

**BENEFIT SHARING AND COMMUNITY PARTICIPATION IN ECOTOURISM
IN MERU AND LAIKIPIA COUNTIES, KENYA**

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DECLARATION

This thesis is my original work and has not been submitted for a degree in any other university or any other award.

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DEDICATION

To Pauline, Jasmine, Trevor and Keisha; to others who tread this lonely path, and those who bear to live with them; I pray that you shall always go a little farther.

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ABBREVIATIONS AND ACRONYMS

AGM	Annual General Meeting
BFRBS	Bobiri Forest Reserve and Butterfly Sanctuary (in Ghana)
CBO	Community Based Organization
CFA	Community Forest Association
CIDP	County Integrated Development Plan
CNP	Royal Chitwan National Park (in Nepal)
CSR	Corporate Social Responsibility
EK	Ecotourism Kenya
EU	European Union
FECTO	Federation of Community Based Tourism Organizations
FGD	Focus Group Discussion
FMA	Forest Management Agreement
GOK	Government of Kenya
GRC	Group Ranch Committee (in Il Ngwesi study site)
ICT	Il Ngwesi Community Trust
IYE	International Year of Ecotourism
KECOBAT	Kenya Community Based Tourism Network
KFS	Kenya Forest Service
KFWG	Kenya Forest Working Group
KICC	Kenyatta International Conference Centre
KNBS	Kenya National Bureau of Statistics
KTB	Kenya Tourism Board
KTB	Kenya Tourism Board
KUC	Kenya Utalii College
KWCA	Kenya Wildlife Conservancies Association
KWS	Kenya Wildlife Service
NEMA	National Environment Management Authority
NFV	Northern Frontier Ventures

NNFT	Ngare Ndare Forest Trust
NRT	Northern Rangelands Trust
NTB	National Tourism Blueprint
PEB	Pro-Environmental Behaviour
SID	Society for International Development–East Africa
STTA	Sustainable Travel & Tourism Agenda
TF	Tourism Fund
TFC	Tourism Finance Corporation
TIES	The International Ecotourism Society
TRA	Tourism Regulatory Authority
TRI	Tourism Research Institute
UNDP	United Nations Development Program
UNEP	United Nations Environment Programme
UNWTO	United Nations World Tourism Organization
VSO	Voluntary Service Overseas
WTTC	World Travel and Tourism Council

ABSTRACT

Beneficial involvement of local communities is a cornerstone of ecotourism. It has however emerged that in developing countries, privately-owned ecolodges, joint ventures between private investors and local communities and other types of tourism businesses are characterized by low involvement of local communities and inequitable benefit distribution. This study investigated benefit distribution and community participation within ecotourism enterprises that are owned and operated solely by the local community of Il Ngwesi Group Ranch in Laikipia County and Ngare Ndare Forest Trust in Meru County. Specific objectives of the study were to analyze the socio-demographic factors that influence distribution of the benefits of ecotourism; to investigate the institutional arrangements that influence distribution of the benefits of ecotourism; to examine how the distribution of benefits affects community attitudes to ecotourism, and; to analyze how the distribution of benefits affects community participation in ecotourism. The study used mixed methods approach to collect primary data from a survey of 556 respondents, 18 focus group discussion sessions and 15 key informants. Qualitative data was analyzed using thematic analysis while for quantitative data logistical regression and ordinal regression were applied to test relationships between variables. The study established that ecotourism offered a wide variety of benefits to the local community in both study sites, with some accruing directly to individuals while others accrued to the wider community. Each of the two enterprises however still faces some of the challenges that hamper community participation and benefit distribution in other types of tourism enterprises including governance weaknesses that led to some members receiving more benefits than others; disparities in benefit distribution against sections of the community including women, those with low levels of formal education and those dwelling farther away from the conservation area, and; failure to affirmatively channel significant benefits to the poorest members of the community. The study demonstrates that though full control of tourism enterprises by local communities is beneficial, it is not a panacea for the challenge of low community participation or inequitable benefit distribution. Many local communities in Africa and other developing countries remain poor even though they occupy areas that are rich in tourism resources and have a lengthy history of participating in tourism. This study has revealed that the pursuit of equality rather than equity is one of the causes of this prevailing poverty. In addition to reviewing existing tourism policies in order for them to reflect the strong social-justice foundation set by the Constitution, the study recommends for formulation of dedicated policy on community participation in tourism in Kenya.

CHAPTER ONE: INTRODUCTION

1.1. Background to the Study

The World Tourism Organization (UNWTO) records that globally, international tourist arrivals have grown from 25 million in 1950 to 1.4 billion by 2018 while receipts from tourism have risen from US\$ 2 billion to US\$ 1.7 trillion over the same years (UNWTO, 2017; UNWTO, 2019). Ecotourism is a segment of this global industry that, according to The International Ecotourism Society (TIES), represents a conscientious form of nature tourism that promotes environmental conservation, enhanced local community welfare and visitor education through interpretation (Choi, Doh, Park & Chon, 2017). Statistics on the ecotourism market are unavailable due among other things to the absence of primary research on the sector across the world (Bricker, 2012). Past estimates have however noted that the proportion of ecotourists is between 7% and 20% of all international tourist arrivals, with this being higher in countries that specialize in nature-based tourism (Lindberg, Furze, Staff & Black, 1997). UNWTO estimates that globally ecotourism generates approximately US\$ 100 billion every year and that it has a visitor spending that continues to grow faster than the tourism industry's average (UNEP & UNWTO, 2012; UNWTO & UNEP, 2017).

Africa received 67 million international visitors in 2018 with many countries recording growth in comparison with the previous year including Morocco which received 12,289,000 international visitors (8.3% growth), South Africa 10,472,000 (1.8%), Tunisia 8,299,000 (17.7%), Uganda 1,850,000 (31.9%) and Kenya 1,475,000 (6.1%) (UNWTO, 2019). The continent is a key destination for ecotourists due to changes in tourists' demand with preference going to visiting natural areas located in developing countries (Garraway, 2008). Tourism supports 8.5% of Africa's economy with the continent's 8,400 protected areas generating US\$ 48 billion every year (Conservation Capital & Space for Giants, 2019). Such areas are indeed popular destinations for ecotourists as a UNWTO survey of 145 tour operators revealed that wildlife tourism made up 80% of the African trips that they sold (UNWTO, 2015). Though growth of ecotourism in Africa is

evidenced by the increase in tourism investments including community-based tourism initiatives, it faces a multiplicity of challenges including absence of the peaceful environment and good governance required for the sector to thrive in addition to inadequacies in capital, capacity and requisite infrastructure (Backman & Munanura, 2015).

In Kenya, a report by the World Travel and Tourism Council (WTTC) records that tourism contributed to 8.8% of the country's GDP in 2018, bringing in revenue of Ksh 790 billion and employing 1.1 million persons (WTTC, 2019). From their characteristic interest in natural areas, ecotourists are part of the tourists to Kenya's national parks and game reserves which, according to the Kenya National Bureau of Statistics (KNBS), were visited by 2,868,900 international and domestic visitors in 2018 (KNBS, 2019). Growth of ecotourism in Kenya is evidenced by the rapid increase in 'conservancies' in Kenya which, according to the Kenya Wildlife Conservancies Association (KWCA), are protected areas established by private investors, local communities or other non-state actors that had grown from five in the 1970s to 163 with 142 ecolodges and camps by 2016 (KWCA, 2016). Its development has benefited from the increased clamour for sustainable tourism by private-sector and civil society entities including Ecotourism Kenya (EK), Federation of Community Based Tourism Organizations (FECTO), Kenya Community Based Tourism Network (KECOBAT), Northern Rangelands Trust (NRT) and Sustainable Travel & Tourism Agenda (STTA) (Kenya Tourism Board [KTB], 2016). Expansion of ecotourism in Kenya is further evidenced by the increase in number of tourist accommodation facilities that have been certified by Ecotourism Kenya (EK) for adopting ecotourism practices from five in 2003 to 84 (46 "Gold", 35 "Silver" and 3 "Bronze" level) by January 2020 (Ecotourism Kenya [EK], 2020; Kephher-Gona, 2003).

1.2. Problem Statement

Beneficial involvement of local communities is a cornerstone of ecotourism (Mensah & Ernest, 2013). Local communities should be fully involved in ecotourism enterprises and should be the main beneficiaries (Manyara & Jones, 2007). Different types of tourism

businesses however face challenges with local participation. Privately-owned ecolodges are associated low levels of community participation as they primarily exist to serve the interests of their investors rather than the wider society (Eagles, 2009). State-managed protected areas provide opportunities for adjacent communities to establish ancillary tourism businesses but these are hampered by power inequalities between the state and the community, government bureaucrats who are reluctant to involve communities and political interests all which lead to low local participation and insignificant unevenly-distributed benefits (Mensah, 2016; Mutanga, Kwanisai & Chitengu, 2013; Omondi & Kamau, 2010; Strickland-Munro & Moore, 2013; Tumusiime & Vedeld, 2012). Joint ventures between private investors and local communities on their part have yielded renowned tourism enterprises that create income and employment but are similarly besieged by low community participation due to extant power inequalities which leads to locals losing both the key benefits of tourism and access to critical sections of their land and water (Ondicho, 2012; Musau, 2012; Rutten, 2002, 2004; Snyman, 2012). One way to overcome this dependency and enhance local participation and benefits is for communities to independently own and operate ecotourism enterprises. There are few dedicated studies on this business type and those that exist, like Afenyo and Amuquandoh (2014) and Sebele (2010), have not explored critical aspects of this model including the nature of persons who participate and benefit within each community. The purpose of this study therefore was to investigate benefit distribution and community participation within ecotourism enterprises that were owned and operated by local communities in Meru and Laikipia Counties.

1.3. Research Objectives

The main objective of the study was to explore how distribution of benefits is correlated with community participation in the ecotourism sector in Kenya using the case of Ngare Ndare Forest Trust in Meru County and Il Ngwesi Group Ranch in Laikipia County.

Specific objectives of the study were:

- (i) To analyze the socio-demographic factors that influence distribution of the benefits of ecotourism.
- (ii) To investigate the institutional arrangements that influence distribution of the benefits of ecotourism.
- (iii) To examine how the distribution of benefits affects community attitudes to ecotourism.
- (iv) To analyze how the distribution of benefits affects community participation in ecotourism.

1.4. Research Questions

- (i) How do socio-demographic factors influence distribution of the benefits of ecotourism?
- (ii) How do institutional arrangements influence distribution of the benefits of ecotourism?
- (iii) How does the distribution of benefits influence community attitudes to ecotourism?
- (iv) Is there an association between the distribution of benefits and community participation in ecotourism?

1.5. Significance of the Study

The study aimed to support development of ecotourism policy in Kenya. This includes informing action to remedy the aforementioned challenge of low community participation and inequitable benefit distribution in the tourism industry in addition to growing

ecotourism as part of the Niche Products Initiative envisioned in The Kenya Vision 2030 (GoK, 2007).

The study further aimed to contribute towards bridging the gap that exists between ecotourism theory and practice. This is because ecotourism case studies continue to demonstrate its failure to reach the goals upon which it is founded, implying a failure to successfully put ecotourism theory into practice (Ross & Wall, 1999).

1.6. Conceptual Framework

Ecotourism has actual and perceived benefits to local communities which accrue directly to individuals or indirectly through community development projects. The distribution of these benefits is determined by a resident's socio-demographic profile including their age, gender and level of formal education in addition to the prevailing institutional arrangement in form of policies, legislation and governance structure. These socio-demographic factors and institutional arrangements also impact on the locals' attitudes and their participation in ecotourism-related engagements.

The distribution of ecotourism benefits directly impacts on community attitudes to ecotourism, with positive attitudes being expected to characterize locals who perceive that they have benefited from ecotourism while those who deem to have not benefited are expected to exhibit negative attitudes. These attitudes in turn impact on the nature of community participation in ecotourism and environmental conservation. Here, locals who perceive they have benefited from ecotourism are expected to demonstrate high levels of engagement with the ecotourism enterprise in addition to undertaking pro-conservation actions. On the other hand, persons who perceive they have not benefitted from ecotourism are expected to demonstrate low or no support for the ecotourism enterprise and for engaging in actions to conserve the environment. Graphically, this relationship is demonstrated in Figure 1.1:

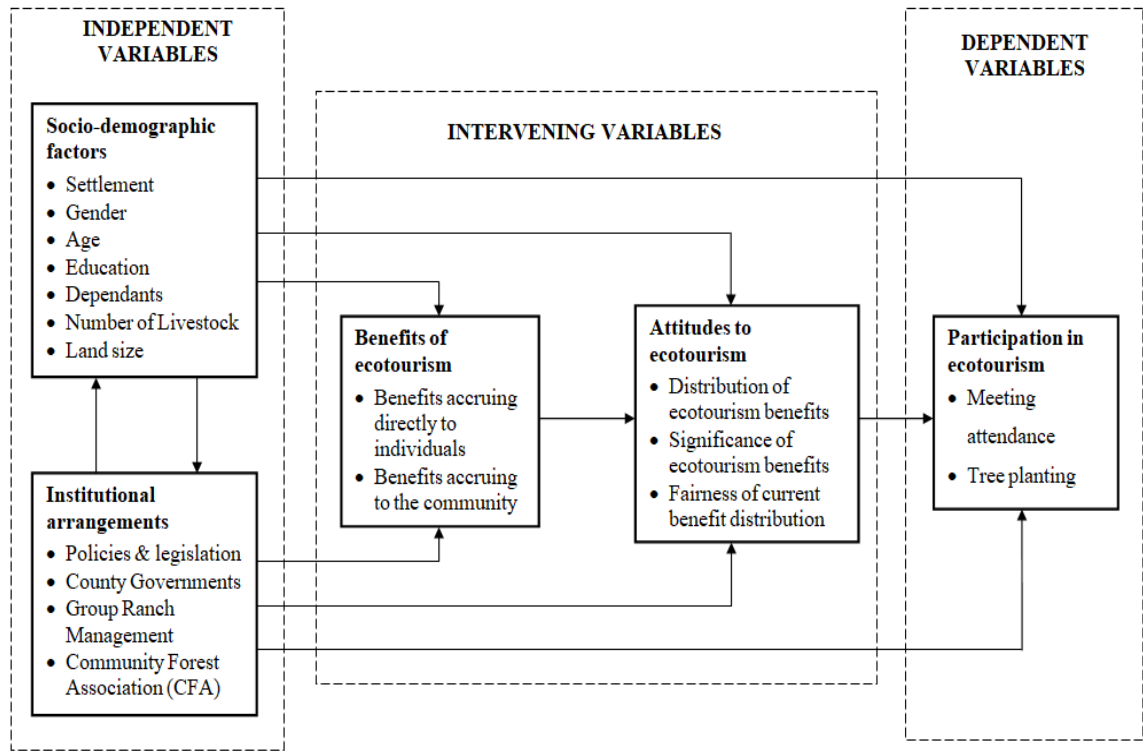


Figure 1.1: Conceptual framework (Source: Researcher)

1.7. Scope and Limitations of the Study

Respondents of the study were limited to members of Ngare Ndare Forest Trust (NNFT) in Meru County and Il Ngwesi Group Ranch in Laikipia County, implying that residents who were not members of these two entities were not involved in the study. Additionally, due to budgetary limitations, respondents for the study were drawn from only three of the six settlements that surround Ngare Ndare Forest and three of the seven regions where members of Il Ngwesi Group Ranch reside. Finally, the study faced the challenge of low literacy levels which saw some respondent resort to speaking in their mother tongue especially during Focus Group Discussion (FGD) sessions. The researcher relied on the research assistants who would translate what the respondent had said at the end of their contribution.

1.8. Operational Definition of Terms

Benefits of ecotourism: Actual or perceived gains that local residents receive from ecotourism facilities, activities and associated conservation areas, either accruing directly to the individual or to the wider community.

Community attitudes to ecotourism: Positive or negative mental predispositions of local residents towards ecotourism and associated activities.

Community participation in ecotourism: overt personal actions that local residents execute in relation to their ecotourism enterprise.

Conservation area: The natural area where the ecotourism facility is located and where related activities take place. For Il Ngwesi Group Ranch this is the 16,000-acre section of their land that has been dedicated to ecotourism and wildlife conservation and for Ngare Ndare Forest Trust it is the entire 5,554.3-hectare Ngare Ndare Forest.

Ecotourism: a type of tourism characterized by low-impact tourist facilities and activities centred around natural conservation areas and the active, beneficial and empowering participation of local residents.

Household Head: the most respected member of the household who makes key household decisions and whose authority is recognized by other members of the household.

Household: a group of persons usually related by blood or marriage living in the same homestead and answerable to the same household head.

Institutional arrangements: Policies, legislation, management entities and structures that relate to benefit distribution and community participation in ecotourism.

Nature of community participation: the type and degree of engagement of the human collectivity living in or adjacent to areas where ecotourism enterprises are located.

Settlement: Any of the regions where respondents of each study site were residing, with those of Il Ngwesi study site being Ethi, Chumvi, Leparua, Nadungoro, Ngare Ndare, Ngere-Sirkon and Sanga and those of Ngare Ndare study site being Subuiga, Kisima,

Mbuju, Ethi, Ngare Ndare and Manyagalo. In the latter study site, they correspond to Community Based Organizations (CBOs).

Socio-demographic factors: A respondent's region of settlement, age, gender, level of formal education, number of dependants and scale of economic activity in terms of the number of livestock owned and their size of landholding.

