

**IMPLICATIONS OF GENDER RELATIONS ON FOREST MANAGEMENT
AMONG THE INDIGENOUS OGIEK OF MAU FOREST IN NAKURU
COUNTY, KENYA.**


**CHERUIYOT PAUL KIPRONO
C50/CTY/PT/27487/2018**

**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF LAW, ARTS
AND SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
ARTS IN GENDER AND DEVELOPMENT STUDIES OF KENYATTA
UNIVERSITY**

JUNE, 2024

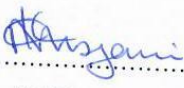
DECLARATION


I declare that this thesis is my original work and has not been presented in any other university/institution for award.

Signature:  Date: 24/6/2024
Cheruiyot Paul Kiprono; C50/CTY/PT/27487/2018

SUPERVISORS

We declare that the thesis has been submitted for examination with our approval as University Supervisors

Signature:  Date: 02nd/07/2024
Dr. Geraldine K. Musyoki, Ph.D, IMIS, LIMIS (UK)
Department of Sociology, Gender and Development Studies
Kenyatta University

Signature:  Date: 25/06/2024
Dr. J. Otiato Wafula, Ph.D, CPS(K)
Department of Sociology, Gender and Development Studies
Kenyatta University

ACKNOWLEDGEMENTS

Sincere gratitude to God and my supervisors Dr. Geraldine Musyoki and Dr Otiato Wafula, whose valuable support enabled successful finalization of the study. I owe special gratitude to the Ogiek people of Nakuru County, Kenya Forest Officers, and my research assistants. Finally, acknowledge my family for their support during entire study period.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES.....	vii
LIST OF ABBREVIATIONS AND ACRONYMS.....	ix
OPERATIONAL DEFINITIONS OF TERMS	x
ABSTRACT	xi
CHAPTER ONE: INTRODUCTION.....	1
1.1. Background to the study	1
1.2. Statement of the Problem	3
1.3. Objectives of the study	4
1.4. Study questions.....	5
1.5. Assumptions of the Study.....	5
1.6. Justification and Significance of the study	5
1.6.1 Justification.....	5
1.6.2. Significance	6
1.7. The Scope, Limitations and Delimitations of the Study.....	6
CHAPTER TWO: REVIEW OF RELATED LITERATURE	8
2.0. Introduction	8
2.1. Gender division of labour in forest management	8
2.2. Legislative and Policy Processes in Forest Management in Kenya	10
2.2.1 Forest Policy 2014	11
2.2.2 Forest Conservation and Management Act 2016 (FCM,2016)	11
2.3. Gender participation in Forest Management.	13
2.4. Modernity and Capitalism in Forest Management	16
2.5. Theoretical Framework	17
2.6. Conceptual Framework	19

CHAPTER THREE: STUDY METHODOLOGY.....	20
3.0. Introduction	20
3.1. Study Design	20
3.2. Study Area	20
3.3. Target Population	21
3.4. Sampling Technique and Sample Size	22
3.5. Study Instruments	23
3.5.1. Key in-depth Interview Schedule	23
3.5.2. Questionnaire.....	24
3.5.3. Document Review	24
3.6. Pretesting of Study Instruments.....	25
3.7. Validity and Reliability of Study Instruments	25
3.8. Data Collection Techniques	25
3.9. Data Analysis and Presentation	26
3.10. Ethical Considerations	27
CHAPTER FOUR: STUDY FINDINGS AND DISCUSSION.....	28
4.1. Introduction	28
4.2. Response Rate	28
4.3. Description of the sample	28
4.4. Gender distribution of the respondents.....	29
4.5. Age of respondents	30
4.6. Length of Mau CFA membership.....	30
4.7. Level of education of the respondents.....	31
4.8. Land size of the respondents.	31
4.9. Result presentation	32
4.9.1: Identify the traditional gender division of labour among the indigenous Ogiek of Mau Forest.	32
4.9.2: Examine the extent to which the Forest Act 2016 integrates gender concerns of indigenous Ogiek in forest management.	35
4.9.3: Examine how women participation in forest management promotes gender mainstreaming in forest management.	43
4.9.4. Examine the implications of the study findings on gender mainstreaming in forest management.	46

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.	48
5.1. Introduction	48
5.2. Summary of the findings.	48
5.2.1: The traditional gender division of labour among indigenous Ogiek of Mau Forest.	48
5.2.2. The extent to which the Forest Policy 2014 and Forest Conservation and Management Act 2016 integrates gender concerns of indigenous Ogiek in forest management.	49
5.2.3. How women participation in forest management promotes gender mainstreaming in forest management.	50
5.2.4. Discuss the implications of the study findings on gender mainstreaming in forest management.	51
5.3. Conclusions of the Study.....	51
5.4. Recommendations of the Study.....	52
5.5. Suggested areas for further research.....	53
REFERENCES	54
APPENDICES	59
Appendix I: Formal Consent Guide	59
Appendix II: Map of The Study Area, East Mau Nakuru County.....	60
Appendix III: Key-In-Depth Interview Schedule for Indigenous Ogiek Village Elders, Kfs, Chief And Macofa Leaders.	61
Appendix IV: Guided Questionnaire for Ogiek Community Members	63
Appendix V: Observation Checklist of Indigenous Ogiek Of Mau East, Nakuru County.....	65
Appendix VI: Budget	66
Appendix VII: Work Plan	67
Appendix VIII: Study Authorization, Graduate School, Kenyatta University.....	68
Appendix IX: NACOSTI Permit	69

LIST OF TABLES

Table 4.1 Response rate.....	28
Table 4.2 Age of respondents	30
Table 4.3: Length of being members of Mau CFA	30
Table 4.4: Land size of the respondents	31
Table 4.5: Major tasks done by Ogiek men.....	33
Table 4.6: Major tasks done by Ogiek Women.....	33
Table 4.7: Consequences of gendered roles on Mau Forest management	35
Table 4.8: Respondents response on whether Forest Policy 2014 adequately enables for Ogiek men and women participation in forest management.....	36
Table 4.9: Respondents response on differences between male and female CFA members on benefits sharing	41
Table 4.10: Respondents response on representation in Mau CFA.....	43
Table 4.11: Respondents response on participation in forest trainings conducted by KFS.....	44
Table 4.12: Respondents response on who receives more information regarding Mau Forest management.	45

LIST OF FIGURES

Figure 1.1: PFM approaches to community participation in forest conservation and management	19
Figure 4.1: Distribution of the respondents by gender in percentage.....	29
Figure 4.2: Level of education of the respondents	31
Figure 4.3: Level of participation in Mau CFA.....	37
Figure 4.4: Motivation for Participation in CFA.....	38
Figure 4.5: Challenges preventing Ogiek participation in CFAs	39
Figure 4.6: Respondents Response on Perception of Forest Resource Benefit Sharing..	40
Figure 4.7: Ensuring equality in forest resource sharing.....	41
Figure 4.8: Respondents response on whether women and men are given equal opportunities in representation in Mau CFA.....	42
Figure 4.9: Respondents response on nature of trainings received from KFS	44
Figure 4.10: Respondents response on ways of strengthening gender empowerment in forest management	45

LIST OF ABBREVIATIONS AND ACRONYMS

ACHP:	Africa Commission of Human and People Rights
CFA:	Community Forest Association
CFG	Community Forest Groups
FAO:	Food and Agricultural Organisation
FCC	Forest Conservation Committees
FCM	Forest Conservation and Management
FGD:	Focus Group Discussion
KEFRI:	Kenya Forestry Study Institute
KFS:	Kenya Forest Service
KNBS:	Kenya National Bureau of Statistics
KWS:	Kenya Wildlife Service
MACOFA:	Mau Community Forest Association
MoU:	Memorandum of Understanding
NACOSTI:	National Commission for Science, Technology and Innovation
NGO:	Non-Governmental Organization
PFM:	Participatory Forest Management
SDG:	Sustainable Development Goals
SPSS:	Statistic package for social science
UN:	United Nation
UNDP:	United Nations Development Programme
UNESCO:	United Nations Educational, Scientific and Cultural Organization
USA:	United States of America

OPERATIONAL DEFINITIONS OF TERMS

For this study, the following definitions will be as indicated:

Community Forest Association (CFA)

A network of community organisation composed of individuals or community-based organizations, legally registered as per the Kenya Societies Act (Cap 108) and engaged in forest conservation and management.

Community Based Organization

A process by which individuals within the community come together and register within domicile county as a group with the aim of addressing a collective need communally.

Forest User Group

This refers to communal or individual groups utilising forest resources either for personal subsistence or commercial enterprises.

Gender mainstreaming

This refers to gendered integration of concerns of all people in design and execution of projects with a view of entrenching equality.

Indigenous peoples

Refers to descendants of populations inhabiting certain geography and retains their unique traditional cultural structures and lives even with emergence of civilisation.

Participatory Forest Management

This implies a joint forest management between local communities and government aimed at conserving the forests as well as preserving the livelihoods of local communities.

Sustainable Development

These are initiatives addressing the current needs of the population with perspective of not compromising needs of future generations.

ABSTRACT

This study aimed at interrogating the implications of gender relations among indigenous Ogiek on management of Mau Forest in Nakuru County, Kenya to guide gender mainstreaming in forest management. The objectives of the study included identifying the traditional gender division of labour among the indigenous Ogiek of Mau Forest, examining the extent to which the Forest Policy 2014 and Forest Conservation and Management Act 2016 integrates gender concerns in forest management, examining how women participation in forest management promotes gender equality and discussing the implications of the study findings on gender mainstreaming in forest management. The study employed cultural ecofeminist theory which captures relationship between women and the earth, comparing how women and nature are subordinated by men in patriarchal society. The study used descriptive survey study design, with purposive and systematic random sampling methods to choose sixty-seven respondents from the community forest associations (CFAs) within the Mau ecosystem. Data from the indigenous Ogiek residents were collected using questionnaires while key-in-depth interview schedule was used to collect data from Ogiek village elders, Kenya Forest Service Officers, and area chief. Test-retest method was used to test reliability of study instruments. Quantitative data was analysed using descriptive statistics. Qualitative data was analysed establishing patterns, categories, and themes. Study findings were presented in percentages, graphs, charts, and tables. The findings showed that there exists traditional gender division of labour underprivileged by Ogiek patriarchal social structure which influences forest management among indigenous Ogiek of Mau Forest. The findings further revealed that the forest legal framework in Kenya especially the Kenya Constitution 2010, Forest Policy 2014 and Forest Act 2016 are gender blind. The study recommends that CFAs to adopt various affirmative strategies including quotas in certain positions to improve women's participation in CFAs while considering cultural constraints limiting their participation.

CHAPTER ONE: INTRODUCTION

1.1 Background to the study

According to International Labour Organisation Convention Number 169 (ILO,1991), indigenous peoples are descendants of populations “which inhabited a country or geographical region during its conquest or colonization or the establishment of present state boundaries” and “retain some or all of their own social, economic, cultural and political institutions”. Globally indigenous people are recognised based on 1996 United Nations Economic and Social Council resolution which define them as a voluntary perpetuation of cultural distinctiveness; self-identification and recognition by other groups or State’s authority; experience of subjugation, marginalisation, exclusion, and discrimination (UN, ECOSOC Resolution 1996/31). Traditionally, indigenous people occupy diverse ecosystems that blend well with their unique culture and livelihoods. Indigenous people continue to have cultural attachment to their natural habitats such as forests and their ways of life is greatly dependant on it. Globally, indigenous people number between 370 and 500 million inhabiting more than 70 countries (International Labour Organisation, ILO,2019).

In Africa, indigenous people approximate about 50 million people (International Work Group for Indigenous Affairs, 2020). Majority of them are nomadic and semi-nomadic pastoralists. Sub regionally, the Amazigh (Berbers) of Northern Africa are the majority occupying countries including Morocco, Tunisia, Egypt and Algeria. In West Africa, indigenous people include the Tuareg and the Fulani of the Sahel. In Southern Africa, they include San of Botswana and Zimbabwe and Himba of

Namibia while in Central Africa the dominant indigenous people include Mbororo and Bokola of Cameroon.

In East Africa, there exists many indigenous people who are majorly pastoralists. Among the hunter gatherers, the major tribes of indigenous people include Ogiek, Waata and Yaaku while the pastoralists include Maasai, Borana and Rendile. The highest population of forest dwellers in Kenya is Ogiek who live in and around the Mau Forest Complex numbering approximately 52,596 people (Kenya National Bureau of Statistics, KNBS, 2019). The Ogiek are traditional beekeepers, honey gatherers and game hunters with greater attachment to forests. Prehistorically, Ogiek have been custodians of forest, and their livelihoods and culture are dependent on the forest, and they consider it as their ancestral home (Claridge, 2018).

Socially, the social structure of the Ogiek was patriarchal with various hierarchical structures composed of elders in a council. Presently, these structures are still recognized as holder of community interests especially when engaging governments where the elders are community mouthpiece in defence of their cultural rights and community resources. The Ogiek are deep rooted in culture where elders make decisions on behalf of the community. Allocation of land for use including agroforestry is bestowed on elders. As such the question of gender equality is a muted subject among indigenous Ogiek people. The muteness seems to stem from a fear that the question of women's rights should take the focus away from the struggle for collective rights and create internal division (Deree and León, 2002).

Among the Ogiek, interaction with environment including use and control of forest resources reflects a gendered perspective. This gendered approach to forest resource has survived social changes leading to contemporary Kenya. These traditionally

ascribed gender roles may limit Ogiek women in participating in forest use and control initiatives. This scenario seems to be exacerbated by gender blind forest laws of the republic of Kenya which serve to institutionalize and perpetuate the traditional sex roles among the Ogiek as far as forest resource use and control are concerned. Key among them include Article 69 of the 2010 Kenya Constitution, Forest Policy 2014 and Forest Act 2005 as repealed by Forest Conservation and Management Act 2016 (FCM 2016). These legislations elaborate importance of forestry as economic pillar as well the need for participatory forest management. The FCM 2016 Act established Kenya Forest Service (KFS) mandating it with its board to establish forest conservation areas. Further, FCM Act 2016 section 48 (1) permits communities to register Community Forest Associations (CFA), for them to be allowed to participate in public forest management. On empowerment, FCM 2016 envisages provision of formal forest education through Kenya Forest College. Non-formal and informal education takes place in the community where targeted population live. Other policy framework guiding forestry in Kenya include the Forest Policy 2014 developed in response to Forest Act 2005 as repealed by FCM Act 2016. It is in the logic of the foregoing discussion that this study elected to interrogate the extent of gender blindness of these legislations or policy instruments and how they have structured or re-structured gender relations in the forest management.

