DETERMINANTS OF PARTICIPATION OF MEN IN COMMUNITY BASED AGRO-FORESTRY PROJECTS IN BURETI CONSTITUENCY, KENYA

BY:

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DECLARATION

This is my original work and has never been presented for a degree or any award in any other university.

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This study is dedicated to my husband Nelson Andai and to my children Chebet Ondeche, Chelangat Agwenyi and Cherono Aluoch in recognition of the moral and financial support they offered me all throughout this course.

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TABLE OF CONTENT

TITLE **PAGE**

DECLARATION ..... **ii**

DEDICATION ..... **iii**

ACKNOWLEDGEMENT ..... **iv**

TABLE OF CONTENTS ..... **v**

LIST OF FIGURES ..... **ix**

LIST OF TABLES ..... **x**

LIST OF ABBREVIATIONS AND ACRONYMS. ..... **xi**

ABSTRACT ..... **xii**

CHAPTER ONE:

INTRODUCTION

1.1 Background of the Study. 1

1.2 Statement of the Problem. 4

1.3 Purpose of the Study 5

1.4 Objectives of the Study 5

1.5 Research Questions 6

1.6 Significance of the study 6

1.7 Limitations of the study 7

1.8 Delimitations of the Study 7

1.9 Basic Assumptions of the Study 7

1.10 Definitions of Significant Terms as used in the study 8

1.11 Organization of the Study 9

CHAPTER TWO:

LITERATURE REVIEW

2.1 Introduction 10

2.2.1 The Concept of the Participation of Men 10

2.2.2 The Rationale behind Community-Based Agro-Forestry Projects in Kenya 17

2.3 Influence of Level of education on participation of men 19

2.4 Culture on men's participation in community based agro-forestry projects 22

2.5 Accessibility to finance on participation of men 25

2.6 Access to Information on participation of men in agro-forestry projects 28
2.7 Technological interventions on participation of men in agro-forestry projects 31
2.8 Theoretical framework of the study 33
2.9 Conceptual Framework of the study. 35
2.10 Knowledge Gaps of literature 36
2.11 Summary 40

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction 41
3.2 Research Design 41
3.3 Target Population 41
3.4 Sample size and Sample selection 42
3.4.1 Sample size 42
3.4.2 Sampling Selection Procedure. 42
3.5 Data Collection Instruments 43
3.5.1 Pilot Testing. 43
3.5.2 Validity of the Data Collection Instrument. 43
3.5.3 Reliability of the Data Collection Instrument 43
3.6 Data Collection Procedure 44
3.7 Methods of Data Analysis 44
3.8 Operational Definition of Variables. 44
3.9 Ethical Issues. 46

CHAPTER FOUR:

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction 47
4.2 Questionnaire Return Rate 47
4.3 Demographic characteristics of the respondents 47
4.3.1 The Age characteristic of Respondents in agro-forestry projects 48
4.3.2 Education qualification of respondents in agro-forestry projects 49

4.3.3 Marital status of the respondents 49
4.3.4 Duration of participation in agro-forestry projects 50
4.4 Influence of the level of education on participation of men in agro-forestry 51
4.4.1 Number of men with college level education in agro-forestry projects.....51
4.4.2 Literate men in community based agro-forestry projects 52
4.4.3 ICT literate members participating in agro-forestry projects 53
4.4.4 Levels of education of men and participation in agro-forestry projects 54
4.5 Influence of culture on participation of men in agro-forestry projects.....55
4.5.1 Stereotypes of cultural manifestation in agro-forestry projects.....56
4.5.2 Number of leadership posts in agro-forestry projects.....56
4.5.3 Number of Leadership posts held by men 57
4.5.4 Activities men engaged themselves in agro-forestry projects 58
4.6 Influence of access to finance in agro-forestry…….…….58
4.6.1 Accessibility of loans to participants in agro-forestry 59
4.6.2 Number of participants who secured loans.....59
4.6.3 Other sources of income for participants in community based agro-forestry.....60
4.6.4 Land owned by men in community based agro-forestry projects 61
4.6.5 Number of participants men with title deeds in agro-forestry projects 61
4.7.0 Information on participation of men in agro-forestry projects 62
4.7.1 Sources of information in community based agro-forestry projects.....62
4.7.2 Accessibility of information in community based agro-forestry projects 63
4.7.3 Attendance of workshops and seminars in agro-forestry projects.....64
4.7.4 Use of ICT in community based agro-forestry projects.....65
4.7.5 Extension Information Services in agro-forestry projects 66
4.8 Influence of Technological interventions in agro-forestry projects.....66
4.8.1 Technological interventions used in agro-forestry projects.....67
4.8.2 Members applying technological intervention.....68

4.8.3 Frequency of application of technological intervention 68

4.8.4 Technological intervention versus participation of men.....69

CHAPTER FIVE:

SUMMARY OF FINDINGS CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction.....71

5.2 Summary of findings.....71

5.2.1 Education level on participation of men in community based agro-forestry 72

5.2.2 Culture on participation of men in community based agro-forestry 72

5.2.3 Access to finance on participation of men in community based agro-forestry 73

5.2.4 Information on participation of men in community based agro-forestry 74

5.2.5 Technological Interventions in community based agro-forestry 75

5.3 Conclusion 75

5.4 Recommendations.....76

5.4.1 Recommendations for Policy Formulation 76

5.5 Suggestions for further research 77

REFERENCES 78

APPENDIX 1: QUESTIONARE **85**

APPENDIX II: TRANSMITALLETTER.....**92**

APPENDIX III: MAP OF BURETI CONSTITUENCY. **93**

LIST OF FIGURES

Figure 2.1 Conceptual Framework**.**.....35

LIST OF TABLES

Table 2.1 Gaps in Knowledge....37
Table 3.1 Total Population and Sampling sizes.....42
Table 3.2 Operational Definition of Variables. 45
Table 4.1 Questionnaire Return Rate.....47
Table 4.2 Age characteristics of respondents 48
Table 4.3 Education level of the respondents 49
Table 4.4 Marital status of respondents 50
Table 4.5 Duration of participation in agro-forestry projects. 51
Table 4.6 Men with college level education ……..……...……...52
Table 4.7 Literate men in community based agro-forestry projects 53
Table 4.8 ICT Literate members.....54
Table 4.9 Level of education of men versus participation.....55
Table 4.10 Stereotypes of cultural manifestation 56
Table 4.11 Number of leadership posts in community based agro-forestry 57
Table 4.12 Number of men leaders in community based agro-forestry 57
Table 4.13 Activities men engaged themselves in.....58
Table 4.14 Accessibility of loans to men.....59
Table 4.15 Men who secured loans in community based agro-forestry 60
Table 4.16 Other sources of income 60
Table 4.17 Ownership of land by men in community based agro-forestry 61
Table 4.18 Number of men with title deeds.....62
Table 4.19 Sources of information on community based agro-forestry 63
Table 4.20 Accessibility of information in community based agro-forestry.....64
Table 4.21 Attendance of workshops and seminars.....64
Table 4.22 Use of ICT in community based agro-forestry 65
Table 4.23 Extension Information Services in community based agro-forestry 66
Table 4.24 Interventions used in community based agro-forestry.....67
Table 4.25 Number of members using technological interventions 68
Table 4.26 Frequency of application of technological interventions.....69
Table 4.27 Technological intervention versus participation of men.....70

LIST OF ABBREVIATIONS AND ACRONYMS.

ADB: African Development Bank

CSA: Climate Smart Agriculture.

GOK: Government of Kenya**.**

ICT: Information Communications Technology

KFS: Kenya Forestry Services

KNBS: Kenya National Bureau of Statistics.

MDG: Millennium Development Goal.

NGO: Non-Governmental Organization.

ROK: Republic of Kenya.

SCDO: Sub-County Development Officer

SSA: Statistics South Africa.

UNDP: United Nation Development Program.

UNESCO: United Nations Educational, Scientific and Cultural Organization

USAID: United States Agency for International Development.

WB: World Bank.

ABSTRACT

The purpose of this study was to investigate the determinants of participation of men in community based Agro-forestry projects in Bureti Constituency. The study objectives were: To investigate how education contributed to participation of men in Agro-forestry projects in Bureti Constituency, To establish the extent to which cultural values influenced participation of men in Agro-forestry in Bureti Constituency, To assess how the access to finance influenced participation of men in agro-forestry in Bureti Constituency, To determine whether the access to information influenced participation of men in Agro-forestry in Bureti Constituency and To establish the extent to which technological interventions influence participation of men in agro-forestry projects in the constituency. This study was expected to benefit the community based project managers, government ministries and other key stakeholders in the Agro-forestry projects in Bureti and elsewhere. The dependent variable included: The level of education of men which was important in this study as it equips one with knowledge, skills and techniques in agro-forestry community projects. Cultural values which enhance or decrease participation of men in community based projects in line with a community's respective cultural values. Access to information is key in development; hence an informed community can enhance effective participation of community members. Access to credit can also promote participation of men in community-based agro-forestry projects and where men adopt technological interventions it affects their participation in these projects. The extraneous variable was government policy. Most governments' policies are pro-women and thus, it was expected that they affect the participation of men. The study adopted the Social Action theory of community development to demonstrate that men are the less fortunate group in the Kenyan society as regards to their participation in agro-forestry projects. This indicated the need to establish policies that would enhance the effective participation of men. This study was a descriptive survey, based in Bureti Constituency. Pilot testing was done in the neighbouring Sotik Constituency using a sample of 25 men from a random sampling frame of 248 participants from all the five wards in Sotik. The study sample selected by stratified random sampling and the sample size was 193 from a target population of 1930 men being the sampling frame of the members of 320 registered men participants of community-based agro-forestry projects in the constituency. This study used a questionnaire, which was first pre-tested using the test-retest method for reliability and validity. Permission from the relevant authorities was sought before administration of the questionnaires to the respondents was done and data collected was then analyzed using SPSS Version 20. At all stages of the study, ethical considerations were undertaken. The study established that higher educational levels enhanced participation of men, technological interventions also promoted the participation of men as it enhanced their interest in the project and culture promoted men's participation in these projects in Bureti especially as leaders and decision makers in the projects. Lack of adequate information and lack of adequate finance impacted their participation negatively. The study recommended the formulation of policies including friendly financial packages for men. It also recommended the installation of proper project information systems by the members of community based agro-forestry projects. It also recommended the enhanced lobbying for increased men's participation to be done.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study.

Globally, participation of men in agro-forestry projects has been shaped by various determining factors. It is generally agreed that men are more involved in community based agro-forestry practices. It is on this premise that countries around the world have engendered their forestry policies to include women. These policies further portray men as adequate in all spheres of life and women as helplessly vulnerable. While these efforts are progressive for women, men are seemingly under siege from all gender policy quarters (Weston, 2014). However, a new perspective seems to be emerging in the West with the understanding that gender doesn't always have to be about women. In Sweden, for instance men have been included in the gender debate. The Sweden gender policy of 2010 states that Gender Equality is achieved when women and men, girls and boys have equal rights life prospectus and opportunities, and the power to shape their own lives and contribute to society (Dover, 2014).This is inclusive of agro-forestry projects in the country.

Historically, the global picture paints an image where women participation in community based agro-forestry projects is encouraged and men ignored, as a study in Nepal investigated. Women in Terai, Nepal were encouraged on a minimum of 30% participation in agro-forestry community projects. The presumption was that there were less women who engaged in community based projects, hence the need to focus on them (Molnar, 1987). Today agricultural projects have largely favoured agro-forestry projects. This is in the wake of the adverse effects of climate change as agro-forestry presents them a more practical and versatile solution. Elsewhere the contemporary societal expectations in the orient determine the participation of men in community projects. In Indonesia, the efforts have been initiated by the government to focus on women. The situation is different for women who are less involved in community based agro-forestry projects, thus the gender issues play out in all niches in the agricultural cycle. Labour activities that require hard work is handled by men.

Women tend to the lighter agro-forestry activities (Reyes, 2008). These include domestic related duties such as harvesting of fuel. Men also harvest timber and make major decisions on sales. Similarly, in Vietnam, more men than women control farm level decision making including: purchase of farm inputs, and timing of harvest or marketing; involvement in farmer's organizations and associations, or co-operatives and participation in agricultural training and extension (Reyes, 2008).Women are more involved with the labour intensive manual farming activities. This rapid uptake of Climate Smart Agriculture (CSA) by community based projects globally is largely due to its wide range of benefits. Agro-forestry, a CSA practice helps reduce vulnerability for women and other disadvantaged groups by ensuring the benefits of CSA are shared (Samson, 2014).

In the African context, where most countries developing nations lie, the replica of Nepal's case, decades later still plays out. Studies by Quinsmbing and Pandofeli, (2010) support the idea of focusing on women's participation in agro-forestry based projects. Their proposition is that women play a key role in most production systems in Africa, thus there should be enhanced participation of women. This gender perspective closes out men, albeit unintentionally, from active participation in these projects. This needs to be redefined. Without an approach to difference that moves beyond static generalizations and work from personal experience to open up spaces for change, men will continue to be left on the sidelines and remain "the problem" (Cornwall, 2012).Generally, African Governments are grappling with the issue of gender mainstreaming in agro-forestry projects in a view to increasing women participation.

Further to the south of Africa in Zambia, more men than women are involved in the agro-forestry projects. However, more men have key leadership positions in community based projects. This exclusion of women from leadership and decision making position is due to the women's low education levels, so they don't have the requisite background that would allow them occupy important positions in the formal forestry sector,(Meinzen-Dick and Quisumbing ,2012).This has also contributed to the engendering of agro-forestry policies to favour women in Zambia. The same pattern is replicated in Rwanda, where after the 1994 genocide; gender policies were set in motion to accommodate their new roles as household heads and decision makers.

Following the genocide, women in Rwanda made up 70% of household heads (WB, 2008).This led to an increase in land ownership by women in Rwanda and the gender aspect rends its head in the agro-forestry sector. More women therefore engaged themselves in agro-forestry projects as a result. The pivotal structure of these policies is to involve more women as it is already assumed that men are much more involved in these communities based initiatives, laying strategies to enhance participation of more women in agro-forestry.

Closer home, Ugandan women are similarly less involved in community based agro-forestry projects. This has led to inclusivity of gender policy in agro-forestry. More men have previously been engaged in these projects. Women on the other hand are involved in 'feminine tasks' like daily household collection of firewood but hindered from planting trees. Men culturally are involved in the sale of tree products such as timber and make major decisions as regards to these community projects. Since women lack tenure rights, it affects their access to land rights. They have to depend on male members of the family before making any decision related to planting trees or harvesting timber or tree resources (Obonyo and Kaudia, 2007) .This means men have the upper hand in agro-forestry projects in Uganda.

The Kenyan men are also side-lined by the societal perception of gender policies in preference to women. Men constitute 49% of the population while women constitute the remaining 51%, the majority of them in the rural areas. In contrast, majority of men have moved off the urban centres in search of employment (ADB, 2007) .This means that the few men remaining in the rural areas have to share the responsibility in these community projects. The Kenyan Forestry Policy has included gender mainstreaming efforts to boost the participation of women in agro-forestry in Kenya. However, factors such as culture, access to finance, access to information, gender policy level of education and technological intervention influence the participation of men in Kenya, in various ways.

In Kenya, more women than before are farming as men emigrate to urban centres. This has feminized agriculture with 80% of farmers in Kenya being female (Tegemeo Institute, 2014).Community based agro-forestry projects have been successful in areas such as Mt. Elgon and Arababu Sokokwe.

However, despite the fact the many women are in the rural area participate in agro-forestry projects in Mt. Elgon area, most leadership positions in community projects are held by men (Obonyo and Kaudia, 2007).This is strengthened further by the fact that men make the decisions in these projects despite their fewer numbers in rural areas. Cultural undertones also make the situation further complicated as most men are leaders in rural societies. The men in Bureti Constituency constitute 49.5% of the population, which stands at 167,649 (SCDO Bureti,2014). The men that participate in community based agro-forestry projects take up several roles to fill in the social gap left by their fellow men who leave for urban centres to search for formal employment. They are involved in leadership of community based organizations, Information dissemination and community mobilization. In spite of their willingness to participate in these projects, it is notable that in Bureti, more men than women are engaged in agro-forestry projects (Ministry of Environment, Water and Natural Resources, 2014).

1.2 Statement of the Problem.

Kenya, like many other countries worldwide has embarked on gender mainstreaming its forestry policies. It has sought to include women, who are believed to be minority in agro-forestry projects by: promoting women's knowledge, involving national and local women CBOs in environment education and conservation and evaluating development policies and program in terms of environmental impact and the resulting gender difference relating to access and use of natural resources (Obonyo and Kaudia, 2007).