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

This chapter reviews literature that is relevant to the study and begins with a background on the concept of ecotourism including its definition and current trends. It moves on to explore community participation in ecotourism including how varies in form and extent, its benefits and costs and the current concerns that relate to it in the different types of tourism businesses including in Kenya. It further examines the institutional arrangements and socio-demographic factors that relate to distribution of the benefits of ecotourism. This is followed by a discussion of research findings on associations between the distribution of ecotourism benefits and both community attitudes and actual engagement in ecotourism and environmental conservation. The chapter ends with a summary of the findings of the literature review and emergent gaps.

2.1. Ecotourism Background

Martha Honey, The International Ecotourism Society's (TIES) Executive Director from 2003 to 2006 records that the earliest definition of ecotourism was given in 1983 by Hector Ceballos-Lascurain who described it as an activity that entails visits to pristine natural environments to undertake research or benefit recreationally from their physical features and the flora, fauna and cultural resources that they contain (Honey, 1999:13). In the same work, she made significant improvements to this definition including the fact that ecotourism strives to minimize the negative impacts of tourism, educate travellers, uphold respect for people's rights and cultures and directly benefit and empower local populations. TIES current definition issued in 2015 provides that it is a conscientious form of nature tourism that promotes environmental conservation, enhanced local community welfare and visitor education through interpretation (Choi *et al.*, 2017). Taking into account these definitions and the critical aspects of ecotourism, this study defines ecotourism as low impact travel to natural areas that educates travellers, promotes

the conservation of destinations' natural and cultural environments and actively involves, empowers and benefits local people.

Ecotourism is a segment of tourism that represents a departure from mass tourism and has an attendant high potential to bring revenues to poor communities in rural areas (Garraway, 2008). Its products include those relating to specialized ecotourism sectors such as ecolodges and eco-tour operators and those relating to general hotels, travel agents and other players in the tourism industry in instances when they offer ecotourism products or serve ecotourists (Weaver & Lawton, 2007). Ecotourists themselves also exist in a range from the 'hardcore' specialists with established interest in nature like avid bird watchers to the 'soft' who may be only interested in short and superficial interactions with pristine environments (Ullah, 2013).

It is not possible to specify the proportion of ecotourists from other tourists due, among other things, to the absence of primary research on the sector and the failure of states to distinguish the two when capturing standard tourist data (Bricker, 2012; Higgins, 1996). Past estimates have given their proportion to be between 7% and 20% of all international tourist arrivals and noted that this would be higher in countries that specialize in nature-based tourism (Lindberg *et al.*, 1997). It clearly is a significant sector of the tourism industry with UNWTO recording that globally it generates approximately US\$ 100 billion every year (UNWTO & UNEP, 2017). Visitor spending on ecotourism has been growing faster than the industry's average and tourists are ready to pay up to 40% more for environmentally-friendly experiences (UNEP & UNWTO, 2012). Its importance is further demonstrated by a 2011 survey by Conde Nast Traveller, a US travel magazine that established that 58% of its readers considered whether a hotel supported the local community when choosing where to stay and a 2012 Trip Advisor survey that revealed that the percentage of consumers who wished to make environmentally-friendly travel choices had risen from 65% to 71% within one year (Bricker, 2012). Higgins (1996) records that ecotourism entails persons from developed countries visiting developing ones, an indicator that Kenya and other African countries are major destinations for ecotourists.

There is clear evidence that global attention on ecotourism will continue to grow. In addition to the United Nations recognizing it by declaring 2002 the International Year of Ecotourism (IYE), there are more than 400 refereed journal articles focusing on it (Manu & Kuuder, 2012; Weaver & Lawton, 2007). Within the emergent concept of Green Economy which entails ensuring that current activities are sustainable environmentally, economically and socially, ecotourism has a central role to play as it has been noted that while demand for mass tourism has remained constant, that of green tourism is growing and will continue to do so for the next twenty years (Newton, 2015; UNEP & UNWTO, 2012). UNWTO has set up an online platform to support policy makers, donors, travellers and other tourism players to implement strategies to achieve Goal 8 (decent work and economic growth), Goal 12 (responsible consumption and production) and Goal 14 (life below water) that relate to the tourism industry (UNWTO, 2018).

2.2. Nature of Community Participation in Ecotourism

Community participation entails engaging individuals and groups in decisions on issues that affect their lives (Burns, Heywood, Wilde & Wilson, 2004a). Participation readjusts the balance of power and reasserts the local community's views against those of local authorities or developers (Tosun, 2000). It further builds local capacities, enhances social cohesion, ensures policies are relevant to local communities and ensures sustainability as locals have ownership of the projects (Burns *et al.*, 2004b). A principal criterion for ecotourism is that the local population should participate and receive substantial income from their participation (Wunder, 1999).

Community participation in ecotourism can take various forms. These include ownership of an enterprise individually or collectively; management of an enterprise individually or collectively; involvement in planning, decision making or evaluation; employment; revenue sharing, and; supply of local goods and services (Ashley & Roe, 1998; Baksh, Soemarno, Hakim & Nugroho, 2012; KFS, 2012; Sproule, 1996). A summary of the forms of community participation in ecotourism is shown in Table 2.1.

Table 2.1: Forms of community participation in ecotourism

Form of involvement	Example
Ownership of an enterprise individually or collectively	Community-owned ecolodge, curio shop or canopy walkway.
Management of an enterprise individually or collectively	A private lodge owner allowing locals to run a cultural centre or campsite for the lodge.
Involvement in planning or decision making	Community representation in planning fora or in the ecolodge's management board.
Employment	An ecolodge employing local staff or using local tour guides and porters.
Revenue sharing	Community holding equity in an ecolodge or receiving income from leasing out their land for construction of an ecolodge.
Supply of local goods and services	Community supplying goods like handicrafts and fresh produce or services like tour guiding or portage for the ecolodge.

Source: Researcher

The extent of community participation in ecotourism also varies. Sherry Arnstein's seminal paper, *A Ladder of Citizen Participation*, provided a typology of the degree of community participation using the analogy of a ladder with eight rungs rising from Manipulation, Therapy, Informing, Consultation, Placation, Partnership, Delegated Power to Citizen Control (Arnstein, 1969). She noted that Manipulation and Therapy are actually forms of non-participation where those in power are in full control; Informing, Consultation and Placation signify varying levels of tokenism with the weak having a voice but no guarantee that what they say will be heeded, and; Partnerships, Delegated Power and Citizen Control indicate varying degrees of increasingly genuine empowerment.

Cevat Tosun developed a related model of community participation specifically for the tourism industry which consisted of three levels that were corresponding to the rungs of

Arnstein's ladder (Tosun, 2006). He noted that at the bottom is Coercive Participation whereby power holders control and manipulate the entire process. Above this is Induced Participation whereby the community has a voice but cannot ensure that their views will be taken into account. At the top is Spontaneous Participation where the community has full managerial responsibility of the tourism operation. The two models are depicted in Table 2.2.

Table 2.2: Levels of community participation

Level (Rung)	Arnstein's Model	Tosun's Model
8	Citizen control	
7	Delegated power	Spontaneous participation
6	Partnership	
5	Placation	
4	Consultation	Induced participation
3	Informing	
2	Therapy	Coercive participation
1	Manipulation	

Source: Adapted from Tosun (2006: 494)

Sebele (2010) avers that more benefits will accrue to communities if they participate actively in tourism including in making relevant decisions. This study aimed to revisit Tosun's typology by exploring benefit distribution within the ecotourism enterprise owned and operated by Il Ngwesi Group Ranch and Ngare Ndare Forest Trust, two communities that were deemed to have attained the highest level of community participation as they were fully owned and operated by the local community.

2.3. Benefits and Costs of Community Participation in Ecotourism

Ecotourism benefits communities because it is labour intensive, uses their pre-existing natural and cultural assets and creates small-scale employment opportunities for informal traders and marginalized groups like women (Mensah & Ernest, 2013; Garraway, 2008). It generates direct financial incomes for local communities in the form of entry and user fees; payments for provision of accommodation; salaries from employment; sale of food items; sale of handicrafts and souvenirs; payments for interactive craft workshops where guests practically learn art; payments for cultural performances; fees for services like transport, guides and porters; and donations (Lindberg, Enriquez & Sproule, 1996; Manu & Kuuder 2012; Mensah & Ernest, 2013; Wunder, 1999).

It further benefits communities through empowerment; capacity building; culture preservation; improved community reputation; heightened local pride; higher property values; improves or diversifies language proficiency among local people; environmental conservation; investment in social projects like provision of water, health and education; and enhanced motivation to participate in environmental conservation (Chandralal, 2010; Lindberg *et al.*, 1996; Manu & Kuuder, 2012; Mensah & Ernest, 2013; Sproule, 1996; Weaver & Lawton, 2007; Safari, Gowele & Lwelamira, 2015; Wijesundara & Wimalaratana, 2016).

There are also costs that are associated with ecotourism. Living next to natural areas often comes with the costs associated with human-wildlife conflicts as has been recorded in Nairobi National Park and Amboseli National Parks (Ileri, 2008; Ondicho, 2012). Other costs include environmental degradation from incursions into once-pristine areas; disruption of local lifestyles and associated loss of tranquillity; overcrowding; traffic congestion; degradation of social and cultural values; emergence of undesirable behaviour like gambling, prostitution, drug abuse and crime; curtailed access to resources in protected areas; exclusion; increased cost of living; increased inequalities, and; undesirable cultural changes (Chandralal, 2010; Kaplan, 2015; Lindberg *et al.*, 1996; Rutten, 2004; Weaver & Lawton, 2007; Wunder, 1999).

The amount of benefits received is just as important as their distribution within the community (Wilkinson & Pratiwi, in Scheyvens, 1999). There exists skewed distribution of benefits among the different stakeholders in ecotourism (Lindberg *et al.*, 1996). This study aimed to investigate the distribution of benefits of ecotourism among community stakeholders and its possible effects on their attitudes and actions.

2.4. Current Concerns with Community Participation in Tourism

The business model of tourism enterprises affects community participation and benefit distribution. Privately-owned ecolodges which are common in many countries including Costa Rica and South Africa are efficient business enterprises but generally exhibit low levels of community participation as they focus on fulfilling the needs of their owners (Eagles, 2009). Another type that is common in Africa entails state-managed protected areas creating opportunities for adjacent communities to benefit from tourism and these have been studied to a large extent. One study of persons neighbouring South Africa's Hluhluwe-iMfolozi Park revealed that while 55% benefited from access to grass and 49% from firewood in the protected area, only 2% had a household member who was employed there (Nsukwini & Bob, 2016). Though almost all the people living adjacent to Tanzania's Udzungwa Mountain National Park were involved in tourism-related activities, the level of participation was found to be minimal due non-involvement of the community by their leadership, lack of transparency and low tourist numbers (Safari *et al.*, 2015). Eighty-eight percent of the persons living next to Ghana's Kakum National Park reported that they had never received any benefit from tourism in that protected area (Mensah, 2016). Low involvement and few unevenly-distributed benefits were also reported among people living next to Zimbabwe's Ngezi Recreational Park (Mutanga *et al.*, 2013).

In Kenya, there exists clear community participation provisions in different policy and legislative instruments including the Constitution of Kenya 2010, Kenya Vision 2030, Sessional Paper No. 1 of 2010 on Enhancing Sustainable Tourism in Kenya, the National Tourism Blueprint 2030 and County Integrated Development Plans (CIDPs) of most of

the 47 County Governments. Protected areas established by private investors, local communities or other non-state actors had grown from five in the 1970s to 163 by 2016 (KWCA, 2016). Kenyan pastoralist and other community groups are participating in tourism through these protected areas commonly referred to as conservancies. The number of tourist accommodation facilities certified by Ecotourism Kenya (EK) for adopting ecotourism practices has also risen from five in 2003 to 84 by January 2020 (EK, 2020; Kepher-Gona, 2003). Community engagement is part of the criteria that EK uses in its assessment. There has also been an increase in civil society and private-sector institutions clamouring for responsible tourism including Ecotourism Kenya (EK), Federation of Community Based Tourism Organizations (FECTO), Kenya Community Based Tourism Network (KECOBAT), Northern Rangelands Trust (NRT) and Sustainable Travel & Tourism Agenda (STTA). Tourism in Kenya benefits many locals (Juma & Khademi-Vidra, 2019; Kihima & Musila 2019) and is pro-poor (Njoya & Seetaram, 2018),

Challenges with community participation in tourism have however been recorded over a lengthy period in the country. A 1996 investigation revealed that Laikipia County earned gross revenue of USD 3.1 million from the 6,000 international tourists who visited it but only USD 45,000 of this amount accrued to community based enterprises with the rest going to private sector facilities and tour operators (Elliott & Mwangi, 1998). This therefore showed that only 1.5% of Laikipia's tourism earnings went to the local communities. A 2001 study noted that community participation in wildlife utilization enterprises in Kajiado and Laikipia districts remained passive, with the percentage of those involved averaging 21% in Kajiado and 28% in Laikipia (Muthiani, 2001). Another Kenyan study revealed that only 15% of the adjacent community participated in the management of Masai Mara National Reserve (Okech & Bob, 2009). It was further established that 52% of the persons living next to Kakamega Forest National Reserve were not involved in tourism and conservation activities of the area due to centralization of power, domination by elites and lack of awareness and capacity (Omondi & Kamau, 2010). The community bordering Kakamega Forest Reserve received support to initiate

an ecotourism bandas project in 2003 but its benefits accrue to only a few of those immediately neighbouring the forest leaving out majority of the 140,000-member surrounding community (Kihima, 2016).

Studies continue to show that there are inequality and inequity challenges that plague the Kenyan tourism industry including elite capture (Lamers, van der Duim, Nthiga, van Wijk & Waterreus, 2015; Oduor, 2020). In Kenya, ecotourism benefits to local residents remain low due to the high costs that they incur, low local capacities and inequitable benefit distribution (Cheung, 2015). Even the growing conservancies mentioned earlier have come under criticism for being a form of neo-colonial fortress-conservation green grab whereby private sector, state agencies, foreign investors, conservation organizations and donor agencies collude to alienate local communities' natural resources and dispossess them of their land in a process that is characterized by human rights abuses including extrajudicial killings (Corry, 2021; The Oakland Institute, 2021).

Attempts by state-managed protected areas to share benefits with local communities are often undermined by the extant unequal power relations, reluctance of government bureaucrats, elite capture, political interests and outright favouritism (Tumusiime & Vedeld, 2012). These arrangements have been shown to result in very low local employment levels in addition to alienating locals from the adjacent protected areas (Strickland-Munro & Moore, 2013). They are also associated with increased dependency and poverty levels emanating from control of protected areas by external agencies (Laudati, 2010). In Kenya, less than 1% of the benefits that accrue from popular protected areas get to adjacent communities and half of these persons remain in poverty (Kihima, 2016). This state of affairs might not change in the near future for such communities as it has been observed that the challenge of participation and equity remains even after a tenfold increase in protected areas across the world in the last 40 years (Snyman & Bricker, 2019).

Joint ventures between private investors and local communities have also been studied to a large extent. A study of several tourism operations in southern Africa that included

three private sector camps within Botswana's Okavango Community Trust concluded that the partnership contributed significantly to poverty reduction by creating employment for locals (Snyman, 2012). Another study of community groups that had partnered with private investors to establish tourism enterprises in Kenya's Kajiado County concluded that the local residents had lost out on both the major benefits of tourism and access to critical sections of their land and water (Rutten, 2002, 2004). A study of Kimana and Mwaluganje wildlife sanctuaries in Kenya observed that they were characterized by lower participation of local communities as compared to that of private sector players (Mburu, 2002). A 12-month ethnographic study of one of the groups in Kajiado County concluded that the benefits that accrued to locals were insignificant and ended up going to a few already-wealthy and powerful community members in a typical case where tourism industry benefits were flowing "uphill" (Ondicho, 2012). In another 10-year joint venture in the same region, what went to the community was found to be equivalent to each member getting Ksh 300 every year (Kepher-Gona, 2012). Indeed, communities that rely on such partnerships are often at the mercy of individual companies with some not having any express provision of sharing benefits with locals (Muganda, Sirima, Moshy & Mkumbo, 2012).

One way to overcome this dependency is for local communities to own and operate tourism enterprises but dedicated studies on such autonomous models are few. One such study noted that members of the three villages that manage Khama Rhino Sanctuary Trust in Botswana had received benefits in form of permanent and casual employment and markets for some of their goods and services (Sebele, 2010). The researcher however noted that they faced challenges of having unclear benefit-distribution plan, weak governance, elite dominance and limited benefits (only 26 persons had permanent employment and only one US\$ 645-worth social development project had been undertaken after 12 years of operation). In the community-operated Tafi Atome Monkey Sanctuary in Ghana, 88% of the locals indicated they received communal benefits like infrastructure development, 37% reported getting personal benefits and only 4% reported to have benefited from employment (Afenyo & Amuquandoh, 2014). Clearly some

benefits that accrue from these enterprises are significant while others are not. The above and other studies did not explore the nature of those who received the different benefits within the community, a gap that this study sought to bridge by exploring community participation and benefit distribution within such fully autonomous community initiatives.

2.5. Institutional Arrangements and Distribution of Benefits

The Constitution of Kenya, 2010 identified people's participation as one of the country's national values and introduced a system of devolved governments with the objective of enhancing equity and participation of all citizens including minorities and marginalized communities (GoK, 2010a). The Fourth Schedule notes that the function of tourism policy and development lies with the National Government while that of development and regulation of local tourism lies with the County Governments. It is therefore clear that County Governments have a role to play in local tourism and there is limited research in how they are playing this role mainly because they are a relatively new concept in Kenya. The study therefore examined the role that the County Government of Meru and County Government of Laikipia played in benefit distribution and community participation in the two study sites.

