization, e.g., KARI, should have a gender policy and ensure that women farmers’ priorities receive equal consideration. In this way, gender mainstreaming then becomes part of a change process in the institutional culture and practice.

2. More research should be conducted especially on gender implications on agricultural technologies that target improving subsistence crops in small-scale agriculture. This will add to the existing, as well as generate more knowledge that would assist agricultural scientists to be gender responsive throughout the project cycle of any technology.
References


Economic Commission for Africa. (2004). *The Missing Link in Growth and Sustainable Development: Closing the Gender Gap*


NB: Permission was achieved from those who participated in the study in order to have them listed in the report.

<table>
<thead>
<tr>
<th>Name</th>
<th>Residence</th>
<th>Date of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moses N. Njagi</td>
<td>Nkuene Division Headquarters</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Gladys Kaimi Peter</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Benison Muriuki</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Julius M’ Abari</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>John Mulyungi</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Jenifer Stephen</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Cyrus Marangu</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Moses Mulyungi</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Cathreen Mulyungi</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Samuel Gituma</td>
<td>Abogata Division</td>
<td>23/11/2010</td>
</tr>
<tr>
<td>Hellen Mwii</td>
<td>Abogata Division Headquarters</td>
<td>24/11/2010</td>
</tr>
<tr>
<td>Agnes Ruguru</td>
<td>Ntharene village</td>
<td>24/11/2010</td>
</tr>
<tr>
<td>Geoffrey Muriuki Justus</td>
<td>Ndamene Location</td>
<td>24/11/2010</td>
</tr>
<tr>
<td>Geoffrey Murithi</td>
<td>Ndamene Location</td>
<td>24/11/2010</td>
</tr>
<tr>
<td>Jurinale Karemu</td>
<td>Ndamene Location</td>
<td>24/11/2010</td>
</tr>
<tr>
<td>Chales Mutua</td>
<td>Ndamene Location</td>
<td>24/11/2010</td>
</tr>
</tbody>
</table>
Julius Mugambi Ndamene Location 24/11/2010
James Mulyungi Ndamene Location 24/11/2010
Jenale Mulelwa Ndamene Location 24/11/2010
Jerad Mutua Ndamene Location 24/11/2010
Izack Gitonga Ndamene Location 24/11/2010
Stellah Muriithi Ntharene Location 25/11/2010
Rosaline Gikunda Ntharene Location 25/11/2010
Betty Mwiti Ntharene Location 25/11/2010
Rose Kennedy Ntharene Location 25/11/2010
Caroline Mutugi Ntharene Location 25/11/2010
Gaicugi Muriithi Ntharene Location 25/11/2010
Evelyn James Ntharene Location 25/11/2010
Purity Mwebia Ntharene Location 25/11/2010
Jellith Kimathi Ntharene Location 25/11/2010
Monicah Kithinji Wemdo enterprises, Nkubu Town 26/11/2010
Hellen Rutere Wemdo enterprises, Nkubu Town 26/11/2010
Josephine Julius Wemdo enterprises, Nkubu Town 26/11/2010
Alice Robert Wemdo enterprises, Nkubu Town 26/11/2010
Liz Kanyua Gitonga Wemdo enterprises, Nkubu Town 26/11/2010
Lucy Ncekei Kinoti Wemdo enterprises, Nkubu Town 26/11/2010
Teresia Wanja Kirimi Wemdo enterprises, Nkubu Town 26/11/2010
Magdaline Kingori Wemdo enterprises, Nkubu Town 26/11/2010
Aileen Kithinji Wemdo enterprises, Nkubu Town 26/11/2010
Janet Magaju Wemdo enterprises, Nkubu Town 26/11/2010
Josephine Magiri Wemdo enterprises, Nkubu Town 26/11/2010
Marion Muthoni Wemdo enterprises, Nkubu Town 26/11/2010
Muthuri Mutwiri Igoji Division 29/11/2010
Joseph Kithinji Igoji Division 29/11/2010
Mr Njeru Igoji Division Head Quarters 29/11/2010
Mr. Miriti Imnti South Agricultural Office HQ 1/12/2010
Juvenale Mutua Ndamene Location 3/12/2010
Stella Mbeti Ndamene Location 3/12/2010
Julia Kathure Lower Kithangari Location 3/12/2010
Evanson Muriithi Lower Kithangari Location 3/12/2010
Appendices