According to the Bureti Strategic Plan, (2013), Bureti covers 321 km^2, which is covered by 11% of forests and hopes to increase itsforestcover by 12% by 2017 and will employ community based agro- forestry initiatives as one way to achieve this. It is worth nothing, however, that sustainable community development cannot take place through force or order but is most likely to happen when all actors participate and share ideas, visions and responsibilities equally and democratically in steering and implementing their community or village projects (Ajayi and Otuya, 2006). While we push the women agenda, we need to include men also in engendering agro forestry in Kenya for it to be successful.

Though the government has put in a lot of effort to ensure the promotion of gender equality and equity in agro forestry projects, the focus on women has literally overshadowed men's participation in Bureti Constituency.

The constituency has in its strategic plan, highlighted the need for gender mainstreaming in all its development project, meaning both men and women should be involved in these initiatives.

In contrast, of the total population of 84,103 men in Bureti Constituency; (SCDO Bureti, 2014), only 22% of them are actively engaged in community based agro- forestry projects. This is in comparison to a greater percentage of women at 46% of them participating in community based agro-forestry projects. The study identifies the low percentage of the men involved in these projects in Bureti Constituency; therefore in focusing on the determinants influencing behind their dismal participation in agro-forestry.

1.3 Purpose of the Study

The purpose of the study was to investigate the determinants of men's participation in community based Agro-Forestry projects in Bureti Constituency.

1.4 Objectives of the Study

The objectives of the study were:

1. To investigate the contribution of education on participation of men in community based Agro-forest projects in Bureti Constituency.
2. To establish the extent to which cultural values influence men's participation in community based agro-forestry projects in Bureti Constituency.
3. To assess how access to finance influences participation of men in community based agro-forestry projects in Bureti Constituency.
4. To determine whether access to information influences men's participation in community-based agro-forestry projects in Bureti Constituency.
5. To establish the extent to which technological interventions influences participation of men in community based agro- forestry projects in Bureti Constituency.

1.5 Research Questions

The following were the research questions for this study:

1. What is the contribution of education on participation of men in community based Agro-forestry projects in Bureti Constituency?
2. To what extent does culture influence men's participation in community based Agro-forestry projects in Bureti Constituency?
3. How does the access to finance influence participation of men in community-based Agro-forestry projects in Bureti Constituency?
4. Does access to information influence participation of men in community based Agro-forestry projects in Bureti Constituency?
5. To what extent do technological interventions influence participation of men in community based Agro-forestry projects in Bureti Constituency?

1.6 Significance of the study

This study was expected to present a body of new knowledge in the education sector as it elaborates further on a specific area of interest; agro-forestry and how men's participation was affected by various factors. This is because Bureti Constituency, being an agricultural area provided valid and reliable information. Thus, it was expected to be useful for researchers in project management; gender studies and agro-forestry field.

This study, it was believed, would generate findings of interest to policy makers and analysts in Kenya, and even globally, hence would be useful for the relevant government ministries and parastatals involved with gender studies, management of resources, development and agriculture. On a broader sphere, it was deemed to be useful to project managers in the grass roots face similar situation factors in dealing with men participation in their projects. While the findings may not be perfectly generalized to the whole country, the findings of this study may be useful to researchers interested in the determinants of men's participation in various development projects across Kenya.

1.7 Limitations of the study

Limited funds and time meant that the study was conducted in one constituency only in Kericho County. Literature on men's participation in community based projects in Kenya was also scanty and the study had very little basis on the sources for literature review locally on this topic.

The study was also limited by factors such as the rainy weather conditions which render the rural road network impassable. Being largely a rural set-up, Bureti Constituency was also limited by cultural implications where some men would be unwilling to give information due to suspicion as to why the target was only men.

Limitations such as weather issues were addressed by visiting the respondents on motorbikes especially before noon rains. Limitations in terms of funds were managed by a trade-off between the sample size and the available funds. This meant that the sample selected was not too small that it lacked proper representation of the target population and yet was not too large as to constrain the available resources. To address the respondents' unwillingness to share information, they were adequately informed on the purpose of study which was purely academic and that information given would be treated with greatest confidentially.

1.8 Delimitations of the Study

The study was focused on Bureti Constituency. This constituency had been picked because it is largely an agricultural area, with many of the community-based groups practicing agro-forestry. It was also accessible, due to its good road network covering the entire constituency. Bureti Constituency is also a densely populated area therefore was good for the study.

1.9 Basic Assumptions of the Study

This study was based on the assumption that the chosen data collection instrument which for this study was a questionnaire was valid and reliable. It was also assumed, for research purposes, that the chosen sample was an appropriate representative of the entire population of Bureti Constituency. The assumption also that the respondents would be willing to participate in terms of filling questionnaires was taken into account. In reference to the administration of the questionnaire, it was assumed that the respondents would have no problem in interpretation of the questions in the questionnaires and responding appropriately.

1.10 Definitions of Significant Terms as used in the study

Accessibility to Finance: The possibility of a participant to obtain sources of finance.

Agro-forestry: The agricultural practice of growing crops with tree shrubs.

Cultural Background: The customs, arts, social institutions of a particular group of nation of people, in this case Bureti Constituency.

Extension Information: The knowledge communicated by extension officers on Agro-forestry practice.

Gender Equity: The fairness and justice in distribution of benefits, access to and control of resources and services on gender basis.

Government Policy: The purposed set of activities aimed at achieving specific results, as set out by the government.

Information: Knowledge communicated or received concerning a particular fact or circumstance.

Level of education: The highest attained level reached by a respondent as regards his/her education.

Participation: The active involvement of men in community based projects.

Project: A unique, one time operation designed to accomplish a set of objectives in limited time and cost.

Technological interventions: Improved agricultural techniques that farmers apply in their agro-forestry projects

1.11 Organization of the Study

Chapter one introduces us to the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, delimitations of the study, limitations of the study, assumptions of the study, definitions of significance terms, and organization of the study.

Chapter two is the literature review, which includes the introduction, body and theoretical framework. It also presents the conceptual framework based on the study variables, and further goes into detailed elaboration of how these determining factors could influence the participation of men in the projects. It also reveals the knowledge gaps in the study. This chapter ends with a summary.

Chapter three includes research methodology, in terms of the study research design, target population, sampling procedure and sample size, data collection methods: pilot testing, inclusive of the tool used, its reliability and validity. The data collection procedure, ethical issues, operational definitions, and the methods of data analysis are also discussed.

Chapter four presents the data analysis of each of the variables as derived from the questionnaires. This is presented as per the questions answered by the respondents as per the objectives. This also consists of its presentation in form of percentages and tables. The interpretation and discussion of the analysis is also presented in this chapter.

Chapter five is pegged on the summary of findings, as derived from the study. It also delves into the conclusions made by the researcher and recommendations for formulations for policy that can be applied for future studies by researchers in similar fields.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review, the theoretical framework and conceptual framework of the study, while revealing the knowledge gaps from previously written literature as well as a summary of the entire chapter.

2.2.1 Concept of the Participation of Men in Community Based Agro-forestry Projects.

A project is a unique one-time operation designed to accomplish a set of objectives in a limited time frame, cost and scope. Community based project management is handled by elected leaders from the community. In community based agro-forestry projects, cultural perspectives, resource management and indigenous knowledge on systems of leadership come into focus. There must be awareness of the agro-forestry needs of the community for the project to succeed. The Draft National Policy on Community Development (2009) reiterates that members of a community must be aware of their needs or problems and are motivated to solve them. Community based agro-forestry projects mostly arise from a community's need to gain both economically and environmentally from agriculture. Community based agro-forestry projects are a crucial mitigation measure for any country, for the effects of climate change; the adverse effects of climate change on a global scale have made agro-forestry projects a more practical and versatile solution to farmers and environmentalists alike. Agro-forestry has led to increased profits, productivity and sustainability of land use in Kenya.

And around the world, with regard to gender, men have for long time been perceived as 'the enemy within; with gender-based policies also underscoring this fact, by choosing to focus on women rather than both men and women. This is reflected even in agro-forestry projects. As a result, men have borne the brunt of these social actions in community based projects. A global perspective reveals that a lot of literature pertaining to men has been undertaken in trying to demystify the participation of men in various projects. However, this school of thought feels that the sidelining of men in development projects needs to be elaborated, debated on and that decisive action must be effected. (Chanta, 2002).

Empowerment should not be seen as a zero-sum game where gains for men automatically mean loses for men (UN, 2001).This means that gender policies should in fact address the collective strengths and weaknesses of men and men and use them to work towards common goals without necessarily over stretching either men or women. The involvement of women and men in community based development project globally is an important aspect of development. According to Fortman and Rocheleau, (2006), the involvement of men and women in Agro-forestry is essential in projects definition, design and implementation. It is believed that more men than women still participate in agro-forestry taking up key leadership positions even in groups where women are majority.

These scholars present four myths that previously deterred women participation in agro-forestry projects and also that more women than men in contemporary society are involved in these projects at a larger scale than previously thought. The first is that women are housewives. It has been assumed that since most rural societies are farmers, then rural areas bear the major sole responsibility for food production. In effect, this must involve women. The myth is shared across societies globally, a trend that has previously seen women avoid active participation in these projects. Women are perceived as home makers, managing small subsistence patches of land and rearing few domestic animals (Fortman and Rocheleau, 2006). Women are also believed to submissively avoid engagement in community based agro-forestry projects, perceived to be a male dominated domain; as it involves project management skills of a community level, and requires one to be socially outspoken and aggressive. These attributes may not be viewed as home-makers character attributes. However, this myth has largely been broken by the participation of more women than men in community based Agro-forestry projects even in Africa (Kiptot, 2011).

The second myth according to Fortman and Rocheleau, (2006) is that forest products are the domain of men. Indeed, Kiptot and Franzel, (2012), assert that women participation is very high in enterprises considered by culture to be women's domain such as indigenous fruit and vegetables products and processing while men handle the more lucrative products. This myth holds that forest products are then the domain of women as they are responsible for these trees, hence deserve to use their products. This leaves women as the primary users of forestry products such as fuel wood, wild foods and fodder. As further observations indicate, this myth focuses on men as commercial users of trees, in terms of products like timber while women are relegated to subsidiary roles mostly for domestic use.

The third myth presented (Fortmen and Rocheleau, 2006), is that men are heads of households, thus would reserve the right to participate and make decisions in community based agro-forestry development projects. This myth has been from the assumption that every woman has a husband or is a member of male headed household. However, this study projected that women-headed households are estimated at 25-33% of all the households in the world. According to the study “extension worker in action", has been branded a 'rob where two men are needed”. This study further elaborates how this notion was radically challenged in Mali. The women in Mali for instance had an active participation in agro-forestry projects. They went ahead and undertook soil and water conservation efforts. They implemented the project, long before the men thought of it, after consulting extension officers. This meant that extension workers would engage with all the community members inclusive of women. In this study, the proponents concur that the presumption that it is only men who are involved in forestry is often totally wrong. Therefore, this myth has been eroded overtime by the fact that men households seem to decrease globally due to other social factors inclusive of death of spouses, divorce, and single-parenthood. These households are led by women who society accepts as household leaders in their own right, hence participate actively in community-based projects.

In the fourth myth they present the presumption that women are passive members of community, in which public influence and public action is a sphere restricted to them. However, with the third gender rule in place, women at the community level fully participate in these projects. Men participating in these projects thus allow women space to make a positive contribution to the community in this way. In so doing, men may find themselves in an awkward position of trying to redefine their community roles as leaders and decision makers.

The study further asserts that women in the Dominican Republic, quoting Plan Sierre (1979-1981), share harvest, raise small animals, tend to patio gardens and are responsible for fuel wood. Such individuals, who are involved in agro-forestry projects from the household's level, are active even in community-based agro-forestry development projects. Women therefore present a scenario where their hands-on involvement in community projects cannot be ignored, even though they are majorly involved in project implementation.

These situations are also reflected in Bureti constituency as well, with men being overshadowed by their female counterparts in project activities. These four myths on women participation in Agro-forestry has further been elaborated by Santosh and Shastri (2006), in a study of rural women participation in Agro-forestry, Nepal. They support the fact that women are better informed about environmental concerns and thus, bear more responsibility and after care for the Agro-forestry projects. As a result, women are the main managers of environmental and natural resources as they are more involved in the management compared to men. However, men's or women's participation in community-based Agro-forestry development projects cannot be determined by myths and social expectations of men based on patriarchal culture.

Globally, men participating in these projects relate the myths that women are housewives, that forest products should be domain of men, that only men are heads of households and women as passive community members. In various parts of the world such as Pakistan and Indonesia, men are more engaged in agro-forestry projects than men. Globally various policies in different countries dealing with gender have been formulated. Policy documents are readily available today to the public which participates in policy formulation at various levels. Governments globally have also ratified UN agreements, inclusive of the Convention for Elimination of Discrimination against Women of 1979 guaranteeing the equal rights of men and women and protect women from being discriminated. This has indeed focused mainly on women, men being left out of the gender policies. Initially, women were marginalized, and these policies that aimed to ensure the inclusivity of women have since been over-emphasized. In the recent years, scholars have realized the need to include men as well in these gender policies. There is a need to articulate a clear conceptual framework that will guide the work with men and boys to go forward (Orinfinopoubel, 2014).

In the 1970s and 1980s there was a sudden mass awareness of the women's positives role in development initiative leading to the emergence of women in development. Male blindness which is a practical application of gender and development policy is part a legacy from the early years of the UN decade of women (1975 – 1985), according to Chanta (2002).

The fact that much of the impetus for men's Involvement and development work originates with women both at the grass roots level in development and development agencies, indicates a lack of interest on the part of men in GAD (Chanta, 2000). Globally, the conceptual switch from women in development to Gender and Development (GAD) meant that the focus of

boys and men became more apparent. This new concept has led to the accommodation of men in gender policy, especially in the west, as seen in the practical example of the Sweden gender policy of 2010 (Dover, 2014).In Vietnam, more men than women control agro-forestry community initiatives, with regards to project planning and management. This situation is also reflected in Indonesia and Philippines, where men have demonstrated arguably more progress in agro-forestry projects on a community level (Reyes, 2008). This is also witnessed in Latin America, where in mixed groups male leaders of community projects are very common (Mwangi et al, 2011). Owing to their high education levels in comparison to women in Pakistan, men dominate decision making. Education helps them arrive at feasible decision making (Muhammad, 2014).

In Africa, the cultural perspective is thought to be a key aspect in the participation of men in community based projects. While societies are largely patriarchal, it is safe to presume that some cultural values protect women from harmful societal practices. Determinants of the men's participation such as: cultural values, technological interventions, access to credit facilities, access to information and the level of education generally affect the participation of men, albeit differently in different Africa states. Much depends on the social and economic background of the given society.

Many African states depend on agriculture as the mainstay of their economies. The African content has by large embraced this global trend with many African nations ratifying various UN agreements and formulating gender policies. South Africa for instance ranked fourth among 87 countries covered by the 2012 Social Institutions and Gender Index of the Economic Cooperation and Development (SSA, 2011). In the ranking SA is the highest ranked country in Africa. This implies that SA has a strong legal framework as regards to gender equality and men's rights. It is however different for men, where no gender specific tailored policies have been formulated for them. It is on the premise that men in SA have more educational opportunities, job openings and ownership of properties that these policies have been formulated; these polices have improved the lives of women. South Africa has the most elaborative and institutional framework promotion and protection of rights of women in Africa (Olowu, 2011).

The East African countries have a replicated pattern on the participation of men and women in these projects. Similarly, gender policy in Rwanda has also opened up the political space for women, with men taking up 56% of leadership the highest representation of men in Africa. This means more women than men in Rwanda are taking part in policy formulation and governance (Wiber, 2011). For instance, in Rwanda, 85% of the population derive livelihood from farming, agriculture is a key sector in Rwanda economy (NICHE, 2013).This means an insight into agro-forestry policy and practice is critical for the economic growth of Rwanda. Most agro-forestry projects are managed by men and the government has focused its energies in recognizing the central role of women in management of natural resources in its forest policies. In Uganda, community participation in the management of forests is done by developing management partnerships and legal agreements between the government and local groups.

In Uganda, these legal agreements include women, youth and poor people as particular beneficiaries in development of the forest sectors (Mukasa et al, 2012).This is because men are more involved at individual and group levels in agro-forestry projects in Uganda. The Kenyan situation is similar to that of East Africa, Africa and World. The situation that more women than before are farming as men seek other jobs and migrate to cities and towns has feminized agriculture. This has indeed largely contributed to the gender policy implementation with an increase in women access to credit facilities being key in this regard. The government has put in tremendous efforts of spurring economic growth and thereby reducing poverty, and unemployment by considering the needs of Kenyan men, boys and girls across economic, social and cultural lines (UNDP, 2012).However, a lot more effort needs to be put in to strengthen the participation of men in community based projects.

This is because more men participating in these projects equal an improved economy for Kenya as well. Previous studies done on participation of men in community based projects agree that is a necessity for integrating both men and women in projects for any project to succeed. Their participation itself enhances economic growth of any country owing to their contribution in different spheres of the community project.