The two study sites have different organizational arrangements. Il Ngwesi is a communally-owned Laikipiak-Maasai Group Ranch with a constitution and a local leadership that is elected by the membership during their Annual General Meeting (Harrison, 2001; UNDP, 2012). Ngare Ndare Forest Trust (NNFT) is a Community Forest Association (CFA) that Kenya Forest Service (KFS) has granted a concession to manage Ngare Ndare Forest with the latter holding overall responsibility since it is a public forest (GoK, 2005; GoK, 2016a; KFS, 2009). NNFT operates under a Trust Deed that also provides for community involvement including through meetings (KFS, 2015). The study investigated the impact that these institutions had on community participation and the distribution of ecotourism benefits.

2.6. Socio-Demographic Factors and Distribution of Benefits

To begin with, the size of landholding was found to have an association with involvement in tourism among communities bordering Uganda's Murchison Falls Conservation Area, with households with more land being more likely to engage in tourism activities than those with less (Mugizi, Ayorekire & Obua, 2017). These researchers conclude that this was because those with more land had the requisite space to put up tourist facilities like craft centres and camps or grow crops for sale to tourist hotels. Additionally, income levels were found to have an association with community participation in tourism for the residents who lived adjacent to China's Wolong Nature Reserve and Ghana's Kakum National Park with those with higher incomes participating more than those with lower ones (Liu, Vogt, Luo, He, Frank & Liu, 2012; Mensah, 2016). Similarly, in Nepal's Annapurna Conservation Area, it emerged that wealthier residents reported receiving more benefits than others with benefit distribution not affirmatively targeting the poor or those who suffered more losses (Spiteri & Nepal, 2008). In Botswana's Khama Rhino Sanctuary Trust, benefits including market opportunities went to the rich and other elites (Stone & Stone, 2011). In Thailand villages, rich households would benefit more from an increase in tourism price than poor ones with some of the latter even experiencing a reduction in their incomes due to their low level of engagement in the tourism economy (Suriya, 2010). Indeed, community members with pre-existing disadvantages like insufficient land or income tend to be excluded from participating in ecotourism development and its benefits as well (Sproule, 1996). Lack of human and financial capital that characterizes the poor constraints their ability to identify and pursue opportunities in the tourism sector (Liu & Wall, in Garraway 2008).

This study therefore sought to establish whether there was an association between the size of landholding and distribution of ecotourism benefits. It also sought to investigate the association of benefit distribution with other proxy indicators of poverty including the number of livestock owned and a respondent's household size as research has shown that every additional member raises the likelihood of the family becoming poor (Anyanwu, 2014; Geda, De Jong, Mwabu & Kimenyi, 2001).

Age was found to have no association with involvement in tourism activities among communities bordering Uganda's Murchison Falls Conservation Area, Ghana's Kakum National Park and Nepal's Annapurna Conservation Area (Mensah, 2016; Mugizi *et al.*, 2017; Spiteri & Nepal, 2008). But in Tanzania's Udzungwa Mountain National Park, it emerged that more youth of between 25-35 years were engaging in tourism than all the other younger or older age-sets (Safari *et al.*, 2015). Similarly, in Botswana's Khama Rhino Sanctuary Trust, it was established that while 50% of youth knew it was a community project, only 5% of adults did and while 75% of the youth had visited it, only 2% of adults had (Stone & Stone, 2011). To the contrary, more elderly people were found to be interested in engaging in forest management in Kenya than the youth, with the possible reasons given being that young people had engagements elsewhere and that elder people had a higher value of nearby forests (Musyoki, Mugwe, Mutundu & Muchiri, 2013).

The foregoing discussion clearly shows that there is no consensus on whether age has any association with benefit distribution among communities and if it facilitates or hinders it. It was therefore important for this study to investigate the association between age and the distribution of benefits among communities in the two study sites.

For gender, ecotourism creates employment opportunities for historically marginalized groups like women as it takes place within community areas (Mensah & Ernest, 2013; Garraway, 2008). But there are instances where tourism enterprises have "unspoken" restrictions on the roles that women can play in order to restrict them from the more lucrative aspects of the business (Sproule, 1996). Gender was found not to have any significant association with involvement in tourism among communities bordering Nepal's Annapurna Conservation Area and Uganda's Murchison Falls Conservation Area with the latter having an almost equal proportion of male-female participants (Mugizi *et al.*, 2017; Spiteri & Nepal, 2008). Researchers in the above Ugandan study however underscored the need to ensure that household chores did not prevent women from taking part in tourism activities. But more males were participating in tourism than females among the people living next to Ghana's Kakum National Park, a finding that was

attributed to typical patriarchal societies where women are saddled with household chores while men take on broader engagements outside the homestead (Mensah, 2016). Similarly, female participation in tourism was lower than that of males among the community adjacent Tanzania's Udzungwa Mountain National Park due to the limiting effects of women's roles, socialization, education and networks (Safari *et al.*, 2015).

The preceding findings show that though tourism has opportunities for women, their participation is often lower than that of men. This study sought to establish if there was an association between gender and the distribution of the benefits of ecotourism in the two study sites. It also sought to understand the reasons for gender disparities in distribution of these benefits.

The level of education and a person's ability to speak English has been used to limit the number of participants in ecotourism projects (Sproule, 1996). For persons neighbouring China's Wolong Nature Reserve, it was established that there was higher participation in tourism among those who had higher education levels than others (Liu *et al.*, 2012). Similarly, a higher proportion of community members with tertiary education participated in tourism in Tanzania's Udzungwa Mountain National Park with the likely cause being that they possessed the requisite skills to effectively undertake tourism activities (Safari *et al.*, 2015). Formal education also had a direct association with involvement in tourism among communities bordering Uganda's Murchison Falls Conservation Area with residents with higher levels participated more than those with lower ones due to the enhanced skills, exposure, networks and status that accompany formal education (Mugizi *et al.*, 2017). But no significant association was found between the level of education and community participation in tourism among persons who lived next to Ghana's Kakum National Park or Nepal's Annapurna Conservation Area (Mensah, 2016; Spiteri & Nepal, 2008). This study sought to establish whether there was an association between level of formal education and distribution of the benefits of ecotourism.

On distance from the protected area, households dwelling closer to China's Wolong Nature Reserve exhibited higher levels of participation in tourism than those found farther away (Liu *et al.*, 2012). Similarly, those living nearer to Nepal's Royal Chitwan National Park (CNP) received more benefits including employment than those further away (Wang, 2017). Musyoki *et al.*, (2013) also established a significant association between distance of one's dwelling from the forest and participation in forest management among CFAs in Kenya. They demonstrated that households closer to the forest had a higher number of persons who participated in forest management than those farther away. Additionally, the distance from Arabuko Sokoke Forest affected peoples' attitudes with those living near the forest feeling their land was more valuable (due to the opportunity it offered to access forest resources) than those who were living farther away (Matiku, Mireri & Ogot, 2012).

The foregoing studies demonstrate that distance from protected areas has a significant and inverse association with community participation, with the level of involvement and benefits decreasing as the distance increases. This study investigated whether there was an association between distance of one's settlement from the conservation area (Ngare Ndare Forest Reserve or Il Ngwesi Conservation Area) and the benefits of ecotourism.

2.7. Benefit distribution and Community Attitudes to Ecotourism

As postulated by the Social Exchange Theory, community involvement in tourism involves exchanges and it is expected that members who feel they have benefited will have positive attitudes and those who associate tourism with costs and losses will have negative ones (Chandralal, 2010). On one hand, a review of research from different countries including Nepal, Australia, Belize, Malaysia, Mauritius, Sri Lanka and Turkey shows that majority of local community members are positive about having tourism developments in or near their settlements (Abas & Hanafiah, 2013; Alexander, 2000; Chandralal, 2010; Kaplan, 2015; Ramseook-Munhurrun & Naidoo, 2011; Wang, 2017; Zhang, 2008). This is so even when they bear the costs of tourism including crop loss from wildlife depredations (Alexander, 2000; Wang, 2017). In Malaysia's Tioman Island

for example, residents who relied on the tourism industry were still supportive of additional tourism developments even in cases where they clearly understood its potential detrimental effects (Abas & Hanafiah, 2013). On the other hand, local attitudes towards wildlife in the Democratic Republic of Congo, Rwanda and Uganda remained negative even while park management authorities were sharing between 5% and 30% of the benefits with adjacent communities (Mukanjari, Bednar-Friedl, Muchapondwa & Zikhali, 2013).

A study of 12 Arizona communities revealed that those who exhibited greater perceived personal benefit from tourism had correspondingly small perceived negative effects of tourism and were more supportive of additional tourism developments within the community (McGehee, Andereck & Vogt, 2002). The more the benefits residents of Mauritius felt they received from tourism, the more they supported its development (Ramseook-Munhurrin & Naidoo, 2011). Similarly, in Malaysia's Tioman Island, residents who perceived higher levels of personal benefits or relied on the tourism industry were more supportive of additional tourism developments than others (Abas & Hanafiah, 2013). Even in Kenya, a survey of 200 households bordering Lewa Wildlife Conservancy also revealed that residents who received more financial benefits perceived impacts of the tourism industry more positively than those who received less (Munyiri, Wishitemi & Odunga, 2016). Finally, local attitudes towards Mozambique's Maputo Wildlife Reserve (MES) were found to be more negative among community members who had suffered depredations from large mammals than small ones and those who had suffered from a higher number of species (De Boer & Baquete, 1998).

The preceding discussion shows many studies have found a direct significant association between perceived benefits and positive community attitudes. This study sought to establish if there was an association between benefits and community attitudes to ecotourism as shown by the preponderance of studies.

Zhang's (2008) research of Melbourne residents revealed associations between attitudes and socio-demographic factors. He established that age had an association with

respondents' attitudes with older residents having a more positive attitude to tourism development than younger ones. He also revealed that the distance between one's settlement and the tourism resource had an association with their attitude to tourism, with negative attitudes increasing as distance from the tourism facility increased. On level of education, he found a weak association whereby there were less negative attitudes as levels of education increased. Finally, he found no significant association between gender and attitudes to tourism. Indeed, attitudes of communities living adjacent to protected areas have been found to vary with age, level of education and income (Snyman, 2012). This study noted that limited research has been undertaken on the possible association between respondent's socio-demographic factors and their attitudes to ecotourism and undertook to investigate it.

Finally, the nature of benefits also has association with attitudes. Receiving personal benefits was found to have an associated with more positive attitudes to tourism developments (Abas & Hanafiah, 2013; McGehee *et al.*, 2002; Munyiri *et al.*, 2016). But behavioural psychologists note that though benefits motivate positive behaviour in the short-term, they cease to do so in the long term when the needs have been substantially met (Benabou & Tirole, 2003; McLeod, 2018; Sadri & Bowen, 2011). This study therefore sought to establish the nature of benefits that motivated positive attitudes and enhanced community participation. It also sought to establish if short-term or long-term provision of different benefits had any association with community attitudes and actions.

2.8. Benefit distribution and Community Participation in Ecotourism and Environmental Conservation

Kollmuss & Agyeman (2002) define Pro-Environmental Behaviour (PEB) as actions that consciously aim to reduce an individual's negative impact on their surroundings like reducing wastage in resource use. Pro-Environmental Behaviour by local communities is termed as grassroot environmental action, defined as acts that people take at the local level to influence management of natural resources (Ghai & Vivian, 2014). The study

sought to investigate the factors that motivated grassroots Pro-Environmental Behaviour in the two study sites and to understand the role that ecotourism played in this.

Institutions have an impact on grassroots Pro-Environmental Behaviour. Matiku *et al.*, (2012) established that there were more positive pro-conservation attitudes among communities where the government was co-managing forests with adjacent communities than areas where this was not the case. Indeed, persons who reported greater benefits from such co-management arrangements had higher levels of participation in forest management (Musyoki *et al.*, 2013). On the contrary, low interest in tourism, wildlife and conservation have been recorded especially in State-managed national parks characterized by little or no involvement of adjacent communities (Kipkeu, Mwangi & Njogu, 2014; Omondi & Kamau, 2010; Safari *et al.*, 2015). This study therefore sought to establish the role that local institutions played in promoting grassroots pro-environmental behavior.

Among people's social-economic factors, age has no association with a person's propensity to undertake pro-environmental activities or hold a positive outlook on environmental conservation (Stem, Lassoie, Lee, Deshler & Schelhas, 2003). It has also been found to have no association with voluntary tree planting among farmers (Kulindwa, 2016).

But the size of landholding has a significant and positive correlation with voluntary tree planting, with farmers who hold larger pieces of land being more likely to plant trees than those who own smaller ones (Ashraf, Pandey, de Jong & Nagar, 2015; Danquah, 2015; Kulindwa, 2016; Oeba, Otor, Kung'u & Muchiri, 2012). Security of tenure is also an important consideration for voluntary tree planting with those who own land being more likely to plant (more) trees than those who do not (Danquah, 2015; Herbohn, Emtage, Harrison, Gregorio & Peque, 2005; Kulindwa, 2016).

Gender has an association with Pro-Environmental Behaviour with males having wider environmental awareness than females but the latter being more concerned on issues of

environmental loss and being more amenable to change their behaviour (Kollmuss & Agyeman, 2002). Additionally, male-headed households are associated with more on-farm trees than female-headed ones (Oeba *et al.*, 2012).

Wealth also has an association with pro-environmental action as those with higher incomes are more aware of the value of environmental conservation than those with lower ones (Wang, 2017). Among CFAs in Kenya, more of the middle income group with farm sizes of 0.6 to 5 acres participate in forest management than those who are either very poor or very rich (Musyoki, Mugwe, Mutundu & Muchiri, 2016). Additionally, those with large families are associated with less voluntary tree planting compared to those with smaller ones (Danquah, 2015; Kulindwa, 2016).

For education, raising community awareness on the value of conserving wildlife and attractive landscapes engenders positive attitudes to conservation (Denman, 2001). Though increased schooling does not always translate to enhanced conservation practices, those with higher levels of education have wider appreciation of environmental concerns (Kollmuss & Agyeman, 2002; Wang, 2017). They also participate more in forest management as they recognize the value of well-managed environments (Musyoki *et al.*, 2016). They are also associated with a more pro-conservation outlook including having less willingness to engage in practices that entail intensive exploitation of natural resources (Stem *et al.*, 2003). Farmers with formal education are more likely to retain trees on their farms than those who are not educated (Oeba *et al.*, 2012). Finally, it emerged that there is a scarcity of studies that have investigated the association between the type of people's livelihoods and their propensity for Pro-Environmental Behaviour, a factor that this study aimed to investigate in the two study sites.

Kollmuss & Agyeman (2002) record that though Pro-Environmental Behaviour is motivated by many interrelated factors which are both external (cultural, institutional, social) and internal (values, attitudes, knowledge), economic incentives are a critical part of this stimulus. Waweru (2015) further confirms that a multiplicity of factors motivate community participation in development processes in Kenya and notes the critical role

that both tangible and intangible benefits play in stimulating community action. These findings demonstrate that receiving benefits can motivate Pro-Environmental Behaviour. This study therefore sought to establish whether the distribution of benefits of ecotourism had any association with Pro-Environmental Behaviour in the two study sites.

On one hand, a study of Nepalese communities living adjacent to the Royal Chitwan National Park (CNP) revealed that though there was less reliance on protected-area resources among respondents who received tourism benefits, there was no relationship between receiving these benefits and having a positive attitude to environmental conservation (Wang, 2017). The study concluded that this was because conservation attitudes are shaped by other factors including literacy levels and people's relationship with the management of protected areas. Additionally, perceived environmental benefits had no significant association with community involvement in tourism for residents who lived adjacent to Ghana's Kakum National Park (Mensah, 2016). The researcher concluded that this lack of relationship may have been brought about by the fact that though locals felt that creation of the National Park was beneficial, these benefits were accruing to others while they bore the cost of being prohibited from hunting and accessing forest products.

On the other hand, a study of Costa Rica's park-adjacent communities noted that while revenue from tourism could not singly explain conservation behaviour, community members who received direct tourism benefits like employment had a higher likelihood of engaging in pro-conservation activities than those who did not (Stem *et al.*, 2003). In Kenya, lack of benefits had a negative effect on community interest in wildlife management among people living next to Amboseli National Park in Kajiado County (Kipkeu *et al.*, 2014). Additionally, more perceived benefits were associated with higher participation in forest management among CFA members in Kenya (Musyoki *et al.*, 2016).

From this discussion, it emerges clearly that while some studies have established an association between benefit distribution and pro-conservation action, others have not.

This study therefore sought to investigate benefit distribution and grassroots pro-conservation behaviour in order to grow theory by providing additional evidence on whether the two were associated or not.

2.9. Summary of Literature Review and Emerging Gaps

The foregoing literature review has explored the concepts of ecotourism, community participation and distribution of ecotourism's benefits. From the review, it has emerged that ecotourism is a subset of tourism that continues to receive rising global attention and beneficial community involvement is one of its key pillars. It has also been demonstrated that communities can participate in ecotourism in different ways and to different extents and this involvement has potential to yield both benefits and costs.

The review has revealed that there is low community participation and related benefits in the different types of tourism businesses including those that are solely owned by the private sector, those associated with state-managed national parks and joint ventures between private investors and local communities. It has further emerged that there is another business type that takes the form of ecotourism enterprises that are fully owned and managed by local communities. It has been noted that there are few studies on this latter model where community participation and benefit distribution is expected to be highest, a gap that this study sought to fill by investigating two such enterprises in Kenya.

The review has further revealed that institutional arrangements including County Governments have a role to play in distribution of ecotourism benefits and this is an area that has not been sufficiently researched upon in Kenya as these entities are relatively new. This study therefore sought to investigate how institutional arrangements including County Governments impacted on community participation and benefit distribution in ecotourism in the two study sites.