1.2 Statement of the Problem

The symbiosis between indigenous Ogiek men and women and their natural environment (both flora and fauna) is unrivalled globally since time immemorial. The Ogiek like most indigenous communities worldwide, have interacted in a

symbiotic fashion with the Mau Forest over the years. Conservation of forest resources was gendered among the indigenous pre-colonial Ogiek community. This interaction has been shaped by Ogiek patriarchal social and economic structure that informs management of forest resources. This socio-economic arrangement has endured even with the advent of modernity and capitalism. Through this patriarchal setup, men are the lead custodians of forests and decision makers in forest management. These set up constrains, marginalise, and disempower women in forest management. Further, triple gender roles and patriarchy are key drivers that determine extent of participations in forest resource use, benefits sharing and management. In Kenya, the 2010 Kenya Constitution and the enabling legislations and policies especially the Forest Policy 2014 and Forest Conservation and Management Act 2016 were expected to cure this defect ensuring gender equality and equal participation of Ogiek men and women in forest management. It is in this logic that this study elected to examine the Mau Forest Ogiek's gender relation and its implications on the management of Mau Forest.

1.3 Objectives of the study

General Objective of the Study

The study examined the implications of gender relations on forest management among indigenous Ogiek of Mau Forest.

Specific objectives of the study were to:

- 1) Examine the traditional gender division of labour among the indigenous Ogiek of Mau Forest.
- 2) Examine the extent to which the Forest policy 2014 and Forest Act 2016 integrates gender concerns in forest management.

- 3) Assess the extent to which women participation in forest management promote gender equality.
- 4) Examine the implications of the study findings on gender mainstreaming in forest management.

1.4 Study questions

The key questions guiding the study include:

- 1) How is division of labour among the indigenous Ogiek gendered?
- 2) To what extent are gender specific concerns of Indigenous Ogiek integrated in the Forest Policy 2014 and Forest Conservation and Management Act 2016?
- 3) To what extent is women participation in forest management promote gender equality.
- 4) How can gender mainstreaming be achieved in forest management?

1.5 Assumptions of the Study.

The study assumed that there were both indigenous Ogiek men and women practising forest management in Mau region of Nakuru County. The study further assumed that there was gender inequality in forest management. That the gender division of labour between indigenous Ogiek men and women affects their participation in forest management.

1.6 Justification and Significance of the study

1.6.1 Justification

The study intended to generate knowledge on gender relations in forest management among indigenous Ogiek. The study provides insights on gender mainstreaming in

forest management. Involvement of women in this respect will go a long way towards realising sustainable forest management. The study also identified strategies necessary to enhance effectiveness and sustainability of forest management. The research findings are valuable to governments in formulating forest policies and programmes for sustainable management of forests. This goes a long way in achieving SDG 5 of gender equality with target of ensuring women's full and effective participation and equal opportunities for leadership (UN 2015).

1.6.2. Significance

The findings are valuable to academia, government department of forestry, and policy makers as well as the public. The department of forestry benefit from the study through insights on integration of gender concerns of indigenous Ogiek in forest management. Through interrogation of gender blindness of forest laws, policy makers have insights on policy gaps that perpetuate inequalities in forest management. As expected, the study opens further areas of study on indigenous people roles in forest management nationally and globally.

1.7. The Scope, Limitations and Delimitations of the Study

This study examined the implications of gender relations among indigenous Ogiek on management of Mau Forest in Nakuru County, Kenya. This was informed by the fact that the Ogiek are the majority of indigenous people in Kenya (KNBS, 2019); and still maintain their traditional identity. The study focused on Eastern Mau Forest Complex targeting Ogiek men and women; with the study objectives complemented by KFS officers.

The study was limited by sample size targeting one county in Kenya whereas the study population is spread in other four counties including Narok, Nandi, Baringo and Kericho. The choice of one county is that Nakuru County is home to indigenous Ogiek who are the highest population of indigenous people in Kenya. This limitation was overcome by use of sampling method to get a representation of population of the study. The timing limited the study considering that government conducted mass evictions from Mau Forest in October 2020 and most of the Ogiek live within the forest environs of the forest. The study overcame this by recruiting local data collectors from the indigenous community, familiar with locality to ensure that only the Ogiek were the respondents. Some respondents were reluctant to participate and asked for money because the east Mau has been politicized and the data collection was done immediately after political campaigns that took place in Kenya in 2022. The researcher and assistants had to explain to them that the study was academic with no financial gain and their cooperation was needed to achieve the proposed objectives of the study.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter present reviews of literature discussing the question of gender relations and forest management among indigenous people. This section endeavours to tie the current study to the past studies and in the process create knowledge gaps on which the current study proceeds. The section will follow a thematic structure of literature followed by theoretical framework and the conceptual framework.

2.1 Gender division of labour in forest management

Women and men are relegated to specific forest activities by gender division of labour with each gender performing certain roles in natural resource management. Agrawal (2001) documented that equitable gender participation in resource management provide a voice to men and women to build an agency and knowledge access leading to natural resource sustainability. Noteworthy, exploitation of these forest resources takes gender dimensions nationally and globally. Most commercial timber extraction is done by men while women majorly depend on forests for firewood and medicinal products. Further, the Sustainable Development Goals (SDGs), adopted by United Nations member states in 2015 recognize that gender equality and women's empowerment is a cornerstone of sustainable development. SDG 5 on gender equality and women's empowerment includes targets of equal participation in decision making (5.5.), equal rights to resources (5.a.) and policies to promote equality and empowerment (5.c.) (UN SDGs 2015). In essence access, use and benefits sharing on forest resources should provide equal treatment of men and women. However, many of the studies have demonstrated that women continue to be discriminated against in access and ownership rights to forest resources, access to

credit facilities and technology, and deprived from participating in decision making at household, community, and national levels (Odebode, 2005; Agrawal & Chhatre 2006; Agarwal, 2009; Torri, 2010). The discrimination in forest resources still occurs despite presence of enabling legal frameworks that tries to promote equality of men and women in forest management.

Various scholar asserts that gender inclusion needs to be integrated in both forest planning and implementation processes. However, most restoration programme rarely integrate gender concerns in their processes (Ardayfio-Schandorfet, 2007). Further, most restoration study gives little emphasis on gender (Clewel and Aronson, 2013). Ifegbesan, (2016) notes that North America and Asia are major continents with greater study reports on gender and forestry. Therefore, more gender-disaggregated data needs to be generated from local to global levels (Agarwal 2009, FAO 2018). There is a growing body of study pointing to gender differences between women and men in terms of the extent to which they rely on forests for their livelihoods, and for which purposes. Often, men control the most valuable forest resources that can be sold on the market, such as timber (Aguilar et al. 2011; FAO 2015; Agarwal 2009). Women's control over resources may be more commonly centered on management and use of fuelwood, fodder and non-timber products. Forest degradation has meant that women have had to walk longer distances into the forests to source materials, with negative impacts on their time, poverty, income and personal safety (FAO 2015). Sustainable forest management projects with an explicit gender lens can help reduce women's vulnerability by enhancing their socio-economic empowerment; by reducing informality in the production and marketing of non-timber forest products where women dominate;

and by promoting legal reforms in land tenure, and institutional development through enhanced training and leadership development for women.

The Sustainable Development Goals (SDGs), recognize that gender equality and women's empowerment is a cornerstone of sustainable development. In essence access, use and control of forest resources should provide equal treatment of men and women. However, this is not the case in most forests in Kenya where men and women extract different forest products that has differential economic value. For instance, men are the major commercial timber harvesters compared to women who majorly extracts medicinal herbs from forests. Commercial timber harvesting done by men has more economic benefits than firewood or medicinal harvesting done by women. Central to this is patriarchy and triple gender roles of women which prevents them from actively participating in forest decision making processes.

2.2 Legislative and Policy Processes in Forest Management in Kenya

In the pre-colonial period, forest resource utilisation was governed primarily by traditional rules which stipulated the forest rights for the community members. In 2005 the government introduced the Forest Act 2005, which streamlined forest management by introducing Participatory Forest Management (PFM) involving communities living around the forest in management of the forests. The Act was repealed in 2016, by Forest Conservation and Management Act 2016. The Act articulates rights and responsibilities of communities in forest management (Ongugo, 2009). The Act envisages forest participation through a registered Community Forest Association (CFA). The CFAs are registered entities and Kenya Forest Services approves their existence. The PFM allows communities living near the forests to enjoy forest resources legally.

2.2.1 Forest Policy 2014

To operationalise Forest Act 2005 as repealed by Forest Conservation and Management Act 2016, and in alignment with Kenya Constitution 2010, the Forest Policy 2014 was developed. The policy formulation process involved mapping areas in Kenya Constitution 2010 where policy must be aligned, development of goals and objectives, determination of areas of synergies with other existing policies; national, regional, and international (Government of Kenya Forest Policy, 2014). The policy statements captured in the policy include: promoting participatory management of indigenous forests with communities and other stakeholders, supporting formal forest sector education programmes at different skill levels which are regularly reviewed to encompass emerging issues and challenges, support non-state actors and local communities to undertake forest-related development activities and investments, develop and implement an equitable benefits sharing scheme in the forest sector. As per this policy, public participation and good governance are some of the key principles. Regarding the study, compliance in practise by CFAs with the Forest Policy 2014 policy statements was interrogated.

2.2.2 Forest Conservation and Management Act 2016 (FCM, 2016)

The Kenya constitution 2010 is very progressive, it captures environmental conservation under Article 69. This is operationalized by FCM Act 2016, regarding forest resources. The FCM 2016 Act provides a legal framework for the exploitation and rehabilitation of forest lands. It also categorises forests as community, private and public forests. Forests in a public land are identified as public forests. Community forests are those held by community, registered groups, or forests on ancestral lands. Private forests are those held by individuals or corporates under free

hold or leasehold tenure while public forests are those held by the state (GoK Forest Act, 2016).

The FCM Act 2016 provides for the development and sustainable management, including conservation and rational utilization of all forest resources for the socio-economic development of the country and other connected purposes (FCM 2016). This is strengthened by Forest Policy 2014, that provides various policy guidelines and statements on the conservation of forests. Also, under the Forest Act 2016, communities are provided with opportunities to participate in forest management through formation of Community Forest Associations (FCM 2016). In order for the local communities to enter into such co-management arrangements, they are legally expected to form and register Community Forest Associations (CFAs) within different forests distributed across the country (MENR 2007). The administration of FCM 2016 is by Kenya Forest Service (KFS) with its board responsible for establishing forest conservation areas divided into ecosystems. Each forest conservation area is led by forest conservation committee which advises KFS board and county government on utilisation of forest resources. Further under section 48 (1) of the FCM Act 2016 communities are granted opportunity to participate in forest management through a registered CFA.

The participation involves providing equal spaces for men and women who are affected directly or indirectly by forests. These spaces include decision-making channels of CFA. However, CFAs just like any other institutions are shaped by the obtaining social structures of interaction such as patriarchy. Representation of women in the CFA can also be skewed in favour of men over women. According to Kinyanjui, (2007) the major issues affecting CFAs include inadequate accountability

and disparity in distribution of benefits. The FCM Act, 2016 is silent on specific guidelines on running the CFAs. Therefore, the lack of clear guidelines on running of the CFAs is a loophole for continuous entrenchment of male dominance in the running of the institution and this in essence may be a way of perpetuating gender inequality in forest management. Mogoi et al, (2012), notes that more studies are needed to give insights on strategies for promoting increased gender equity in the CFA. Further effective management of CFAs depends on guiding frameworks of internal appointments, participation and accountabilities and benefit sharing.

2.3. Gender participation in Forest Management.

The FCM Act 2016 section 48 (1) allows a member of a forest community together with other members or persons resident in the same area register a Community Forest Association (CFA) in accordance with the provisions of the Societies Act. The CFA can therefore be formed by individuals, Community Based Organisations or Forest User Groups like beekeepers, herbalists among others. The members of the CFAs share benefits that accrue from participating on forest management efforts with state agencies. To enjoy these benefits, participation in CFAs both as an individual or community is critical. As elaborated in Forest Policy 2014, participatory approaches in forest conservation and management will be enhanced to ensure that the relevant government agencies, county governments, private sector, civil society and communities are involved in planning, implementation and decision-making processes. (GoK Forest Policy 2014). Lise (2009) articulates that, effective public participation is realizable when communities participate in decision-making process, planning, organization, and implementation of projects. Mlenge, (1991) talks about participation at two levels: at individual and at family or

household level. Davis-Case (1990) discusses participation in terms of power relations. She argues that having power to participate is characterised by one's ability to have either ultimate decision-making or at very least, a voice in the decisions that directly affect one's life. Participation in the CFAs considers both individual and community form where varying degrees of level of participation is envisaged depending on goal of participation, influencing factors of participation and level of participation. The goal of participation in the CFAs involves perceived benefits an individual or community will accrue by being part of the group. The influencing factors of participation include benefits perceived to be received by community, membership of the group where one needs to be a member to participate and awareness where one needs to be aware in order to participate (Agarwal, 2001).

Further effective management of CFAs depends on guiding frameworks of internal appointments, participation, and accountabilities. Also perceived benefits of being part of the management is critical in being part of the management. Singular focus of engendering the CFAs is critical for effective management, participation, and success of the organisation. Exclusion of women disempower them thus perpetuating inequality. Further, sustainable forest management can be achieved if communities are educated on forest laws and regulations that guide extraction of forest resources. This promotes responsible extraction and regeneration of tree cover through tree planting. In Kenya, the FCM Act 2016 envisages establishment of Kenya Forest College to provide formal training on forestry. Non formal and informal education occurs within the community where no certificate is provided at the end of the education. Community education though informal, changes perception on conservation of forests. Informal education and learning is provided through

guided walks in woods and activities in forests for all ages, such as bird watching, nature walks, fungi forays and learning woodland skills.

In CFAs, participation takes individual and community form with varying levels depending on the goal of participations. The goal of participation majorly involves perceived benefits that an individual or community tend to gain within the CFA. The influencing factors for participation include perceived benefits, the urge to belong to a group in order to participate and awareness where one needs to be aware in order to participate (Agarwal, 2001). Effective participation in CFA occurs when the organisation is providing equal spaces for men and women. However, this rarely occurs as women hardly take part in meetings and decision-making processes, mostly their husbands, on their behalf, take part in meetings (Sonowal, 2020). This absence of women in forest management disempowers them thus perpetuating inequality. However, women face barriers mostly on limited time to participate because of other pressures to earn and provide to their families (Onzere, 2020).