A1: The Budget for the Study

The figures are estimated based on the current prices.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Location</th>
<th>Expected inputs</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of research tools</td>
<td>Thika</td>
<td>Stationery</td>
<td>4000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer services and</td>
<td>20000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>accessories</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Binding and photocopy</td>
<td>10000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internet and telephone</td>
<td>5000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>services</td>
<td></td>
</tr>
<tr>
<td>Training of enumerators and conducting KI and</td>
<td>Thika/Meru</td>
<td>Travelling Expenses</td>
<td>10000</td>
</tr>
<tr>
<td>conducting FGDs interviews</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-testing of research instruments and</td>
<td></td>
<td>Travelling Expenses</td>
<td>20000</td>
</tr>
<tr>
<td>Conducting survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other expenses</td>
<td></td>
<td>Miscellaneous</td>
<td>10000</td>
</tr>
<tr>
<td>Total budget</td>
<td></td>
<td></td>
<td>79000</td>
</tr>
</tbody>
</table>

A2: Instruments for Data Collection

House Hold Questionnaire

Section A:

Site Description

Date of interview            Division

Location

Sub location

Village

Demographic information

Name

Sex: 1. Male 2. Female

Age: 1. below 20 2. 21 to 35 3. 36 to 45 4. 46 and above

Marital status: 1. Married 2. Single

Level of education:


1. What is the household type of this family?
   1. Male headed with wife
   2. Female headed (husband away at work or otherwise)
3. Female headed (whether single, windowed, divorced)
4. Male headed (whether single, windowed, divorced)
5. Child headed (Orphaned)

2. Relationship of interviewee to the family:

**Section B: Land use**

3. What is your total farm size in acres?
   1. 0.5 to 1.0  2. 1.1 to 2.4  3. 2.5 to 5.0  4. 5 and above

4. Distance of farm from main road in Km:
   1. 0 to 1.9 km  2. 2 to 3.9 km  3. 4 to 5.9 km  4. 6 and above

5. Does your land hold a title deed? 1. Yes 2. No

6. In whose name is it?

7. Where do you obtain your water from?

8. What is the total land size under the main crops? (Give per crop)

<table>
<thead>
<tr>
<th>Crops grown</th>
<th>Average acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bananas</td>
<td></td>
</tr>
<tr>
<td>2. Coffee</td>
<td></td>
</tr>
<tr>
<td>3. Maize and beans</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
</tr>
</tbody>
</table>

9. What would you rank as the top 5 enterprises in your farm according to:
   (i) Income generation (ii) Family food availability

<table>
<thead>
<tr>
<th>Income generation enterprise</th>
<th>Approximate monthly income</th>
<th>Family food availability enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>4.</td>
</tr>
</tbody>
</table>

10. For how long have you grown bananas? (Tick)
    1. Less than 5 years  2. 5 to 10 years  3. More than 10 years

11. What motivated you to start growing bananas?
12. Which banana varieties do you grow?

13. From the ones above, rank 4 main varieties in order of importance

<table>
<thead>
<tr>
<th>4 main Varieties ranked in order of importance</th>
<th>Acreage (or number of stools)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

14. What are the reasons for the ranking above?


15. If you had more land to grow bananas, which 2 of the 4 ranked varieties would you expand?

16. Give reasons why you would choose on these varieties and not others

1. They fetch more cash than others
2. They are better for food than others
3. They are better for food and cash
4. Other (specify)

Section C: Banana Production and Marketing Activity Profile

17. Who performs the following activities? (Tick)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Men</th>
<th>Women</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Land preparation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Digging holes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fertilizer application</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Manure application</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Planting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Watering (if done)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Desuckering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Weeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Harvesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Ripening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Marketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Access to productive resources and benefits in banana production and marketing