From the review, it has emerged that while some studies found associations between community participation and socio-demographic factors specifically poverty, age, gender, level of education and distance from protected areas, others did not find any correlation

between these factors. This study therefore sought to establish whether there were associations between socio-demographic factors and community participation in ecotourism. The review has also revealed that though many studies have established an association between benefit distribution and local attitudes, there are others that did not find any relationship between them. This study therefore sought to investigate the association between local attitudes and distribution of ecotourism benefits in order to contribute towards building of consensus on the disparate research findings.

Finally, the literature review has demonstrated that while some studies show that tourism benefits motivate community participation and grassroot Pro-Environmental Behaviour, others did not find this correlation. This is in addition to there being a scarcity of research on the association between the nature of people's livelihoods and their predisposition for Pro-Environmental Behaviour. The study therefore investigated the presence of associations between ecotourism benefits and both community participation and Pro-Environmental Behaviour.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This section discusses the methodology that was used in the study. It begins by describing the two study sites and presenting a map that shows their location in addition to that of the three community settlements that were sampled from each of them. It further expounds on the research design, the sample size and sampling procedures that were used to identify community respondents, key informants and participants of focus group discussions. This is followed by a discussion on how reliability of the research instrument was established.

The section then provides an explanation of how different types of data were collected and analyzed including the quantitative and qualitative methods that were used to investigate the presence of relationships between the independent and dependent variables of the study. The section ends with a description of how ethical issues were addressed in this research.

3.1 Study Sites

The study was undertaken in Kenya, a country that has a global reputation for ecotourism that made Martha Honey, a former Executive Director of The International Ecotourism Society (TIES), term it the mzee (old man) of ecotourism in Africa (Honey, 2008). The study purposively selected Il Ngwesi Group Ranch in Laikipia County and Ngare Ndare Forest Trust (NNFT) in Meru County because they have established ecotourism enterprises that are wholly owned and managed by the local community itself, a model that is not common in the country.

The two study sites gave the researcher an opportunity to compare how benefit distribution and community participation varied between a nomadic pastoralist community carrying out ecotourism on their own land (Il Ngwesi Group Ranch) and a subsistent cultivation one operating an enterprise on public land (Ngare Ndare Forest Trust).

Additionally, Laikipia County is a popular tourist destination in Kenya with many tourist attractions that include wildlife in private and group ranches, indigenous forests, rich local culture and unique features like Thomson Falls in addition to having 36 hotels and lodges as at 2017 (County Government of Laikipia, 2018; KNBS & County Government of Laikipia, 2021). Meru County on its part has popular tourist destinations that include Lewa Wildlife Conservancy, Meru National Park, Mt. Kenya National Park and Ngare Ndare Forest and had 31 hotels and lodges by 2017 (County Government of Meru, 2013 & 2018).

Respondents were drawn from the settlements inhabited by members of Il Ngwesi Group Ranch and Ngare Ndare Forest Trust. These settlements are shown in the map of the study sites on Figure 3.1.

3.1.1 Map of Area of Study

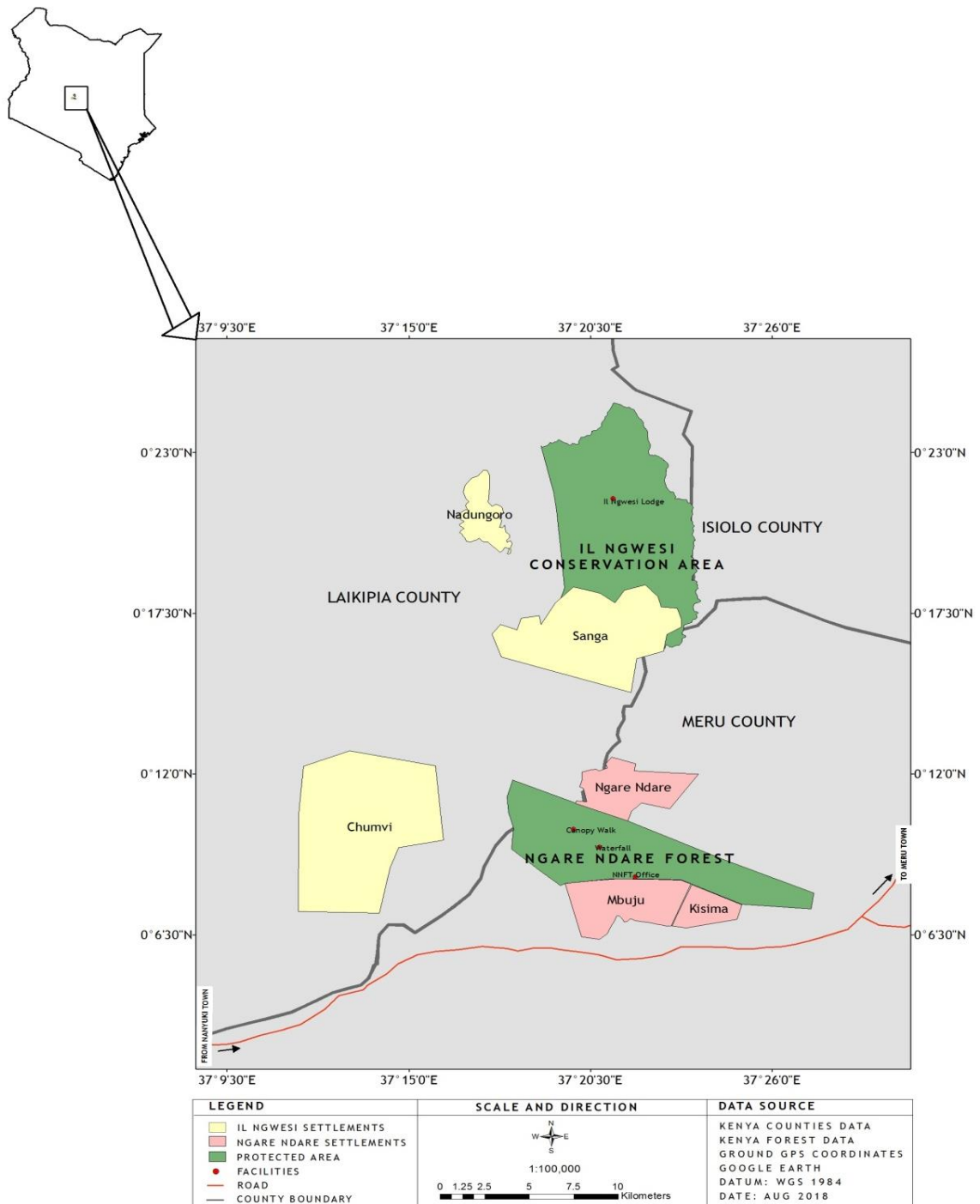


Figure 3.1: Map of the study sites showing Ngare Ndare Forest in Meru County and Il Ngwesi Group Ranch's Conservation Area in Laikipia County. (Source: Researcher)

3.1.2 Ngare Ndare Forest Reserve

Ngare Ndare is a 5,554.3-hectare gazetted state forest reserve managed by Kenya Forest Service (KFS), located approximately 260km from Nairobi through Nanyuki town (KFS & KFWG, 2008). This predominantly dry cedar and olive forest lies 2,336 meters above sea level with temperatures that range from 20⁰C to 28⁰C and rainfall of approximately 450mm a year during March-May, November-December rain seasons (KFS & KFWG, 2008).

Ngare Ndare Forest is surrounded by the community settlements of Subuiga, Kisima, Mbuju, Ethi, Ngare Ndare and Manyagalo in addition to large landholders including Lewa Wildlife Conservancy, Borana Ranch, Kisima Farm and Charlie's Farm (Amrani & Zeeman, 2013). These are the players who constitute Ngare Ndare Forest Trust (NNFT) which started as a working group in the 1990s before registering as a Trust in 2004 (NNFT, 2017). It was subsequently registered as a Community Forest Association (CFA) in 2007 in order to conform to the requirements of the Forests Act 2005 (Chomba, Nathan, Minang & Sinclair, 2015). In 2009, Kenya Forest Service (KFS) granted NNFT a concession to manage Ngare Ndare Forest including establishing ecotourism facilities within it (KFS, 2009). In addition to a 40-foot high, 450-meter long canopy walkway, NNFT offers adventure activities including walking, game drives, camping, abseiling and canyoning (Ireru, 2012; Fennessy, 2009; NNFT, 2018). The group is governed by a Trust Deed that provides for a management organ with nine trustees (NNFT, 2004).

3.1.3 Il Ngwesi Group Ranch

Il Ngwesi Group Ranch is a communally-owned Maasai area approximately 30 km west of Isiolo town and 60km north-east of Nanyuki town (Harrison, 2001; Il Ngwesi Eco-Lodge, 2015). The 8,675-hectare ranch has a conservation area (protected area) of approximately 16,000 acres where wildlife conservation and ecotourism activities are undertaken and within which grazing of livestock is prohibited unless when authorized by the community leadership in instances of severe drought (Il Ngwesi Group Ranch, 2005;

Il Ngwesi Group Ranch, 2010; KI2, personal communication, August 8, 2016). With a mean annual rainfall of between 300mm to 900mm, the Group Ranch is a drought-prone semi-arid savannah area characterized by a mixture of grasses and dense thickets dominated by Commiphora and Acacias (Harrison, 2001).

Members of Il Ngwesi Group Ranch are drawn from the Il Ngwesi clan of the Laikipia Maasai and occupy the seven settlements (neighbourhoods) of Ethi, Chumvi, Leparua, Nadungoro, Ngare Ndare, Ngere-Sirkon and Sanga (Il Ngwesi Group Ranch, 2005). They operate under a constitution with leadership being elected by members during their Annual General Meeting (Harrison, 2001; UNDP, 2012). The Group Ranch owns and manages the award winning Il Ngwesi Lodge that consists of six open-sided en-suite cottages accommodating a maximum of 17 persons (Il Ngwesi Eco Lodge, 2015).

3.2 Research Design

The study was a cross-sectional survey that sought to obtain information from a sample of a population at a given point in time. The study sought to establish the attitudes of a large population of people and Schutt (1996) records that survey research is often the only means available for this. Additionally, survey research enables a researcher to describe large heterogeneous populations accurately and cost effectively (Singleton, Straits, Straits & McAllister, 1988), which was an important goal of this study. The study used the case of members of Ngare Ndare Forest Trust in Meru County and Il Ngwesi Group Ranch in Laikipia County. Case study methodology was selected as it provides an opportunity for the researcher to undertake in-depth analysis of the phenomenon under investigation (Cobbinah, Amenuvor, Black & Peprah, 2017). The study used mixed-methods approach with quantitative data being collected through a face-to-face survey and qualitative data using key informant interviews and focus group discussions. The study applied a concurrent nested design where, according to Alavi and Habek (2016) and Klassen, Creswell, Clark, Smith & Meissner (2012), quantitative and qualitative data are collected and analysed simultaneously and one approach embedded on to the other. Qualitative data deepens understanding of research concepts (Creswell, Klassen, Plano

Clark & Smith, 2011) and was therefore nested on the study's quantitative findings in order to provide broader insights.

3.3 Sample Size and Sampling Procedures

For collection of quantitative data, the study used a face-to-face survey. Use of the interview method is ideal when respondents can be accessed easily (Salant & Dillman, 1994) as was the case in this study. The study's sampling frame was the 600 households that made up the membership of Il Ngwesi Group Ranch and the 2,000 for Ngare Ndare Forest Trust (DeVeau & Marshall, 2008; NNFT, 2013). The sample size was determined using the following formula provided by Krejcie & Morgan (1970):

$$s = X^2NP(1 - P) \div d^2(N - 1) + X^2P(1 - P)$$

Where:

s = sample size

X^2 = chi-square table value at one degree of freedom and 0.05 confidence level (3.841)

N = size of the population

P = proportion of population for maximum sample size (.50)

d = accuracy degree (.05)

Following application of this formula, the study's sample size was 556 respondents, made up of 234 household heads from Il Ngwesi study site and 322 from Ngare Ndare.

Stratified random sampling was used to identify strata from which samples were drawn. Members of Ngare Ndare Forest Trust (NNFT) live in six settlements surrounding Ngare Ndare Forest while those of Il Ngwesi Group Ranch are found in seven settlements around the ranch (Amrani & Zeeman, 2013; Il Ngwesi Group Ranch, 2005). Three settlements were selected randomly from each study site, with Kisima, Mbuju and Ngare

Ngare settlements being selected from Ngare Ndare study site and Chumvi, Nadungoro and Sanga for Il Ngwesi. The researcher then secured the list of members from each of these six settlements from the management of Ngare Ndare Forest Trust and Il Ngwesi Group Ranch. The lists were subsequently cleaned with assistance of the management of the two study sites and the research assistants to remove ineligible names including repeated entries and deceased persons. Simple random sampling was then applied to the final list of members of each of settlement to identify a proportionate sample of respondents as shown in Table 3.1.

Table 3.1: Sample size in proportion to region of settlement

Settlement	No. of households	Proportion of population (%)	Sample size (n)
<i>Ngare Ndare Forest Trust:</i>			
Kisima	124	19.08	60
Mbuju	370	56.92	184
Ngare Ndare	156	24	78
Total	650	100	322
<i>Il Ngwesi Group Ranch:</i>			
Chumvi	149	37.72	89
Nadungoro	112	28.36	65
Sanga	134	33.92	80
Total	395	100	234

Source: Researcher

Key informants who were interviewed were selected purposively based on their history of involvement with the two cases and capacity to give information that would inform the study. A total of 15 key informants were interviewed including Ngare Ndare Forest Trust's Manager; Il Ngwesi Group Ranch's General Manager; County Government of Laikipia's Director for Trade, Investments and Tourism; County Government of Meru's

Ecotourism Officer; Kenya Forest Service's Ecosystem Conservator for Meru County; Lewa Wildlife Conservancy's Community Development Manager; and the Chief of Ngare Ndare Location. They are labelled KI1-KI15 in this report and their details are contained in Appendix 5.

Focus Group Discussions (FGDs) are important data collection instruments as they provide an opportunity for groups to verify the information they provide within themselves (Meinzen-Dick, DiGregorio & McCarthy, 2004). A total of 18 FGDs were undertaken to provide qualitative data and details of these are shown in Appendix 3. They are labelled FGD1-FGD18 in this report. In each of the six settlements, three FGDs were held with a separate session being held with the youth, women and men. FGD participants were selected in consultation with the management of Il Ngwesi Group Ranch, Ngare Ndare Forest Trust and the research assistants. An important consideration when selecting participants for each session was their homogeneity in terms of gender, age-set and social status to ensure that each would be comfortable to discuss issues openly in presence of the others. After securing their consent, the research assistant was responsible for mobilizing them to the pre-arranged venue and registering them upon arrival. All sessions were moderated by the researcher himself following the Focus Group Discussion Guide shown in Appendix 2. The research assistant present was responsible for taking notes and interpreting in cases when participants spoke in their mother tongue. The researcher also recorded each session on his mobile phone.

3.4 Reliability

Reliability refers to how accurate a research instrument is and shows that it would yield similar results if it is applied in the same situation on other occasions (Heale & Twycross, 2015). Before undertaking the main study, the data collection instrument (interview schedule) was pre-tested on a convenient sample of 15 members of the forest-adjacent community in Timau area by the researcher himself. Among other things, the pre-test revealed that questions were clear to respondents though some had a difficulty responding to clustered Likert-type questions due to the challenge of appreciating the

minor distinctions within each set as is characteristic of these scales. To overcome this, single attitudinal questions were introduced at different points of the schedule to ensure that respondents did not feel as if they were responding to the same question more than once.

Additionally, the research instrument’s internal consistency was measured using the Cronbach’s Alpha coefficient. Cronbach’s Alpha shows the degree to which a cluster of items are unidimensional in their measurement with scores of 0.6 to 0.7 being acceptable, 0.8 or more being good while those above 0.95 are of concern as they may indicate redundancy (Ursachi, Horodnic & Zait, 2015). The study applied the Cronbach’s Alpha test on three scales concerned with distribution of ecotourism benefits, significance of ecotourism benefits and fairness of current benefit distribution. The results of the test are shown in Table 3.2.

Table 3.2: Cronbach’s Alpha test results

Scale	No. of items	Cronbach’s Alpha
Distribution of ecotourism benefits	5	0.687
Significance of ecotourism benefits	5	0.867
Fairness of current benefit distribution	5	0.787

Source: Researcher

Table 3.2 shows the Cronbach’s Alpha for all the three scales was acceptable. The study was however concerned with the low score of the distribution of ecotourism benefits scale. Further examination of the reliability test results showed that deletion of the last item in this scale (“There is not much else that can be done to better the current benefit distribution situation”) improved the Cronbach’s Alpha to 0.826. This item was therefore removed from the scale on distribution of ecotourism benefits and all subsequent data analysis operations.

3.5 Data Collection

The study used mixed methods to gather qualitative and quantitative data from primary sources, specifically individual household heads, focus group discussions and key informants. This approach presents an opportunity to get new insights from tourism, a research field that has a positivist background (Molina-Azorín & Font, 2016). Data collection tools were an interview schedule for individual household heads, a discussion guide for the focus groups and a questionnaire for key informants.

The interview schedule was developed after review of literature on ecotourism, community participation and benefits distribution and covered social-economic background of the respondents; nature and extent of their participation in ecotourism and environmental conservation; the benefits and costs they received from ecotourism and; their attitudes on ecotourism, participation and the distribution of benefits and costs. This tool was administered by the researcher or research assistants in a face-to-face interview to each of the 556 sampled respondents and a copy of it can be seen in Appendix 1.