In terms of objectives, at its narrowest participation is judged almost entirely by its potential efficiency effects and at its broadest by its ability to enhance equity, efficiency, empowerment, and environmental sustainability (Uphoff, 1991). Achieving effective participation would involve a shift from the lower to the higher level. In Mau Forest Complex, participation by individuals or communities is through Community Forest Associations (CFAs). However, in other communities, men's participation in forest management decision making exceeds women's, and women seldom play leadership roles in such groups (Agarwal 2001; Sunderland et al. 2014). Among women in Mt Kenya, Aberdares, Kakamega, and Mau forests women didn't receive information with men lacked equal (Obonyo and Mogoi,

2009; Andole et al., 2020). In Loita forest in Kenya, Oloibon culture influence meeting frequency, decided by the council of male elders (Mbuvi et al., 2015), which later affects women's participation. The trend is the same in Tanzania where lack of information and accountability by leaders affected women participation negatively (Munishi, 2013).

Women are excluded from forest decision-making bodies for many reasons. As a result, women usually have limited access to information related to forest management (Agarwal 2001). When women do participate in forest user groups, there is evidence that improved forest condition is a result (Coleman and Mwangi 2015; Leisher et al. 2016). Agarwal (2003) observes that women are often excluded from participation for various reasons including: the rules governing the community forestry groups, social barriers stemming from cultural constructions of gender roles, responsibilities and expected behaviour, logistical barriers relating to the timings and length of organizational meetings, and male bias in the attitudes of those promoting community forestry initiatives.

2.4. Modernity and Capitalism in Forest Management

According to Sombart (1908) capitalism as an economic system is clearly marked by the power of "capital." This system centres around production where market is driven by high consumption. In capitalism, government is integral in regulating the various actors in the market (Daowei, Z, and Pearse, P, 2011). Capitalism plays a greater role in exploitation of forests resources use and control as far as exploitation of this resources for commercial purposes is concerned. Specifically, in Mau Forest Complex, uncontrolled commercial exploitation of forest has led to massive destruction with forest cover diminishing exponentially. Commercial Indigenous

Ogiek men entrepreneurs have been lured by the prospects of the next shilling in profit to extract timber thus destroying the forest. This is in total contrast to precolonial where the Ogiek were the protectors of forests. UNESCO, (2008), notes that cultural change especially with advent of modernity is one of the major issues affecting livelihoods of indigenous people.

2.5. Theoretical Framework

This study deployed cultural ecofeminism theory in explaining the implications of gender relations of indigenous Ogiek in forest management. This theory captures relationship between women and the earth, comparing how women and nature are subordinated by men in patriarchal societies. It draws a parallel connection between the way women and nature are treated by patriarchal society to the benefit of men. The men subordination of women is seen as a parallel to how humans dominate nature. This is rampant in exploitation of natural resources especially those of commercial value where men play dominant roles and reap higher benefits than women.

According to Chellappan, (2021), ecofeminism components include diversity and pluralism, in its all forms including biological, cultural, and ecological diversity. Ecofeminism aims to restructure power relations between both genders promoting equitable participation. The aspects domination includes men domination of culture, women relation to environment, and domination of women and environment by men (Agarwal, (1997). The domination is intertwined with power with greater enjoyment of privileges by those in power who are also greatly valued and have greater influence and vice versa (Manuku, 2018).

Further, ecofeminism is underpinned by agency, a conceptual basis intertwined by right and ability to choose actively or passively. In passive case, choices of women are less and contented if their usual and casual roles are accomplished whereas in active form women. Eco-feminism theory helped the study by exposing how patriarchal and capitalist systems have in unison exploited women by under-privileging their capacities in forest management. Cultural ecofeminism has been applied to address various destructive practices including deforestation and toxic waste disposal, opposed by ecofeminist movements through various environmental campaigns. According to Archambault, (1993) ecofeminism weaknesses include using women biological functions to establish a connection between women and nature, political implications of associating women with nature and ethic of care which may not fulfil the task of rescuing both humans and nature.

2.6. Conceptual Framework

The linkages between various variables underpinning the study are captured below:

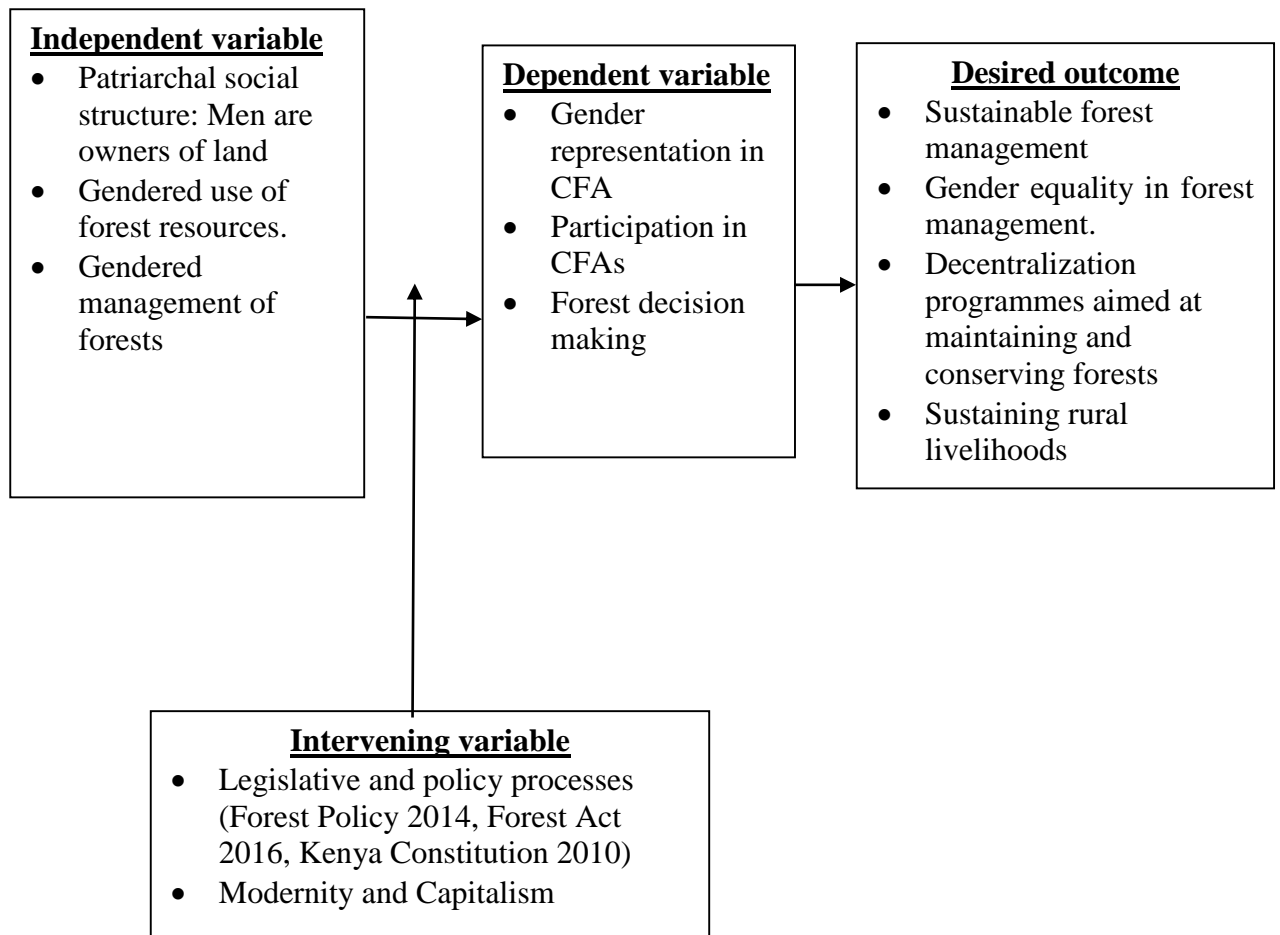


Figure 1.1: PFM approaches to community participation in forest conservation and management

CHAPTER THREE: STUDY METHODOLOGY

3.0 Introduction

In this chapter, study methodology and procedures guiding the study are captured. It covers the study area, study design, target population, sample size, sampling procedures, data collection instruments, procedures, and analysis.

3.1 Study Design

A cross sectional descriptive study design was adopted for the study. This design allows capturing phenomena as it is at the moment. The researcher employed this study design due to its relevance to study questions examining already existing phenomena of indigenous Ogiek participation in CFAs.

Qualitative study also allows capturing the voices of the underprivileged (Frisby, W., Maguire, P. and Reid, C. 2009). These voices include indigenous Ogiek women who are put down by cultural practices and patriarchy. Quantitative study also provides "generalizable" findings, and according to Marlow, (1993) the finding on number of women and men who participates in CFAs at different levels is important for extrapolation to other forest management institutions to mainstream the excluded gender.

3.2. Study Area

This study was done in East Mau of Nakuru County, Kenya (Appendix 2). The area is the catchment area for various rivers including Mara River, Ewaso Nyiro South, Molo and Rongai rivers among others. Selection of Mau complex was purposive based on four grounds.

East Mau Forest Complex is a water catchment area for source of various rivers and lakes in Kenya. Therefore, it is of interest to KFS, the key implementers of FCM Act

2016 and Forest Policy 2014, two key frameworks guiding forest management in Kenya. Second, Mau Forest has highest number of CFAs i.e 35 (Bechtel, 2010). The area is home to Mau Community Forest Association (MACOFA) comprised of communities around Mau Forest complex. Individual Ogiek members of MACOFA were the target of study. Third, East Mau is the home to Ogiek who were the study subjects. Lastly, timber harvesting is major activity thus such, it is a target for reforestation by Kenya forest service and equality in resource benefit sharing is interrogated by the study.

3.3 Target Population

The study focussed indigenous Ogiek men and women who live in and around East Mau Forest Complex with their existence closely tied to the forest. Simple random and purposive sampling was used to select a sample from this population. The unit of analysis of the study was individual Ogiek men and women residing within East Mau Forest and being a member of CFA for the past three years. Residence of Mau East Forest Complex, being an indigenous Ogiek and membership to Mau CFAs for the last three years was a key criterion of participating in the study was the major criterion of participating in the study.

The Ogiek of Kenya's Mau Forest in the central Rift Valley number approximately 52,596 people, including adults and children (Kenya National Bureau of Statistics, 2019). The Ogiek are known traditionally as honey-gatherers, practising game hunting, bee keeping and gathering wild fruits and roots. Among the Ogiek forest management was gendered. The gendered approach to forest management coupled with patriarchy subordinated women on resource access, use and benefits sharing.

The study findings were complemented by key informants including traditional, and local authorities' government local administrators and Kenya Forest Service officers.

3.4 Sampling Technique and Sample Size

The study employed criterion sampling, as a sampling method. Through it, selection of study participants based on pre-set guideline was used (Patton, 2001). The criteria met by the sample included being resident of Mau Forest Complex and indigenous Ogiek of the said locality. To determine sample size, (Krejcie and Morgan, 1970) formula of a finite population was used.

$$S = \frac{X^2NP(1 - P)}{d^2(N - 1) + X^2P(1 - P)}$$

Where:

S = Sample Size Required

X = Z value (e.g., 1.96 for 95% confidence level)

N = Size of the Population

P = Population percentage (assumed to be 0.5 (50%))

d = Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error

sample size will therefore be:

$$S = \frac{1.96^2 \times 80 \times 0.5(1 - 0.5)}{0.05^2(80 - 1) + 1.96^2 \times 0.5(1 - 0.5)}$$

$$S = 67 \text{ Respondents}$$

The study targeted 67 Mau CFAs members who are indigenous Ogiek people living within East Mau Forest Complex. Mau Community Forest Association (MACOFA) has 80 registered members out of which 67 were chosen in the study. The 13 members were excluded based on ethnicity authenticated by dialect since some immigrants from other communities especially Kipsigis and Kikuyu communities

currently own land in Mau East. The study aimed to survey a total of 67 residents (33 females and 34 males) residing in the immediate vicinity of the forest. The selection of participants was conducted using a combination of random and purposive sampling techniques. Out of the targeted sample, 66 individuals (21 females and 45 males) responded to the survey.

The researcher together with two research assistants who are locals from Ogiek Community visited the area in order to identify women and men who are members of Mau CFA, who were asked to respond to the questionnaire through self-administration. Those who were unable to read and write were assisted by research assistants to capture their responses on the questionnaire. Sixty-six (66) filled questionnaires were collected during the entire period of data collection.

Three village elders and three KFS officers and one chief of Marishoni location were selected purposively as key informants (KII) to address study questions. The three village elders were selected to represent the study site of Elburgon, Ndosua and Marishoni where Mau CFA member reside. Three KFS officials at Kenya Forest Service Nakuru were targeted to complement study findings. The selection of the three officers was based on roles played in forest management with focus on those in charge of forest training, CFAs and another in charge of forest conservations.

3.5 Study Instruments

3.5.1 Key in-depth Interview Schedule

To collect qualitative data that complemented the questionnaire survey data, Key in depth interview schedule was administered to respondents including three KFS offices, three Ogiek village elders and one chief. The objective was to gain deeper

understanding on gender division of labour among Ogiek men and women, implications of forest legislation on gendered management of Mau forests and Ogiek participation in forest management. A total of seven key informants were purposively selected. The respondents were asked same questions for uniformity thus allowing comparison of answers per question. The tool allowed collection of data from illiterate study participants. Open ended questions allowed for further probing and the informants were free to explain their opinions.

3.5.2 Questionnaire

Questionnaires were distributed to indigenous Ogiek men and women. A total of sixty-six questionnaires were filled and returned for analysis. The questionnaire allowed collection of data by administering a standard set of questions to respondents. The questionnaires had both open ended and closed ended questions (Appendix- 4). The questionnaires were divided into three sections each addressing the three objectives under study.

3.5.3 Document Review

This involved collecting data by reviewing existing documents on the area of research. These include books, reports, existing legislations, and policy documents. Internal and external documents were reviewed and formed part of the study. Electron and hard copy documents informed the study complementing the study findings. The tool is effective and efficient for gathering data from past documents to fill study gaps with supplementary data. In this study, forestry documentary data on legal and policy framework in Kenya were reviewed.

3.6 Pretesting of Study Instruments

The data collection tools were piloted to test their accuracy before the main study process. The process involved selection of few respondents with similar characteristics to target population and administration of the study tools. It involved testing the understanding of instructions by respondents. The significance of the testing was to detect any earlier warning on potential areas of complexity of study tools, potential data flaws and methodology deficiencies. Eight respondents were purposively selected for pilot testing. The selected pilot test population were not used again in the main study. Further, pilot test was done in Nesuit Village, an adjacent village to study area. The pilot test village was not used again during the study.