18. Who has access and control to the following resources? (Tick)

<table>
<thead>
<tr>
<th>Resources</th>
<th>Access</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>1. Land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Labour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Inputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Farm tools like ox-plough, Sprayer, etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Power (decision making)

Benefits

1. Banana for food
2. Banana for cash
3. Cash from bananas

Access to credit

19. Have you benefited from any source of credit in the last 5 years? 1. Yes 2. No

20. If yes, answer the following:

<table>
<thead>
<tr>
<th>Source of Credit</th>
<th>Amount obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bank (specify bank)</td>
<td></td>
</tr>
<tr>
<td>2. Microfinance(specify)</td>
<td></td>
</tr>
<tr>
<td>3. Cooperative(specify)</td>
<td></td>
</tr>
<tr>
<td>4. Group</td>
<td></td>
</tr>
<tr>
<td>5. NGO(specify)</td>
<td></td>
</tr>
<tr>
<td>6. Other(specify)</td>
<td></td>
</tr>
</tbody>
</table>

21. How did you use the credit obtained above?(tick)

1. Crop production
2. Banana improvement
3. Health
4. Fees
5. Food
6. Other (specify)

22. Are there times you were in need of credit and you failed? 1. Yes 2. No

23. Give reasons why you failed (limitations to credit)

1. Lack of security (e.g. land etc)
2. Lack of information on the sources
3. Other (specify)

Section D: Banana Post Harvest and Marketing

24. Do you do any post harvest sorting? 1. Yes 2. No

25. If yes how do you sort?

1. Size 3. Colour 5. Other (specify)

2. Pest and disease damage 4. Variety

27. Banana marketing channels

<table>
<thead>
<tr>
<th>Channel</th>
<th>Price per bunch</th>
<th>Mode of payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm gate</td>
<td></td>
<td>1. Cash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. other (specify)</td>
</tr>
<tr>
<td>Local market</td>
<td></td>
<td>1. Cash</td>
</tr>
<tr>
<td>(shopping centres etc)</td>
<td></td>
<td>2. credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. other (specify)</td>
</tr>
<tr>
<td>African harvest</td>
<td></td>
<td>1. Cash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. other (specify)</td>
</tr>
<tr>
<td>Main market</td>
<td></td>
<td>1. Cash</td>
</tr>
<tr>
<td>(roadside market)</td>
<td></td>
<td>2. credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. other (specify)</td>
</tr>
</tbody>
</table>

28. How do you transport your bananas to the market?

9. Hired cart  10. Other (specify)

29. Access and control of transport (tick)

<table>
<thead>
<tr>
<th>Transport type</th>
<th>Who uses the following</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
</tr>
<tr>
<td>1. Carry on back</td>
<td></td>
</tr>
<tr>
<td>2. Own bicycle</td>
<td></td>
</tr>
<tr>
<td>3. Hired bicycle</td>
<td></td>
</tr>
<tr>
<td>4. Own motorbike</td>
<td></td>
</tr>
<tr>
<td>5. Hired motorbike</td>
<td></td>
</tr>
<tr>
<td>6. Own vehicle</td>
<td></td>
</tr>
<tr>
<td>7. Hired vehicle</td>
<td></td>
</tr>
<tr>
<td>8. Own cart (by donkey/oxen)</td>
<td></td>
</tr>
<tr>
<td>9. Hired cart</td>
<td></td>
</tr>
<tr>
<td>10. Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

Savings

30. How do you use the cash obtained from bananas

1. School fees,  2. Household e.g. food, clothing etc  3. Health
4. Farm activities  5. Other (specify)

31. Do you save some of the cash from bananas? 1. Yes 2. No

32. What saving mechanisms do you use?

1. Bank account  2. Group saving  3. In the house  4. Other (specify)
33. How do you supplement the money from bananas?

Section E: Strategies used in Banana Production and Marketing

34. Are there any strategies to improve banana production and marketing that you are aware of?
   1. Yes  
   2. No

35. If yes which ones?
   1. Farmer field schools
   2. Agriculture extension services
   3. Banana propagation/dissemination
   4. Improved transport facilities
   5. Others(specify)