Both the focus group discussion guide and key informant questionnaire had open-ended questions that sought information on the current status of community participation in ecotourism; the status of distribution of the benefits and costs of ecotourism; factors that impact on distribution of benefits and costs; possible effects of distribution of benefits and costs on community attitudes and community participation in ecotourism and environmental conservation, and; recommendations for improvement of community participation and benefit distribution in ecotourism enterprises. A copy of the focus group discussion guide is shown in Appendix 2 and the questionnaire for key informants in Appendix 4.

Data collection was preceded by engagement of five research assistants who were selected with assistance of the management of Ngare Ndare Forest Trust and Il Ngwesi Group Ranch. These were members of the local community with detailed knowledge of the study site and local language, with three hailing from Ngare Ndare area and two from Il Ngwesi. The researcher then trained them in a session that entailed introducing them to the study and its objectives, explaining each item in the interview schedule and guiding them on how to administer it. Each of them also administered several schedules under the observation of the researcher.

All data was collected between August 2016 and January 2017. Before conclusion of fieldwork, the data was cleaned which entailed examining all interview schedules and questionnaires for completeness and contacting specific respondents where key information had been left out. Where respondents with incomplete schedules could not be reached, they were replaced by administering the tool to another randomly selected person from the same settlement.

3.6 Data Analysis

Quantitative data was analyzed using descriptive and inferential statistics. Descriptive statistics used included the mean and range. Before determining the nature of inferential statistics that were to be used, the study applied the Kolmogorov-Smirnov test of normality on the dependent variables. The results of this test are shown in Table 3.3.

Table 3.3: Normality test results

Variable	Study site	Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
Firewood	Il Ngwesi	0.496	59	0.000
	Ngare Ndare	0.459	161	0.000
Pasture	Il Ngwesi	0.384	59	0.000
	Ngare Ndare	0.439	161	0.000
Bursaries	Il Ngwesi	0.517	59	0.000
	Ngare Ndare	-	-	-
Water	Il Ngwesi	0.384	59	0.000
	Ngare Ndare	0.439	161	0.000
Loans	Il Ngwesi	0.493	59	0.000
	Ngare Ndare	-	-	-
Employment	Il Ngwesi	0.540	59	0.000
	Ngare Ndare	0.514	161	0.000
Market opportunities	Il Ngwesi	0.484	59	0.000
	Ngare Ndare	0.530	161	0.000
Herbs	Il Ngwesi	-	-	-
	Ngare Ndare	0.537	161	0.000
Poles	Il Ngwesi	-	-	-
	Ngare Ndare	0.522	161	0.000
Honey	Il Ngwesi	-	-	-
	Ngare Ndare	0.538	161	0.000
Trees planted	Il Ngwesi	0.270	59	0.000
	Ngare Ndare	0.357	161	0.000
Distribution of ecotourism benefits	Il Ngwesi	0.290	59	0.000
	Ngare Ndare	0.381	161	0.000
Significance of ecotourism benefits	Il Ngwesi	0.218	59	0.000
	Ngare Ndare	0.209	161	0.000
Fairness of current benefit distribution	Il Ngwesi	0.282	59	0.000
	Ngare Ndare	0.257	161	0.000

^aLilliefors Significance Correction

As demonstrated in Table 3.3, the test for normality showed that the data was not normally distributed as the level of significance was below 0.05 for all the dependent variables. This implied that parametric tests like Analysis of Variance (ANOVA) and Pearson's Correlation Coefficient could not be used as they require a normal distribution. The inferential statistics used therefore entailed application of logistic regression and ordinal regression. Logistic regression was applied to analyze relationships between the

independent and dependent variables in Objective 1 (to analyze the socio-demographic factors that influence distribution of the benefits of ecotourism) and Objective 4 (to analyze how the distribution of benefits affects community participation in ecotourism). This is because as shown by Peng, Lee & Ingersoll (2002), logistic regression is ideal for testing relationships between a variable with a categorical outcome and one or more variables with continuous or categorical predictor variables (Peng, Lee & Ingersoll, 2002). This is because it addresses the shortfalls of linear regression where dichotomous outcomes and continuous predictors yield sigmoidal scatter shapes that are hard to describe using linear equations as the extremes are not linear, and errors are neither constant nor are they normally distributed across the data range (Peng, Lee & Ingersoll, 2002). According to Sperandei (2014), logistic regression is arrived at using the following formula:

$$\log\left(\frac{\pi}{1-\pi}\right)=\beta_0+\beta_1X_1+\beta_2X_2+\dots+\beta_mX_m$$

Where:

π shows the probability of an outcome or event

β_i represents the regression coefficients

X_i represents the explanatory variables.

Though logistical regression allows multiple variables to be analyzed simultaneously, the effect of confounding variables is minimized since the probability of outcomes is modeled based on individual characteristics (Sperandei, 2014). Ordinal regression on its part was used to explore relationships in Objective 3 (to examine how the distribution of benefits affects community attitudes to ecotourism). It was appropriate here since responses were in form of Likert scales which are ordered.

Qualitative data analysis was also undertaken as it provides an emic (informant-centred) perspective of the research topic that builds theory from the ground up (Tracy, 2013). It

was mainly applied to data collected from Focus Group Discussions (FGDs) and entailed use of thematic analysis whereby a researcher seeks similarities, convergence or ‘universality’ in how different respondents address the issue under consideration (Life, 1994; Sgier, 2012). It was preceded by data transcription whereby the audio recordings were typed out followed by analysis of the responses for each question to identify common themes. The study then discussed these themes and their implication on the research objectives.

For the policy and legislative documents, the study undertook qualitative content analysis, a process that Kleinheksel, Rockich-Winston, Tawfik and Wyatt (2020) indicated relies on the assumption that deep insights that can be derived from analysis of textual data concerning a subject under study. Similar to Kitheka and Backman (2016), the study identified the government’s policy and legislative documents that relate to community participation and benefit distribution in tourism and applied content analysis to them. The study restricted its analysis to the prevailing policy documents and left out others that were in existence but were yet to be ratified or gazetted including the Draft Wildlife Conservation and Management (Community Participation) Regulations, 2016. Content analysis can be either the manifest type which aims to describe data at face value without seeking deeper inferences, or the latent type where the hidden meaning within texts is sought and interpreted (Kleinheksel *et al.*, 2020). The study used summative content analysis where, according to Hsieh and Shannon (2005), words phrases or sentences are identified and quantified and latent content analysis applied to them in order to reveal their underlying contextual usage.

3.7 Ethical Considerations

The researcher obtained the requisite approvals to undertake the study, specifically Research Authorization from Kenyatta University and both Research Authorization and Research Clearance Permit from the National Commission for Science, Technology and Innovation (NACOSTI). Scans of these documents are provided in Appendix 6, Appendix 7 and Appendix 8.

The study further relied on voluntary participation where all respondents who were interviewed or took part in Focus Group Discussions (FGDs) had to first verbally indicate their willingness to do so. At the beginning of each FGD session, participants were made aware that they were being recorded by researcher for the purpose of securing detailed transcripts for subsequent data analysis. All the study's respondents were informed that the information they provided would be used for research purposes only. On confidentiality, the report does not reveal the identity of respondents.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.0. Introduction

This chapter discusses the research findings according to the study's objectives. It begins by exploring the socio-demographic factors that influence distribution of the benefits of ecotourism. This is followed by a discussion of the institutional arrangements that influence distribution of the benefits of ecotourism. The study then examines how the distribution of benefits affects community attitudes to ecotourism. Finally, the study analyzes how the distribution of benefits affects community participation in ecotourism.

4.1. Socio-Demographic Factors and Distribution of Benefits of Ecotourism

This section covers the first objective of the study which was “to analyze the socio-demographic factors that influence distribution of the benefits of ecotourism.” It begins with an overview of the respondents' socio-demographic factors that were investigated by this study specifically age, gender, level of formal education, number of dependants and scale of economic activity in terms of size of landholding and the number of livestock owned.

The study then explores the benefits that the government receives from ecotourism in Laikipia and Meru Counties. It then discusses the benefits that respondents received from ecotourism before exploring the relationship of each socio-demographic factor and the benefits of ecotourism. The section ends with a discussion of the themes that emerged from qualitative analysis of the data on the association between socio-demographic factors and distribution of the benefits of ecotourism in each study site. In this discussion

the study strives to compare the quantitative and qualitative findings and to explore the sources of any disparities that manifest themselves between the two.

The section relies on data that was collected using the interview schedule that was administered to respondents, the discussion guide that was used during focus group discussions and questionnaires that were applied to key informants. It has also utilized secondary literature that emerged during fieldwork especially on tourism in Laikipia and Meru County and the policies and plans of Il Ngwesi Group Ranch and Ngare Ndare Forest Trust.

4.1.1. Overview of Respondents' Socio-Demographic Factors

The study explored the socio-demographic characteristics of the respondents who were sampled from Il Ngwesi Group Ranch and Ngare Ndare Forest Trust in terms of age, level of formal education, gender, family size (number of dependants) and their scale of economic activity in terms of size of landholding and number of livestock owned. The summary of the respondents' socio-demographics is shown in Table 4.1.

Table 4.1: Socio-demographic characteristics of respondents

Socio-demographic factor	Il Ngwesi		Ngare Ndare		Total	
	No.	%	No.	%	No.	%
<i>Age:</i>						
<20 years	4	1.71	0	0	4	0.72
20-29 years	59	25.21	39	12.11	98	17.63
30-39 years	69	29.49	94	29.19	163	29.32
40-49 years	42	17.95	104	32.30	146	26.26
50-59 years	31	13.25	51	15.84	82	14.75
60-69 years	20	8.55	26	8.07	46	8.27
≥ 70 years	9	3.85	8	2.48	17	3.06
<i>Education:</i>						
No formal education	134	57.26	16	4.97	150	26.98
Primary education	45	19.23	198	61.49	243	43.71
Secondary education	35	14.96	86	26.71	121	21.76
Tertiary education	14	5.98	20	6.21	34	6.12
Unstated	6	2.56	2	0.62	8	1.44
<i>Gender:</i>						
Female	117	50.00	136	42.24	253	45.50
Male	117	50.00	186	57.76	303	54.50
<i>Family size:</i>						
No dependant	23	9.83	25	7.76	48	8.63
1-3 persons	66	28.21	138	42.86	204	36.69
4-6 persons	71	30.34	126	39.13	197	35.43
7-9 persons	56	23.93	16	4.97	72	12.95
≥10 persons	18	7.69	10	3.11	28	5.04
<i>Land size:</i>						
No land	116	49.57	9	2.80	125	22.48
≤ 1 acre	80	34.19	107	33.23	187	33.63
>1-5 acres	38	16.24	201	62.42	239	42.99
>5 acres	0	0	5	1.55	5	0.90
<i>Livestock owned:</i>						
No livestock	4	1.71	64	19.88	68	12.23
1-10 livestock	27	11.54	196	60.87	223	40.11
11-100 livestock	182	77.78	62	19.25	244	43.88
>100 livestock	21	8.97	0	0	21	3.78

The study made two observations from evaluation of the socio-demographic characteristics presented in Table 4.1. Firstly, while 97% of respondents from Ngare Ndare study site owned private land, 50% of those from Il Ngwesi did not, and while 87% of respondents from Il Ngwesi had more than ten livestock, only 19% of those from Ngare Ndare were in this category. This showed that the sample was representative of the distinct livelihood patterns in the two study sites, with Ngare Ndare being a subsistent cultivation area while Il Ngwesi was a pastoralist one as shown in Plate 4.1 and Plate 4.2.



Plate 4.1: Small scale farms in Mbuju settlement within Ngare Ndare study site, with Ngare Ndare forest showing in the background.

(Source: Researcher, 2016)



Plate 4.2: Goats near a homestead in Chumvi settlement of Il Ngwesi study site.

(Source: Researcher, 2016)

Secondly, 57% of the respondents from Il Ngwesi had no formal education at all compared to only 5% from Ngare Ndare, and 32% of Il Ngwesi respondents had seven or more dependants compared to 8% of Ngare Ndare. This finding was taken to be an indicator of there being higher poverty levels in Il Ngwesi than Ngare Ndare as Anyanwu (2014) and Geda *et al.*, (2001) have demonstrated that there is an association between household size and poverty with larger families being poorer than smaller ones. It was also in line with poverty levels in the respective regions as the Kenya National Bureau of Statistics (KNBS) has reported that Laikipia County where Il Ngwesi is has an overall poverty incidence of 45.9% while Meru County where Ngare Ndare is has one of 19.4% (KNBS, 2018).

4.1.2. Government benefits from ecotourism in Laikipia and Meru Counties

Kenya's tourism earnings have grown from Ksh 93.97 billion in 2013, Ksh 87.08 billion in 2014, Ksh 84.6 billion in 2015, Ksh 99.69 billion in 2016 to Ksh 119.9 billion in 2017 (KNBS, 2018). The country however does not disaggregate this revenue to show what came from each of the 47 counties. To establish the benefit that the government received from ecotourism in Laikipia and Meru County, the study investigated the tourism revenue that each county earned in either 2016 or 2017 and computed the proportion that went to the government.

Laikipia County has different tourist attractions that include wildlife mainly found in private and group ranches, indigenous forests, unique landscapes, the local culture, sports events and attractive features like the Thomson Falls (County Government of Laikipia, 2018). As at 2017, Laikipia County had 36 hotels and lodges all having a total of 1,064 beds (KNBS & County Government of Laikipia, 2021). The County further received 135,903 recreational visitors consisting of 118,915 Kenyans and 16,988 foreigners (KNBS & County Government of Laikipia, 2021). Meru County on its part has diverse tourism attractions including Meru National Park, Lewa Wildlife Conservancy and Ngare Ndare Forest Trust (County Government of Meru, 2013, 2018). In 2017, the county had 31 hotels and lodges with a total of 1,328 beds (County Government of Meru, 2018). Additionally, Meru National Park was visited by 19,800 persons while those who visited Meru Museum were 19,900 in 2016 (County Government of Meru, 2018). Using the accommodation bed capacity and recreational visitation of the two counties, the government's benefits from ecotourism are shown in Table 4.2.

Table 4.2: Government's benefits from ecotourism in Laikipia and Meru Counties

Attribute	Laikipia County	Meru County	Total
Number of hotels	36 (1,064 beds)	31 (1,328 beds)	67 (2,392 beds)
Bed nights sold per year*	117,673	146,870	264,543
Total revenue to hotels (Ksh) ^Φ	1,684,725,486	2,102,740,081	3,787,465,567
Government revenue from hotels (Ksh) ^α	303,250,588	378,493,215	681,743,803
Government revenue from recreation (Ksh) [§]	8,935,613	28,287,151	37,222,764
Total income to government (Ksh)	312,186,201	406,780,366	718,966,567
Ecotourism revenue to government (Ksh) ^Ω	42,145,137	54,915,349	97,060,486

*The annual average bed occupancy was 30.3% in 2016 (KNBS, 2018).

^ΦIn 2016 and 2017, the Average Daily Rate (ADR) for hotels in Kenya was 139 USD (Faria, 2021). This is an equivalent of Ksh 14,317 using an average exchange rate of Ksh 103 for one USD as was prevailing then.

[§]Kenyans pay an average of Ksh 75 and foreigners Ksh 200.

^αTourism enterprises pay the statutory 16% Value Added Tax (VAT) and a 2% Catering Levy.

^ΩUsing an average of 14% of the revenue since, according to Lindberg, Furze, Staff & Black (1997), ecotourists consist of between 7% to 20% of visitors.

As shown in Table 4.2, the government received an estimated Ksh 97,060,486 from ecotourism in Meru and Laikipia Counties in 2017, with Ksh 42,145,137 coming from Laikipia County and Ksh 54,915,349 from Meru County. The final revenue to the government is bound to be higher than this since, as reported by Xinhua (2020), Kenyan tourism businesses remit other fees to the government including payments for business permits, liquor licenses, National Environment Management Authority (NEMA) license, advertising permits among others.

4.1.3. Respondent's Benefits from Ecotourism

Respondents from both study sites reported that they received different benefits from ecotourism and associated conservation areas. The study observed that these benefits fell into two categories: those that accrued directly to individuals namely firewood, pasture, bursaries, training, water, loans, employment, market opportunities, cash, herbs, energy saving stoves, honey, poles, land for cultivation, sand, biogas system, improved livestock breeds and beads, and; those that accrued to the wider community specifically environmental improvement, roads improvement, security improvement, cultural preservation, education facility improvement, trees seeds or seedlings for groups, health facility improvement, water supply equipment for groups, water troughs in the conservation area, tree nursery equipment for groups, greenhouse facilities, games equipment, recreational opportunities and forest soil for groups' tree nurseries. These benefits are shown in Table 4.3.