3.7. Validity and Reliability of Study Instruments

Validity was achieved by developing questionnaires and interview schedules that address study problems, and study objectives and study questions. Pretesting was done prior to main study. Further, relevant theories and frameworks are employed to guide the study ensuring greater validity of study content. The significance of validity testing is to capture any errors in the data collection tools. To test the reliability of the instruments, the researcher employed the test-retest method during the pilot study done weeks before the actual study was conducted.

3.8 Data Collection Techniques

Secondary data were collected by the researcher through desk review of various soft and hard copy materials, while with help of structured questionnaires primary data was collected. Before data collection, ethical approval was sought from Department

of Gender and Development Studies and Ethical Committee of the Kenyatta University to seek permission from relevant authorities for data collection.

Also, ethical approval was sought from National Commission for Science, Technology and Innovation (NACOSTI). Questionnaires were distributed to Mau CFA members, and later collected and consolidate them. Field survey interviews were administered to the indigenous Ogiek men and women, in-depth interview guides administered to the key informants basically the traditional and local authorities including three village elders, KFS officers and one chief.

3.9 Data Analysis and Presentation

Based on objectives of the study qualitative data recordings from the key informant interviews were translated and transcribed verbatim. They were then coded and organized as per the themes and analysed throughout the study period for patterns and commonalities. Thematic analysis was then done to examining the data in relation to the study's objectives, while ensuring triangulation of findings. The responses were presented in narrative and verbatim quotation forms. Quantitative data was analysed using descriptive statistics such as frequencies, mean, and standard deviation with the help of statistical package for social scientists (SPSS) version 22. The information was presented in tables and graphs. The two data sources were triangulated for comprehensive understanding of the phenomenon under study.

3.10 Ethical Considerations

Kenya University Ethics Committee and National Commission for Science, Technology, and Innovation (NACOSTI) approved the study. During the study appropriate explanation of study to the participants was done to enable them to make informed consent. Voluntary participation was sought from study participants. Also, the principle of no harm was adhered to during the study. Confidentiality of data was ensured by coding the data and not capturing participants' names in the questionnaires. Data confidentiality was strictly maintained to protect the privacy of the participants. To ensure confidentiality of the data, it was not shared with any external parties, and measures were taken to securely store the recorded audio to prevent unauthorized access. Lastly, objectivity was maintained throughout the study to avoid any biasness.

CHAPTER FOUR: STUDY FINDINGS AND DISCUSSION

4.1 Introduction

This chapter captures data and study results including analysis of the results and discussions guided by study objectives. The study focused on examining the implications of gender relations on forest management among indigenous Ogiek of Mau Forest in Nakuru County, Kenya. The first section captures demographic characteristics of the study participants. The second section captures study responses, analysis, and discussions as per the study objectives. But first is a look at the response rate.

4.2 Response Rate

Information contained in table 4.1, reveals that 98 % of Mau CFA members responded during data collection. The response rate was 66 out of 67 sample size. Survey responses were complemented by key in-depth interviews from two KFS officials, two traditional leaders and one of chiefs from Ogiek Community.

Table 4.1 Response rate

Strata	Sample Size	Response	Response Rate
Mau CFA members	67	66	98 %
Total	67	66	98%

4.3 Description of the sample

Demographics of Ogiek respondents were captured in this section and had the potential to shaping the gender relations among the indigenous Ogiek of Mau Forest. These characteristics include gender, age, duration of stay around the forest, education, and land size. We first present the distribution of respondents by gender.

4.4. Gender distribution of the respondents

Data on the distribution of sampled respondents in the Mau Forest by their gender reveal that the majority are men (66.2%) while women are (33.8%).

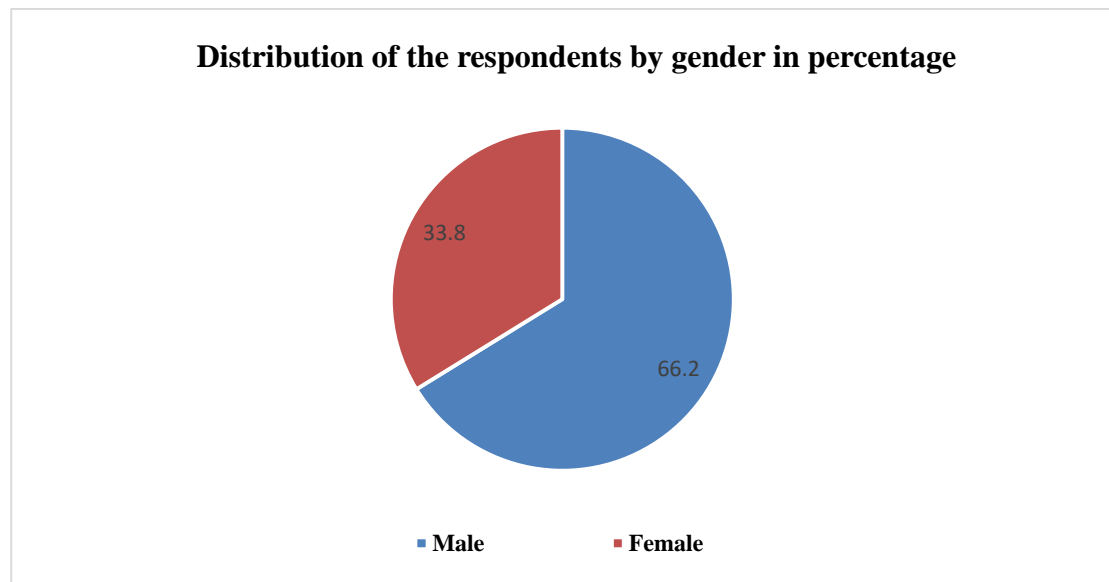


Figure 4.1: Distribution of the respondents by gender in percentage

The findings is correlated to Ogiek culture which privileges men over women and men represents the households in external engagement including responding to study enumerators. Cultural inhibition prevented women from talking in front of their husbands due to cultural dictates. This was validated by Marishoni area chief Mr David Barngetuny, who explained that Ogiek men dominates in household and community engagements as per the cultural set up of the Ogiek. Also, Ogiek women held up by household chores tended to leave engagement with study assistants to their husbands. This is in sync with Coulibaly-Lingani et al., (2011) who documented women participation in household chores and other roles associated with women could be a factor preventing women from participation in community external engagement.

4.5 Age of respondents

Table 4.2 Age of respondents

Strata	Frequency	Percent
Below 20 years	0	0
21-30 years	12	18.1
31- 40 years	44	66.6
Above 41 years	10	15.1
Total	66	100

As indicated by data in Table 4.2, the respondents were distributed between the ages of 20 to 41 years and those between 31 to 41 years had the highest frequency (66.6%). This is in sync with study by Smith (2010) elaborating that age influences participation in different forest associations. The study notes greater efforts is needed to mainstream youths' participation in forest management.

4.6: Length of Mau CFA membership

The study targeted participants whose membership within Mau CFA was 3 years and above. Data in Table 4.3. revealed 24.2% of the respondents have been members of Mau CFA for 3-4 years while 34.8% have been members for 5-6 years and 40.9% for more than 6 years.

Table 4.3: Length of being members of Mau CFA

Strata	Frequency	Percent
3-4 years	16	24.2
5-6 years	23	34.8
Above 6 years	27	40.9
Total	66	100

4.7: Level of education of the respondents

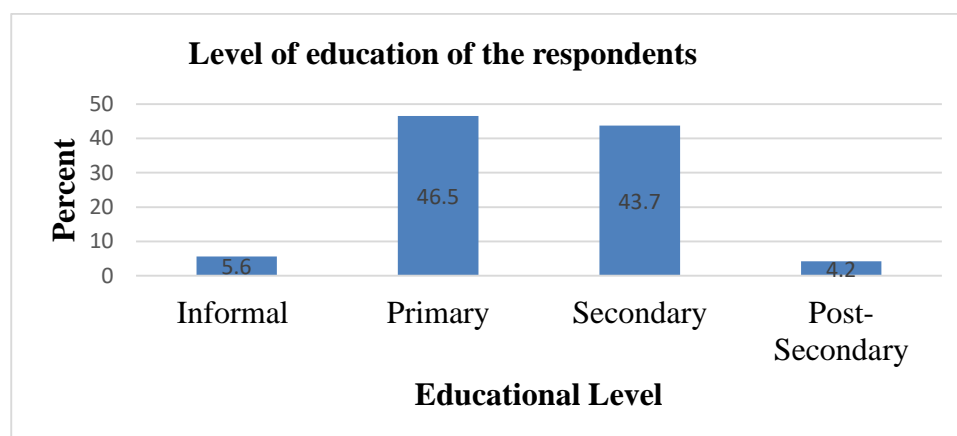


Figure 4.2: Level of education of the respondents

Information contained in Figure 4.2 shows significant number of respondents (46.5%) attained primary school education while 43.7% secondary school education, 5.6 % had no formal education while 4.2% attained tertiary education. The results illustrate that a higher number of the respondents were literate. Literacy level is critical in participation in forest management and associations including CFAs and forest user groups.

4.8 Land size of the respondents.

Table 4.4: Land size of the respondents

Strata	Frequency	Percent
Less than 1 acre	5	7.5
2-5 acres	57	86.3
5 acres and above	4	6.0
Total	66	100

Data contained in Table 4.4 reveals most of the respondents 86.3% own land sizes of between 2 to 5 acres, while 7.5% had less than one acre of land and 6% had 5 acres and above. The results reveal that the study participants are small holder farmers.

The results are in concurrence with Claridge, (2018) who documented those constant evictions of Ogiek since independence resulted in them occupying small land parcels of land around Mau Forest. The land was allocated to them by government as a community land. However, evictions resulted in individual Ogiek subdividing the community land into small parcels to cater for all households.

4.9. Result presentation

This study focused on examining the implications of gender relations on forest management among indigenous Ogiek of Mau Forest in Nakuru County. The study was guided by four objectives.

The first objective aimed at identifying the traditional gender division of labour among the indigenous Ogiek of Mau Forest. The second objective aimed at examining the extent to which the Forest Policy 2014 and Forest Act 2016 integrates gender concerns of indigenous Ogiek in forest management.

The third objective aimed at analysing how women participation in forest management promotes gender equality. The fourth objective aimed at discussing the implications of the study findings on women empowerment among the Ogiek of the Mau Forest. The above objectives guided the analysis and presentations of the results of the study and that is the concern of the next section.

4.9.1: Identify the traditional gender division of labour among the indigenous Ogiek of Mau Forest.

Information contained in in Table 4.5 indicate that 50% of men's role is community forest protection, a most important task assigned to men in the Ogiek society of Mau Forest. Other roles practised by Ogiek men include bee keeping (40.9%) herding cattle (3%) and hunting (6%). This is in sync with the work of Ansell (2002) who

posits that the role of gender is critical in any serious sustainable development discussion.

Table 4.5: Major tasks done by Ogiek men.

Forest Roles	Frequency	Percent
Bee Keeping	27	40.9
Protection of forests	33	50.0
Herding cattle	2	3.0
Hunting	4	6.0
Total	66	100

The results mean that Ogiek men culturally are protectors of the Mau forests. Also, they derive various livelihood benefits from forest through bee keeping, herding cattle and game hunting. These activities are labour demanding and often done by men. The results validate Merels, et al, (2016) who documented that labour demanding forest activities are majorly done by men. This is further supported by a study by Oloruntoba and Adetokunbo, (2006), which elaborated that some forestry activities such as forest protection regularly need physical exertion and men have been noted to participate differently in them as compared to women.

Further, data contained in Table 4.6 reveals that most Ogiek women's customary roles include collection of herbal medicine (48.8%), collection of firewood (31.8%), gathering fruits (12.1%) and tree planting (7.5%).

Table 4.6: Major tasks done by Ogiek Women

Forest Roles	Frequency	Percent
Herbal Medicine	32	48.8
Collection of firewood	21	31.8
Gathering of fruits	8	12.1
Planting trees	5	7.5
Total	66	100

One respondent from Marishoni noted that,

*“Ogiek Women majorly focus more on collecting medicinal herbs and indigenous vegetables for household consumption while men patrol the forest, practise bee keeping and planting trees”
Respondent; Marishoni Village, 25/09/2022.*

This finding is sync with FAO, (2018) revealing that indigenous women extract from the forests their nutritional, health, and cultural needs while men depend on forest resources for commercial purposes majorly through timber extraction. This is true for indigenous Ogiek women whose primary benefit from Mau Forest is herbal medicine extraction.

Further, the results concur with United Nations Development Programme (UNDP, 2002) documented that majority of women and their children dominate the population of people that daily search for fuel wood and other biomass-based fuel. With regards to Ogiek women, firewood collection is a second benefit from Mau Forest after herbal medicine.

Differential traditional gender roles impact women and men differently. When study participants were questioned on the consequences of gendered roles on Mau Forest management majority indicated mutual protection of Mau Forest (50%), indigenous knowledge preservation (22.7%), promoting of gender equality (15.1%), preservation of Ogiek culture (12.1 %) as shown by data in Table 4.7.

Table 4.7: Consequences of gendered roles on Mau Forest management

Consequences of Gendered Roles	Frequency	Percent
Mutual protection of forest	33	50.0
Indigenous Knowledge preservation	15	22.7
Promotes gender equality	10	15.1
Preservation of Ogiek Culture	8	12.1
Total	66	100

The findings reveal that Ogiek men and women are differentially affected by Mau Forest. The findings align with Mwangi, E, et al (2011) who posits that men being custodians of community culture put greater emphasis on forest preservation, while women responsible for feeding the family tend to reduce pressure of forest resources to mitigate ensuring livelihood challenges ensuing from forest destructions. These findings therefore concur with the eco-feminist theory which elaborates that gender is a critical factor in “shaping resource access, and control”. The findings also reveal that the traditional division of labour among the indigenous Ogiek continues to undermine women consigning them to low cadre roles as it had been in the Ogiek patriarchal precolonial community.

4.9.2: Examine the extent to which the Forest Act 2016 integrates gender concerns of indigenous Ogiek in forest management.

The FCM Act 2016 allows communities to participate in forest management through a registered CFA. To complement this, the Forest Policy 2014, stipulated policy statements required for effective management of forests.

The study focussed on respondents who are only members of Mau CFAs for 3 or more years. The results reveal that most respondents (97%) are ordinary members within the Mau CFA. Belonging to CFA therefore enables Ogiek access, use and

control of forest resources. Data carried in Table 4.8 reveals that majority (74.2%) affirm that the Act enables participation.

Table 4.8: Respondents response on whether Forest Policy 2014 adequately enables for Ogiek men and women participation in forest management.