36. Name the strategies you have benefited from, and who provided

   37. Sources of strategy
      1. Extension officer from MOA
      2. KARI Officer
      3. NGO (specify which one)
      4. Other(specify)

<table>
<thead>
<tr>
<th>Strategy benefited from</th>
<th>Who provided(sources of strategy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

38. For the ones you have not benefited from, what are the reasons? (Answer in the table below)

   Reasons for not benefiting from the strategies
   1. No information about them
   2. Did not have time to attend when they had a seminar
   3. Did not have money to attend their seminar
   4. Did not have permission to attend
   5. My husband/Wife attended the seminar instead
   6. The technical language was hard to understand

<table>
<thead>
<tr>
<th>Strategy not benefited from</th>
<th>Reasons for not benefiting (put codes of reasons against the strategy e.g. 1, 2, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>
39. What should be done to improve the services of these strategies so that they can benefit you?
   1. The seminars should be brought near home
   2. Should use simple language in teaching
   3. The timing of the visits should be favourable to all
   4. Others (specify)

40. For the last 1 year have you been visited by extension officer on bananas? 1. Yes 2. No

41. If yes what was the gender of the officer? 1. Male 2. Female

42. How many times
   1. Once 2. Twice 3. Thrice 4. Other (specify)

43. Would you prefer male or female extension officers? 1. Male 2. Female

44. Give 2 reasons why you prefer the above?

45. Have you ever been trained on banana production/post harvest and marketing before?
   1. Yes 2. No

46. If yes which training?(tick)

<table>
<thead>
<tr>
<th>Training</th>
<th>When(year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Banana nursery management</td>
<td></td>
</tr>
<tr>
<td>2. Banana field management</td>
<td></td>
</tr>
<tr>
<td>3. Banana value addition e.g. on how to make banana cakes etc</td>
<td></td>
</tr>
<tr>
<td>4. Banana marketing</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
</tbody>
</table>

47. For each of the trainings you have received name place it was done and if it was a group or individual?

   Place training was done codes
   1. Home 2. Outside home but within the village 3. District town
   4. Research centre 5. Other (specify)

   For the trainings below, write the code of place and the type

<table>
<thead>
<tr>
<th>Training</th>
<th>Place training was done (put the codes above)</th>
<th>Type: 1. Group 2. Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Banana nursery management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Banana field management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Banana value addition e.g. on how to make banana cakes etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Banana marketing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section G: Gender Constraints on banana production and marketing

48. Do you ever experience any of the following challenges in banana production and marketing?

49. Rank those you have told me
Major constraints in banana production

<table>
<thead>
<tr>
<th>Rank</th>
<th>Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land scarcity/ownership</td>
</tr>
<tr>
<td>2</td>
<td>Limited capital and access to financial services</td>
</tr>
<tr>
<td>3</td>
<td>Inadequate access to information and high illiteracy (to read and understand technically written information)</td>
</tr>
<tr>
<td>4</td>
<td>Limited time e.g. due to triple role of women</td>
</tr>
<tr>
<td>5</td>
<td>Reliance to rain fed water especially for the improved varieties (no irrigation)</td>
</tr>
<tr>
<td>6</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

Major constraints in banana marketing

<table>
<thead>
<tr>
<th>Rank</th>
<th>Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor rural infrastructure e.g. poor rural roads</td>
</tr>
<tr>
<td>2</td>
<td>Lack of markets and marketing system</td>
</tr>
<tr>
<td>3</td>
<td>Inadequate and poor storage facilities</td>
</tr>
<tr>
<td>4</td>
<td>Lack of information on post harvesting and marketing</td>
</tr>
<tr>
<td>5</td>
<td>Exploitation by middlemen</td>
</tr>
<tr>
<td>6</td>
<td>Lack of morale due to inadequate access to income from bananas</td>
</tr>
<tr>
<td>7</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