Scholars generally agree that it requires that we focus on our concern on the positions and relations of gendered power and powerlessness that produce and sustain inequity seeking, through this in a way of moving beyond static frameworks and stereotypes towards transformatory practice (Cornwall and White, 2014).The Kenyan man with respect to this needs to be integrated in the gender mainstreaming policy in agro-forestry for his contribution to be felt. Kenya's vision 2030 envisages the need to promote the participation of both men and women in public decision making processes, in promoting the recognition of community needs and in so doing, mentor potential leaders. The project should support leadership training for both women and men to prepare them in assuming roles in committees and in project management. As such, their involvement in community based projects is primary to socio-economic growth in Kenya. It is also necessary to allow participation of men in these activities, by organizational structural strategies and in -house policies by these CBOs that in the end have a positive impact in these projects.

Development must be a bottom up participatory process for it to succeed. Both men and women must be involved, not only in the labour for forestry activities but also in decision making and in the control of resources according to Williams (2014). The shift in focus to men participation in agro-forestry projects should therefore be a global initiative. The National Gender Policy in Kenya calls for equal participation of both genders all spheres of the economy, which has further led to the increased participation of women rather than men in these community based agro-forestry projects. This would indeed enhance more participation of men in community based agro-forestry projects rather than their men counterparts. Kenya has also ratified various international protocols and treaties in gender, inclusive of the East Africa Community treaty on gender equality in the integration process.

Other efforts include the Kenyan Constitution (2010), the National Gender and Development Act of 2003 and the gender third rule policy of all appointments of leaders. These policies have largely been framed on the need to integrate women in what has been précised as the need to empower women. Men have generally not been included in many of these noble initiatives in Kenya. Men in Kenya similarly have struggled to keep up with women in their pursuit for gender equity.

The government of Kenya has involved men and women in the policy formulation processes, as their input is a necessity. These have also included various machineries in the 1994-1996, to establish a gender-response desk in all government ministries, which has instead been perceived women's desk. The establishment of the Maendeleo Ya Wanaume organization was therefore informed by the challenges men face in contemporary Kenyan society. Male low income earners for instance have little access to credit on the basis of gender, and age with numerous government initiatives, NGO and credit lenders basing their lending policies on the gender, meaning women and youth. It is crucial therefore that while extending the woman's participatory space in community agro-forestry projects care is necessitated that men aren't edged out of their participation as well. On the whole, gender integration is the most appropriate agro-forestry approach in community-based projects. This indeed involves the various view points from different members of the community based projects. This is arguably the most suitable approach to community based agro-forestry projects even in Bureti Constituency. Indeed, the projects gender sensitivity is stronger if it promoted men's and women's equal human rights and presented context on gender roles in the Kenyan agricultural sector (Arend, 2011). The recognition of the importance of the participation of men in Kenya community based organization is not a locally generated idea, but stems from the fact that men as global citizens need to be engaged in activities that affect their well-being as well as those of their families. Men participating in these projects therefore exercise their rights as global citizens in making contributions to the world. Being the principal household heads and leaders in many societies, men should also have a share in decision making, project implementation, sharing benefits and project evaluation (Mutongu, 2011). There is no more plausible solution to this other than engaging both men and women in participation. The involvement of men in community based agro-forestry projects indicates an interest in equity in resource distribution by that community.

2.2.2 The Rationale behind Community-Based Agro-Forestry Projects in Kenya

The concept of community based organizations is not novelty in Kenya but has grown over time. At independence, in 1963, the founding father Mzee Jomo Kenyatta called on people to join together and go back to the farms (Mutongu, 2011). This was in an attempt to increase agricultural productivity through community based projects, as farming had been neglected as people struggled against the colonial powers.

Since then, Kenyans have engaged in these community groups as a means to development. These have increased in number with the availability of funds from the government of Kenya. CBOs as vehicles for community development became popular in the 1960s for example; coffee co-operations in Kiambu were formed to increase farmers' purchasing power for inputs as well as to improve on their market accessibility. Many small scale projects have since been initiated by various communities, with various goals intended to be achieved by the community in question. According to Mulwa and Mala (2000), people form community based organizations for various reasons. One is proximity, where people from the same area or locality will tend to be in groups. Another reason would be the benefit of the group to the individuals.

This view indicates that there is a strong relationship between community participation and the benefits farmers obtain from the aforestation projects (Maraga et al, 2010). For instance, the benefits of embracing of Climate Smart Agriculture by various community based project globally has led to its increased uptake. CSA in community based projects reduce vulnerability for men and other disadvantaged groups and ensures the benefits of CSA are equally shared which adds another challenge (Samson, 2014). These benefits can be shared more equitably across various members of the community by them engaging in community based projects. Community based Agro-forestry projects are also transformative when community members are informed and knowledgeable.

The proximity is evident in the involvement of the entire community in these projects and facilitates for ease of information exchange and enhances learning experiences. While women are better informed about environmental concerns (Santosh and Shastri, 2014), it is noted that in Africa, more men than women are engaged in extension educational services (Kiptot and Franzel, 2011)and therefore likely to be more informed of the latest technological advances in Agro-forestry. Community based Agro-forestry projects present a learning approach for men in leadership by introducing the need to involve men in participatory leadership roles in these community based projects. As Kenyans continue appreciating the idea of community based groups, many of them have been formed and registered with the Ministry of Gender, Culture and Social Services.

Over time, men in the same locality undertaking these roles engaged themselves in project management and strategized on the projects vision, and mission, contributing greatly to agro-forestry practices and other projects in the community (Mulwa and Mala, 2000).

The organizational structure of community based projects is mostly hierarchical and allows for various-leadership positions therefore to be taken up by various representatives of the community including men. This therefore gives a chance to mentorship of leaders from all walks of life community based projects eliminate biases in society. In so doing, it eradicates gender, social, economic and other societal biases that may exist. This further elicits favorable community relationship ties, fostering unity and turn, hastening development. Community based Agro-forestry projects would benefit all members of the community regardless of socio-economic influence, thus attracts all members across the board (Mulwa and Mala, 2003). They are also able to eliminate project bias arising from the influence in making decisions by influential members of the community. This means the community popular vote dominates in all aspects of the community and takes part in the project.

While in essence, community based Agro-forestry projects bring farmers from the same locale together (Mulwa and Mala, 2003), it is true to say, that the community members share the same ideal of benefiting from agricultural practices that foster environmental conservation. They are also attracted by the long-term and short time benefits of the project thus are active participants. Men members of the community who share these views are incorporated into the group for the community's benefit. While not all community-based projects may be defined as CBOs, they share the same characteristics. An integrated approach to community-based projects is reflective of the community's ideals as well. The project management structure stems from these ideals, and men participation is largely perceived as an integral part of the project. Community based agro-forestry projects therefore need to strengthen the locally home grown initiative created by members themselves, and involve both women and men in all these noble steps.

2.3 Influence of Level of education on participation of men in agro-forestry projects.

Research has also shown that there is a strong connection between education and better life, nutrition, improved hygiene, low mortality and fertility rates and economic development (Browne and Barret, 1991). For individuals, education is a platform on which people can exercise their rights, and play a significant role in the community.

Education sensitizes people on issues relevant to many spheres of life. In this regard, communities that have a high number of educated individuals are advantaged.

Globally, education is perceived as a vehicle for development. The world global leadership has supported the goal of universalization of basic education, first identified as a human right in the UN declaration of Human Rights, in 1948.It was later reaffirmed in the International Education for All Conference held in Jomtien, Thailand in 1990 and Dakar, Senegal in 2000 (USAID, 2006).The charters and declarations in education have further seen a global rise in admissions to primary education. It is in this framework that the millennium development goal of achieving universal free primary education has been built. The connection between education and development arises from the acquisition of skills, knowledge and training that is used later to enhance development. There is an increased awareness on the need to educate people globally in order to reduce the levels of poverty and ignorance that come with illiteracy.

In Philippines, the lower level of the education of women is reflected in their participation in community based agro forestry projects. Though the government aims for equity in agro forestry, and alleviation of poverty through the improved quality of life in improved for both men and women, fewer women than men are educated (Reyes, 2008).More men therefore hold leadership positions in farmer's organizations and participate actively in agricultural training and extension. Women in the Philippines are therefore under customary legal regulations even in the community based projects. This same scenario plays itself out in Vietnam and Indonesia as well where more men are literate and therefore involved in more community based agro forestry project activities than women.

African countries face similar challenges. In Ghana, forestry workers and extension officers are mainly men, owing to their higher levels of education; the management is exclusively male, women holding junior staff grades as clerks and sub technological officers who are expected to implement forestry policies at that level. This is true of Uganda also; who have more men in their forestry staff (Obonyo and Kaudia, 2007).The situation in the Democratic Republic of the Congo is reflective of that of Philippines. Less than 15 percent of women in Congo reach education institution while only 5% are teachers. (Obonyo and Kaudia, 2007). This means that men have the upper hand in these projects, holding leadership positions. In Eastern Africa, in Ethiopia, women are also less involved in extension services owing to their

lower levels of education. Female-led households had never been visited by agricultural extension officers, unlike male farmers who got regular visits (German et al, 2008).

The implication is that men are more enlightened on various project activities giving them a greater participation edge over women. In the Kenyan situation, the MDG goal number two on achieving universal primary education is an important feature of the Kenyan Education system today. The government makes effort to ensure increased enrollment and retention rates. This education has indeed been reflected in the increasing enrolment of pupils in the elementary stages of education in primary schools. The level of education is important as a more educated member of the community will be more informed on local, national and global issues and trends in agro-forestry. This translates into increased participation in these projects by the members of the community. Education in agro-forestry based projects is important as it enhance further understanding of agricultural instructions. Educated farmers are expected to understand agricultural instructions, manage and adopt technologies faster than uneducated farmers (Edris, 2003).It would be necessary for farmers to undergo the relevant training required to implement the project.

Education and training also equips farmers with information of suitable farming, protection of water catchment areas and tree planting skills (New Forest, 2011). Therefore it is a necessary aspect of agro-forestry projects. This has been done in Kenya through education extension, field days; workshops and seminars by the government, the private sector, and NGOs. For community based projects to succeed educated farmers are also able to engage on capacity building and training programs for effective capacity building and working of stakeholders, Farmer Field Schools, study circles on farm experiments and other local farmer based demonstration sites to enhance the learning process (VI Agro-forestry, 2014). It is therefore important for participants in community based agro-forestry projects to have formal education. The level of education of group members is important. According to a UNESCO survey, 46% of Kenya's non-illiterate population is that of men, 64% being women, which further play out in the community-based agro-forestry projects. The higher literacy levels for men would be taken as an added advantage on their side in community participatory practice the fact that more men than women are literate means that women are less informed on project activities and implementation strategies used by the community. More men are also engaged in the adoption of new species, new product development as well as faster adoption of technological interventions.

In Bureti, the literacy levels for men are 84% and women 63 % respectively (SCDO,Bureti 2014).These higher literacy levels validate the reasons why men in Bureti Constituency would be better informed on project implementation and other project activities. Since education is detrimental for the success of the project, limited education means that group members will be limited on options and lack the necessary skills, technological approaches needed for the project. This means that men are ordinarily in position to interpret and utilize the agro-forestry instructions. It also translates to a faster adoption of recommended management practices by men as compared to women. Similarly, the low-literacy levels of male participants would lead to lack of proper training and capacity building interventions, thereby affecting the project implementation by reduced participation by these men. Conversely, higher levels of education in the community imply that any training, technological interventions, ICT information and other sources of education are absorbed at a faster rate. Higher education levels of the community therefore ensure that the project is well implemented and sustained.

2.4 Culture on men's participation in community based Agro-forestry projects

Culture is defined as the customs, arts, social, and institutions of a particular group or nation (Oxford Advanced Learners Dictionary, 2013). Though culture seems insignificant, there will always be cultural undertones community-based projects, such as the expected social norms, and roles played by different members of the community. Culture is thus a community's way of life and acting contrary would be seen as taboo.

Globally, patriarchy is envisaged as the normal leadership structure. In USA, only 2% of CEOs are women in the Fortune 500 companies. Women also in Europe occupy 21.3% of political seats in comparison to 18.1% in sub-Saharan Africa (UN, 2009). In India, cultural values influence the participation of men by increasing their participation, thereby limiting the contribution of women to community based agro-forestry projects. Men also have the advantage of being leaders. In most community based agro-forestry projects, the men take up the key leadership posts. In Pakistan for instance, these are posts that involve decision making for any productive activity (Muhamad, 2014). While women are active participants in agricultural projects; they are culturally bound by Pakistani customs. Adapting the mainstream rural culture has limited women's participation and further reinforced that community forestry is a male domain (UN, 2009).

African societies are by and large patriarchal in nature. Among various Kenyan communities, women do not traditionally own land or other immovable properties (Mugure et al, 2013).Majority of land is owned by men and women move from their parents' homes into their husband's homes when married. This applies to both monogamous and polygamous marriages. This means that the husband is the head of the household has the overall control of the household resources and in that capacity everything within his jurisdiction. This is true of many agro forestry projects at the grass root level. In parts of Western Kenya, women are not allowed by culture to plant trees as doing so may mean ownership of land (Gichuki and Njoroge, 1989). This discourages women from agro-forestry projects in these areas.

In Arabuko Sokoke forest, women were accorded responsible positions in the community project. Cultural values are further displayed in project activities where women participate less in the project decisions, women are not able to come forth and make decisions and argue issues articulately (Obonyo and Kaudia, 2007). Similarly, In the Gusii community, the cultural aspect of land ownership means that key decisions to land use is made by the male heads of the household. The patriarchal land succession system is translated to community based agro forestry projects. Access of land was in terms of male succession but absolute ownership did not exist (Nyancham, 2011). As a result women are meant to be submissive to their husbands. It is only homes with old women, widows and single women that are accepted as female headed households. These groups of women have access to more secure land and make their own decisions regarding their land.

The community perception is that these women are part of the community leadership owing to their single-hood status. However, at community level, men would naturally make the decisions. This cultural practice gives men the upper hand in community based projects as the cultural practice is deeply ingrained in these societies. Men are therefore regarded as the key decision makers at home and in the community based agro-forestry projects. Being leaders of the community projects reserves them the rights to determine the direction of these projects. This cultural stereotype shapes many of the community based ago-forestry projects in Kenya (Obonyo and Kaudia, 2007).

Culture also shapes the leadership of the community-based projects. This situation is heightened by men who take up leadership by default owing to culture. Most leadership positions are taken up by women for different reasons, some women are in groups as

appendages to men (Okumu, 2012).This also happens in Kenya because of the third gender rule policy of all leadership positions. Even in the grassroots, this rule applies. Men are by this rule also included as a third of the members in women groups. They therefore have to be part of the leadership structure of these groups as well. In this regard, men would be allowed to make major decisions pertaining to the project, as the women in that community are passively involved in leadership. Customarily, it means that men are the acknowledged leaders of the community based projects. Men are generally the bread winners of any African society. This means that they are perceived as the providers of all basic commodities that a household requires. This is taken as a cultural guarantee, and is expected of him, thus, is considered a fundamental aspect of society.

This cultural stereo type rends its head in agro-forestry projects as well. In some rural societies commercial agricultural production is mainly a male responsibility. Men usually prepare the land, irrigate the crops and harvest and transport the produce to the market (Meinzen Dick and Quinsmbug, 2014). Seemingly, men enjoy the benefits of agricultural projects, and though in a community-based project much of the produce is shared amongst the members. The decision on how and when to share these products however still remains with the men. These cultural stereo-types influence the participation of men in community based projects as they make the major decisions for the community. Women play a rather submissive role, taking the other posts that would not require one to make important decisions for the project.

In Bureti for instance the men and male children are more involved in agro-forestry practices and make major decision s as pertains to the community project initiatives. They take active part in the major decisions of community projects. It is also women who are more involved in the production of agro-forestry projects while men undertake the management and sale of products. Owing to their preference for cattle over other domestic animals, many species of plants with benefits of fodder for cows such as Calliandra, have been easily adopted by the community (Kenya Forestry Service, Bureti, 2014). Unlike women who are tied to domestic work by virtue of their societal roles, like rearing children and reproduction, men tend to be in position to socialize with other members of the society more.

Women, whether employed or not, are expected to take care of the domestic chores, children and generally oversee home duties. Men are culturally the bread winners, so venture out in search of food for the family. This makes it easier for men to participate in community based agro-forestry projects such as trips, training and workshops and field days as well as appreciate extension services more.

2.5 Accessibility to finance on men's participation in community based agro-forestry

Generally, it is presumed that men have adequate access to finance and at an individual level, can access credit facilities easily. This notion, based on the argument that land tenure-ship is mostly held in men's names making it easy for them to access credit. On average, men's land holdings are three times the women's land holdings (WB, 2010). This means that men could easily use their land resources can be used to access finance.