Table 4.3: Benefits respondents received from ecotourism and associated conservation areas

Benefits of ecotourism*	Il Ngwesi		Ngare Ndare		Total	
	No.	%	No.	%	No.	%
<i>Benefits accruing directly to the individual:</i>						
Firewood	20	8.55 ^a	270	83.85	290	52.16
Pasture	76	32.48	83	25.78	159	28.60
Bursaries	134	57.26	8	2.48	142	25.54
Training	50	21.37	66	20.50	116	20.86
Water	34	14.53	74	22.98	108	19.42
Loans	60	25.64	0	0	60	10.79
Employment	26	11.11	20	6.21	46	8.27
Market opportunities	25	10.68	6	1.86	31	5.58
Cash	14	5.98	1	0.31	15	2.70
Herbs	0	0	12	3.73	12	2.16
Energy saving stoves	0	0	9	2.80	9	1.62
Honey	1	0.43	5	1.55	6	1.08
Poles	0	0	5	1.55	5	0.90
Land for cultivation	5	2.14	0	0	5	0.90
Sand	2	0.85	0	0	2	0.36
Biogas system	0	0	1	0.31	1	0.18
Improved livestock breed	1	0.43	0	0	1	0.18
Beads	1	0.43	0	0	1	0.18
<i>Benefits accruing to the community:</i>						
Environment improvement	0	0	106	32.92	106	19.06
Roads improvement	3	1.28	87	27.02	90	16.19
Security improvement	33	14.10	8	2.48	41	7.37
Cultural preservation	16	6.84	0	0	16	2.88
Education facility improvement	4	1.71	10	3.11	14	2.52
Tree seeds or seedlings	2	0.85	8	2.48	10	1.80
Health facility improvement	9	3.85	0	0	9	1.62
Water supply equipment	1	0.43	8	2.48	9	1.62
Water troughs in forest	0	0	3	0.93	3	0.54
Tree nursery equipment	0	0	2	0.62	2	0.36
Greenhouse facility	1	0.43	1	0.31	2	0.36
Games equipment	0	0	2	0.62	2	0.36
Recreational opportunity	0	0	2	0.62	2	0.36
Forest soil	0	0	2	0.62	2	0.36

^aAll percentages exceed 100 as respondents could select more than one benefit.

Table 4.3 demonstrates the multiplicity of benefits that the local communities were receiving from ecotourism and associated conservation areas with some being popular in both study sites like pasture, water and training while others were only associated with one including herbs, loans and improvement of health facilities. As shown in the Table, the study noted the high popularity of firewood, pasture and water as evidence that access to natural resources remained a significant benefit for local communities in the two study sites. This was a demonstration that community owned and operated ecotourism enterprises were providing this critical benefit to their residents unlike tourism ventures associated with state-managed protected areas or private sector-community partnerships that Rutten (2002, 2004) and Strickland-Munro & Moore (2013) have shown deny locals access to natural resources within the tourism area. On one hand, such control of protected areas by external agencies is undesirable as it has been demonstrated to lead to increase in dependency and poverty levels among local communities (Laudati, 2010). On the other hand, the environmental impact of such increased access will clearly be higher and requires strong regulatory mechanisms among local communities.

Table 4.3 further reveals a distinction between the two study sites whereby higher proportions of respondents from Il Ngwesi received the benefits that accrued to the individual than Ngare Ndare. It however emerged that in both study sites, some significant individual benefits only went to a limited number of residents including employment (8%) and market opportunities (6%). Afenyo & Amuquandoh (2014) have reported a similar situation in the community-operated monkey sanctuary of Tafi Atome in Ghana where they record that employment goes to only 4% of the community members. Securing jobs in ecotourism enterprises is critical for local communities as it alleviates poverty through enhanced incomes and social welfare (Snyman, 2012). The low level of employment and market opportunities revealed by this study clearly undermined the poverty-alleviation potential of the two community-operated ecotourism enterprises.

4.1.4. Benefits that accrued directly to individuals

As shown in Table 4.3, collection of firewood from the conservation area was the most popular among the benefits that accrued directly to individuals, having been recorded by 84% of the respondents from Ngare Ndare study site and 9% of those from Il Ngwesi. Collecting firewood in public forests is part of the user rights granted to forest-adjacent communities and for which they pay a Monthly Fuel License of Ksh 100 as stipulated in the Forests (Fees and Charges) Regulations 2016 (GoK, 2016b).

Majority of Ngare Ndare respondents who collected firewood reported paying Ksh 125 a month allegedly due to the added cost of sending the money through mobile phones. Respondents therefore paid between Ksh 1,200 and Ksh 1,500 per year for fuelwood collection. In an effort to ensure sustainability, it was further learnt that NNFT has limited each woman's collection to three days a week, which implied that a respondent could collect up to 144 headloads of firewood in a year.

The average cost of a headload of fuelwood was Ksh 300, implying that the 39% of all respondents that went into the forest to collect fuelwood for all the three days every week received firewood worth Ksh 43,200 in a year. Twelve per cent of all respondents received firewood below this amount and only 0.4% received more than this amount. As per traditional gender roles, it emerged from the study that 98% of firewood collectors were women, with respondents noting that NNFT permitted men to collect firewood only when there was an occasion like a burial arrangement meeting.

Plate 4.3 shows women carrying firewood from Ngare Ndare Forest.



Plate 4.3: Women carrying firewood from Ngare Ndare Forest.(**Source:** Researcher, 2016)

Pasture from the conservation area was the second most popular benefit, received by 33% of the respondents from Il Ngwesi and 26% of those from Ngare Ndare. For Ngare Ndare study site, grazing in the public forest was a user right conferred to forest-adjacent communities just like firewood collection, with an attendant monthly cost of Ksh 100 per cow and Ksh 40 per sheep (GoK, 2016b).

For Il Ngwesi study site, pasture covered the occasions when Group Ranch members were permitted to graze in the conservation area at no cost during periods of severe drought when grass was not available elsewhere. This could be up to three months as was the case during the 2008-2009 drought (UNDP, 2012). An average herd in Laikipia consists of 12.8% cows and donkeys and 87.2% sheep and goats (Kuta, 2018) and cattle consume an average of 7.2kg of dry weight per day while sheep and goats it is 6.8 kg

(FAO, 1993). Using an average cost of Ksh 150 for a 15kg hay bale as was prevailing at the time of the study, the study noted that 9% of respondents who had up to 10 livestock received Ksh 62,346 worth of pasture from the conservation area in Il Ngwesi or Ngare Ndare within a period of three months. The 17% who had up to 100 livestock received up to Ksh 623,459 worth of pasture over the same period, with only 1% who had more than 100 livestock receiving more than this amount.

In Ngare Ndare study site, pasture was received by an almost equal proportion of respondents from each of the three settlements possibly due to all of them abutting the forest. In Il Ngwesi on the other hand, almost half of Sanga respondents reported receiving it compared to a quarter from both Chumvi and Nadungoro, with the common reason given being that Sanga residents could easily graze there due to their location next to the conservation area as compared to Nadungoro and Chumvi.

Plate 4.4 shows a typical section of Il Ngwesi Group Ranch's conservation area adjacent to Il Ngwesi lodge.



Plate 4.4: A section of Il Ngwesi Group Ranch’s conservation area adjacent to Il Ngwesi Lodge. (Source: Researcher, 2016)

Bursaries from ecotourism-related revenue were mainly enjoyed in Il Ngwesi study site where 57% of the respondents reported receiving this benefit as compared to only 3% of those from Ngare Ndare study site. The General Manager of Il Ngwesi Group Ranch reported that they spent between Ksh 600,000 and Ksh 850,000 every year on bursaries (KI2, personal communication, August 8, 2016). Nineteen per cent of all respondents received a bursary of Ksh 3,000 a year which was the standard amount given by Il Ngwesi Group Ranch per schooling child. Those who received more than this amount were 6% of all respondents, with the highest amount reported in a year being Ksh 20,000 in accordance with the number of children that one had in school at any given year. Although it was reported by various respondents that Il Ngwesi Group Ranch distributed

bursaries equally to all who had school-going children, the study found disparities in the proportion of respondents who reported this benefit within each settlement, with Chumvi having 74%, Nadungoro 54% and Sanga 40%.

Training associated with either Il Ngwesi Group Ranch of Ngare Ndare Forest Trust was common in both study sites with 21% of the respondents from each study site reporting it. There were disparities in the proportion of respondents who received training within each settlement: in Il Ngwesi study site, 29% of Nadungoro respondents reported receiving it compared to 21% of Chumvi and 15% of Sanga, while in Ngare Ndare study site it was received by 47% of Ngare Ndare respondents, 37% of Kisima and only 4% of Mbuju. The most common subject of training varied by study site, with sustainable agriculture being reported by 10% of Ngare respondents, weaving beaded handicrafts (4% from Il Ngwesi), livestock management (3% of all respondents), environmental conservation (3% of all respondents), beekeeping (1% of all respondents), hospitality (1% of all respondents), energy conservation (1% of all respondents) and health (1% of all respondents). While 10% of Il Ngwesi respondents reported to have been trained on more than one occasion, only 1% of those from Ngare Ndare reported this.

Water from the conservation area was reported by 23% of the respondents from Ngare Ndare study site and 15% of those from Il Ngwesi. In Il Ngwesi study site, slightly more than half of those who benefited from water were from Sanga settlement, again underscoring respondents' earlier observation that it was easier for settlements nearer to the conservation area to benefit from its resources. As noted earlier, access to grazing (and subsequently water) in the conservation area of Il Ngwesi could be granted up to a period of three months in a year. Cattle requires between 40 and 100 litres of water per head per day, while sheep require 2 to 6 litres (Markwich, 2007). The study therefore used an average of 70 litres of water for cattle and 4 litres for sheep and goats. On average public water costs Ksh 2 for every 20 litres (Wagner, Cook & Kimuyu, 2019). The study therefore noted that an Il Ngwesi respondent with herd of 10 livestock consisting of the earlier-noted Laikipia average of 12.8% cows or donkeys and 87.2% sheep and goats would receive water worth Ksh 1,133 for the three-month period that

they were permitted to access the conservation area. The 9% of respondents that had up to 10 livestock therefore received water worth Ksh 1,133; the 17% of respondents that had up to 100 livestock received water worth Ksh 11,328; with only the 1% of respondents that had more than 100 livestock receiving more than this. In Ngare Ndare study site, all the respondents who benefited from water were from Ngare Ndare settlement who reported they received piped water abstracted from Ngare Ndare Forest for irrigation purposes. The study learnt that the entire 600-member Ngare Ndare Water Project received 545m³ of water a day. Using an average cost of Ksh 0.1 per litre of water as reported by Wagner, Cook & Kimuyu (2019), the study noted that 21% of Ngare Ndare study site respondents that reported this benefit received water worth Ksh 33,154 each in a year.

Loans were reported by respondents from Il Ngwesi only with 26% of respondents from this study site indicating that they received this benefit. Of those who received loans, 47% hailed from Nadungoro settlement, 38% from Sanga and 15% from Chumvi. The General Manager of Il Ngwesi Group Ranch explained that the loans were only availed to women groups in a revolving fund that was established with support from the European Union (EU), Voluntary Service Overseas (VSO) and K-Rep Bank (KI2, personal communication, August 8, 2016). The lowest amount of loan received by a respondent was Ksh 5,000 and the highest Ksh 100,000. Among the respondents who secured loans, 41% had received an amount of up to Ksh 20,000, 20% had received between Ksh 20,001 and Ksh 40,000 and 18% had received more than Ksh 40,000.

Employment in or through Il Ngwesi Group Ranch and Ngare Ndare Forest Trust was reported by 11% of the respondents from Il Ngwesi study site and 6% of those Ngare Ndare. It ranged from full time or contract engagement as rangers, guides or drivers to episodic casual engagements for road construction or tree planting events. Two-thirds of all who reported receiving employment indicated that they received it personally while for the rest it had gone to a member of their immediate family. Thirty per cent of those who reported employment were paid up to Ksh 10,000 a year, 13% received up to Ksh 100,000 and 44% above Ksh 100,000. From the study, it emerged that incidences of

permanent employment were higher in Il Ngwesi as compared to Ngare Ndare: 73% of Il Ngwesi respondents who reported to benefit from employment indicated it was full time engagement while in Ngare Ndare only 15% were in this category, and; 65% of Ngare Ndare respondents who reported to benefit from employment indicated it was episodic casual engagement while for Il Ngwesi only 8% reported this.

Market opportunities related to ecotourism were reported by 11% of the respondents from Il Ngwesi study site and 2% of those from Ngare Ndare. Significant markets reported were for handicrafts, livestock and sanitary towels. In addition to 71% of those who reported this benefit in Il Ngwesi being women, two-thirds of them hailed from Chumvi settlement and the rest from Nadungoro. A female respondent from Chumvi reported: “We make towels and sanitary products and we get market from schools in Kenya, Uganda and Zambia” (Il Ngwesi female, personal communication, August 8, 2016).

Other benefits that accrued directly to individuals but were received by low numbers of respondents include cash incomes which were reported by 6% of the respondents from Il Ngwesi study site; herb collection from the conservation area, reported by 4% of Ngare Ndare study site respondents; energy saving stoves, reported by 3% of Ngare Ndare study site respondents; honey from the conservation area, reported by 2% of Ngare Ndare study site respondents; poles from the conservation area, reported by 2% of Ngare Ndare study site respondents; land availed for cultivation, reported by 2% of Il Ngwesi study site respondents, and; sand, biogas systems, beads and improved livestock breeds, reported by 1% or less of all respondents.

4.1.5. Benefits that accrued to the community

Table 4.3 further shows the benefits that accrued to the wider community in both study sites. Some of the benefits in this category were in form of community development projects initiated by the management of Il Ngwesi Group Ranch or Ngare Ndare Forest Trust. In Ngare Ndare study site, it was further noted that NNFT had been sharing the revenue it received from ecotourism and other sources with all the settlements in equal

proportion, starting from Ksh 50,000 every quarter in 2012 to the current Ksh 100,000 (KII, personal communication, August 3, 2016). This money would go toward the community development project that each settlement would prioritize. The study therefore noted that some disparities in distribution of wider-community benefits in this study site were not as a result of skewed sharing by the management of Ngare Ndare Forest Trust but arose from each settlement's preferences and priorities when it came to spending their ecotourism revenue.

Environmental improvement from ecotourism was the most popular among the benefits that accrued to the community and was reported by 33% of the respondents from Ngare Ndare study site. Within this study site, Kisima settlement had the highest number of respondents who recognized environmental improvement as a benefit (47%) followed by Mbuju (37%) and then Ngare Ndare (16%). Majority of these respondents indicated that ecotourism had improved the area's environment in general, with others specifying that they now had a better climate (15%), enhanced forest protection (7%), more rainfall (3%), more forest products (2%) and less environmental degradation (2%).

Road improvement from ecotourism revenue was reported as a benefit by 27% of the respondents from Ngare Ndare study site. There was a regional disparity in the distribution of this benefit within Ngare Ndare study site since, among those who reported it, 54% hailed from Mbuju settlement, 45% from Kisima settlement and 1% from Ngare Ndare settlement. Plate 4.5 shows a culvert in Kisima settlement that respondents reported was constructed using funds from ecotourism and related activities.



Plate 4.5: Karuai culvert in Kisima settlement of Ngare Ndare study site.

(Source: Researcher, 2016)

Security improvement was reported by 14% of the respondents from Il Ngwesi study site and 3% of those from Ngare Ndare. Slightly more than two-thirds of those who reported this benefit were from Sanga settlement and they reportedly benefitted from enhanced security that Il Ngwesi Group Ranch had put in place for the conservation area and associated tourism resources. On this, a respondent from Il Ngwesi's Nadungoro settlement observed:

If something happens here [in Nadungoro settlement] for example livestock is stolen, the local police would get here before the Group Ranch security team because they are far. If it happens to those living near the lodge, it would take a very short time for them to respond because they live there. (Il Ngwesi Male, FGD15, September 20, 2016)

Education facility improvement was reported by 3% of the respondents from Ngare Ndare study site and 2% of those from Il Ngwesi. This took the form of construction of classrooms and purchase of desks and books. Plate 4.6 shows Mr Dominic Maringa, the manager of NNFT handing over a cheque to the administration of Kianda Primary School in Ngare Ndare area in August 2016 when the school received Ksh 65,000 for purchase of desks and books.



Plate 4.6: NNFT Manager presenting a cheque for purchase of desks and books to the administration of Kianda Primary School. (Source: J. Kinyua, NNFT, 2016)

Other benefits that accrued to the community include cultural preservation that was reported by 7% of the respondents from Il Ngwesi study site; trees and tree seedlings for community groups, reported by 3% of the respondents from Ngare Ndare and 1% of those from Il Ngwesi; health facility improvement, reported by 4% of the respondents from Il Ngwesi, and; water supply equipment for community groups, reported by 3% of the respondents from Ngare Ndare. This is in addition to benefits that were reported by less than 1% of all respondents, specifically water troughs for cattle in the forest, tree nursery equipment for community groups, greenhouse facilities for groups, games

equipment for clubs, recreational opportunities offered by the conservation area and forest soil for group tree nurseries. The following section explores the presence of absence of relationships between the benefits of ecotourism and each of the study's socio-demographic factors. This allowed the study to identify the characteristics of the persons who received or failed to receive benefits in each study site which was an important aspect in shedding light on whether issues of equality and equity had been addressed in the distribution of ecotourism benefits within the study sites.

4.1.6. Location of Settlement and Benefits of Ecotourism

The study sought to establish whether there was a relationship between respondent's region of settlement (independent variable) and the benefits they received from ecotourism (dependent variable) by using logistic regression analysis. The outcome of this analysis is shown in Table 4.4.