Interview Schedule for the Key Informants

1. Trend of Gender Roles and Responsibilities in Banana as Compared to Other Major Cash and Food crops

<table>
<thead>
<tr>
<th>Activities</th>
<th>Banana</th>
<th></th>
<th>Coffee/ Tea</th>
<th></th>
<th>Maize/Beans</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>1. Land preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Digging holes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fertilizer application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Manure application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Planting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Watering (if done)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Desuckering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Weeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Harvesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Ripening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Marketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. In your opinion why is there a change of trend in the activities between the traditional cash crops, food crops and the bananas?
## Access and control to productive resources, responsibilities and benefits from bananas

<table>
<thead>
<tr>
<th>Resources</th>
<th>Access %</th>
<th>Control %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>1. Land for planting bananas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Power (decision making on where to plant bananas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Banana for food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Banana for cash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Cash from bananas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. In your opinion what should be done to address the imbalance in access and control of resources and responsibilities to improve banana production and marketing?

### Land use on bananas

4. Which banana varieties do men and women in this area prefer planting and why?

5. Why do you think men have shifted from traditional cash crops to banana production which was mainly a woman’s domain?

6. In your opinion what should be done so that both men and women will benefit equally?

**NB: For Key Informants**

### Strategies in Banana Production and Marketing

7. Which of the strategies have you participated in?

8. In your opinion do men and women benefit equally from these strategies? Explain

9. If your answer is no, what measures would you propose to make sure that men and women benefit from each of these strategies?

### Gender Constraints

10. What are the major challenges faced by farmers in this area as they produce bananas?

11. What are the major challenges in marketing of bananas

12. In your opinion do these challenges affect men and women equally? Please explain

13. Give ways of addressing each.
Interview schedule for the Focus Group Discussions

Section A: Both Men and Women

Strategies in banana production and marketing

1. Among these strategies do you think they benefit men and women equally? Discuss each
2. If not what are the possible solutions to make them benefit men and women equally?
3. What are the major challenges in producing bananas?
4. What are the major challenges in banana marketing?
5. Rank the challenges from the most challenging.
6. Do these challenges affect men and women equally? Discuss.
7. What are the possible solutions?

Section B: Men alone and Women alone

Land use on bananas

1. What banana varieties would you say they are mostly for cash and others for food?
2. Which ones do men/women mostly engage in and why?
3. If you were to expand land for banana production, which varieties would you prefer and why?
4. Why do you think men have engaged in banana production and shifted from other traditional cash crops?

Access and control

5. Discuss who has access and control of labour, land and time as concerns banana production and marketing.
6. In access and control of land for banana production, what are the major challenges women/men face now that both are involved? What about labour and time?
7. What should be done to have all benefit equally in access and control of land, labour and time?
8. What are the sources of credit?
9. Do men and women benefit equally from these sources?
10. If no why and what should be done to make the situation better?

Cash from bananas

11. How do women/men usually use the money from bananas? (let them discuss)
12. Are women in control of the bank accounts (money from banana)? (let them discuss)
13. In your opinion are women benefiting from the money they get from bananas the way they should?

14. If no what do you suggest should be done for all to benefit equally?

15. What methods or alternative strategies have women devised to curb the access to resources like land, labour, time, inputs, and benefits from bananas? (will guide them first with the examples below)
   1. Turning to private sectors for extension and information
   2. Off-farm commercial activities (microenterprises) income
   3. Merry go rounds

16. **Section C: Twenty four hour activity profile**
   Please let us discuss the tasks done by women, men, boys and girls in an everyday basis (the results will assist to show the triple role of women and the need to empower all)

4. How do women balance their triple roles (explain Triple roles) especially now that they spend some days selling bananas at the roadside markets

5. What in your opinions should be done to make the roles, responsibilities and benefits equitable for all?