Most men would find this challenging as it means putting one's assets at risk, and resort to alternative sources of funding instead. All over the world, the presumption is that men control economic resources and have unlimited access to financial resource. In Bangladesh more men have access to finance in the formal banking sector with only 1.8% of them security formal credit (UN, 2009). The limited access to credit by women means that more men with access to credit can access finance to fund the community based agro-forestry project. This enhances the participation of men in these projects.

In West Africa, men are expected to set up a home, marry at least one wife and accumulate and provide for children and other dependents (Weston,2012).Further in post-colonial Africa, the Victorian values disseminated by the European colonizers of East Africa introduced the notion should be family bread winners. The structural adjustment of the 1980s left millions of men without work and then robbed them of what they had (Siberschmidt ,2001.)

This is because a vital endearing of policies towards women interventions has further deepened this situation. In Rwanda women have more access to finance due to the availability of collateral in terms of land and resource ownership in comparison to women from other areas in Africa. However, despite these efforts, there still exists a large gap between credit access by men and women in Rwanda, with men having the upper hand community based agro-forestry projects as well.

Other East African Countries pattern the same situation in their countries. In Uganda for instance only 9% of the women have access to available credit with the number as low as 1% in rural areas (UN, 2009). This situation plays out in agro- forestry projects with more men than women investing and benefiting from the community based projects. Even where they are community based projects. This is the scenario replicated in Uganda.

The government of Kenya has thus responded by putting in place financial structures specifically for women. The government has put in tremendous effort of spurring economic growth and thereby reducing poverty, unemployment by considering the needs of all Kenyan men, women, boys and girls across economic social and cultural lines (UNDP, 2012).In Kenya, the Women Enterprise Fund has been established for women. Several lending institutions also have tailor-made packages for women and this makes it easier for women to access credit.

Men seemingly have no specific funds set aside for their empowerment. In every aspect of gender empowerment, men are left out as evidenced in the access to these funds. As a result of women centered approach of gender programs over the years men have largely been sidelined in these decisions and have often felt alienated by the confrontational approach taken by gender activism (IRN, 2014). Though Men are advantaged to some extent, these advantages in terms of resource ownership and control have worked against them in gender policy implementation. Younger men in Kenya have the benefit of financial acquisition through the National Youth Development Fund which seeks to empower the youth economically.

The older men have no stake in these funds owing to their advancement in age. According to KNBS (2013), Bureti constituency was ranked 4th in terms of disbursement of the Youth Development Fund nationally. This means that the youth in Bureti Constituency have benefited from this kitty, with Kshs. 9,860,404 disbursed to various youth groups and entrepreneurs in the constituency. The older men have not enjoyed this benefit. The men in this older age bracket have to scout for alternative sources of finance by engaging in other income generating activities such as agro- forestry to supplement their income. The extra income from products such as timber greatly boosts them financially. While this is the general appearance of things, agro-forestry may not be as rewarding enough to allow one take up credit facilities. Credit for most men is difficult to obtain.

This is because many farmers' livelihoods come from crop farming and cattle rearing, crop farming incomes from vary with season ability and high income months farmers juggle different livelihood sources to be able to meet their needs (WB,2010). Due to this gap in financing, men go to banks for loans.

This gap has had an implication on whether many men would take up credit for the agro-forestry projects as many would not be in a position to pay back these loans due to the high interest rates charged. It is also expensive to obtain credit. Fees, costs and documentation requirements also serve to limit financial access (Rorik and Rosenzweig, 2009).Hence, unless one has other sources of income, he probably, would not be in a position to access credit facilities. This is especially so if he does not have land titles or other assets to secure finance or an engagement in other income generating activities. Hence this would have negative implications on community based agro-forestry project in that the individual would be more interested in securing other financial assets to improve his net worth.

For men this is added value in terms of prestige and culturally, for them, wealth commands respect from the society. Bureti constituency is majorly made up of the Kipsigis. In the Kipsigis community, women were the custodians of the property, rather than owners, holding them for their children (Orchadson, 1961), Men would therefore not own exclusive rights to the inherited property and this means that access to credit can only be guaranteed where the man holds title deed to that land. In some cases, the land title is held under the man's father's name proving it difficult for one to access credit on land title basis. There are also instances where other members of the man's family may object to his use of the title deed for securing debt capital. Culture expects men to be financially able as compared to their female counterparts, especially their wives.

This has an impact on their participation on community based projects, as a less empowered man would not readily participate in these projects. At an individual level, there's a positive link between financial deepening and growth (Imboden, 2006).Since men have limited access to credit, they face the option of engaging in self-help projects rather than community based projects to improve their net worth or otherwise seek alternative funding from other sources. While this may happen in some cases, most men have to meet their culturally defined obligations to their immediate family first.

In some cases, the limited access to credit may serve as a deterrent to their participation in community based agro-forestry projects as they have to meet their daily obligations first before meeting those of the community.

2.6 Access to Information on participation of men in community agro-forestry projects

For community-based development projects to be sustainable there needs to be a source of adequate information to enhance the project implementation. This is necessary for the community to make informed choices and decisions, as well as implement the latest technological interventions Arumapperuma,(2013).This will in turn increase productivity, reduce costs and assist community-based projects make use of various best and control practices. As agro-forestry is a response to mitigate climate-change, a lot of information is needed for community members to develop new practices that will reduce adversarial effects of climate change. One of these sources of information is ICT in agriculture. It is becoming a more popular option of information use. The number of ICT literate persons in a community therefore is important as high number of ICT literate persons will contribute significantly to the projects performance. The uses of ICT enable the use of real time information and will generally involve the use of latest technology. In Africa owing to their distinct cultural roles, men and women farmers do not always share the same information needs. Appropriate content is therefore needed to be developed for each of them, separately, depending on their cultural background. In Zambia, for example, information is necessary for the diffusion of new technological interventions (Ajayi and Otuya, 2006). It is noted however, that more men than women are engaged in these extension services and are in position to apply these agro forest practices in the community project.

In East Africa and Latin America, according to (Mwangi et al, 2011), mixed groups, tend to do more monitoring than male dominated ones and female dominated ones are unlikely to conduct any monitoring as well. The access to information on agro forest practices, diffusion of information as well increases participation of members in the community. In Indonesia and Vietnam men are involved in agricultural training and extension services more than women (Reyes, 2008).

Information as an asset in project planning and management would thus be skewed toward men in these areas. This situation is patterned in Uganda, where women have had 1.13 contacts with extension officers compared to men's 2.13 (Katungi et al, 2008).This has indeed led to the increased in participation of men in community based agro- forestry than women participating in the projects due to their increased leveled of education. The Uganda government has therefore instituted policy and legal frameworks in an attempt to stimulate the active participation of women in their projects (Mukasa et al, 2011). This indicates that men are more engaged in these projects than women in Uganda.

The Kenyan situation portrays that more men than women are employed in the Kenya forestry service, at a ratio of 6.4 (Obonyo and Kaudia, 2007). This means that engaging women in these projects will need a lot of effort on the part of their male counterparts in the community and the extension officers as well .Experiences, discussions and advice on these innovations can be retrieved from the internet in a short period of time. The agricultural innovations in agro-forestry are framed by the technological advances done through research.

Diffusion is largely affected by the information available on the innovation (Sudath, 2008). More information means increased diffusion and that more members of the community will benefit from it. This is necessary therefore for information dissemination to effectively take place. Since women and men play different roles as per by their cultural background, there is need for various sources of information to be used to help them make informed choices. The general agreement is that men hold the key resources in agro-forestry projects, therefore involving them in these projects would ensure that community members benefit as well as from the information. As leaders, they are in position to inform the community project members what is required of them.

Compared to women, men have more to access to land labour, information, education, training and inputs. This makes men have an added advantage with respect to their participation in agro-forestry projects as more information leads to an increased participation in the projects. There is need to have an increasing number of men and women, with literacy skills in the community based Agro-forestry projects. A meaningful use of extension services need to be taken into account. According to (Kiptot and Franzen, 2011), men in Africa receive more extension visits than men and participate more in field days and other extension activities off farm. The reasons given for this high involvement of men is the bias of

extension workers towards men, socio-cultural barriers, limiting communication between many extension workers and men's lack of time to participate in extension activities off farm.

This scenario gives men an upper hand in information dissemination and diffusion to other members of the community thereby influencing their participation. In a study done in Meru, men are diffusing information to greater numbers of people than women, though they diffuse through similar sources (Kristin and Negash, 2007). Therefore the involvement of men implies that information will reach a larger number of community members involved in the Agro-forestry projects. Given their ability to reach greater numbers this definitely enhances their participation as leader as well. Women generally have lower levels of education and their ability to use technical information is limited (Kiptot and Franzen, 2011). Men display these qualities in their various communities which gives them a cutting edge when it comes to participation. Men also attend information meetings more frequently than women as many of them lack time to participate in the extension activities off the farm (Kiptot and Franzen, 2012).

In Bureti Constituency, farmers are more likely to be motivated in seeking information on technology from experts such as extension agents. Farmers also seek information when they have relatively higher levels of education, other sources of income and spend more time at tea buying centre (Koskey, 2013). Relatively, community based Agro-forestry farmers would portray similar characters in relation to information within the constituency. Since men are more educated than women, and are more aggressive in information seeking, it influences their participation in these projects.

In Bureti, the Kenya Forestry Service and the Ministry of Agriculture are involved in diffusion of information to community based agro forestry groups through organized workshops and seminars (Kenya Forestry Service, 2014).The participation of both men and women is encouraged, through the men are more active in attending these forums as compared to women. Much of the training sessions, seminars and workshops are attended by men. Field trips and Field days organized in the constituency have also attracted more men than women.

2.7 Technological interventions on participation of men in community agro-forestry.

The use of technological innovations in agro-forestry projects is a necessary aspect of implementation. Innovations may involve the use of machinery such as cultivating tools developed for agro-forestry. Case in point is the recent embrace by tea industries on the mechanization of tea harvesting adopted in agro-forestry projects in Kenya. This has led to reduced costs as fewer labourers are needed. Globally, technology can reduce losses, increase income, improve nutritional content and save labour (Menzein-Dick and Quinsmbing, 2013).This is mostly important for the community; both men and women should embrace technology as it makes work easier. Harmful cultural beliefs affect the technological interventions by men as it is expected that women should be responsible for these trees, hence should be on the front line in technology adoption. The level of education of men is also generally higher than that of women. This means men embrace technology faster in agro-forestry. Men also have the advantage of land tenure ship, which means they make decisions concerning the adoption of technology. This is also replicated in Agro-forestry community based projects

A study based on East Africa and Latin America, established that female dominated groups are less likely to adopt forestry improving technology relative to the male dominated ones (Mwangi et al, 2011). This elaborated how men adopt to rapid changes in technology as regards agro-forestry projects. According to Ajayi and Otuya, (2010), in Zambia adoption of Agro-forestry technology is influenced by the group, their awareness', training, land size and local institutions within that area. Their ability to make these decisions increases men's participation. Men involve themselves in improving the tree species, and use advanced technology in the timing of the planting, managing and harvesting of the plants. The Zambian experience calls for the need for gender mainstreaming efforts to include both men and women.

In contrast to this, a study in Tanzania on the adoption of improved tree fallows found that the same proportions of these two groups were testing the same technologies. These findings observed in 30% of the males and 26% of the females there was no difference between the two proportions (Phiri et al, 1999).Therefore in some cases, men and women embrace technological interventions the same way, gender consideration notwithstanding.

This study done in Tanzania reported a minimal difference in embracing technology by women in agro-forestry compared to men. The same proportions of these two groups were testing the technology of improved fallows. There was no difference between these two proportions. Therefore the study concluded that factors beyond gender were responsible for these findings (Phiri and Franzel, 1999).

This means that technology may not adversely influence participation of men and women in agro-forestry projects in some situations. In community based projects, technology interventions make work easier, and reduce costs. These benefits are attractive to all members of the community and especially men who appreciate the challenge of working with technology. Men generally interact with technology from an early age more due to stereotyping and the socialization aspect of science being a men's domain. Men embrace technological challenges and thus would be more involved in community based projects that have embraced technology. In our society, boys and men are expected to learn about machines, tools and how things work. Conversely, girls and men are not expected to know much about technical matters (Brenston, 2011).

Research shows that in Kenya, men are more likely to adopt technology more than women due to various factors (Kiptot and Franzel, 2011). In many constituencies, the adoption of technology by community based organizations has been influenced by the increased funding for community based projects by the government of Kenya and various NGOs with a view to enhance sustainability of community based development projects. Community based Agro--forestry projects in Bureti constituency have benefited from this as well with major funding coming from government initiatives to increase development projects in rural communities. It is therefore the expected that men will be influenced in their participation by the technological interventions used in their community based groups.

Despite the fact that men manage most community projects, in Bureti, some studies find that there is really no difference in the participation of men and women in community based agro-forestry projects (Kenya Forestry Service ,2014). The difference is mostly felt in their distinct roles and their adoption of technology is perceived by using these roles.

2.8 Theoretical framework of the study

A theoretical framework refers to a collection of inter related ideas based on theories attempting to clarify why things are the way they are based on theories, introducing new views of the research problem (Tromp and Kombo, 2006). This study is premised on the Social Action theory of community development: The proponents of this theory include (Slocum 1962, 513). He defines Social Action as an effort involving two or more members of social system. This further implies the presence of a disadvantaged segment of the population that needs to be organized so as to make demands on the larger community for resources and treatment according to social justice and democracy (Rothman, 1968).With respect to this theory, the men constitute the segment that is disadvantaged in participation and need social justice to increase their participation in community based Agro-forestry projects, while it is largely believed that men hold the key resources and are solely responsible for them, the reverse is true.

They have by virtue of the government policies, been edged out of resource allocation, for instance in terms of credit access. Kottler (1972: 172) further propagates this theory by defining social action as an undertaking of collective action to mitigate or resolve a social problem. He asserts that social action rests on the recognition that people can improve their society through collective efforts.

This implies that as men are encouraged to engage in participatory community initiatives, women and youth should also be involved in these campaigns, for both men and women to fully participate in the project activities.

Strengths of the theory

The social action theory proponents agree that for the effective community development to occur, the improvement of the entire community must be considered and implemented in the project. It focuses on involvement of all members of the community in a bid to enhance ownership of the project by community members. It's further geared on elevating the vulnerable social class- in this case, the men- and thereby increasing their participation which leads to project sustainability. Men in Bureti Constituency should therefore be encouraged to participate more aggressively in these projects.

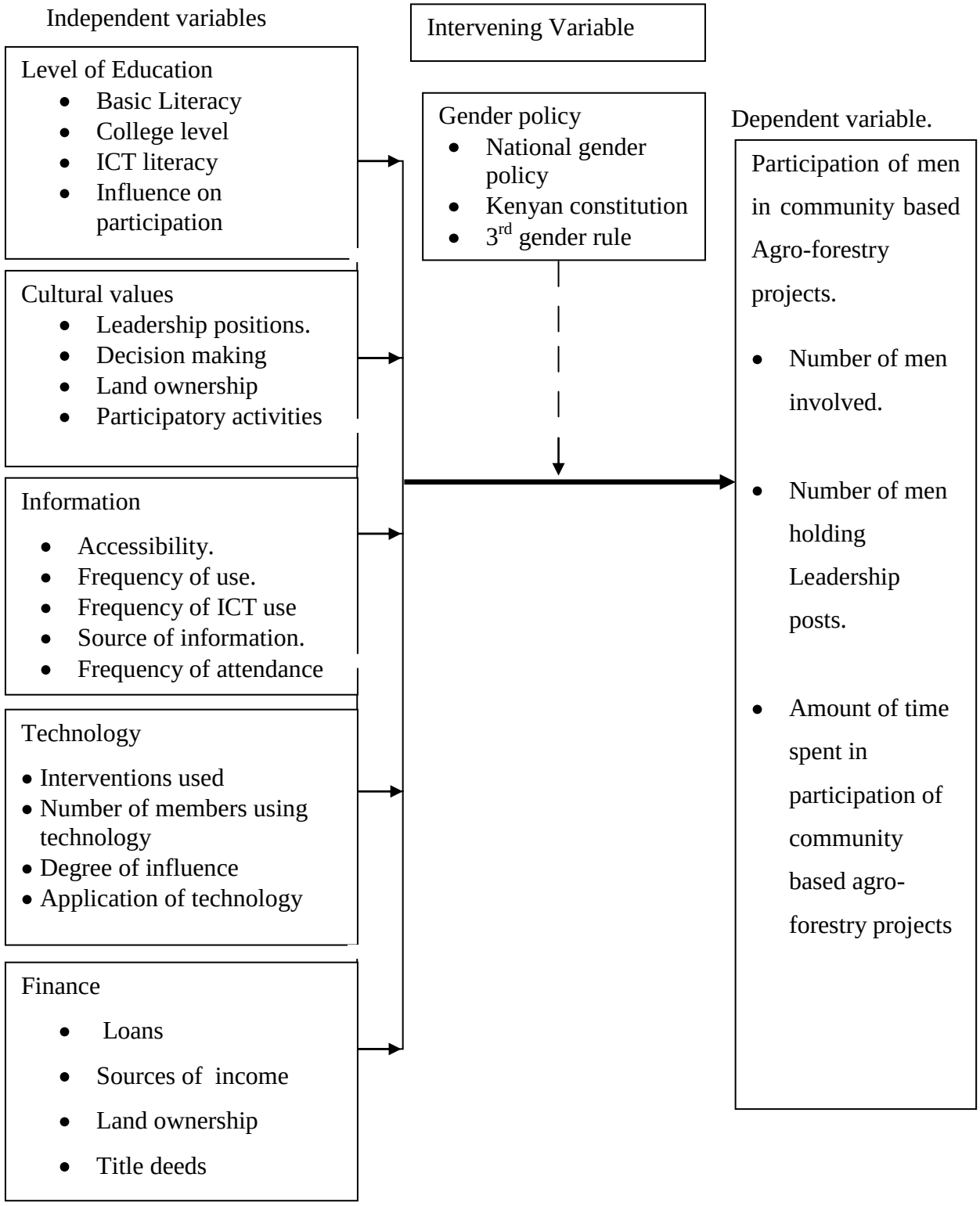
Weaknesses

By empowering several community members, the project may run into cost constraints and an over stretched its budget. This means that social action would need the participation of more men in these community based agro-forestry projects. This requires for an increase in budgetary allocation for the projects. This financial implication and individual differences of the community members such as education level, stereotypes, attitudes, beliefs and attitude towards community based agro forestry projects may affect the participation of the community members. In relying on this theory, project managers will concentrate on more vocal and elitist members of the society.