	Frequency	Percent
Yes	49	74.2
No	17	25.7
Total	66	100

But a significant number of respondents thought that the policy does not adequately enable them play greater role in Mau Forest management. This may be associated to a gap in the implementation of the forest policy.

Women’s inability to access information during policy dissemination is another hindrance to its understanding. Disseminating information especially policy issues through groups assumes that all participants have same level of literacy and understanding which is often not the case, consequently alienating certain segment within the community. The lack of understanding of policy components often leads to non-adherence to it and in some instances abuse by those in authority because community members will not know how to hold them accountable.

One Chief for example lamented that:

‘The Kenya Forest Services uses the law as authority to encroach Mau Forest and harvest young trees as they believe the law is on their side. They also collect money from encroachers including the Ogiek who feel victimised because of the law’ Key informant, 29/09/2022.

To test the association between level of participation among indigenous Ogiek men and women and if Forest Act 2016 adequately allow Ogiek to participate in the management of Mau Forest, 80% of the respondents affirmed that both genders are

allowed to participate. But given the obtaining gender relations among the Mau Forest Ogieks’ lack of conscious and deliberate statements about women participation leaves them to vagaries of traditional patriarchal devises.

Figure 4.3 below tested the degree of participation of Ogiek in Mau CFA where 38% of the respondents indicated nominal participation, consultative (29.5%), and activity specific (21.1%), active (11.2%), passive and interactive (4.2%) respectively.

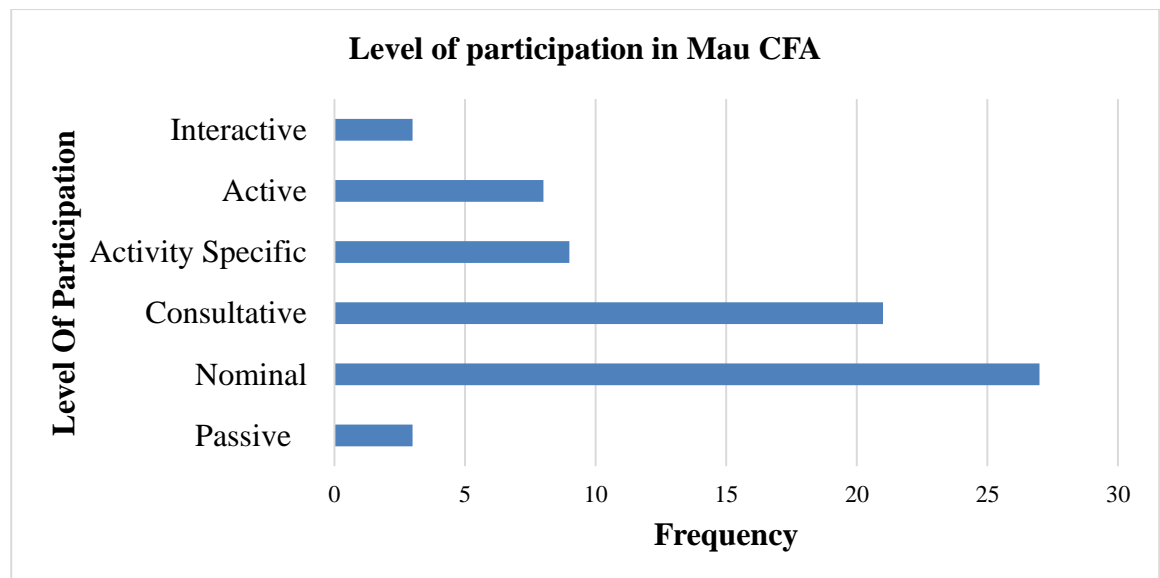


Figure 4.3: Level of participation in Mau CFA

These findings reveal that most respondents are just members with little decision-making responsibilities.

One respondent lamented that;

“Ogiek men own land and other household resources thus culturally they are sole decision makers. Women have no decision-making powers on matters pertaining land and forests... our culture is skewed in favour of Ogiek men”. (Respondent, Marishoni, 30/09/2022.

As depicted in Figure 4.4, the respondents indicated motivating factors for their participation in Mau CFA include the need to acquire new skills (50%), benefits sharing (37%), being part of decision making at (11%), and preserve Ogiek culture (6%).

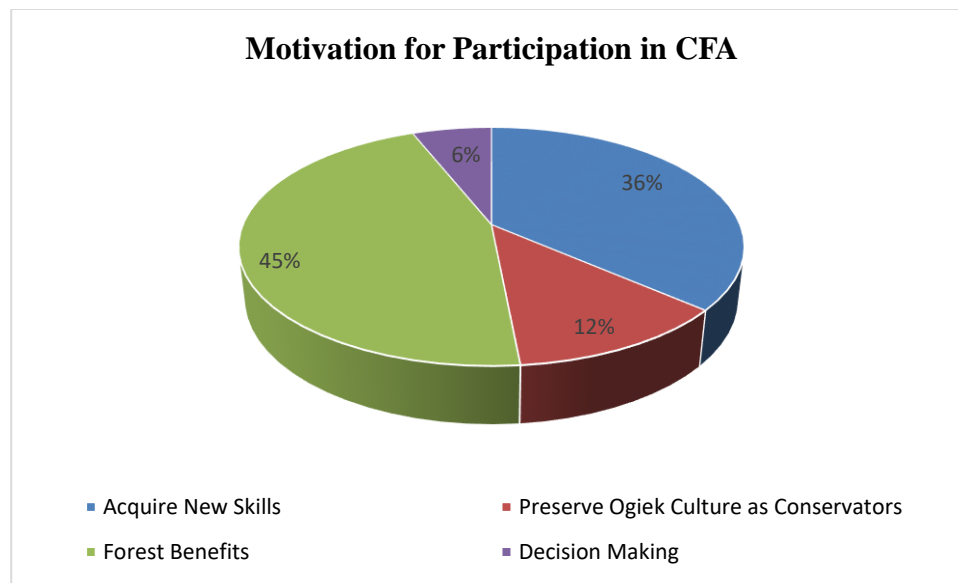


Figure 4.4: Motivation for Participation in CFA

Ogiek being forest dwellers and cultural attachment to Mau Forest as their ancestral land, acquiring new skills in tree planting and bee keeping is crucial to them. The results are in line with Maskey et al., (2006); and Ongugo et al., (2008) documenting that benefits influence in community user groups.

Data contained in Figure 4.5 showed the challenges respondents face that undermines their participation in CFA, significant number (44%) of them indicated lack of information on meeting dates. Other factors that hinder participation include the long distance to the meeting venue at (33%), commitment to other home activities (17%), technical issues discussed not understandable (6%). The results validate Agarwal (2001) on inequalities affecting women participation in community

associations in addition to their share of agricultural work which constrains their participation.

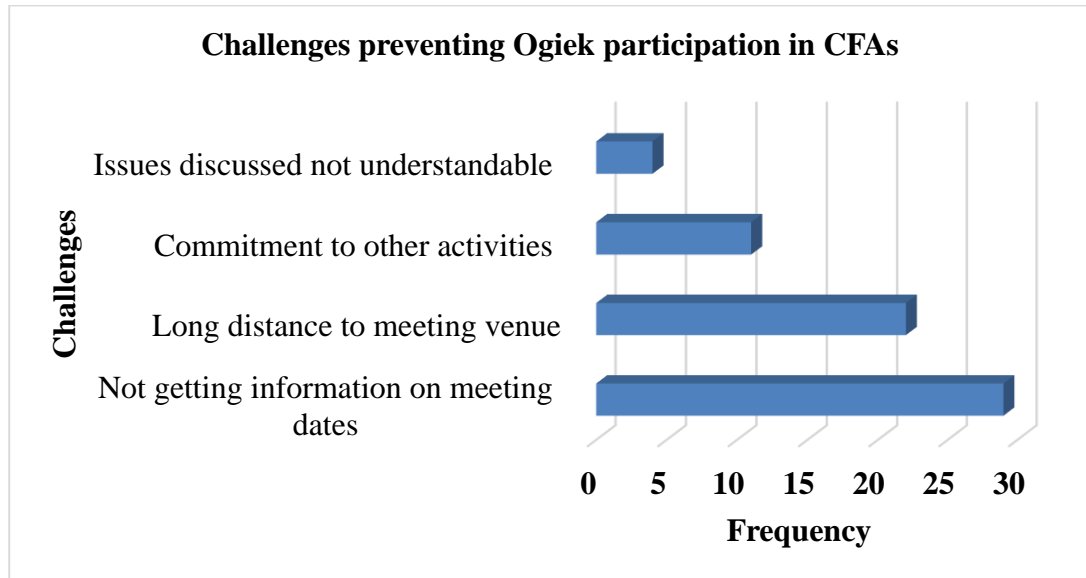


Figure 4.5: Challenges preventing Ogiek participation in CFAs

Based on the constitution of the CFAs, members within the CFAs are granted equal opportunities in enjoyment of forest benefits. When responded were asked if indeed Mau CFA adhered to equality in benefits sharing, significant number of respondents (59 %) indicated that sharing of forest resources in Mau CFA is fair as revealed by information contained in Figure 4.6. This can be explained from an Ogiek socialization point of view.

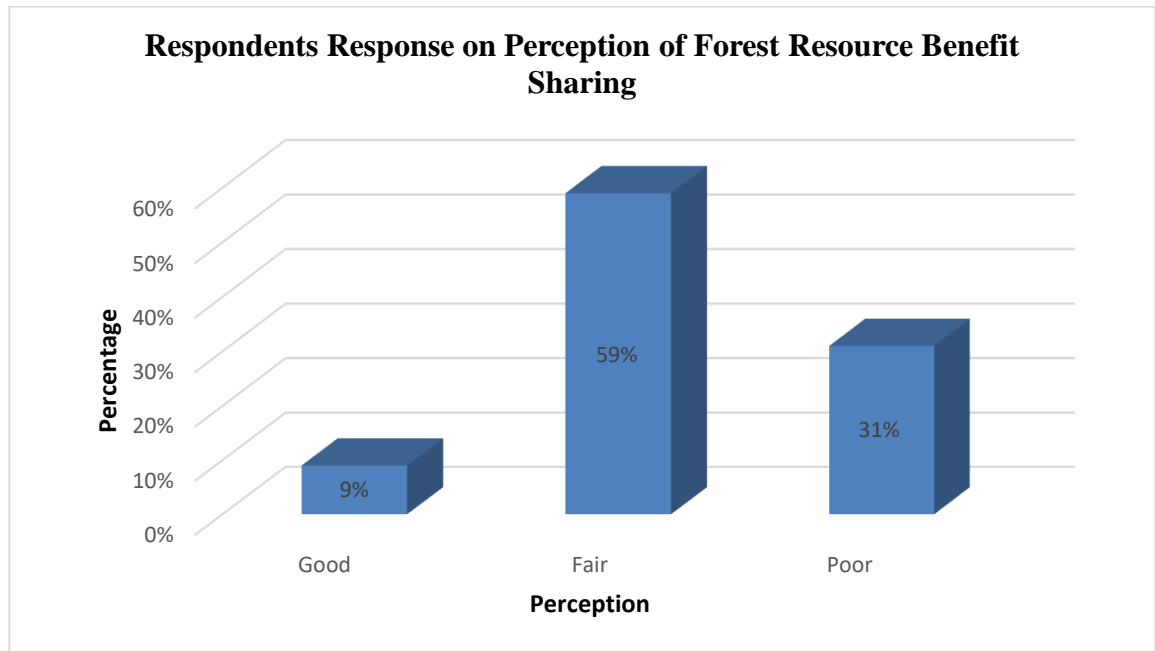


Figure 4.6: Respondents Response on Perception of Forest Resource Benefit Sharing

Though Mau CFA is fair in forest resource sharing, the type of benefits varies for men and women where men tend to benefit from timber harvesting while women benefit majorly on collection of herbs. To assess if this is true and if indeed Ogiek men and women benefit differentially in on forest resources, majority of the respondents (65%) indicated existence of variance among CFA members as revealed by information contained in Table 4.9. The finding is in sync with Agrawal and Chhatre, (2006), who posit that the discrimination of women, realizing fraction of benefits is existence in various forest initiatives. The Forest Conservation and Management Act 2016, Section 49 (2) on obligations of a forest association is silent on who between men and women members of CFA should receive listed benefits in the Act. This leaves CFA leadership to open interpretation of the law and in some cases accord different benefits to men and women members of the CFA.

Table 4.9: Respondents response on differences between male and female CFA members on benefits sharing

	Frequency	Percent
Yes	43	65
No	23	35
Total	66	100

Information carried in Figure 4.7 suggest that to cure this defect and promote equality in forest resources sharing between Ogiek men and women members of CFA this can be done via capacity building (51%), sharing the benefits according to constitution of CFA (27%), transparency in benefit sharing (10%), proportion of leadership to be reserved for women (7%) and women to be given preference in benefit sharing (5%).

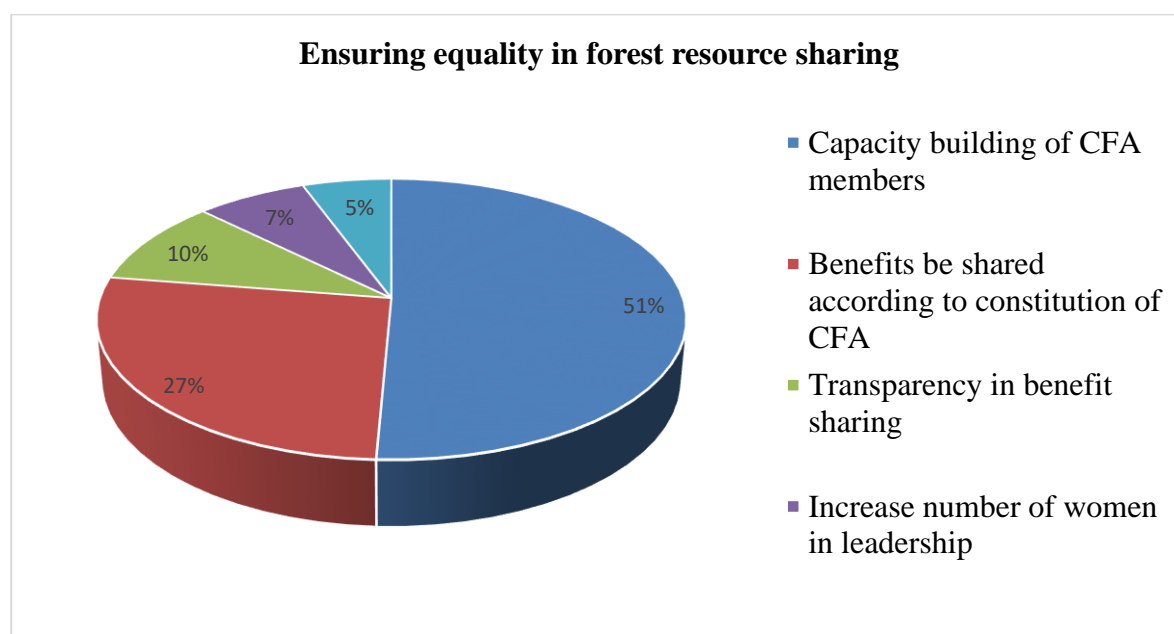


Figure 4.7: Ensuring equality in forest resource sharing

Forest Act 2016 anticipates participatory management of community forests with adjacent communities being part of the management and decision making. This is strengthened by the Kenya Constitution 2010 which expects representation in public

institutions to be gender sensitive. As revealed by information contained in Figure 4.8, significant number of respondents (56%) agreed that women and men should be given equal opportunities in representation in Mau CFA.