Table 4.4: Results of logistic regression analysis of region of settlement and the benefits of ecotourism

Benefit	Il Ngwesi		Ngare Ndare	
	B	Sig.	B	Sig.
Bursary	4.012	0.05**	-	-
Training	-	-	-3.461	0
Pasture	-1.298	0.177	-2.134	0.001
Employment	17.752	1	-2.452	0.02
Roads	-	-	5.246	0
Water	-0.973	0.337	-582.252	0.957
Cash	34.958	0.997	-	-
Market	22.81	0.999	-	-
Security	-34.907	0.998	-	-
Firewood	23.278	0.999	-	-
Loans	0.557	0.489	-	-
Health facility improvement	26.252	0.999	-	-
Herbs	-	-	-20.599	0.997
Education facility improvement	-	-	-19.501	0.997
Environment improvement	-	-	0.044	0.933

**Significant p values are at 0.05 level of significance and are shown in bold.

As shown in Table 4.4, region of settlement had a significant relationship with bursaries in Il Ngwesi study site in addition to training, pasture, employment and roads in Ngare Ndare study site. These benefits also exhibited a wide range in the proportion of respondents who received them in the different settlements of each study site. Within Il Ngwesi study site, bursaries were reported by 74% of the respondents from Chumvi settlement as compared to 55% of Nadungoro and 40% of Sanga. Within Ngare Ndare study site, training was received by 37% of the respondents from Kisima settlement, 47% of those from Ngare Ndare settlement and 4% of those from Mbuju; pasture was received by 35% of respondents from Kisima, 32% of those from Ngare Ndare and 20% of those from Mbuju; employment was received by 17% of the respondents from Kisima, 9% of those from Ngare Ndare and 2% of those from Mbuju, and; road improvements were reported by 65% of respondents from Kisima, 1% of those from Ngare Ndare and 26% of those from Mbuju. The study observed that these significant associations found between settlement and benefits were an indicator of the presence of regional inequality in distribution of the benefits of ecotourism in both study sites. This is in agreement with the findings of Liu *et al.*, (2012), Musyoki *et al.*, (2013) and Wang (2017) that there are associations between residents' region of dwelling and their level of participation in and benefits from tourism.

Some of the regional inequalities in benefit distribution were attributable to factors beyond the control of the management of Il Ngwesi Group Ranch or Ngare Ndare Forest Trust. For example, water had a significant association with region of settlement in Ngare Ndare study site ($X^2(2) = 300.56, p = .000$) and it was noted that this benefit was received by 95% of the respondents from Ngare Ndare settlement and none from both Kisima and Mbuju. The study attributed this to the downstream location of this settlement which meant that it was the only one that could receive the water that flowed from Ngare Ndare Forest. The significant associations found between roads and region of settlement could also be due to the priorities of different settlements on how to utilize the allocation that NNFT shared with them for community development projects. Regional disparities in accessing pasture could also have emanated from individual choices to graze or not graze

in the conservation area. The disparities in employment and training however clearly pointed to an inequality in benefit distribution that could be addressed by the community's management. Mutanga *et al.*, (2013), Ondicho (2012) and Tumusiime & Vedeld (2012) have shown that tourism enterprises associated with state-owned protected areas and joint ventures between private sector and local communities are characterized by inequality in benefit distribution among community members due to elite capture. This study demonstrated that community owned and operated ecotourism enterprises also have unequal benefit distribution within their membership.

Within Il Ngwesi study site, the study noted that a higher proportion of respondents from Sanga received the benefits of pasture, water and security than all the other settlements. Pasture was received by 48% of the respondents from Sanga, 26% of those from Nadungoro and 24% of those from Chumvi; water was received by 23% of the respondents from Sanga, 17% of those from Nadungoro and 6% of those from Chumvi, and; security was received by 29% of the respondents from Sanga, 12% of those from Nadungoro and 2% of those from Chumvi. In this regard, a respondent from Chumvi settlement observed:

Sanga and Nadungoro participate more than us because they are immediate neighbours of the conservation area. For example, if grazing opportunities arise, they are the first ones to benefit. (Il Ngwesi R1, personal communication, August 31, 2016)

As evidenced by the map of the study sites in Section 3.1.1 of this report, it was noted that while Sanga bordered the conservation area, Nadungoro and Chumvi lay 5km and 16km away respectively. It therefore emerged that while all respondents were free to access the conservation area for these resources, a higher proportion of those who did were from the settlement that was closest to it. This finding is in line with the assertions of Liu *et al.*, (2012), Musyoki *et al.*, (2013) and Wang (2017) that distance of settlement from protected areas has an inverse correlation with community participation and

benefits. The study observed that this association manifested itself mainly in the benefits related to accessing natural resources in protected areas.

4.1.7. Respondents' Gender and Benefits of Ecotourism

The study sought to establish whether there was a relationship between respondent's gender (independent variable) and the benefits they received from ecotourism (dependent variable) using logistic regression. The results of this analysis are shown in Table 4.5.

Table 4.5: Results of logistic regression analysis of gender and the benefits of ecotourism

Benefit	Il Ngwesi		Ngare Ndare	
	B	Sig.	B	Sig.
Firewood	12.288	1	1.338	0.007**
Pasture	16.499	0.999	-1.142	0.005
Roads	-	-	-0.842	0.035
Environment improvement	-	-	-1.009	0.006
Water	-0.078	1	-214.23	0.962
Employment	-27.132	0.998	-0.631	0.352
Market	37.937	0.999	-	-
Bursary	2.315	0.365	-	-
Security	-5.045	1	-	-
Loans	59.938	0.998	-	-
Health facility improvement	21.237	0.999	-	-
Cash	-10.714	1	-	-
Herbs	-	-	-1.609	0.054
Training	-	-	0.232	0.572
Education facility improvement	-	-	-0.623	0.531

**Significant p values are at 0.05 level of significance and are shown in bold.

Table 4.5 shows that gender had a significant relationship with firewood, pasture, roads and environmental improvement in Ngare Ndare study site. The coefficient shows that women had a higher likelihood of benefiting from firewood while men had a higher likelihood of benefiting from pasture, roads and environmental improvement. The study

observed that these significant associations did not emanate from an actual skew in benefit distribution. NNFT's policy of only allowing women into the forest to collect firewood could explain why more women (93%) reported it as a benefit compared to men (77%). This was clearly observed by one respondent from Ngare Ndare study site:

But in the issue of firewood, you know that is tradition. Tradition dictates that the women are the ones who go to fetch firewood. So that is not about the leadership of [Ngare Ndare Forest] Trust, or of [Kenya] Forest [Service], or whatever. That is culture. That is culture. (Ngare Ndare Male, FGD8, October 22, 2016)

Additionally, culturally-defined gender roles may have predisposed more men (31%) to identify pasture as a benefit as compared to women (19%). The finding that a higher proportion of men than women reported receiving roads (37% males, 14% females) and environmental improvement (males 40%, females 23%) was likely due to gender disparities in levels of knowledge as males are known to have a wider environmental awareness than females (Kollmuss & Agyeman, 2002). Respondents from Ngare Ndare study site further indicated that there were no gender disparities in benefit distribution, with one of them making the following observation:

When we look at the issue of gender, but this is my own opinion, I don't see that there is no equality. Because this woman even if she's left to carry the firewood by herself and all that, still on the other side it is the man who is involved with the goats, he's the one who takes the goats to pasture. But the issue of gender I don't see it as an issue. I don't see it as an issue that is stifling us, because even if there is equality everywhere it is also important to have responsibility. There are roles of women and roles of men. So I see that, and this is my opinion, I see that the issue of gender and representation, I think that it is fine. (Ngare Ndare Male, FGD8, October 22, 2016)

Mugizi *et al.*, (2017) and Spiteri & Nepal (2008) established that gender has no association with participation in tourism. The significant relationships that this study

found in Ngare Ndare study site however demonstrate that there is an association between gender and participation in receiving of the benefits of ecotourism among local communities and this emanates from different factors including culturally-defined gender roles and disparities in levels of awareness between men and women.

Table 4.5 further shows that there were no significant relationships between gender and any of the benefits that were reported by respondents from Il Ngwesi study site. It is important to record that this study site exhibited a significant association between gender and loans ($X^2(1) = 43.39, p = .000$) with more females reporting this benefit (44%) as compared to males (7%). This could be explained by the study's finding that credit was only availed to women groups in a revolving fund that Il Ngwesi Group Ranch had established with support from the European Union (EU), Voluntary Service Overseas (VSO) and K-Rep Bank (KI2, personal communication, August 8, 2016). Il Ngwesi study site also exhibited a significant association between gender and markets ($X^2(1) = 4.64, p = .031$) with more females receiving this benefit (15%) as compared to males (6%). The study learnt that it was only women who made the beaded handicrafts that were sold at the lodge's curio shop.

The study was further informed that it was only women who were involved in production of reusable menstrual hygiene kits at Il Ngwesi Group Ranch's workshop in Chumvi area (KI11, personal communication, September 6, 2016). Each kit consisted of two waterproof shields, eight absorbent liners, one wash cloth, one panty, one piece of soap, one plastic bag for washing and storage and a drawstring bag to carry the entire set. The aim was to ensure girls did not miss school during their menstrual periods. It was also useful for women who did not have ready access to sanitary pads due to where they lived or their low economic status. During fieldwork, only women were observed working in the workshop as shown in Plate 4.7.



Plate 4.7: Women making reusable menstrual hygiene kits at Il Ngwesi Group Ranch's workshop in Chumvi settlement. (Source: Researcher, 2016)

The study therefore found that there was enhanced support for women's participation and benefits in Il Ngwesi study site. From this finding, the study noted that Il Ngwesi's case was evidence that it is not in all cases where women are restricted from taking part in lucrative aspects of ecotourism as claimed by Sproule (1996). The finding was a demonstration that Il Ngwesi's community-operated ecotourism enterprises was among the tourism businesses that create opportunities for previously-marginalized groups like women as noted by Garraway (2008) and Mensah & Ernest (2013). It was however noted that these efforts were yet to yield significant impacts on women as the logistic regression model did not find any significant relationship between gender and any of the benefits of ecotourism in Il Ngwesi study site.

The study further noted that in Il Ngwesi study site, firewood was reported by 11% of the female respondents compared to 6% of males while in Ngare Ndare study site it was reported by 93% of females compared to 77% of males. Pasture on the other hand was reported by 38% of male respondents compared to 27% of females in Il Ngwesi study site, while in Ngare Ndare study site it was reported by 31% of males as compared to 19% of female respondents.

The study therefore observed that a higher proportion of women reported receiving benefits associated with household activities like firewood and water while more men reported benefits associated with activities outside the homestead like pasture, security, employment, roads and environmental improvement. This was in agreement with the assertion of Mensah (2016) that patriarchal societies have gender-specific roles whereby men carry out engagements outside the homestead while women are restricted to household chores. It was also in line with the finding of Safari *et al.*, (2015) that participation of women in tourism is generally limited by their roles, socialization, education, networks and other factors.

4.1.8. Respondents' Age and Benefits of Ecotourism

The study further sought to establish whether there was a relationship between respondent's age (independent variable) and the benefits they received from ecotourism (dependent variable) using logistic regression as shown in Table 4.6.

Table 4.6: Results of logistic regression analysis of age and the benefits of ecotourism

Benefit	Il Ngwesi		Ngare Ndare	
	B	Sig.	B	Sig.
Security	-0.802	0.278	-2.793	0.017**
Firewood	-0.232	1	0.249	0.392
Water	0.426	0.339	-86.477	0.959
Pasture	0.628	0.151	0.075	0.781
Employment	2.623	1	-0.333	0.422
Cash	17.082	0.996	-	-
Market	-0.2	0.735	-	-
Bursary	-0.176	0.623	-	-
Loans	0.507	0.206	-	-
Health facility improvement	2.383	0.138	-	-
Training	-	-	-0.256	0.341
Education facility improvement	-	-	0.047	0.939
Roads	-	-	-0.172	0.559
Environment improvement	-	-	0.173	0.486

**Significant p values are at 0.05 level of significance and are shown in bold.

Table 4.6 shows that age had only one significant relationship with the benefits of ecotourism, specifically with security in Ngare Ndare study site. The coefficient shows that respondents with more years (older persons) had a lower likelihood of reporting the benefit of security compared to younger persons. The contingency table similarly shows that more youthful persons reported this benefit compared to the elderly, with 8% of those of up to 29 years reporting it compared to 0% of those between 30-39 years, 2% of those between 40-49 years and 4% of those who were 50 years and above. In Ngare Ndare study site, the proportion of respondents who indicated that they did not benefit from security was slightly higher among women (98%) than men (97%). The study noted that it was likely that middle aged and elderly women felt they received less of the benefit of security due to the risks they were exposed to when they went into the forest to collect firewood. On the security of women collecting firewood in the forest, one respondent observed:

If she is chased by an elephant and breaks her legs it is her own problem. People from her area will have to go for her there and they will be given security to go and get her in there. But the security is not for protecting her. It is so that she does not steal anything from inside the forest. (Ngare Ndare Male, FGD6, September 24, 2016)

Age did not have any other relationship with all the other benefits of ecotourism in both Ngare Ndare and Il Ngwesi study site. This is in line with the assertions of Mensah (2016) and Mugizi *et al.*, (2017) that age has no correlation with participation in tourism and contrary to the findings of Musyoki *et al.*, (2013), Safari *et al.*, (2015) and Stone & Stone (2011) that age has an association with community participation in tourism and forest management. On one hand, the absence of any significant relationship was evidence that the benefits of ecotourism were distributed fairly to persons of different ages in both study sites. On the other hand, it showed that the study sites had not made significant effort to channel benefits to the youth, the very elderly or other specific age groups.

The study further observed that in the case of pasture in Il Ngwesi study site and firewood and water in Ngare Ndare, the age category of 40-49 years had the highest proportion of benefit recipients. It was observed that this age category had the highest proportion of respondents with more than three dependants (65%) and there was consequently a likelihood that they proactively sought and received more of those particular benefits because they had larger households to provide for. It was however noted that in both study sites, youths of up to 29 years had the most instance of having the lowest proportion of beneficiaries. This finding differed from the findings of Safari *et al.*, (2015) and Stone & Stone (2011) that youths engage in tourism more than the elderly and was in agreement with the observation of Musyoki *et al.*, (2013) that more elderly people engage in forest management than the youth possibly because young people have engagements elsewhere away from protected areas.

Finally, the study observed that in Il Ngwesi study site training had a significant association with age ($X^2(3) = 13.33, p = .004$) and a relatively high range between the different age categories spanning from 14% for those up to 29 years, 32% for 30-39 years, 31% for 40-49 years to 10% for the 50 years and above. In Ngare Ndare study site, training had no significant association with age ($X^2(3) = 5.17, p = .160$) and the range was lower, extending from 21% of those up to 29 years, 13% of 30-39 years, 24% for 40-49 years to 25% for the 50 years and above.

This was an indicator of there being more equality in provision of training to different age categories in Ngare Ndare study site as compared to Il Ngwesi. It also showed that Ngare Ndare Forest Trust offered more training opportunities for youthful respondents than Il Ngwesi Group Ranch since a higher proportion of those below 29 years reported to received it in the former study site (21%) than the latter (14%). In both study sites however, it was one of the other older age categories that recorded the highest proportion of training recipients which was further evidence that the study's findings were in dissonance with those of Safari *et al.*, (2015) and Stone & Stone (2011) that more youth engage in tourism than elder persons.

4.1.9. Respondents' Level of Formal Education and Benefits of Ecotourism

The study further sought to establish whether there was a relationship between the highest level of formal education of respondents (independent variable) and the benefits they received from ecotourism (dependent variable) using logistic regression. The results of this analysis are shown in Table 4.7.

Table 4.7: Results of logistic regression analysis of education and the benefits of ecotourism

Benefit	Il Ngwesi		Ngare Ndare	
	B	Sig.	β	Sig.
Bursary	-2.241	0.028**	-	-
Employment	17.951	0.998	0.945	0.026
Firewood	-35.149	0.997	-0.635	0.035
Environment improvement	-	-	0.665	0.027
Water	-1.03	0.418	-37.932	0.966
Pasture	-1.937	0.131	0.171	0.568
Security	-27.602	0.996	-1.239	0.335
Cash	5.135	1	-	-
Market	-0.545	0.518	-	-
Loans	0.71	0.311	-	-
Health facility improvement	4.487	0.068	-	-
Training	-	-	0.179	0.56
Education facility improvement	-	-	0.244	0.707
Roads	-	-	0.395	0.223

**Significant p values are at 0.05 level of significance and are shown in bold.

As shown in Table 4.7, in Il Ngwesi study site there was a significant relationship between respondents' level of formal education and the benefit of bursaries while in Ngare Ndare study site the same was present with employment, firewood and environmental improvement. The coefficient showed that those with higher levels of formal education had a lower likelihood of receiving bursaries as compared to those with lower levels. This was an indication of the likelihood of there being equity in the distribution of this benefit since those who were more affected by low literacy levels reported more bursaries. In Ngare Ndare study site, the coefficient of the significant relationship between education and employment showed that those with higher levels of education had a higher likelihood of receiving employment as compared to those with lower levels. Further analysis of the data revealed that in Ngare Ndare study site, employment was reported by 0% of those without any formal education, 5% of those with primary level education, 8% of those with secondary level education and 20% of

those with tertiary education. From this the study observed that those with higher levels of education had a higher likelihood of benefitting from employment than those with lower levels in Ngare Ndare study site. It was considered likely that this disparity emanated from the skills that various job opportunities called for which persons with low levels of education did not have. All in all, this finding affirmed the observations of Liu *et al.*, (2012), Safari *et al.*, (2015) and Mugizi *et al.*, (2017) that persons with higher levels of formal education participate more in tourism than those with lower ones.

Table 4.7 further shows the presence of a significant relationship between education and the benefit of firewood in Ngare Ndare study site, with the coefficient showing that persons with higher levels of education had a lower likelihood of benefiting from firewood compared to those with lower levels. Further examination of the data showed that in Ngare Ndare study site, firewood was received by 94% of those without formal education, 87% of those with primary level education, 81% of those with secondary level education and 55% of those with tertiary level education. From this observation the study noted that respondents with higher levels of education were making a greater contribution to environmental conservation by being associated with less extractive utilization of this natural resource. This affirms the findings of Stem *et al.*, (2003) that those with higher levels of education are less likely to engage in activities that entail intensive exploitation of natural resources.