The social action theory pushes for the inclusion of all members of a community in development projects. In relation to this, this study identifies men as the disadvantaged segment in the participatory process of development in agro-forestry projects in Bureti Constituency. This propagates the need for gender policies to be angled and streamlined to focus on both men and women. This theory focuses on social justice demanding gender sensitive frameworks such as tailor-made packages for financial institutions for men and could serve as an important vehicle to achieve this in Bureti Constituency.

2.9 Conceptual Framework of the study.

Figure 2.1 Conceptual Framework.



A conceptual framework refers to when a researcher perceives the relationships between variables in the study and shows the relationship graphically or diagrammatically (Mugenda and Mugenda, 2003).

The independent variables of the study included: the level of education, cultural values, accessibility to finance, access to information and technology interventions. For the basic literacy, the number of ICT literate respondents and the number of respondents with college level of education was considered. Indicators for cultural values included the existing gender stereotypes decision making, land ownership and the participatory activities of men in leadership positions in these projects. For the accessibility to finance, the indicators used to determine this were the number of men that access loans, title deeds, land ownership and the number of men that have other sources of income.

Access to information was determined by the indicators based on the frequency use, accessibility, sources of information, ICT use and frequency that men engaged in Extension information and the number of men who engaged in workshops and seminars on the project field. The indicators for technological interventions were: the number of men using improved machines, frequency of use, new species and the adoption and the development of new products. The intervening variables for this study were the government policy, mainly gender policy of the Kenyan government. The independent variable is the participation of men in community based agro-forestry projects. The indicators of this was: the number of men involved in these projects, the number of men holding leadership posts and the amount of time spent in these projects.

2.10 Knowledge Gaps

A preliminary survey of literature revealed that many studies have been done on the participation of men in both forestry and Agro-forestry projects. However, most of these studies focused on a variety of global and national factors affecting the participation of women, generalizing the applicability to wide areas coverage. This meant that the factors dealt with were broadened in category to cover a myriad of factors affecting the participation of men globally. These studies therefore capture a broad spectrum, rather than a specified community.

Table 2.1 Gaps in Knowledge

VARIABLE	SOURCE OF LITERATURE	FINDINGS	ACTUAL KNOWLEDGE GAP
Level of education	Female Education in Sub- Sahara Africa: The key to development (Browne and Barret, 1999).	Women have lower levels of education than men in Sub-Sahara, Africa.	Does not show how higher education levels for men affect their participation in community based agro-forestry project.
Level of education	The dynamics of groundnut efficiency: production and adoption of technology in Sub-Sahara Africa (Edris, 2003).	More educated farmers understand agricultural instruction, manage and adoption technologies factor.	Does not show how education influences the participation of men in agro-forestry community based project.
Accessibility to finance.	Empowerment of Rural Women Through Participation in Agro-forestry (Santos and Sashtri 2006).	Men have more access to finance than women	Does not show how this affects men's participation in agro-forestry.
Accessibility to finance.	World Bank Report on Engendering (World Bank, 2013).	Crop farming income is seasonal therefore farmers have to juggle other source of income.	Does not show how it affects men's participation in community based Agro-forestry
Accessibility to information.	Determinants of Agricultural Information Access by Small Holder Tea farms in Bureti District Kenya (Koskey, 2013)	Farmers mostly got information from excelsior officers. Education level, off- farm income, households size and time spent on farm have a positive influence on information.	Does not show how this influences the participation of men in community. Based groups focus on small scale holds. Based on tea farms rather than agro-forestry.

Accessibility to information	Gender Wealth and Participation in Community Groups in Meru (Davis and Negash, 2004).	Groups provide an important. Average of obtaining information. Men defused information to more people than women.	Based in Meru. Generalization is on groups rather than community based agro-forestry projects. Does not show how it influences the participation of men.
Accessibility to information	Gender and Agro-forestry in Africa (Kiptot, 2011).	Men attended information meeting more than women. Men participation in field days and seek extension services more than women.	Does not show how it influences the participation of men. Generalization to Africa.
Culture	Gender Mainstreaming and Promotion of Gender Equality: A case study of the Swedish Co-operative centre Vi Agro-forestry Project Kisumu, Kenya (Okumu, 2012).	Most men take up leadership position in community based projects.	Does not show how these positions affects participation of men in community based projects. Based in Kisumu only.
Culture	The Role of Gender in Community Forestry and agro-forestry in Pakistan (Muhamad, 2014).	Most of the men with leadership take key positions influential in decision making.	Does not show the influence of these positions of community based projects
Culture	Socio-Economic Aspect In Agro-Forestry (Gichuki and Njoroge, 1995).	Some cultures prevent women from taking part in agro-forestry.	Does not show how this affect the participation of men in community based projects.

Technology interventions	The State of Food and Agro-Forestry 2010-2011 (Menzein-Dick and Quinsmbing).	Technology reduces lawless and increase income.	Does not investigate how technology influence the participation of men in community based agro-forestry projects.
Technology Interventions	Worlds Apart, Women, Men and Technology (Brenston, 2011).	Men are expected to know much about technical matters.	Does not investigate how stereo types influence the participation of men in community based agro-forestry projects.
Technology Interventions	Adoption of Agro-Forestry Technology Among Small Holder's Farmers (Parda et al, 2010).	Adoption of technology in agro-forestry is influenced by the group.	Does not elaborate how men are influenced by technology in participation
Policy	Reviews Programmes Project and Interventions To Engage Men (Orifinopoubel, 2014).	There's a need to articulate a clear conception framework to capture boys and girls.	Does not elaborate how these policies participation of men in community based agro-forestry projects.
Policy	How Women Transform Governance (Wiber, 2011).	Women in Rwanda take part policy formulation and governance. Has been effective in participation of women rather than men in development	Does not focus on men. Does not elaborate how gender policies have influenced their participation in development.

2.11 Summary

This study therefore investigated the factors under scrutiny and intended to review whether the participation of men in community based Agro-forestry projects in Bureti was genuine or merely cosmetic. Most projects ignore men's contribution and as blanket cover including aspects of gender mainstreaming such as World Bank's horticultural project in Kenya in 2010 which included a community village fund that empowers men to identify their own micro projects (WB, 2010) but doesn't mention how men will participate.

Though this study was focused on men, the participation of women cannot be underscored. In community-based Agro-forestry projects, the integration of men and men is important for every stage of the projects. The study focused on men as men are more marginalized than women in any community, specifically Bureti Constituency. These determinants which were the Independent variable took a critical shape, thereby moulding the participation of these men which was the dependent variable. Ultimately, effective partnership of men and women have the potential to transform how men are perceived and desirable interventions such as policy interventions, institutional interventions and technological interventions (Kiptot and Franzen, 2012). Findings that rose from this study would be useful for policy formulation in Bureti Constituency.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that was used in the study. It outlines the design, target population, sample size and sample selection. It also features the data collection instruments, instrument pre-testing, instrument validity and instrument reliability. This chapter also highlights the data collection techniques used, methods of data analysis and operationalization of the study variables.

3.2 Research Design.

According to Orodho (2002), research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure. The descriptive survey method was used for this study. This research design is probably the best method available to social scientists and other educators who are interested in collecting original data for the purposes of describing a population which is too large to observe directly, (Mugenda and Mugenda, 2003).The research design had been chosen for the study as it was suitable for determining the influence of the selected factors on the participation of men in community based agro-forestry projects in Bureti Constituency. In eliciting their responses to the questionnaires, their attitudes and perception was interpreted. The descriptive research design was suitable as it helped describe and portray characteristics of men participating in community based agro-forestry projects in relation to the determinants under study.

3.3 Target Population

The target population for this study was the male members of community based agro-forestry group projects in Bureti Constituency. This population comprised of 1930, men from 320 registered community based agro-forestry registered groups as the target. Men from these community based organization had first-hand experience in participation in the projects and would provide adequate feedback for the study (Bureti Sub-County Department, Social Services, 2014).

3.4 Sample size and Sample selection

3.4.1 Sample size

According to Kothari (2003), sample size refers to the number of items to be selected from the target population. The sample size should be optimum to fulfill the requirements of efficiency, reliability, representation and flexibility. This study adopted a probability sampling design in which each item of the target population is accorded equal chances of being included in the final sample. According to Airy et al, (1972), a sample of 10-20% is acceptable. For this study, the researcher used 10% of the target population of 1930 respondents, giving the sample size of 193 respondents.

3.4.2 Sampling Selection Procedure.

The researcher selected a representative sample by coming up with a sampling frame. The sampling frame was a list of the men in various groups, which was stratified according to the wards they belong to. The list of men in these community based agro-forestry groups was randomized to enable the researcher use stratified random sampling to select the samples from each ward. The sample procedure that was used is illustrated in table 3.1.

Table 3.1 Total Population and Sampling sizes.

Stratum	Total Population	Percentage	Sample
Kisiara	293	10	30
Cheboin	269	10	27
Tebesonik	254	10	25
Chemosot	267	10	27
Litein	296	10	30
Cheplanget	243	10	24
Kapkatet	308	10	31
Total	**1930**	**100**	**193**

3.5 Data Collection Instruments

Data collection for this study was done using questionnaire. The questionnaire used adopted structured questions. Majority of the questions were close ended for quantitative data and few were open-ended for qualitative data analysis. The questionnaire had two sections. Section A focused on the demographic characteristics of the respondents. Section B comprised of questions geared towards the objectives and answers to the research questions. The questionnaire was preferred as it was easy to administer, cheaper than other data tools and timely in use.

3.5.1 Pilot Testing.

The pilot test sample was drawn from Sotik Constituency. This is because this area consists of a population with similar characteristics as well as it being a largely agricultural area where community based agro-forestry programs has been established. From a sample of population of 248 men from 86 registered groups, (Sotik Sub-County Department, Social Services, 2014) a sample of 10% was selected randomly from all the five wards which was the stratum. A pretest sample should be between the accepted 1–10%. (Mugenda and Mugenda, 2003). The study used a pretest sample of 10% of the sample size selected from respondents who did not take part in the final study. This consisted of 25 male respondents, 5 from each of the five wards, who answered questions in the questionnaires which were collected after an hour. The questionnaire was then revised and rephrased to eliminate ambiguous questions with the help of experts and peer reviewers.

3.5.2 Validity of the Data Collection Instrument.

The validity of the questionnaire used for this study was determined in terms of its construct, criterion and content validity. The content validity of the questionnaire was determined by the use of a checklist. This was to determine whether the study has captured the variables, research questions and objectives in the questionnaire. A further consultation on the questionnaire was done through expert judgment to determine the construct, criterion and content validity. This was done in respect to the objectives, research questions and variables of the study.

3.5.3 Reliability of the Data Collection Instrument

The reliability of the questionnaire was enhanced by the test-retest method. This method was used to determine the stability and consistency with which the questionnaires used accurately

measure the concepts. The same questionnaire was administered to the same sample of respondents within an interval of one week.

These respondents would not take part in the real study later on and was done, keeping all the conditions constant. The correlation coefficient with an Alpha value of 0.82% was used to determine the reliability of the two test scores. This was ultimately used to minimize the chances of error in the study that arose due to inaccurate coding and ambiguity of the questions. These were then rectified and a revised questionnaire was designed for the study.

3.6 Data Collection Procedure

The data collection began after submitting copies of the corrected proposal to the Kenya National Council for Science and Technology in application for a research permit. Further permission was sought from relevant authorities within the constituency. Permission from The Ministry of Gender, Culture Sports and Social Services, the Ministry Of Environment, Water and Natural Resources and the leaders of various community based agro-forestry project was sought. Copies of the questionnaire were then administered to 193 respondents and were collected from them after an hour.

3.7 Methods of Data Analysis

Analysis is the process of converting raw data into meaningful statement. Descriptive statistics was used to analyse data in form of frequencies and percentages- SPSS Version 20 was used to analyse the relationship between the variables using data was converted into frequency counts such as percentages, tables and expressed in words.

3.8 Operational Definition of Variables.

The independent variable was the determinants of participation of men in community based project in Bureti constituency. These included: the level of education, cultural values, access to finance, access to information and technological interventions used in these agro-forestry project. The dependent variable was the participation of men in community based projects in Bureti Constituency.

Table 3.2 Operational Definition of Variables.

	OBJECTIVE	VARIABLE	INDICATORS	SCALE	DATA COLLECTION	DATA ANALYSIS
1.	To investigate the contribution of education on participation of men in community based agro-forestry projects.	**Dependent** Participation of men. **Independent** Level of education.	• Level of education • Basic Literacy • ICT literacy • Influence on participation	Nominal	Questionare	Qualitative Quantitative
2.	To establish the extent to which cultural values influence participation of men in community based agro-forestry project	**Dependent** Participation of men. **Independent** Cultural values**.**	• Leadership positions. • Decision making • Land ownership • Participatory activities	Nominal	Questionare	Qualitative Quantitative
3.	To assess whether access to information Influences participation of men in community based agro-forestry project.	**Dependent** Participation of men. **Independent** Access to finance**.**	• Accessibility • Frequency of use • Source of information • Workshops and seminars	Nominal	Questionnaire	Qualitative Quantitative

4.	To determine how access to finance Influence participation of men in communicatio n based agro-forestry project.	**Dependent** Participation of men. **Independent** Access to information**.**	• Loans • Other income • Title deeds • Land ownership	Nominal	Questionnaire	Qualitative Quantitative
5.	To establish the extent to which technology interventions. Influences participation of men in communicatio n based agro-forestry project.	**Dependent** Participation of men. **Independent** Access to information**.**	• Interventions used • Number of members using technology • Degree of influence • Application of technology	Nominal	Questionnaire	Qualitative Quantitative

3.9 Ethical Issues.

Data collection was done with utmost integrity with permission sought from relevant authorities. Ethical issues with regards to the respondents' confidentiality were observed. This is because obtaining the sample frame entailed taking personal information such as the names of members of the groups registered with the government. At all stages of the study, care was taken to avoid plagiarism and intellectual theft by recognizing the work of others through citation.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter captures data analysis, presentation of analyzed information, interpretation and discussion. This study investigated determinants of participation of men. The variables being: level of education, cultural values, access to information, access to finance and technological interventions.

4.2 Questionnaire Return Rate

The questionnaire was developed and administered to 193 respondents. The questionnaire was mostly self-administered to the respondents to ensure that the optimum respondent's rate was attained and collected after an hour. All 193 copies of the questionnaire were responded to by the respondents of which 4 of them were not returned and hence could not be used for analysis.

Table 4.1 Questionnaire Return Rate

Target Population	Sample	Return Rate	Percentage
1930	193	189	98%

In table 4.1 out of 193 copies of the questionnaire administered, 189 were returned complete, giving a questionnaire response rate of 189 (98%). A response rate refers to the percentage subjects that respond to the research tool. (Mugenda and Mugenda, 2003). A response rate of 50% is deemed adequate for analysis and reporting 60% is a good response rate, while 70% and above is considered very good. The response rate of 98% for this study is therefore a superb questionnaire rate.