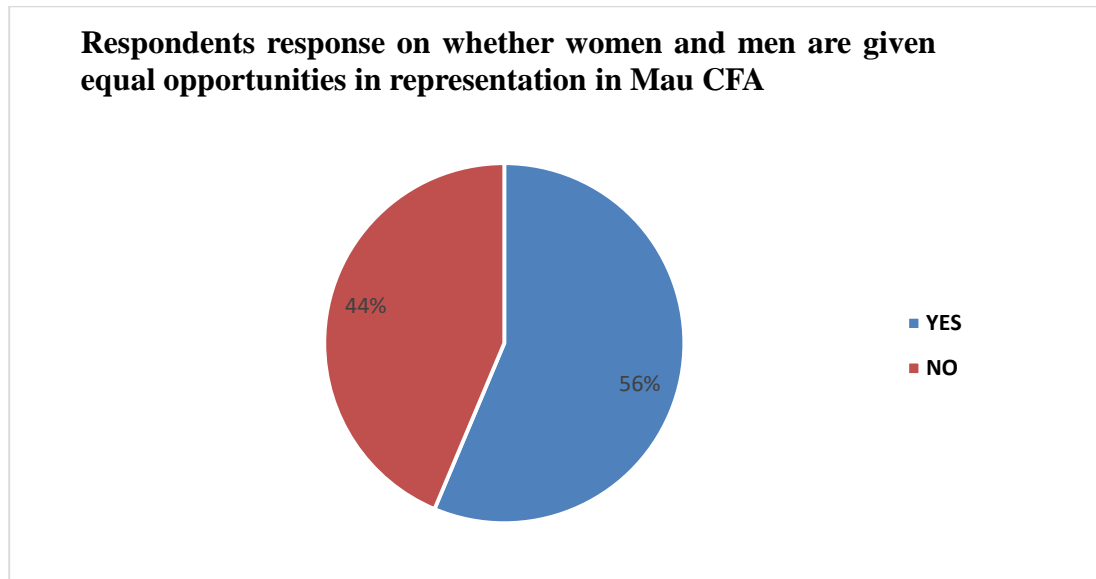


Figure 4.8: Respondents response on whether women and men are given equal opportunities in representation in Mau CFA

Though there is equality in representation opportunities for men women members of Mau CFA, men are the dominant. This can be attributed to cultural set up of the area occupied majorly by Ogiek where culturally men represent community interests. The findings concur with Kinyanjui (2007) who asserts that women considered as the most vulnerable in the community, bear the brunt of discrimination common in CFAs.

Further the management of the CFAs is through elected committees. The committee makes daily decisions necessary for running of the CFA. As revealed by Table 4.10, 65% of respondents affirmed that Ogiek men and women are part of Mau CFA decision-making, as some of them hold elective positions within CFA management committee.

Table 4.10: Respondents response on representation in Mau CFA.

	Frequency	Percent
Yes	43	65
No	23	35
Total	66	100

As these decision-making organs are elective, few women occupy them as they cannot compete favourably with men who culturally vote for fellow men perceived as champions of community interests. The Ogiek patriarchal system makes it difficult for women to enjoy equal representation in elective forest decision making organs.

4.9.3: Examine how women participation in forest management promotes gender mainstreaming in forest management.

The third objective attempted to examine how women participation in forest management promotes gender mainstreaming in forest management. Women participation in forest management include being part of capacity sessions, restoration events, information sharing and management committees. Forest Management and Conservation Act 2016 mandates Kenya Forest Service (KFS) to offer forestry trainings nationally. This role of KFS is supplemented by CFAs who periodically capacitate its members based on the identified needs on forest management. This is evinced by information contained in Table 4.11, 81% of study participants have previously participated in forest management trainings conducted by KFS.

Table 4.11: Respondents response on participation in forest trainings conducted by KFS.

	Frequency	Percent
Yes	54	81.0
No	12	18
Total	66	100

Data carried in Figure 4.9 shows that in the last 3 years the trainings they have received focussed on tree planting 43.6%, bee keeping at 21.1%, making of beehives at 14.0%, firefighting at 21.1%.

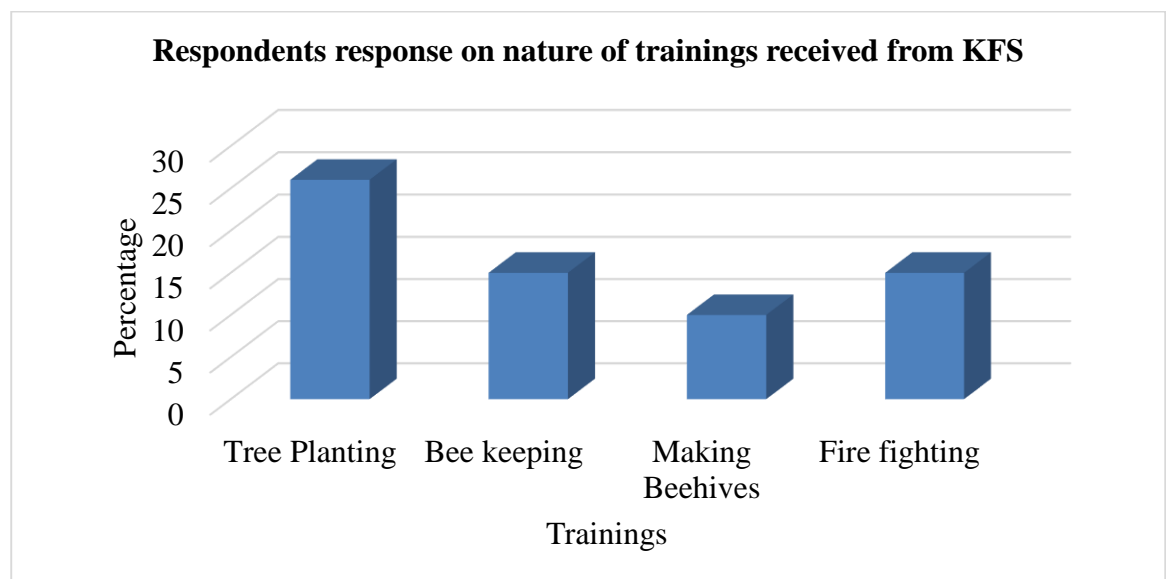


Figure 4.9: Respondents response on nature of trainings received from KFS

This was augmented by this quote from the field,

“I have received training on how to prepare and plant trees. I am knowledgeable on planting commercial trees as opposed to medicinal trees I am used to planting” (Female respondent, Kapchololwa, 29/9/2022).

However, as revealed by information contained in Table 4.12, men (97%) majorly receive more information regarding Mau Forest management as compared to women (3%). This can be attributed to information dissemination channels within the community where men are dominant participants.

Table 4.12: Respondents response on who receives more information regarding Mau Forest management.

	Frequency	Percent
Men	64	97
Women	2	3
Total	66	100

Information carried in Table 4.12 indicate that preferential dissemination of information accords men (97%) more knowledge than women (3%) making it difficult for women to participate equally within the CFA.

As depicted by information carried in Figure 4.10, the respondents recommended that gender mainstreaming in forest management can be achieved by conducting more trainings close community targeting both genders, equality in sharing information and knowledge materials and increasing women in forest leadership roles.

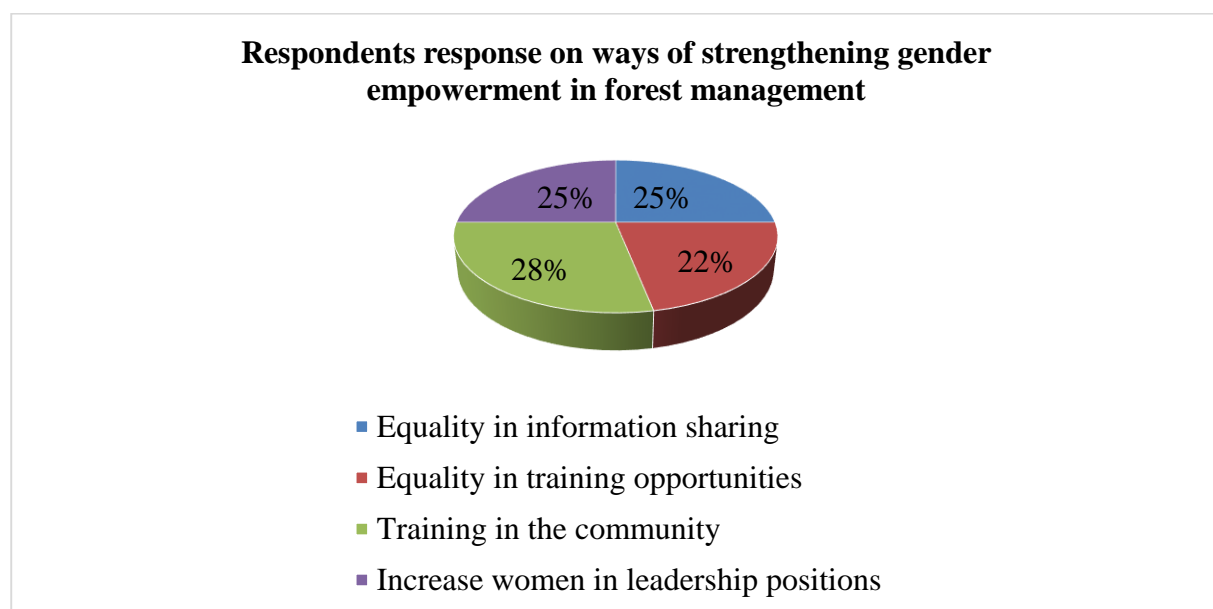


Figure 4.10 Respondents response on ways of strengthening gender empowerment in forest management

4.9.4. Examine the implications of the study findings on gender mainstreaming in forest management.

The last objective of this study was to discuss the implications of the study findings on gender mainstreaming in forest management. The study found that among indigenous Ogiek there exist division of labour with men predominantly protecting forests, and practise bee keeping while women do reforestation in depleted forest areas. This division of labour coupled with socio cultural set up of Ogiek patriarchal society differentially impacts management of Mau Forest. The findings are in line with Kiptot (2015) who posits that the socio-cultural norms impact women forest livelihoods positively or negatively. Gender mainstreaming in forest management can therefore be achieved by considering gender division of labour existing between Ogiek men and women.

The findings revealed that FCM Act 2016 provides avenues for participatory management of forests through the CFAs. Through the CFAs individuals' members of forest adjacent communities have equal opportunities to participate in forest management. For effective gender mainstreaming implementation of the Act should be done cognizant of patriarchal Ogiek social structure which privileges men over women. The Forest Policy 2014 and FCM Act 2016 is silent on equal representation of men and women in forest management. Considering Mau CFA management committees are elective, Ogiek men occupy key decision-making positions compared to women thus positioning their interests at the expense of women. Women interests are therefore not well represented in day-to-day management of Mau Forest.

The study findings further reveal that gender mainstreaming in forest management can be achieved by gender responsive participation which empowers men and women. Empowering women (and men) in agroforestry, and other activities involves providing supportive actions, including targeted trainings, technology transfer, leadership and negotiation capacity strengthening, and enhanced access to and ability to use information (Haverhals et al. 2014; Ingram et al. 2016). Community level gender trainings would empower women to be part of decision making which improves the bargaining power allowing them to articulate their interests in forest management. Further the study findings reveal that gender mainstreaming in forest management can be achieved through information sharing through the right channels.

Women as well as men should be targeted for information, participation, and forest groups. The study findings also reveal that gender mainstreaming in forest management can be achieved through adequate and equal representation of men and women in decision making of forest management committees. Indigenous women are therefore encouraged to join CFAs and campaign for leadership positions through which their rights as well as individual needs will be well catered for.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

5.1 Introduction

The study focused on examining the implications of gender relations among indigenous Ogiek on management of Mau Forest in Nakuru County, Kenya. The general objective of the study was to examine the extent to which the Mau Forest Ogiek's patriarchal social structure shapes gender relations in forest management.

It is in this logic that this study elected to examine the extend of gender blindness of these legislations and attendant policies and how they have structured or re-structured gender relations among indigenous Ogiek in the Mau Forest. The chapter gives the general summary regarding, findings, draw conclusions and implications and end up with recommendations of the study.

5.2 Summary of the findings.

5.2.1: The traditional gender division of labour among indigenous Ogiek of Mau Forest.

The study aimed at identifying the gender roles and obtaining division of labour distribution between indigenous Ogiek men and women and how they impact on Mau Forest management. Majority of respondents indicated that the major roles played by Ogiek men in forest management include forest protection, bee keeping, herding cattle and hunting. The results indicate that Ogiek men who are cultural custodians of the forests are in fore front in Mau Forest protection as well livelihood dependent on the forests. Further, the respondents indicated that the major roles played by Ogiek women in forest management include collection of herbal medicine and firewood, gathering fruits and tree planting. The findings further reveal that Ogiek women do low value activities in Mau Forest, and which impacts gender

relations negatively. The low value activities done by indigenous Ogiek women include herbal medicine collection and firewood which have low commercial benefits as compared with men who harvest timber commercially for financial profits.

5.2.2. The extent to which the Forest Policy 2014 and Forest Conservation and Management Act 2016 integrates gender concerns of indigenous Ogiek in forest management.

The second objective aimed at examining the extent to which the Forest Policy 2014 and FCM Act 2016 integrates gender concerns of indigenous Ogiek in management of forests. The study revealed that most respondents are members of Mau CFA, enabling them to participate in management of Mau Forest. Further, the respondents indicated that Ogiek men and women participate in forest management in structured way under the Mau CFA. From the results it can be inferred that Forest Policy 2014 promotes gender participation in forest management. However, there exists a knowledge gap in understanding of the policy by the Mau Forest Ogiek.