4.3 Demographic characteristics of the respondents

The demographic characteristics considered for this study were the age, education qualification, marital status and the duration one had participated in agro-forestry projects in

Bureti Constituency. These salient features of respondents were crucial to the study as they determined the responses made by respondents.

4.3.1 The Age characteristics of Respondents in community based agro-forestry projects

This feature of the respondent's characteristics was significant to the study as age differences in different communities determine men's nature and range of activities they engage in. Young adult men would ordinary favour formal employment while older men would be engaged in community projects. The respondents ages as per the questionnaires they completed are reflected in table 4.2.

Table 4.2 Ages of participants in community based agro-forestry projects

Age in years	Frequency	Percentage
18 – 29	8	4
30 – 41	19	10
42 – 53	93	49
54 – 65	48	26
Above 65	21	11
Total	**189**	**100**

The trend from the analysis in table 4.2 indicated that out of 189 respondents 8 (4%) were aged 18-29 years old,19 (10%) were aged 30-41 years old, 93 (49%) were 42-53 years old, 48 (26%) were aged 54-65 years old and above 65 years old were 21 (11%).The implication of the above figures is that men aged 18-29 years were the least involved in agro-forestry and were engaged in furthering their education and some were newly employed in formal institutions. This would also apply to the 30-41 years bracket at 10% who would mostly be engaged in employment which would take a lot of their time. Those above 65 years constituted 21%. These respondents represented those who had retired from active formal employment. The implication of this was that many of these older men were settled back at home and were engaged in other activities other than agro-forestry.

The highest involvement was by 42-53 years old bracket. This indicates that these mid-ages were mostly involved in these projects and they had made a conscious decision to settle down permanently in the rural area.

4.3.2 Education qualification of respondents in community based agro-forestry projects

This parameter was considered critical for the study as the educational qualification of respondents would indicate the interest of individuals in agro-forestry as regards their participation in these projects. Education also equips individual with the relevant skills, knowledge and attitudes which are decreed critical for life and utilization in community development initiatives. Respondents indicated their educational qualifications This is presented in table 4.3.

Table 4.3 Education level of the respondents in community based agro-forestry projects

Level	Frequency	Percentage
Primary	42	22
Secondary	88	46
Tetiary	35	19
University	24	13
None	0	0
Total	**189**	**100**

The analysis in the table 4.3 indicates that the greatest percentages of respondents at 88 (46%) had secondary level education, 35(19%) had tertiary education 42 (22%) had primary qualification 24(13%) had university level education and 0 (0%) were illiterate The implication was that the majority of the respondents engaged in agro-forestry projects in Bureti constituency had modest education, with very few in university and tertiary level of education having low percentages .This implies that most of those with these qualification were engaged elsewhere in employment activities and have less time to spare for participating in the projects.

4.3.3 Marital status of the respondents in community based agro-forestry projects

For this study the marital level of the respondents was clearly significant as it would further elaborate on the motives for engagement in these projects. Being an income generating activity, agro-forestry attracts the older generation who are interested supplementing income gained elsewhere with that from agro-forestry.

The respondents were asked to fill in the questionnaire stating their marital status their responses are elaborated in the tables 4.4

Table 4.4 Marital status of respondents engaged in community agro-forestry projects

Marital status	Frequency	Percentage
Married	110	58
Single	24	13
Divorced	8	4
Widowed	47	25
Total	**189**	**100**

Table 4.4 Indicates that the majority of the respondents out of 189 stood 110 (58%) being married, 24 (13%) were single and 47 (25%) were widowed. The implication of this is that those married participated more that owing to the fact they are the major stakeholders in these projects of the community. The least percentage of the divorced stood at 8(4%) single member of the community at 24(13%). This implied that being a rural-based project, most single men were not engaged in the project with married men being the most involved in the project. Younger persons would be more engaged in personal growth initiatives rather that community based and this applied to those who are single.

4.3.4 Duration of participation in agro-forestry projects

These discussions of the participatory process of men in community based agro-forestry project signified the interest of the respondents in the project. It would also disclose the respondents' interaction and exposure to agro-forestry projects over time, hence gaining knowledge informally. Respondents were asked in this view, to indicate how long they had participated in the projects. Their responses are captured in table 4.5.

Table 4.5 Duration of participation in agro-forestry projects.

No. of years	Frequency	Percentage
0-3	94	50
4-6	59	31
7-9	27	14
Above 10	9	5
Total	**189**	**100**

As table 4.5 revealed 94 (50%) of the respondents had been engaged in agro-forestry project in the community for a period of less than 3 years, while 59 (31%) had been participating for 4-6 years, 27 (14%) for 7-9 years and above 10 years at 9 (5%). The implication of this is that at least half of the respondents had participated in these projects for over 4 years thereby gaining useful hands on experience and informal education.

4.4 Level of education on participation of men in community agro-forestry projects

This variable was a critical element of the study. The researcher believed that the level of education was indeed an important aspect of participation. The level of education would determine the execution and implementation of agro-forestry project activities. The level of education was measured in terms of the number of men with college level education in the community group, the number of those who could read and write basic agro-forestry instructions, the number of those with ICT literacy skills and also whether the level of education influenced the participation of men in these community initiatives.

4.4.1 Number of men with college level education in community agro-forestry projects

The assumption in this study was that college level education would be pivotal in enhancing effective participation of men in these projects. This is owing to their ability to research extensively and intensively on agro-forestry information, compare analysis disseminate and utilize the information. In the questionnaire, respondents indicated the number of men in their community based group with at least college level education; the average number of members in these groups being fifteen.

Table 4.6 Men with college level education in community agro-forestry projects

No. of years	Frequency	Percentage
None	78	41
1-3	64	34
4-6	32	17
7-10	13	7
Above 10	2	1
Total	**189**	**100**

From table 4.6 it is indicative that many groups of the 189 respondents had very few groups with ten members and above with college level education , 2 (1%) those with over 10 having attained college education 78 (41%), those with 7-10 at 7(13%), 32(17%) had 4-6, and 1-3 at 64% of members having college level education. The implication of this is that majority of these respondents had few or no members with at least college level education. The least groups had above ten members with this educational qualification as agro-forestry is rural-based. The marginal level of education held by majority of the group members indicated that they were based in rural areas. The alternatives for trained individuals are rather varied and most therefore are constructively in other engagement other than agro-forestry projects.

4.4.2 Literate men participating in community based agro-forestry projects

Agro-forestry is a practice that can be learned informally. However, the researcher felt that formal learning is critical and translated to a more effective participation by the respondents. Some basic instructions on agro-forestry management practices when read and those written by participants enhance successful implementation and sustainability by these community initiatives. The respondents were asked to state the number of the men in their groups that could read and write basic agro-forestry instruction.

Table 4.7 Literate men participating in community based agro-forestry projects

No. of members	Frequency	Percentage
1-3	3	2
4-6	11	6
7-10	31	16
Above 10	46	24
All	98	52
Total	**189**	**100**

Table 4.7 illustrates that 98 (52%) of the 189 respondents stated that all members of their group could read and write basic instructions, 46 (24%) indicated that above 10 of their members could read and write agro-forestry instructions, 31 (16%) indicated that 7-10 of their members could do so, 11(6%) indicated that only 4-6, could read and write and the 1-3 bracket was indicated by only 3 (2%). More than often, community members who understand and interpreted instructions translated the projects to successful community initiatives. The implication of the statistics cited is that majority of the respondents groups were constituted of men who had basic literacy skills.

4.4.3 ICT Literate members participating in community based agro-forestry projects

ICT Literacy is a tool of information and decision making for project management. The researcher was seeking to identify the number of ICT literates in each group. A greater number of ICT Literate men in a group would be indicative of the group ability to utilize ICT facilities for project information needs.

The respondents were asked to fill in the questionnaire indicating how many men in their group were ICT Literate. Their response is expressed in table 4.8

Table 4.8 ICT Literate members participating in community agro-forestry projects

No. of members	Frequency	Percentage
1-3	52	28
4-6	40	21
7-10	82	43
Above 10	14	7
All	1	1
Total	**189**	**100**

As revealed in table 4.8, the number of ICT Literate members of the community based group the 189 respondents stood at 82 (43%) for those between 7 and 10,52(28%) for group with 1-3 ICT Literate members,40(21%) reflecting an ICT literacy of 4-6 remembers in the group, while those above ten ICT literate members was 14 (7%) and all being ICT literate at 1(1%).

The implication of this was that the category of the least subscription by the respondents was that fewest groups had all their group members being ICT literate. Indications are that over with of half these groups having 7-10 members and above with ICT literacy respondents' groups could process information and its utilization to community based group findings.

4.4.4 Level of education of men participating in community based agro-forestry projects

This parameter is a strong determinant of the effective participation of men in community based projects. The respondents were asked to rate whether they felt that level of education of men in their group influenced their participation. The responses are captured in table 4.9

Table 4.9 Level of education versus participation in community agro-forestry projects

Made	Frequency	Percentage
Strongly agree	46	24
Agree	78	41
Disagree	49	26
Strongly disagree	16	9
Other	0	0
Total	**189**	**100**

As table 4.9 indicates, out of the 189 respondents who completed their questionnaire 46(24%) strongly agreed that the level of education determined men's participation, 78(41%) agreed, 49(26%) disagreed and 16(9%) strongly disagreed with this disposition. Given that 121 at 65% of the respondents agreed and strongly agreed the assumption men's participation is influenced by the level of education is credibly validated.

The implication of this statistical presentation is that majority of the respondents who elicited these responses indicated that those with a higher level of education were more involved in their varied occupationary interests while those with lower levels of education were less involved in project activities. This was owing to the fact that the more educated men whose occupations were mostly rural based had adequate time for involvement in these projects.

4.5 Influence of culture on participation in community based agro-forestry projects

Culture is an inherent perspective of any society and underlies various activities undertaken in communities. This parameter was considered important by the researcher as a determining factor of men participation. Bureti constituency, being largely partriachal in nature, would manifest their cultural stereo-types in enhancing men's participation in agro-forestry projects. Respondents were asked to indicate on various aspects of culture such as leadership, decision making, involvement, and community land ownership within their community based projects. These aspects of culture have a bearing on men's participation.

4.5.1 Stereotypes of cultural manifestation in community based agro-forestry projects

Cultural stereotypes of the community were indicated and respondents were asked to identify which of them they felt manifested itself most in their community projects. The respondents views are captured as illustrated in Table 4.10.

Table 4.10 Stereotypes of cultural manifestation in community agro-forestry projects

Stereotype	Frequency	Percentage
Leadership positions	101	53
Key decisions	55	29
Project Activity involvement	32	17
Ownership of community land	2	1
Total	**189**	**100**

As the statistics in Table 4.10 indicate out of the 189 respondents 101 at 53% held the view that leadership positions were the most crucial gender stereotype manifested in the community while 55(29%) felt that culture propagated the they decisions made by men, 32(17%) viewed men participation as influenced most by land ownership enhancing their participation in agro-forestry project activities. Only 2 (1%) expressed the view that cultural manifestation was felt most in community ownership of land by men. The implication of this trend is that men's participation in community based activities was influenced by culture. In respect to this, many men held key leadership positions in these groups translating into their involvement in project decision making.

4.5.2 Number of leadership posts in community based agro-forestry projects

The researcher believed that cultural undertones dictated the leadership structure of community based projects in the constituency. Largely, this signified that men as patriarchal leaders held key positions in these projects. The respondents were asked to indicate the total number of leadership posts they had in their community projects and to indicate how many of these posts were held by men. These results are presented in Table 4.11 and Table 4.12

Table 4.11 Number of leadership posts in community based agro-forestry projects

No of Posts	Frequency	Percentage
None	0	0
1-3	8	4
4-5	59	31
6-7	113	60
Above 7	9	5
Total	**189**	**100**

The analysis of table 4.11 revealed that majority of the groups had a leadership structure of 6-7 leaders, at 113 (60%) of 189 respondents, 4-5 leadership posts was held by 59(31%), while 8(4%) had1-3 leaders and 9(5%) had at least 7 leaders. This implied that the average posts groups had was 7, comprising of the key decision making posts.

4.5.3 Number of Leadership posts held by men in community agro-forestry projects

The number of leadership posts held by men was analyzed and the results were shown in Table 4.12.

Table 4.12 Number of men leaders in community based agro-forestry projects

No of men leaders	Frequency	Percentage
None	0	0
1-3	5	3
4-5	111	59
6-7	65	34
Above 7	8	4
Total	**189**	**100**

The interpretations of the statistical data in table 4.12 indicate that majority of the groups at 111(59%) out of 189 respondents had 4-5 men leaders, 65(34%) had 6-7 leaders who were men, 8(4%) had more than 7 men leaders and 5(3%) had 1-3 men leaders in their agro-forestry projects. The implication was that since over half the groups 111(59%) of the leaders were in the 4-5 bracket, from an average of seven each, it was established that majority of community leadership posts were led by men.

4.5.4 Activities men engaged themselves in community based agro-forestry projects

Cultural stereotypes generally, the researcher felt, influenced the activities men engaged in. This was determined by asking respondents to indicate the activities men mostly engaged in their projects. The respondents views are shown as illustrated in table 4.13

Table 4.13 Activities men engaged in community based agro-forestry projects

Activity	Frequency	Percentage
Project planning and design	47	25
Project implementation	7	4
Project decisions	33	17
Project management	79	42
Project Monitoring and Evaluation	23	12
Total	**189**	**100**

The table 4.13 showed a great interest in of men in project management compared to all other project activities as at indicated by 79 (42%) out of 189 respondents. Also men were relatively more engaged in project planning and design as indicated by 47 (25%) respondents, project decisions was indicated by 33 (17%) respondents, while 23 (12%) of them indicated project monitoring and evaluation and 7 (4%) favoured project implementation. The implication of this was that men were more engaged in the executive functions of the project such as management, planning and decisions. Less involvement in the implementation part meant that cultural undertones influenced the activities men undertook in the community projects.

4.6 Influence of access to finance on community based agro-forestry projects

The researcher felt that the need for adequate resources for project success is critical. It leads to the ultimate project performance and sustainability. To execute project activities satisfactorily there is need to have adequate resources such as finance. This objective edged on how access to finance influences participation of men. This was determined by the accessibility of loans, number of men in groups who had accessed loans successfully, other income generating activities they engaged in and whether they had title deeds.

4.6.1 Accessibility of loans to men in community based agro-forestry projects

The accessibility to loan facilities promotes the agro-forestry sector by injecting much of the resources in terms of costs of the project. Where group can access loans on individual basis, it facilitates ease of project activity implementation. The respondents were asked to rate how accessible loans were to men and respondents were presented in table 4.14

Table 4.14 Accessibility of loans to men in community based agro-forestry projects

Mode	Frequency	Percentage
Very accessible	1	1
Accessible	48	25
Less accessible	124	66
Not accessible	16	8
Total	**189**	**100**

As indicated in table 4.14, out of 189 respondents only 1(1%) felt that loans were very accessible to men, while 48(25%) felt they were accessible. A vast majority felt that loans were less accessible at 124(66%) and 16(8%) that finance was not accessible to men in their community project. The implication of these statistical presentations was that men in Bureti had access to loans, thereby giving credibility to the position that access to finance influenced participation.

4.6.2 Number of men who secured loans in community based agro-forestry projects

The researcher was interested in the number of successful loans applicants within the community based projects in Bureti Constituency. It indicated how these men with access to loans could secure them and implied that they would inject this vital resource into the project. The respondents were asked to indicate how many men were successful; the results are shown in table 4.15.

Table 4.15 Men who secured loans in community based agro-forestry projects

Mode	Frequency	Percentage
None	96	51
1-3	34	18
4-6	47	25
Above 7	12	6
Total	**189**	**100**

From these statistics, presentations analysed in table 4.15 96(51%) out of 189 reflected that no member of their group had secured loans successfully, 47 (25%) indicated that only 4-6 men had been successful loan applicants, 34 (18%) indicated that they had only 1-3 successful men applicants and 12 (6%) had above 7 successful applicants. Implication of this was that majority of the men had little success in loan applications.

4.6.3 Other sources of income for men in community based agro-forestry projects

Community members who have various sources of income are intent on the success of community based initiative. These aspects of access to finance enhanced effective participation of men due to additional sources of income. When men are stable in other financial engagements, the same stability is reflected in these community initiatives. The respondents were asked what other community incomes they had other than the community based agro-forestry projects. This is illustrated in table 4.16.

Table 4.16 Other sources of income for men in community based agro-forestry projects

Source	Frequency	Percentage
Formal employment	33	17
Farming	101	53
Business ventures	52	28
Volunteer jobs	3	2
Total	**189**	**100**

The table 4.16 illustrates that 101 (53%) out of 189 respondents were engaged in farming, 52 (28%) in business ventures, 33 (17%) in formal employment and 3 (2%) in volunteer jobs.

These additional sources of income promote effective participation of men in these project as implied in these tabulation. This is enhanced by the engagement of the highest numbers of them in farming. Farming practices they informally acquired at their farms is invested in the agro-forestry project. Others also engaged in formal employment, businesses and volunteers jobs inculcate their technical expertise in community project management. Ultimately, having additional income boosts the effective participation of men in the project.

4.6.4 Land owned by men in community based agro-forestry projects

The researcher acknowledged that owning land was a valid security that allows one to secure finance from lending institutions. The land on which community based agro-forestry projects had been implemented. The respondents were asked to indicate the land ownership of their projects, which is captured in table 4.17.

Table 4.17 Ownership of land by men in community based agro-forestry projects

Owner of land	Frequency	Percentage
Government	4	2
Private company	13	7
Leased from men	96	51
Bought from men	61	32
Hired from women	15	8
Total	**189**	**100**

As indicated on table 4.17, 96 (51%) out of 189 respondents utilized land leased from men in the community agro-forestry projects, 61 (32%) brought it from men, 15 (8%) used land leased from women owners 13 (7%) had their community projects on private company land and 4 (2%) utilized government land. The implication of these findings is that majority of land used for community projects was either bought or leased from men owners. The marginal ownership of land by women, private companies and government indicated that men would be more effective in participating in these projects which they largely owned.

4.6.5 Number of participants with title deeds in community based agro-forestry projects

Ownership of land is a critical indicator of the ability to secure finance and is used as security to obtain credit.

This parameter was indicated by the respondents establishing the number of men with title deeds in their community based projects. The responses recorded are depicted in table 4.18.

Table 4.18 Number of men with title deeds in community based agro-forestry projects

Number of men	Frequency	Percentage
None	72	38
1-3	42	22
4-6	28	15
7 and above	25	13
All	22	12
Total	**189**	**100**

As reflected in table 4.18, 72 (38%) of men held no valid title deeds, 42 (22%) had 1-3 members, 28(15%) indicated 4-6 members, 25 (13%) had 7and above members with title deeds and those who had all their male members with title deeds were 22 (12%) out of 189 respondents. The implied that a greater majority of men held no valid title deed and could therefore not access, financial credit facilities

4.7.0 Information on participation of men in community based agro-forestry projects

This objective sought to determine whether the access to information influenced participation of men in community based agro-forestry projects. In respect to this parameter, the researcher felt that presence of reliable information system was important for the success community based initiation. The efficiency and effectiveness of communication systems via the attendance of seminars by men, utility of ICT information and access to extension services.

4.7.1 Sources of information on agro-forestry

Information sources on agro-forestry need to be credible, reliable and adequate. This is especially so since agro-forestry management practices and technological intervention are dynamic. Continuous research in this field is necessary for farmers to be informed of recent research breakthrough. The responses were analysed and shown in table 4.19.

Table 4.19 Sources of information on agro-forestry

Source	Frequency	Percentage
Farming and Demonstration	82	44
Field Days	45	24
Extension information	31	16
Workshop and seminars	23	12
ICT and Mass Media	8	4
Total	**189**	**100**

As tabulated in table 4.18, the 189 respondents had subscribed various sources of information which they mostly relied on. It is revealed that 82(42%) sourced information mainly from farming and demonstrations, 45 (24%) from field days, 31(16%) relied on extension information, 23(12%) preferred workshop seminars and 8 (4%) favoured ICT and Mass Media.

The implication of this was that most respondents preferred practical orientations as regard information, indicated by farming and demonstrations and field days scoring the highest percentage. Respondents moderately used extension information services, which they only sought when needed while least used was ICT and Mass Media to access information as they were not practically oriented.

4.7.2 Accessibility of information in community based agro-forestry projects

For community members to be aware of the agro-forestry management practices, technological innovations and even market availability for products, information has to be easily accessible to members. This promotes effective monitoring and evaluation of agro-forestry projects by the community. In view of this, respondents were required to rate how accessible information was to the men participating in these projects. Table 4.20 summarizes the analysis.

Table 4.20 Accessibility of information in community based agro-forestry projects

Mode	Frequency	Percentage
Very accessible	19	10
Accessible	63	33
Less accessible	102	54
Not accessible at all	5	3
Total	**189**	**100**

Table 4.20 portrays the levels of accessibility of information in which over half, 102 (54%) of the 189 respondents stated that information was less accessible to them, 63 (33%) indicated that it was accessible, 19 (10%) that it was very accessible and 5 (3%) felt it not accessible at all. The implication of this was that majority of respondents had less access to information, indicating that the information systems used were not adequate. This therefore further cast aspersions as to whether meaningful information reached the men participants. The lack of adequate information from these sources posed a challenge to the project membership,

4.7.3 Attendance of workshops and seminars in community based agro-forestry projects

The researcher felt that attendance of workshops and seminars by agro-forestry project members would be effective in inculcating in them the necessary technical knowledge, skills and attitudes related to their community projects. In light of this, respondents were required to indicate how frequently they participated in workshops and seminars on agro-forestry project. The respondents views are captured as indicated in table 4.21.

Table 4.21 Attendance of workshops and seminars

Mode	Frequency	Percentage
Weekly	0	0
Monthly	3	2
Quarterly	38	20
Annually	52	27
Facilitated	96	51
Total	**189**	**100**

As reflected in table 4.21, out of 189 respondents 96 (51%) indicated that they attended workshops and seminars wherever facilitated by the project leaders with NGOs and the government, 52(27%) indicated an annual attendance, 38(20%) attended them quarterly, 3(2%) regularly attended them every month while none attended them weekly. It's implied from these figures that majority of the participants preferred forums facilitated by their project leaders rather than the externally stimulated forums by other parties. They also had none of them attending weekly seminars and workshop indicating their busy schedules during the week and that for them to attend, they had to have pre-planned schedule.

4.7.4 Use of ICT in community based agro-forestry projects

The global village has made the use of ICT a credible source of real time information. The researcher held the position that groups that utilize ICT information would enhance effective participation by application of ICT in their community projects. Relatively the respondents were required to indicate the frequency of the use of ICT information in their agro-forestry projects. Their responses are shown in the table below

Table 4.22 Use of ICT in community based agro-forestry projects

Mode	Frequency	Percentage
More often	1	1
Often	10	5
Less often	71	37
On request	107	57
Total	**189**	**100**

The table 4.22 indicates that out of the 189 respondents 107(57%) used ICT to access information only when requested to do so by members of the group, 71(37%) also indicated that they used ICT less often, 10(5%) used it often and only 1(1%) used it more often.The frequency of ICT use implied that most respondents used ICT whenever they were required to do so by member of their groups and the least percentage subscribed to ICT information very often. ICT as a tool of Information was therefore not utilized effectively by community agro-forestry project members in Bureti constituency.

4.7.5 Extension Information Services used in community based agro-forestry projects

For agricultural based projects to succeed, there is need for engagements with extension officers who advices farmers accordingly. Project using extension information services enhance sustainable productivity by their consultative processes. The respondents were therefore asked to indicate the frequency of access to extension information services by their groups. Their responses capture in the table 4.23

Table 4.23 Extension Information Services.

Mode	Frequency	Percentages
Weekly	10	5
Monthly	20	11
Quarterly	41	22
Annually	52	28
When needed	66	35
Total	**182**	**100**

As portrayed in table 4.23, 66 (35%) of 189 respondents sought extension services only when the group required technical expertise, 52 (28%) sought it annually, 41(22%) were visited by extension officers quarterly, 20(11%) indicate their consultation with extension officers was on monthly basis and 10 (5%) did so weekly

The implication is that majority of the participants as the respondents indicated, sought extension services when they felt they needed to consult on specific issues in their agro-forestry project. In an interesting rejoinder, very few of them sought these services on a weekly basis. These indications pointed out that the use of extension service by these groups was inadequate.

4.8 Technological interventions used in community based agro-forestry projects

The researcher in seeking to establish the extent to which technological intervention influenced participation of men in community based agro-forestry project, focused on various dimensions of this objectives. The respondents were asked to indicate the technological

interventions best used in their projects to indicate the number of men who had utilized technological interventions in their community projects, the frequency of application of technological interventions in their projects and to rate the extent they agreed that these interventions the participation of men.

4.8.1 Technological interventions used in community based agro-forestry projects

The researcher's informed position was that technological interventions enhanced agro-forestry practices. Communities investing in application of proper and modern technological interventions benefited from them. With this framework in mind, respondents were asked to indicate the technological intervention best used in their project. The resultant responses are portrayed in table 4.24

Table 4.24 Interventions used in community based agro-forestry projects

Interventions	Frequency	Percentage
Use of machines	29	16
Adoption of new species	95	50
Development of new species	10	5
Adoption of new products	55	29
Total	**189**	**100**

The illustration in the table 4.24 indicates that, 95 (50%) out of 189 respondents mostly adopted new agro-forestry species, 55 (29%) adopted new agro-forestry products, 29 (16%) relied majority on machines, while only 10 (5%) developed new species for their agro-forestry projects.

From the statistical presentations, the implication is that most respondents group were involved in adoption of new species and products which they were able to tend to more easily than developing new species, which required time, research and trial and error period before it could be successfully used in the agro-forestry community initiative. Others, though not satisfactorily, represented used of machines during their project implementation.

4.8.2 Members applying technological interventions in community agro-forestry

Even with technological intervention and know-how, agro-forestry projects can only be successful when implemented accordingly. This orientation enhances effective participation of men in the community projects. The numbers of men using technological intervention depicts how effectively a community used technology to enhance productivity in its project. The respondents were asked to indicate the number of men who made use of technological interventions in their projects. The statistical presentations of their response are captured in table 4.25

Table 4.25 Members using technological interventions community agro-forestry

No. of members	Frequency	Percentage
None	13	7
1-3	20	11
4-6	66	35
7-10	48	25
All	42	22
Total	**189**	**100**

As highlighted in table 4.25, it was acknowledged by 66 (35%) out of 189 respondents that 4-6 of their members used technological interventions, 48 (25%) indicated 7-10 members, 42 (22%) indicated all their male members were engaged in the interventions, 20 (11%) at 1-3 male members, and only 13 (1%) indicated that none of their members utilized these interventions. The implication was that there was an average number of men applying intervention in their groups, with very few acknowledging that none of their members engaged in these interventions. These projections indicate that application of technological interventions was a critical component in men's participation.

4.8.3 Frequency of use of technological interventions community agro-forestry projects

The application of technological interventions needs to be optimized by regularly applying them in agro-forestry projects. This enhances effective participation.

Members involved frequently in technological interventions participate more effectively in project activities due to this stimulated interest in enhancing productivity. Respondents were asked to indicate the frequency of application of technological intervention by project member in their projects. Their responses are highlighted in table 4.26

Table 4.26 Application of technological interventions in community agro-forestry

Mode	Frequency	Percentage
Weekly	76	40
Monthly	39	21
Quarterly	22	11
Annually	0	0
Daily	52	28
Total	**189**	**100**

The table 4.26 reveals that out of 189 respondents 76 (40%) applied technological interventions on a weekly basis, 52 (28%) on a daily basis, 39 (21%) on a monthly basis, 22 (11%) applied it quarterly and more on annual basis.

The trend from the statistics implies that majority of the respondent's group members frequently applied technological interventions on daily basis and weekly basis. Most of them applied them weekly allocated time during the week to engage in transforming the projects through technology and found it more difficult to do it on daily basis owing to personal occupations. The frequent engagement in technological interventions enhanced effective participation of men in the project.

4.8.4 Technological intervention versus participation in community agro-forestry

In regard to technological intervention the researcher felt the need to rate its promotion on the participation of men in the community based agro-forestry projects in Bureti Constituency. The parameter was useful in gauging the extent technological intervention influenced men's participation. The response analyses are tabulated in table 4.27

Table 4.27 Technological interventions versus participation community agro-forestry

Mode	Frequency	Percentage
Strongly agree	19	10
Agree	102	54
Disagree	46	24
Strongly disagree	22	12
Total	**189**	**100**

From the analysis in table 4.27, it was realized that 102 (54%) out of 189 respondents agreed that technological intervention promoted men's participations in the project, 46 (24%) disagreed with this view, 22 (12%) strongly disagreed and 19 (10%) strongly agreed that this was true. From this table, overall, 121 (64%) agreed and strongly agreed that it promoted men's participation

Implications of this were that majority of the respondents agreed that technology promoted the effective participation of men, thereby giving credibility to the position that technological intervention were critical in enhancing the participatory processes of men in community initiatives in Bureti Constituency.

CHAPTER FIVE

SUMMARY OF FINDINGS CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter contains a summary of the key findings in this study. It also highlights the primary contributions made by the study as well as presenting various recommendations and policy formulation strategies that stakeholders could address in effectively tackling the challenges in community agro-forestry projects in Bureti Constituency. The chapter also puts forth suggestions for further research in the field.

5.2 Summary of findings

The study conducted in Bureti Constituency, targeted the men who participated in community based agro-forestry projects. The questionnaires, administered to 193 respondents had a questionnaire return rate of 189 (98%). Majority of these respondents at 93(49%) were in the mid-age brackets. The study established that this age group was largely constituted by men who had settled down in the community permanently and could engage in community initiatives actively while those aged 65 years and above were not as active as the former due to age. The finding was that those aged below 41 years constituted a paltry percentage.

The indication of this was that the younger generation was less involved in these activities, as they were engaged in other occupations such as furthering their education, and in formal employment set-ups, thereby could not participate as effectively. The study revealed that all of the respondents had at least basic literacy levels having gone through primary level of education; while this is so, it is expected that the participants in agro-forestry projects would be expected to comprehend technical explanations on various hands on project activities. This meant that secondary level of education represented by 88 (46%) out of 189 would be adequate, but in applying technical intervention, it was prudent to have at least tertiary level education. The low percentage of participants at higher education levels indicated that men who had attained professional education qualifications favoured other income sources like formal employment in comparison to agro-forestry projects.

It was discovered that majority of the respondents indicated that they were married. This signified the importance to which married community members attached to community projects. Widowers, single men and divorcees had little engagement in community initiatives

owing to their social standing. The study noted that the respondents who had participated in agro-forestry projects between 4-6 years were the most active but the most effective participation was that of those who had been newly engaged in agro-forestry projects, at 0-3 years .This signified that the project was attracting new participants at community level. Those who had spent longer in these initiatives at 7-9 years were very few. This implied that the men who had participated for long constituted a marginal representation though they were expected to enhance informal learning based on hands-on experience gathered in the field.

5.2.1 Education level on participation of men in community based agro-forestry projects

In regards to this objective, it was revealed that the number of men with college level education was few as respondents indicated that few members of their groups had men with tertiary level education. The findings were that majority of the groups were represented by those with secondary level of education .This is a result of agro-forestry being rural-based. The level of education held by majority of the men indicated that the more educated members of society were less engaged in community based agro-forestry. Likewise, the study indicated that majority of the men in the respondents group could read and write basic agro-forestry instructions. They could apply the less technical aspect of agro-forestry after reading instructions on it. It was also determined that the number of ICT literate members in these groups was adequate. This implied that the use of ICT in diffusion and its utilization in community based group was applicable.

The study also found that most respondents identified the level of education as a critical proponent of effective participation by men in their groups. Out of 189 respondents, 125 (65%) agreed with this view compared to 64 (35%). This validated the importance of the level of education as a key determinant of men's participation in community based agro-forestry in Bureti Constituency. Though they accepted that education enhanced participation, respondents felt that intensive advocacy and lobbying should be done to attract the younger men with higher education levels.

5.2.2 Culture on participation of men in community based agro-forestry projects

The cultural stereotype mostly accepted by the communities in Bureti was that major leadership positions were held by men in their agro-forestry projects. This view was held by majority of the respondents. It was revealed that cultural undertones were significant in the community leadership structure.

The highest figure 113 (60%) indicated that men had 4-5 posts out of possible average of 7. Men were also moderately responsible for key decision made in projects and project activities. The least gender stereotype displayed by men was the ownership of community land indicated by only two respondents. This implied that in these projects, men enjoyed participatory leadership though not all decisions were made by them. Men were also not very involved in project implementation activities.

Culture was identified as pivotal in the leadership structure of these organizations as well as enhancing the adoption of species such as Calliandra and Sesbania which was favourable as fodder for their cattle. Decision making, such as decisions of where and when to plant was also the man's domain. Land inheritance followed cultural bearing following cultural customs. This affected their financial borrowing capability. Consequently, the men were participants in leading their projects, enhancing participation of men. Respondents also argued that culture was also responsible for minimal participation of men in these projects in Bureti Constituency due to their inability to engage fully in project implementation.

5.2.3 Access to finance on participation of men in community agro-forestry projects

The findings of the study indicated that men in Bureti had minimal accessibility to loan facilities. Of the 189 respondents majority felt it was very inaccessible. It was therefore revealed that majority of the men participating in agro-forestry projects found it fairly difficult to obtain credit, primarily due to red-tape procedures. While it was fairly difficult to obtain credit, some men had been successful in loan applications. The implication was that few men had access to credit facilities. This meant that the lack of adequate credit limited the effective participation of men in the projects.