The results further reveal that the drivers for participation in Mau CFA include the need to acquire new skills in tree planting, benefits sharing, be part of decision making and maintain their culture as forest protectors. Ogiek being hunter - gatherers forest dwellers with cultural attachment to Mau Forest as their ancestral land, acquiring new skills in tree planting and bee keeping is crucial for their heritage and survival. However, majority of respondents identified lack of information on meeting dates as a challenge they face that reduces their participation in the CFA. Other factors that hinder Ogiek participation in Mau CFA include the long distance to the meeting venue, commitment to other home activities and technical issues discussed in the meeting which are not understandable to members with low literacy levels. On sharing of resources as envisaged by the FCM Act

2016, majority of respondents indicated, that there is fairness though differentially Ogiek men tend to get high value resources as compared to women. Majority of the respondents noted that representation in Mau CFA is through elections and the elected officials represent community interests and majority of elected officials are Ogiek men. Despite these gains, the respondents enumerated key challenges that hinder women occupying representative positions which include the patriarchal Ogiek culture that prevents women from leading men.

5.2.3. How women participation in forest management promotes gender mainstreaming in forest management.

The third objective examined how gender participation in forest management promotes gender equality. The respondents indicated that participation in forest trainings conducted by KFS offer equal opportunities for Ogiek men and women. However there exist challenges in participation including lack of information on meeting dates, long distance to the meeting as well as Ogiek women being occupied with farming activities during meeting days. The respondents further indicated that within the last three years the trainings the respondents have received from Mau CFA include tree planting, bee keeping, making of beehives and firefighting. Further, majority of respondent agreed that Ogiek men and women are given equal chances to participate in Mau Forest management training initiatives. On forest information sharing Ogiek men receive more information and knowledge regarding Mau Forest management. From the results above, preferential dissemination of information accords Ogiek men more knowledge than women making it difficult for women to participate equally within forest management. The respondents recommended that gender mainstreaming in forest management can be achieved by strengthening conducting more trainings near community targeting both gender,

equal dissemination of forest information and enabling women occupy decision making organs within the CFAs.

5.2.4. Discuss the implications of the study findings on gender mainstreaming in forest management.

The last objective finally attempted to discuss the implications of the study findings on Ogiek women empowerment in the Mau Forest. The study results reveal that among indigenous Ogiek there exist division of labour between men and women which differentially affect the roles played by Ogiek men and women in forest management. Gender mainstreaming in Mau Forest therefore can be achieved by ensuring forest management consider the Ogiek cultural setup in any restoration initiative. The study further found that the forest legal framework including the Kenya Constitution, 2010, Forest Policy 2014, Forest Act 2016, is silent on gender concerns of indigenous Ogiek men and women. In CFAs representation, Ogiek women are underrepresented due to elective nature of positions in CFAs, and marginalised both in forest resource sharing and forest empowerment initiatives. The study further reveals that gender mainstreaming in forest management can be achieved through equal participation, trainings at community level, information sharing using right channels and equality in representation in Mau CFA while cognisant of cultural setup of Ogiek.

5.3 Conclusions of the Study

There exist gender division of labour in forest management among the indigenous Ogiek of Mau Forest Nakuru County. Indigenous Ogiek men are the lead conservators in the community preferring high timbers trees while women prioritize medicinal and herbal trees. Among the Ogiek, their patriarchal social structure of the Ogiek community privileges men over women in forest opportunities and resources

benefits sharing. Forest legal framework especially the Kenya Constitution 2010, and FCM Act 2016 has not restructured gender relations among indigenous Ogiek. Community Forests Associations faces gender deficits in representation in decision making organs where Ogiek women compete equally with men in elective positions making them highly disadvantage to get elected due to cultural and patriarchal nature of leadership among the Ogiek.

5.4 Recommendations of the Study.

The study recommends below guidance to strengthen gender equality in forest management.

Recommendations for practice

- Indigenous Ogiek women be sensitized on the need to join and actively participate in CFAs ensuring their interests are well captured.
- Forest empowerment activities should consider gender roles which constraints indigenous Ogiek women from participating in forest reform activities.

Recommendations for policy

- The government should institute measures to ensure full implementation of existing forest legislation and policies especially the Kenya Constitution 2010, Forest Policy 2014 and FCM Act 2016.
- CFAs to adopt various affirmative strategies including quotas in certain positions to improve women's participation in CFAs considering cultural constraints limiting their participation.

5.5. Suggested areas for further research.

- There needs to be a closer examination of indigenous women contribution towards sustainability of forest institutions especially CFAs.
- Future study can focus on gender relations among indigenous Ogiek in other areas as this study was confined to Nakuru, County.

REFERENCES

- Agrawal, A., & Chhatre, A. (2006). Explaining success on the commons: Community Forest governance in the Indian Himalaya. *World Development*, 34(1), 149-166.
- Agarwal, B. (1997). "Bargaining" and Gender Relations: Within and Beyond the Household. *Feminist Economics*, 3(1), 1-51.
- Agarwal, B. (2001). Participatory Exclusions, Community Forestry, and Gender: An Analysis for South Asia and a Conceptual Framework. *World Development*, 29(10), 1623-1648.
- Agarwal, B. (2010). Gender and forest conservation: The impact of women's participation in community forest governance. *Ecological Economics*, 68(11), 2785-2799.
- Agarwal, B. (2009). Gender and forest conservation. The impact of women's participation in community forest governance. *Ecological Economics*, 68(11), 2785-2799.
- Agarwal B. 2010. Gender and green governance: the political economy of women's presence within and beyond community forestry. Vol. 41. Oxford (UK): Oxford University Press Inc.
- Aguilar, L., Shaw, D.M.P., & Quesada-Aguilar, A. (2011). Forests and Gender. Available at <https://portals.iucn.org/library/efiles/edocs/2011-070.pdf>.
- Andole, O. (2020) The role of women enterprises for the conservation of Kakamega forest, Kenya *Journal of Advanced Research in Social Sciences and Humanities* Volume 5, Issue 3 (52-56)
- Ansell, N. (2002). Sustainability: Life Chances and Education in Southern Africa. In: Redclift, M.R. (ed.) *Sustainability: Life Chances and Livelihoods*. Routledge, London, pp. 144-157.
- Archambault, A. (1993). A Critique of Ecofeminism. *Canadian Woman Studies Les Cahiers De La Femme*, 13(3).
- Ardayfio-Schandorf, E., Ngono, D. L., Colfer, C., & Cyrie, S. (2007, August). Gender and the forestry situation in Africa: The way forward. In *IUFRO Division VI Symposium: Integrative Science for Integrative Management* (Vol. 14, pp. 14-20).
- Bechtel, J. D. (2010). Gender, poverty and the conservation of biodiversity. *A review of issues and opportunities. MacArthur Foundation Conservation White Paper Series*.
- Boscow, O.; and Muchapondwa, E. (2017). Determinants of Successful Collective Management of Forest Resources, Evidence from

Kenyan Community Forest Associations, *Environment for Development*.

- Bwire, D.; Mwangi, E.; Rotich, S. (2018). Preliminary research results on the governance of forests and water in Saboti-Sosio forest, Mt. Elgon cifor.org/water-towers.
- Chellappan, C (2021). A Study on the Core Tenets of Ecofeminism in the Select Novels of Anita Nair: *International Journal Of English Language AND Literature* Volume– 5, ISSUE – 2.
- Claridge, L. (2018). Litigation as a Tool for Community Empowerment: The Case of Kenya’s Ogiek. *Erasmus Law Review*, 11(1), 57–66.
- Coleman, E. A., & Mwangi, E. (2013). Women’s participation in forest management: A cross-country analysis. *Global Environmental Change*, 23(1), 193–205.
- Coulibaly-Lingani, P., Savadogo, P., Tigabu, M., & Oden, C. (2011). Factors influencing people’s participation in the forest management program in Burkina Faso, West Africa. *Forest Policy and Economics*, 13(4), 292–302.
- Daowei, Z., & Pearse, H. (2011). *Forest Economics*. Vancouver, UBC Press.
- Davis, C. (1990). The community's toolbox: The idea, methods, and tools for participatory assessment, monitoring and evaluation in community forestry. *F.A.O. Community Forestry Field Manual*, (2)154.
- Deere, Carmen Diana and Magdalena León. (2002). “Individual versus Collective Land Rights: Tensions between Women’s and Indigenous Rights under Neoliberalism”. In J. Chase (ed.) *The Spaces of Neoliberalism: Land Place and Family in Latin America*, Bloomfield: Kumarian Press.
- Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature*, 50 (4), 1051-79.
- Frisby, W., Maguire, P., and Reid, C. (2009). The ‘F’ Word has everything to do with it: How Feminist Theories Action Research. *Action Research*. 7 (1):13-19.
- Food and Agricultural Organisation. (2015). *Mainstreaming Gender into Forest Policies in Asia and the Pacific*. Available at <http://www.fao.org/fileadmin/>
- Food and Agricultural Organisation. (2016). *State of the world’s forests. Forests and Agriculture: Land-use Challenges and Opportunities* (Vol. 45). Rome (Italy): Food and Agriculture Organization of the United Nations (FAO).

- Food and Agricultural Organisation. (2018). *The state of the world's forests - forest pathways to sustainable development*.
- UN 2015c. The World's Women 2015: Trends and Statistics. New York (NY): United Nations (UN).
- Government of Kenyan. (2005). The Kenya Forests Act, 2005. Ministry of Environment and Natural Resources.
- Government of Kenyan. (2010). Kenya's 2010 Constitution.
- Government of Kenyan. (2014). Forest Policy, 2014. Nairobi: Ministry of Environment, Water and Natural Resources.
- Government of Kenyan (2016). Forest Conservation and Management Act 2016. *Kenya Gazette Supplement No. 155 (Acts No. 34)*.
- Haverhals, S. Ingram, V., Petersen, M. Elias, B. Basnett Sijapati, and S. Phosiso. (2016). "Gender and Forest, Tree and Agroforestry Value Chains: Evidence from Literature." In Carol J. Pierce Colfer, Bimbika Sijapati Basnett, and Marlène Elias (eds.), *Gender and Forests: Climate Change, Tenure, Value Chains and Emerging Issues*, 221–242. New York, USA: Routledge.
- International Labour Organisation. (2019). *World Employment and Social Outlook, Trends, 2019*. Geneva: International Labour Office, 2019.
- International Work Group for Indigenous Affairs. (2020). Observer Report 2020.
- Kenya National Bureau of Statistics. (2019). *2019 Kenya Population and Housing Census; Volume 1: Kenya National Bureau of Statistics*. Nairobi: Ministry of Planning, National development, and Vision 2030.
- Kinyanjui, J.M. (2007). *The Effect of Human Encroachment on Forest Cover, Structure and Composition in the Western Blocks of the Mau Forest Complex*. Ph.D. Thesis, Egerton University, Njoro.
- Kiptot, E. (2015). Gender roles, responsibilities, and spaces: implications for agroforestry study and development in Africa. *International Forestry Review*, 17(4)11-21(11).
- Krejcie, R. V., and Morgan, D. W. (1970). Determining sample size for study activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Leisher, C., G. Temsah, F. Booker, M. Day, L. Samberg, D. Prosnitz, B. Agarwal, E. Matthews, D. Roe, D. Russell, T. Sunderland, and D. Wilkie. (2016). "Does the Gender Composition of Forest and Fishery Management Groups Affect Resource Governance and

Conservation Outcomes? A Systematic Map.” *Environmental Evidence* 5:6. [https:// doi.org/10.1186/s13750-016-0057-8](https://doi.org/10.1186/s13750-016-0057-8).

- Marlow, C. R. (1993). *Study Methods for Generalist Social Work* (5th edition), Belmont, CA: Brooks/Cole.
- Manuku, M. (2018). Gender, power, and women's participation in community environmental education. *Southern African Journal of Environmental Education*, 34.
- Maskey, V., Gebremedhin, T. G., & Dalton, T. J. (2006). Social and cultural determinants of collective management of community forest in Nepal. *Journal of Forest Economics*, 11(4), 261–274.
- Mbuvi, E., and Musyoki, J. K. (2013). Impacts of participatory forest management on community livelihoods: a case study of Dida Community adjacent to Arabuko-Sokoke forest in Kilifi County, Kenya. *Agric. Sci.* 1, 44–55.
- Merel, H., Verina, I., Marlène, E., Bimbika, S., & Sjoerd, P. (2016). Exploring gender and forest, tree and agroforestry value chains. Evidence and lessons from a systematic review. *CIFOR*, 161.
- Ministry of Environment and Natural Resources (MENR). (1994). Kenya Forestry Master Plan: Development Programs. Nairobi: Government Printer.
- Mlengi W. C. (1991) ‘*Participation: Genuine or Perverse*’ PP 5-8.
- Mogoi, J., Obonyo, E., Ongugo, P., Oeba, V., and Mwangi, E. (2012). Communities, property rights and forest decentralisation in Kenya: Early lessons from participatory forestry management. *Conservation and Society*, 10(2):182.
- Munishi, B. P. (2013). Potential benefits of carbon trade as an economic incentive for emission reduction: a case of community-based forest management in Kilwa district, Tanzania [Dissertation in Agricultural Economics and Agribusiness]. Sokoine University of Agriculture, Tanzania.
- Obonyo, E., and Mogoi, J. (2009). “Integrating gender in forest management in Kenya,” in Paper prepared for the World Forestry Congress 18th to 23rd October 2009. Buenos Aires, Argentina.
- Odebode, S. O. (2005). Gender issues in community forestry: lessons from Nigeria. *Journal of Food, Agriculture and Environment* 3(2):307-312.
- Oloruntoba, A., & Adeola, A. (2006). Determinants of households' participation in social forestry in arid zone of Northern Nigeria. *Journal of Food, Agriculture and Environment*, 44, 320-326.