The study also indicated that a vast majority of men engaged in farming for extra income, while fewer of the participants engaged in businesses, formal employment and as volunteers. This implied that majority of the men participants were persons who practiced farming. The farmers would inculcate the informal learning culture in their projects and had more time to spare on farming activities in comparison to those of different occupations. The study findings indicated that the community land was mostly leased from men as indicated by majority of the respondents, while other groups bought land from men, leased it from women, leased from private companies or by the government. The findings further indicated that the most land owners were men. This gave men a cutting edge they could make key decisions in the project.

In addition, it was established that though majority of land was owned by men, a paltry percentage of the respondents had valid title deeds .The implication was that very few men owned land in their names. The land most men had was culturally inherited and as dictated by culture, was transferable when their preceding generation deemed it the right time to do so in their own right. Most land was therefore still in their parents' names. Respondents felt that limited access to finance reduced men's participation as they were interested in increased productivity, higher profits and low costs.

5.2.4 Information on participation of men in community based agro-forestry projects

It was determined from the study that the most widely used source of information by the respondents' groups was farming which was practically oriented and others favoured demonstration, field Days, workshops and seminars while the least used source information was mass media. The implication was that owing to the majority having basic educational levels and being farmers they preferred hands-on experiences as key source of information.

It was revealed that participants found it rather difficult to access information. The implication was that information was not easily accessible to the participants in the agro-forestry projects. In rating the frequency of attendance of participants in workshops and seminars, the study established that the majority attended them only when facilitated, and fewer respondents attended them annually, quarterly, monthly and none on a weekly basis. This indicated that men in these groups rarely attended workshop and seminars unless their groups recommended them to.

Although majority of respondents indicated that they were ICT Literate, the study findings established that ICT was rarely used as 107 (57%) out of 189 used ICT when group members required specific information and used it less often. Similarly, extension services, it was revealed, was used mostly when needed by these participants. This meant that both ICT and extension services were used only on members requisition. Respondents felt that irregular use of information led to minimal participation by men, owing to their lack of extensive and intensive information on agro-forestry practices.

5.2.5 Technological Interventions in community based agro-forestry projects

The technological interventions mostly used by participants as determined by the study was the adoption of new species to which majority of the respondents indicated, while fewer respondents adopted new products, using machines and the least used intervention was developing of new products for the project. The participants, it was implied, preferred improving their productivity rather than research options that would consume time and energy .The study similarly revealed that about 4-6 members in the groups used technology signifying that majority of the men participating in agro-forestry projects made use of technological interventions. These interventions, the study indicated were applied very frequently, on weekly basis. Being an agricultural project, there was need to make frequent follow-ups on daily as weekly basics by the community membership.

As regards technological interventions promoting the participation of men, majority of the 189 respondents agreed with this view, contrasting with those who disagreed. The findings therefore, indicated that participation of majority of men was also promoted by the use of technological interventions in agro-forestry.

5.3 Conclusion

This study on participation of men in community based agro-forestry projects drew several conclusions on their participation in these projects in Bureti Constituency.

Most of the participants lacked tertiary level of education therefore; only comprehended basic instructions and this affected their technological interventions. They were not in position to develop new products for agro-forestry. The younger, more educated men in the community were relatively not involved in agro-forestry projects, thereby affecting the possibility of sustaining these projects, generations to come.

The study further deducted that ICT Literacy was high among respondents but majority of the participants only used it to access information only when it was requested. In a similar strain, they also used extension services and seminars only when they had need for it. This lead to underutilization of these services; though they were readily available.

Finance also posed a major challenge to men's participation as many couldn't access loans and a minority had title deeds they would use to secure financial credit. This influenced the participation of men by limiting the time spent in the project as they had to spend more time increasing their credit worth.

On culture, it was realized that cultural values limited the participation of men to project decision making and project planning hence reducing the time and frequency they spent in the community based agro-forestry projects. The use of technological interventions was a primary determinant of men's participation in the projects within Bureti.

Men using technological interventions found it easier to participate in the community projects thereby increasing their interest in project activities. On the whole, men participation was promoted by technological interventions and high literacy levels while, inadequate information, limited access to finance and some cultural values inhibited their growth in the projects.

5.4 Recommendations

The study further established that there was need to formulate policies that would enhance the effective and increased participation of men in community based agro-forestry projects in Bureti constituency.

5.4.1 Recommendations for Policy Formulation for community based agro-forestry

On the influence of finance on men's participation, it was revealed that majority of the men had difficulty in accessing finance. In this light, the study recommended a gender policy with a sensitive approach to men. This involves mainstreaming financial packages to include tailor-made packages for men and will enhance effective participation of men in community projects. The study also highlighted the need for stakeholders to encourage participation in these projects by the younger men. Simulative initiation and mentorship programs to inculcate the agro-forestry culture in the youth should be established. These policies will encourage many of them to get involved in project activities, promoting the sustainability of these projects. The influence of information on men's participation revealed that there was need to develop efficient project information systems. The use of ICT and extension services should be properly implemented for effective participation and pragmatic approaches to agro-forestry. The key stakeholders should also enhance use of ICT in information diffusion in the project.

In evaluating the influence of culture on participation of men, there's need to streamline the leadership structure that both men and women would have key positions, by implementing the third gender rule. There was also need for men to be more involved in project decision

making and other project activities, for the agro-forestry projects to benefit from various skills, knowledge attitudes and perceptions of different members of the community.

Stakeholders need to facilitate more training to stimulate research based innovations at local level. This aspect of technology involves using suitable pedagogical methods to reach out to all members of the community regardless of educational level. This will enhance participation of men by them developing new products for their community projects, thereby being cost effective.

5.5 Suggestions for further research

1. A similar study should be done to identify other determinants of participation of men in Bureti Constituency in community based agro-forestry projects.
2. A similar study focusing on the determinants of women's participation in community based agro-forestry projects in Bureti Constituency should be done.
3. A similar study should be conducted to evaluate the role men play in community based agro-forestry practice.
4. A comparative study on this topic should be undertaken on a large sample, which could be from two different constituencies.

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APPENDIX I

QUESTIONARE FOR COMMUNITY BASED AGRO-FORESTRY PROJECT MEMBERS.

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS.

1. Indicate your age bracket. (Tick one)
    a) 18-29 ☐
    b) 30-41 ☐
    c) 42-53 ☐
    d) 54-65 ☐
    e) 66 years and above. ☐
2. What is your highest educational qualification? (Tick one)
    a) Primary ☐
    b) Secondary ☐
    c) Tertiary ☐
    d) University ☐
    e) None ☐
3. State your marital status. (Tick one or Specify)
    a) Single ☐
    b) Married ☐
    c) Divorced ☐
    d) Other.(Specify)_____
4. For how many years have you participated in Agro-forestry projects in your community? (Tick one)
    a) 0-3 ☐
    b) 4-6 ☐
    c) 7-9 ☐
    d) Over 10 years ☐

SECTION B: STUDY VARIABLES

5. How many men in your group have at least college level education? (Tick one)
   a) 1-3 ☐
   b) 4-6 ☐
   c) 7-10 ☐
   d) Above 10 ☐
   e) None ☐

6. How many men in your group community based agro-forestry project can read and write basic agro-forestry instructions? (Tick one)
   a) 1-3 ☐
   b) 4-6 ☐
   c) 7-10 ☐
   d) Above 10 ☐
   e) All ☐

7. How many men in your group are ICT literate? (Tick one)
   a) 1-3 ☐
   b) 4-6 ☐
   c) 7-10 ☐
   d) Above 10 ☐
   e) All ☐

8. In your opinion, does the level of education of men in your group influence their participation in the projects? (Tick one)
   a) Strongly agree ☐
   b) Agree ☐
   c) Disagree ☐
   d) Strongly disagree ☐
   e) Other (Specify)_____

9. Judging from your experience in community based agro-forestry projects, how does the level of education influence the participation of men in your group community? (Explain)

_____

_____

_____

10. In which of the following stereo-types does culture manifest itself most in your community project? (Tick one or specify)

a) Men hold key leadership positions. ☐
b) Men make the key decisions in the projects. ☐
c) Men are more involved in agro-forestry projects activities. ☐
d) Men own most the community projects land. ☐
e) Other.(Specify)_____

11. Indicate the number of leadership posts in your community based projects. (Tick one)

a) 1-3 ☐
b) 4-5 ☐
c) 6-7 ☐
d) Above 7 ☐
e) None

12. In which of the following project activities do men in tour community project mostly engage themselves in? (Tick one)

a) Project Planning ☐
b) Project Implementation ☐
c) Project Decision Making ☐
d) Project Management ☐
e) Project Monitoring and Evaluation ☐

13. How many of the leaders in your projects are men? (Tick one)

a) None ☐
b) 0-3 ☐
c) 4-5 ☐
d) 6-7 ☐
e) Above 7 ☐

14. To what extent does culture value influence the participation of men in community based projects organization? Explain.

_____

_____

_____

15. How accessible are loans to the men in your community based agro-forestry projects? (Tick one)

a) Very accessible ☐
b) Accessible ☐
c) Less accessible ☐
d) Not accessible at all ☐

16. How many men in your organization have successfully acquired loans? (Tick one)

a) None ☐
b) 1-3 ☐
c) 4-6 ☐
d) Above 7 ☐

17. Other than income gained from your community projects, what other sources of incomes do you have? (Tick one)

a) Formal employment ☐
b) Farming ☐
c) Business venture ☐
d) Other(Specify) _____

18. Who owns the land on which your community based agro-forestry has been implemented? (Tick one or specify)
    a) Public Government ☐
    b) Private company ☐
    c) Leased from men owner ☐
    d) Bought from men owner ☐
    e) Other.(Specify)_____

19. How many men in your project have title deeds to their own land? (Tick one)
    a) None ☐
    b) 1-3 ☐
    c) 4-6 ☐
    d) 7-10 ☐
    e) All ☐

20. In your informed opinion, explain how access to finance influences the participation of men in your community based project agro-forestry? (Explain)

    _____

    _____

    _____

21. How do you mostly obtain information on agro-forestry practices? (Tick one)
    a) Farming and Demonstrations. ☐
    b) Field days ☐
    c) Extension information ☐
    d) Workshop and seminars ☐
    e) ICT and Mass Media ☐

22. How accessible is information to the male participations of your community project? (Tick one)
    a) Very accessible ☐
    b) Accessible ☐
    c) Less accessible ☐
    d) Not accessible at all ☐
23. How frequently do men in your community based projects attended workshops and Seminars? (Tick one or Specify)
    a) Weekly ☐
    b) Monthly ☐
    c) Quarterly ☐
    d) Annually ☐
    e) Other.(Specify)_____
24. How often do men in your community make use of ICT obtain information on Agro-forestry? (Tick one or Specify)
    a) More often ☐
    b) Often ☐
    c) Less often ☐
    d) Other.(Specify)_____
25. How frequently do men in your community based projects access extension information services on agro-forestry? (Tick on or Specify)
    a) Weekly ☐
    b) Monthly ☐
    c) Quarterly ☐
    d) Annually ☐
    e) Other.(Specify)_____

26. Explain the influence of the access information to men in your group on the project.

_____

_____

_____

_____

27. .Which of the following best explains the technological interventions best in your project? (Tick one or Specify)
    a) Use of machine ☐
    b) Adoption of new species ☐
    c) Development of new products ☐
    d) Adoption of new products ☐
    e) Other.(Specify)_____
28. How many men have made used of technological interventions in your community projects? (Tick one)
    a) None ☐
    b) 1-3 ☐
    c) 4-6 ☐
    d) Above 7 ☐
    e) All ☐
29. How often do project members apply technological interventions in your project? (Tick one or Specify)
    a) Weekly ☐
    b) Monthly ☐
    c) Quarterly ☐
    d) Annually ☐
    e) Other.(Specify)_____
30. The use of technological interventions in community based projects promotes the participation of men in community based agro-forestry projects? (Tick one)
    a) Strongly agree ☐
    b) Agree ☐
    c) Disagree ☐
    d) Strongly disagree ☐
31. In your own opinion, explain the extent to which the use of technological intervention influence the participation of men in community based agro-forestry projects._____
    _____
    _____
    _____

APPENDIXII

TRANSMITAL LETTER

Stella C Maina
University of Nairobi
P.O BOX 30197-00100 GPO
12TH May 2014.

Dear Sir/ Madam,

SUBJECT: DETERMINANTS OF PARTICIPATION OF MEN IN COMMUNITY BASED AGRO-FORESTRY PROJECTS, BURETI CONSITUENCY.

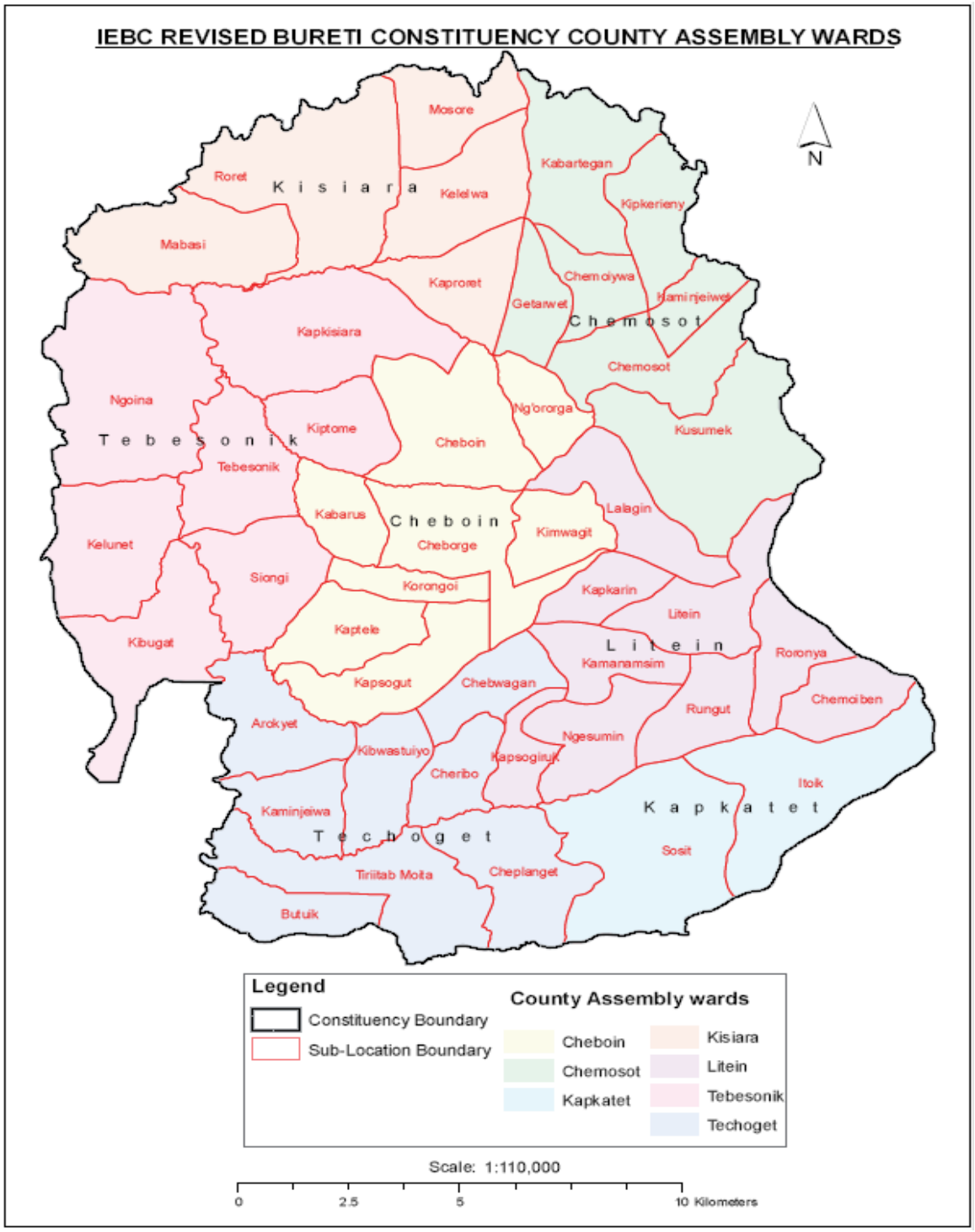
I am a student at the University of Nairobi, carrying out an academic research in partial fulfillment of the requirement for the award of master of art degree in project planning and management. The purpose of this letter is to request you to participate in the study by filling in the questionnaire to the best of your knowledge. Any information given will be accorded the confidentiality it deserves and will not be used for any other purpose than academic. I highly register my sincere appreciation for your co-operation. Thank You in advance.

Yours faithfully,

Stella C Maina

L50/62244/2013

APPENDIX III



Source: IEBC, 2014.