- Ongugo, P.O., Mogoi, J., Obonyo, E., & Oeba, V.O. (2008). Examining the roles of community forest associations (CFAs) in the decentralization process of Kenyan forests. In Conference Paper Presented at the IASC Conference in England.
- Onzere, S., Elwell, N., Carr, E., Caron, C., and Denise.H., (2020). Who's governing community forests? Gendered participation in liberian forest management. Working Paper. *World Resources Institute*. Washington, DC.
- Ozmen, O. (2021). Cultural Ecofeminism in Charlotte Perkins Gilman's Feminist Utopian Vision and its Limitations. *Araştırma Makalesi/Research Article Cilt / Volume 4, Sayı / Issue 1, 2021*, pp. 21-28.
- Nkemnyi, M. F., De Herdt, T., Chuyong, G. B., and Vanwing, T. (2016). Reconstituting the role of indigenous structures in protected forest management in Cameroon. *For. Policy Econ.* 67, 45–51. doi: 10.1016/j.forpol.2016.03.01.
- Patton, M. (2001). *Qualitative evaluation and study methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Smith, O. (2010). *Community Forest Association in Kenya. Challenge and opportunities*.
- Sombart, W. (1908). *Socialism and Social Movement in the 19th Century*, Verlag Von Gustav Fischer, Jena.
- Sunderland, T., R. Achdiawan, A. Angelsen, R. Babigumira, A. Ickowitz, F. Paumgarten, V. Reyes-García, and G. Shively. (2014). "Challenging Perceptions about Men, Women, and Forest Product Use: A Global Comparative Study." *World Development* 64(S1): S56–S66.
- Torri, M. C. (2010). Power, structure, gender relations and community-based conservation: the case study of the Sariska region, Rajasthan, India. *Journal of International Women's Studies* 11(4):1-18.
- United Nations Development Programme. UNDP. (2002). *Human Development Report: Deepening democracy in a fragmented world*. New York Oxford, Oxford University Press.
- United Nations Educational, Scientific and Cultural Organization. UNESCO. (2008). *Inclusive education: the way of the future*. Forty-eighth session International Conference Centre, Geneva.

APPENDICES

Appendix I: Formal Consent Guide

My name is Cheruiyot Paul, a postgraduate student from Kenyatta University researching for my thesis examination titled “Implications of gender relations among indigenous Ogiek on management of Mau Forest in Nakuru County, Kenya”. Your responses and study results are for only academic learnings. In the course of the interview, you are allowed to seek clarification on any question related to the study.

Your voluntary participation is envisaged in this study. At any stage of study, I may ask key study questions which you might construe to be intimate and uneasy questions.

In case of such occurrence, you can choose to decline answering without repercussions.

Your responses will give insights into gender relations of indigenous Ogiek in forest management necessary for advancing inclusion in management of forests.

In the course of interview process, your identity and responses will be recorded and remain incognito in the questionnaire, interview schedule and report.

In case of clarifications concerning on the study contact the Kenyatta University Ethical Review Committee Secretariat on chairman.kuerc@ku.ac.ke, secretary.kuerc@ku.ac.ke, ercku2008@gmail.com

Participant’s statement

I acknowledge my understanding of the details of this study. I comprehend that my identity and responses will be recorded and remain incognito and that I can choose not to answer to any question and without repercussions. I recognize and consent to voluntarily participate in the study.

Participant Name
(optional)

Signature

Date

Researcher’s statement

I believe and confirm explaining to the respondent in a language that s/he is conversant with the study procedures, risks, and benefits.

Name of Researcher

Signature or

Date

Appendix III: Key-In-Depth Interview Schedule for Indigenous Ogiek Village Elders, Kfs, Chief And Macofa Leaders.

Section A. Respondent's Details

Interview Guide No.: _____ Date _____

Interview locality _____ Interviewer Profession _____

Interviewee Age: Below 20 years 21-30 31 – 40 41 and above

Respondent's Educational level:

Informal Primary Secondary post-Secondary

a) Current residency? _____

b) Identify your relationship position? _____

Widowed Divorced Other (Specify) _____

Section B. Traditional gender division of labour among the Ogiek of Mau Forest.

- 1) In your opinion, is forest management labour gendered among indigenous Ogiek? _____
- 2) In your view, which major roles are played by Ogiek men in forest management? _____
- 3) In your view, which major roles are played by Ogiek men in forest management? _____
- 4) What are the consequences of gendered roles on Mau Forest management? _____
- 5) In your opinion has the legal framework (Constitution of Kenya 2010, Forest Policy 2014, FCM 2016) rectified gendered division of labour among Ogiek?

Section C. Integration of gender concerns of indigenous Ogiek in implementation of Forest Policy 2014 and FCM 2016.

- 6) What are your views on joint forest management between Ogiek community and the Kenya Forest Service?

- 7) In your opinion, does forest legal framework adequately address forest gender concerns of Ogiek? _____
- 8) If NO, which are the gaps that exists within the FCM Act 2016 and or Forest Policy 2014? _____
- 9) In your view, how are forest resources distributed between indigenous Ogiek men and women? _____
- 10) What is your view on equal representation of women and men in Mau CFA?

- 11) What are the challenges that hinder gendered participation in CFAs?

- 12) In your view how can gender equality be promoted in forest Mau Forest management? _____
- 13) What measures should be instated to ensure gender equality in management of Mau Forest? _____

Section D. Gender Empowerment in Mau Forest Management.

- 14) In your opinion, which are the major forest empowerment activities at MACOFA? _____
- 15) In your opinion, are forest empowerment programme in Mau CFA gender sensitive? _____
- 16) If NO, which are the gaps that exist?

- 17) Is participation in Community Forest Association (CFAs) by indigenous Ogiek people gender sensitive?

- 18) If NO, what hinders gendered participation?

- 19) List enablers of Ogiek participation in management of Mau Forest?

- 20) What strategies can the government introduce locally to create community awareness on gendered participation in forestry management efforts?

Thank you for your time and input.

END

Appendix IV: Guided Questionnaire for Ogiek Community Members

Section A. Interviewer Details

Interview Guide No.: _____ Date _____ Location of interview _____

1. Interviewee: [] below 20 years ___[] 21-30 [] 31 – 40 [] 41 and above _____
2. Interviewee’s Educational level: _____
3. Where do you live currently? _____
4. Respondents gender [] Male [] Female
5. Length of being member of Mau Community Forest Association? _____
6. What is your average land size? [] less than 1 acres [] 2-5 acre [] Above 5 acres

Section B. Traditional Gender Division of labour among the Ogiek of Mau Forest.

7. In your view, which major forests roles are done by Ogiek men? _____
8. In your view, which major roles are done be women Ogiek in management of Mau Forest? _____
9. What consequences of gendered roles on Mau Forest management? _____

Section C. Integration of gender concerns of indigenous Ogiek in implementation of Forest Policy 2014 and FCM 2016.

10. In Mau CFA which post do you currently hold? (Specify).....
11. In your view, does the Constitution of Kenya 2010 adequately captures participation of community in forest management? _____
12. In your opinion, has the Forest Policy 2014 adequately enables for Ogiek men and women participation in forest management? YES [] NO []
13. If NO, which are the gaps? _____
14. In your view does the Forest Act 2016 adequately allow Ogiek to manage Mau Forest? _____
15. What is your perception of the forest resources benefit sharing espoused by Forests Act 2016 Good [] Fair [] Poor[]
16. In your view does implementation of Forest Act 2016 considers gender concerns of Ogiek men and women? _____
17. In your view, what is your assessment of Ogiek involvement in Mau Forest _____ management ?.....
18. Are women and men given equal opportunities in representation in Mau CFA?

- Yes [] No [] If NO, what's your view? _____
19. Are you part of Mau CFA decision-making Yes [] No []
 20. In your view are Ogiek women and given equal opportunities in decision making in Mau CFA _____
 21. How is the selection of executive members of Mau CFA?
Appointment [] Elected []
 22. In your view what roles are Ogiek participate in the Executive Committee of Mau CFA?
.....
 23. What is the level of your participation in Mau CFA?
Passive [] Nominal [] Consultative [] Activity Specific [] Active [] Interactive []
 24. What motivates you to participate in participating in Mau CFA.
.....
 25. What challenges do you face that reduces your participation in CFA?
.....
 26. Is there variance in resource sharing? Yes [] No []
 27. In your views how can the variance in resource allocation between Ogiek men and women be addressed?

Section D. Gender equality in forest empowerment in Mau CFAs, Nakuru County

28. In the last 3 years have you participated in forest trainings conducted by KFS?
Yes [] No []
29. If No, what were the challenges the prevented you from participating?.....
30. What trainings by Mau CFA, have you received and/or workshops attended in the last 3 years?
31. In your opinion, are Ogiek men and women given equal chances to participate in Mau Forest conservation training programs?
32. In your opinion, whom do you think receives more information and knowledge regarding Mau Forest management and conservation? Men [] Women []
33. In your view how can forest empowerment programs within Mau Forest be strengthened to be gender equal?

Thank you for your time and input.

END

Appendix V: Observation Checklist of Indigenous Ogiek of Mau East, Nakuru County.

List of observations to be made in the field

1. Type of housing []Permanent [] Semi-permanent []Temporary
2. Note the appearance [] Clothing []Traditional attire
3. Note the presence of traditional cultural instruments []Drums []Horn
4. Note major livelihood source [] Hunting []Fruits gathering[]Farming
5. Physical behaviour []What people do []Who does what

END

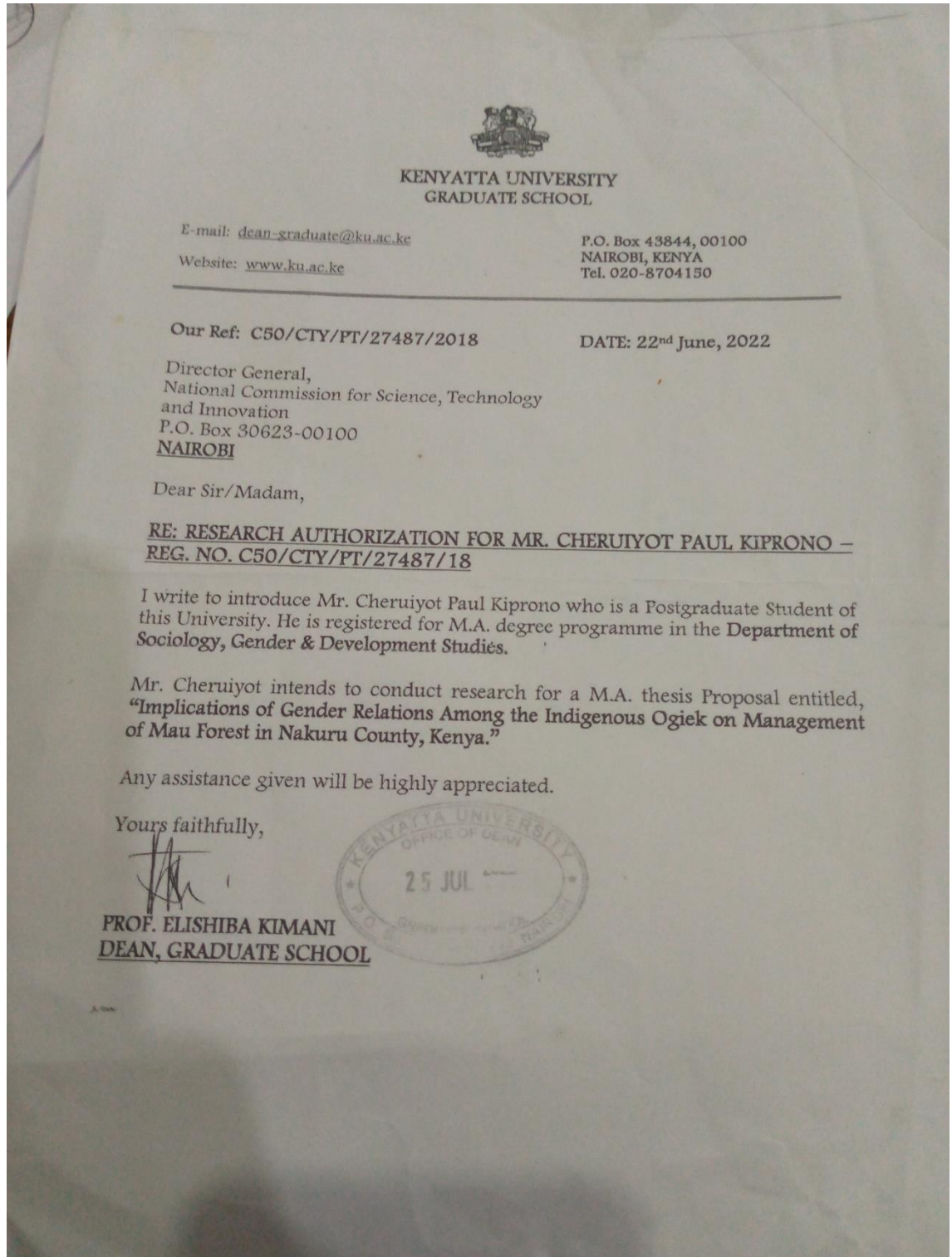
Appendix VI: Budget

No	Description	Amount
1	Typesetting and Printing	10000/=
2	Writing Materials	10,000/=
3	Testing of Questionnaire	30,500/=
4	Field Traveling Expenses	50,000/=
5	Analysis of data	10,000/=
6	Typesetting	20,000/=
7	Communication Costs	10,000/=
8	Subsistence	10, 000/=
9	Contingencies	10,000/=
	Total	160,000

Appendix VII: Work Plan

		2021								2022													
Months		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	
1	Review of Literature	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	Proposal Writing		■	■	■	■	■	■	■	■	■	■	■										
3	Proposal Presentation													■	■								
4	Piloting of Questionnaire																		■				
5	Data Collection & Processing																		■	■			
6	Submission of Thesis Report to Graduate School																				■	■	

Appendix VIII: Study Authorization, Graduate School, Kenyatta University



Appendix IX: NACOSTI Permit

 REPUBLIC OF KENYA NATIONAL COMMISSION FOR	 SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 501691 Date of Issue: 23/September/2022	
RESEARCH LICENSE	
	
This is to Certify that Mr., CHERUIYOT PAUL KIPRONO of Kenyatta University, has been licensed to conduct research in Nakuru on the topic: IMPLICATIONS OF GENDER RELATIONS AMONG THE INDIGENOUS OGIEK ON MANAGEMENT OF MAU FOREST IN NAKURU COUNTY, KENYA for the period ending : 23/September/2023.	
License No: NACOSTI/P/22/20524	
501691	 Applicant Identification Number
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION	
Verification QR Code	
	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Study Licenses is Guided by the Science, Technology and Innovation (Study Licensing) Regulations, 2014 CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License any rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies
5. The License does not give authority to transfer study materials
6. NACOSTI may monitor and evaluate the licensed study project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one year of completion of the research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for
Science, Technology and
Innovation off Waiyaki
Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
Land line: 020 4007000, 020
2241349, 020 3310571, 020
8001077 Mobile: 0713 788 787 /
0735 404 245
E-mail:
dg@nacosti.go.ke /
registry@nacosti
.go.ke Website:
www.nacosti.go.ke