Table 4.7 also shows a significant relationship between education and environmental improvement in Ngare Ndare study site whereby those with higher levels of education had a higher likelihood of reporting this benefit compared to those with lower levels. Further examination of the data showed that in Ngare Ndare study site, environmental improvements were reported by 13% of those without formal education, 32% of those with primary level education, 34% of those with secondary level education and 50% of those with tertiary level education. Formal education therefore appeared to promote appreciation of improved environments and ecosystem services. This is in harmony with the observations of Denman (2001), Kollmuss & Agyeman (2002), Oeba *et al.*, (2012)

and Wang (2017) that persons with higher levels of education have a more pro-conservation outlook than those with lower levels.

The study further observed that in Il Ngwesi study site, training was reported by 15% of those without formal education, 24% of those with primary level education, 37% of those with secondary level education and 43% of those with tertiary level education while in Ngare Ndare study site, it was received by 13% of those without formal education, 23% of those with primary level education, 17% of those with secondary level education and 15% of those with tertiary level education. It was also noted that in Il Ngwesi study site, employment was reported by 8% of those without formal education, 13% of those with primary level education, 17% of those with secondary level education and 29% of those with tertiary level education, while in Ngare Ndare study site it was reported by 0% of those without formal education, 5% of those with primary level education, 8% of those with secondary level education and 20% of those with tertiary level education. In both the case of training and employment, the study observed that the category of persons without formal education recorded the lowest proportion of beneficiaries in both study sites. The low proportion of persons without formal education that received employment and training in Il Ngwesi study site implied that a high proportion of their membership was locked out of these benefits since, as shown in Table 4.1, 57% of this study site's respondents had no formal education whatsoever. This is in line with the observation of Sproule (1996) that low levels of education limit the number of participants in tourism projects and demonstrates that this impediment exists even in community owned and operated ecotourism enterprises.

Table 4.7 further shows that in Il Ngwesi study site, the level of formal education did not have any significant relationship with employment, firewood, water, pasture, security, cash, markets, loans and health facility improvement. The same table further shows that in Ngare Ndare study site, education level did not have any significant relationship with the benefits of water, pasture, security, training, education facility improvement and roads.

On one hand, this was an indicator of the likelihood of their being equality in distribution of these benefits to persons of different levels of education in both study sites. On the other hand, the absence of significant associations showed that these benefits were not being channelled to vulnerable sections of the community like those with low literacy levels in both study sites. Though Mensah (2016) and Spiteri & Nepal (2008) have similarly found no association between the level of education and participation in tourism, this study did not concur with their findings as the logistic regression model had already established four significant relationships between education and receiving the benefits of ecotourism as shown in Table 4.7.

4.1.10. Family Size, Land Size, Livestock Owned and Benefits of Ecotourism

The study used logistic regression to analyze the relationship between respondent's family size in terms of the number of dependants (independent variable), the size of land owned (independent variable), the number of livestock owned (independent variable) and the benefits they received from ecotourism (dependent variable). The outcome of this analysis is shown in Table 4.8.

Table 4.8: Results of logistic regression analysis of family size, land size, livestock owned and the benefits of ecotourism

Benefit	Il Ngwesi		Ngare Ndare	
	β	Sig.	β	Sig.
<i>(a) Family size</i>				
Firewood	11.32	0.999	-0.074	0.832
Water	-0.148	0.755	0.476	0.999
Pasture	-0.114	0.8	0.051	0.863
Employment	-4.76	1	0.127	0.815
Security	-4.081	0.15	1.188	0.169
Cash	-0.924	1	-	-
Market	0.09	0.898	-	-
Bursary	0.189	0.633	-	-
Loans	-0.424	0.306	-	-
Health facility improvement	0.453	0.53	-	-
Training	-	-	-0.074	0.808

Benefit	Il Ngwesi		Ngare Ndare	
	β	Sig.	β	Sig.
Education facility improvement	-	-	-0.103	0.888
Roads	-	-	-0.14	0.682
Environment improvement	-	-	-0.472	0.116
<i>(b) Livestock owned</i>				
Pasture	18.152	1	2.148	0**
Firewood	-10.076	1	-0.858	0.012
Water	18.667	1	-87.713	0.959
Employment	-10.684	1	-0.626	0.234
Security	11.329	1	-0.51	0.523
Cash	-21.901	1	-	-
Market	17	1	-	-
Bursary	-20.721	1	-	-
Loans	-20.573	1	-	-
Health facility improvement	18.382	1	-	-
Training	-	-	-0.438	0.15
Education facility improvement	-	-	0.45	0.498
Roads	-	-	-0.361	0.384
Environment improvement	-	-	-0.008	0.981
<i>(c) Land size owned</i>				
Pasture	0.849	0.397	-1.221	0.001
Environment improvement	-	-	-0.644	0.041
Firewood	-24.575	0.997	0.06	0.873
Water	0.667	0.526	-27.298	0.998
Employment	-3.052	1	-0.222	0.682
Security	2.633	0.448	1.835	0.15
Cash	-34.854	0.996	-	-
Market	0.504	0.648	-	-
Bursary	1.517	0.093	-	-
Loans	-0.151	0.832	-	-
Health facility improvement	3.457	0.182	-	-
Training	-	-	0.608	0.091
Education facility improvement	-	-	-0.83	0.259
Roads	-	-	0.506	0.18

**Significant p values are at 0.05 level of significance and are shown in bold.

Table 4.8 shows that family size did not have any significant relationship with any of the benefits of ecotourism in both study sites. Majority of the benefits also exhibited a low range in the proportion of recipients among respondents with different family sizes. For example, firewood in Il Ngwesi study site was received by 7% of those without dependants, 9% of those with 1-3 dependants, 11% of those with 4-6 dependants, 5% of those with 7-9 dependants and 6% of those with 10 or more dependants while in Ngare Ndare study site it was received by 68% of those with no dependants, 83% of those with 1-3 dependants, 89% of those with 4-6 dependants, 94% of those with 7-9 dependants and 70% of those with 10 dependants or more. On its part pasture in Il Ngwesi study site was received by 30% of those with no dependants, 30% of those with 1-3 dependants, 28% of those with 4-6 dependants, 43% of those with 7-9 dependants and 28% of those with 10 or more dependants while in Ngare Ndare study site it was reported by 40% of those with no dependants, 23% of those with 1-3 dependants, 28% of those with 4-6 dependants, 25% of those with 7-9 dependants and 20% of those with 10 or more dependants. The study therefore noted that there was no disparity in distribution of benefits to respondents with different family sizes in both study sites. On one hand, this was indicative of equality in distribution of benefits to the rich and the poor in both study sites since Anyanwu (2014) and Geda *et al.*, (2001) have noted the presence of a correlation between household size and poverty levels with larger families being more likely to be poor than smaller ones. The absence of any significant relationships on the other hand indicated that there was no notable effort to achieve equity by channelling benefits to the poorest in either Il Ngwesi or Ngare Ndare study site.

Table 4.8 further shows that pasture had a significant relationship with the number of livestock owned and the scale of land held by respondents from Ngare Ndare study site. The coefficient shows that respondents with more livestock had a higher likelihood of benefiting from pasture while those with more land had a lower likelihood of reporting this benefit. The study noted that Ngare Ndare study site did not have any wealth-related restrictions on pasture access, with the only requirement being payment of the standard fees for grazing in the public forest area. The study therefore considered this association

to be in line with logical human behaviour whereby those with more livestock are bound to seek for more pasture, and those who own larger pieces of private land will seek less pasture in the public forest area as they optimize on the fodder that is freely available on their own farms. Table 4.8 also shows a significant relationship between the number of livestock owned and the benefit of firewood in Ngare Ndare study site, with the coefficient showing that those with more livestock were less likely to benefit from firewood. This association may also have been from respondent's individual choices on firewood collection since Ngare Ndare study site did not have any wealth-related restrictions on firewood collection, with the only present requirements being payment of the requisite fees for collection of firewood in a public forest area, having only women collecting firewood and only collecting for three days in a week to reduce the activity's impact on the forest environment. Table 4.8 further shows a significant relationship between land size and environmental improvement in Ngare Ndare study site with the coefficient showing that those with larger pieces of land had a lower likelihood to report environmental improvements as compared to those with smaller pieces. The study noted that this was not a benefit that accrued to individuals and it was considered likely that those with smaller pieces of land visited the forest more often in their quest for pasture, firewood and other benefits and subsequently had a higher likelihood of observing changes in the conservation area compared to others.

From the foregoing observations and the absence of significant associations between majority of the benefits and family size, livestock numbers and the size of land held in both study sites, the study noted that the benefits of ecotourism in Il Ngwesi and Ngare Ndare study sites were not accruing to the wealthy only as has been observed in other types of tourism businesses by Liu *et al.*, (2012), Mensah (2016), Mugizi *et al.*, (2017), Ondicho (2012), Spiteri & Nepal (2008), Sproule (1996), Stone & Stone, (2011) and Suriya (2010). More importantly, this absence of significant associations between ecotourism benefits and these wealth indicators showed that there was no equity in benefit distribution as there was no evidence of more benefits being channelled to poorer community members in both study sites.

4.1.11. Themes on Socio-Demographic Factors and Distribution of Benefits

The study evaluated the Focus Group Discussions (FGDs) for themes related to socio-demographic factors and benefit distribution. The first theme that emerged was on settlement and benefit distribution. For Il Ngwesi study site, it emerged that there was unequal distribution of benefits between settlements due to distance from the conservation area. It was noted that more residents from Nadungoro and Sanga settlements accessed pasture in the conservation area due to the proximity of their settlements to it. Il Ngwesi respondents also reported that settlements near the conservation area benefited more from its enhanced security as when they experienced insecurity incidences, the rangers there would respond quickly compared to those who lived farther away. On this, a respondent from Sanga settlement reported:

The other benefit is security, and that is because the lodge is here. If the lodge was in Nanyuki or Chumvi, there would be no security on this side as Samburu or others who come to raid would get to us. So security is there and it is because of the lodge's presence. Because they have employed rangers. (Il Ngwesi Male, FGD16, November 12, 2016)

For Ngare Ndare study site, it emerged that there was disproportionate distribution of benefits to the different settlements. The study learnt that while NNFT had put in place regulations on collecting firewood from the conservation area to ensure sustainable utilization, residents of Ngare Ndare settlement gathered fuel wood from the forest for five days a week while all other settlements collected for three days. A respondent from this settlement gave the following reason for this disparity:

When the [Ngare Ndare Forest] Trust came up with the policy of limiting the days of firewood collection, it did not involve the stakeholders. It was not on public participation so that we agree. They went to the Board and sat and passed the law without consulting us. As Ngare Ndare [settlement] we refused to abide by that

policy. That's why you find that our days are more. (Ngare Ndare Male, FGD8, October 22, 2016)

The study then compared these qualitative findings of the settlement and benefit distribution theme with those of the quantitative tests that had been carried out earlier. Both the qualitative and quantitative findings showed that there were significant associations between region of settlement and the benefits of ecotourism. They therefore were in concurrence with the observations of Liu *et al.*, (2012), Matiku *et al.*, (2012), Musyoki *et al.*, (2013), Wang (2017) and Zhang (2008) that there are significant associations between residents' region of habitation and their level of participation in tourism activities. For Ngare Ndare study site, it was observed that though the logistical regression had not shown any significant association between settlement and firewood collection, more respondents from Ngare Ndare settlement had reported to have benefitted from firewood (89%) than both Kisima (85%) and Mbuju (82%). The benefit of firewood therefore had unequal regional distribution within Ngare Ndare study site though the disparity did not manifest in the quantitative test possibly because it related to the extent of access among the respondents who received it.

The FGDs further revealed a theme of gender and benefit distribution. In Il Ngwesi study site, it was learnt that the benefit of loans and market opportunities accrued only to women. While some FGD sessions especially those involving the youth expressed dissatisfaction with this focus on women, most regarded this positively and saw it as a benefit that went to the entire family. A male respondent from this study site made the following observation in regard to loans:

When you see women getting loans, us men do not get loans. But when you see my wife getting a loan, it is like I have got it. So there is no problem with only women getting loans. We have agreed that let women benefit from loans because us men cannot make those beadworks. (Il Ngwesi Male, FGD11, September 9, 2016)

In Ngare Ndare study site, it emerged that firewood collection was undertaken only by women. It was learnt that men were restricted from this activity to ensure sustainable harvesting of only what families required for their household needs. It however emerged that this benefit came with costs for women including the risk of injury from wildlife and harassment by rangers while in the forest. It was also reported to impact negatively on women's health as they had to carry it out of the forest on their backs. On this one woman reported:

It is only us women who are allowed to collect firewood. Our backs have been broken! Let us say I have only boys, yes, and I have a problem with no one to collect firewood for me. My son cannot go into the forest to collect and bring me firewood... You might find a widower who has only sons, and he is a man. He cannot go in to collect firewood. It is a problem. It is a problem. (Ngare Ndare Female, FGD7, October 22, 2016)

The study compared the findings of this theme with those of the quantitative tests that had been carried out earlier. It emerged that though the logistical regression analysis had not found any significant relationship between gender and ecotourism benefits in Il Ngwesi study site, the study found significant associations between gender and loans ($X^2(1) = 43.39, p < .001$) and gender and markets ($X^2(1) = 4.64, p = .031$) and the contingency table showed that a higher proportion of women than men benefited from loans (44% females, 7% males) and markets (15% females, 6% males). Though it had not yet yielded a significant effect, this demonstrated that in Il Ngwesi ecotourism had created an opportunity for previously-marginalized groups like women as shown by Garraway (2008) and Mensah & Ernest (2013). For Ngare Ndare study site, the logistical regression analysis had revealed a significant association between gender and firewood where more women (93%) reported the benefit than men (77%) and it had been observed that the association was not due to unequal benefit distribution but culturally-defined gender roles where firewood collection was traditionally undertaken by women. The concerns that women raised on this role underscored the findings of Safari *et al.*, (2015) that participation of women in tourism is limited by many factors including their roles.

The final theme that emerged was on youth and benefit distribution. In the case of Il Ngwesi study site, FGD session involving the youth reported that their management gave too much attention to women at the expense of other sections of the community. Youth reported that they received limited benefits from ecotourism and disproportionately suffered more losses as they were the ones who went out to defend the community whenever insecurity incidences arose. They indicated that creation of employment was a major benefit that they expected from ecotourism but that currently this was not available as one of them observed:

Nothing comes to the youth here because, at least, those that I see benefiting are the ones who are getting these loans. But to people like these who have finished school and are here maybe they will go there and do that attachment for maybe six months, but at the end of the tunnel you will come back home... you cannot get direct employment... or you go and look elsewhere. So I don't see much benefit for the youth. (Il Ngwesi Youth, FGD13, September 20, 2016)

In Ngare Ndare study site, youth reported that though they no longer have access to poles in the forest, there were actual benefits that went to them. They reported that NNFT had previously supported them with football kits in addition to allocating them an open area in the forest that they now used as a football pitch as shown in Plate 4.8:



Plate 4.8: Ngare Ndare youth are allowed to play football in this glade in Ngare Ndare Forest. (Source: Researcher, 2016)

Ngare Ndare youth further reported that they had benefited from both casual and permanent jobs including being employed as rangers by NNFT. To this end, one youth reported:

In the past we used to benefit from posts but for now you can't get anything like that. We also formed a football team and were given an area there to be playing as we took care of the forest. The Trustees would buy us playing shoes, [give us] some little money like Ksh 5,000. And we get firewood for funeral arrangement meetings. (Ngare Ndare youth, FGD6, September 24, 2016)

The study then compared the outcomes of this theme with the earlier findings of the quantitative tests. For Il Ngwesi study site, the logistical regression analysis had not found any relationship between age and any of the benefits including employment and

training. It was therefore clear that Il Ngwesi Group Ranch did not have any significant youth-targeted benefits unlike the findings of Safari *et al.*, (2015) and Stone & Stone (2011) that more youth engage in tourism than elder persons. For Ngare Ndare study site, though the logistical regression test had not found any relationship between age and employment, the data showed that youths below 29 years had the highest proportion of respondents who received this benefit at 8% with the age categories of 30-39 years, 40-49 years and 50 and above years recording 6% each. The study therefore noted that youths were marginally more likely to benefit from employment in Ngare Ndare study site, but the disparity was probably too minimal to manifest in the quantitative tests.

4.2. Institutional Arrangements and Benefits of Ecotourism

This section covers the second objective of the study which was “to investigate the institutional arrangements that influence distribution of the benefits of ecotourism.” It begins with analysis of the provisions of various policy and legislative instruments as far as benefit distribution and social justice in ecotourism is concerned. The study reviews the following policy and legislative instruments: The Constitution of Kenya 2010, Kenya Vision 2030, Kenya Vision 2030 Second Medium Term Plan (2013-2017), Sessional Paper No. 1 of 2010 on Enhancing Sustainable Tourism in Kenya, National Tourism Blueprint 2030, The Sector Plan for Tourism 2013-2017, Tourism Act No. 28 of 2011, Wildlife Conservation and Management Act 2013, Forest Conservation and Management Act 2016, KFS Strategic Plan 2014-2017 and KWS Strategic Plan 2012-2017. The study further analyzes the prevalence of key terms and phrases in these documents in addition to carrying out a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis on them and ends with a summary of the policy gaps that emerge from this analysis. The study further discusses the institutional arrangements that impacted on benefit distribution in the two study sites. These are County Government arrangement that are in place in both study sites, the Group Ranch management that was in place in Il Ngwesi study site and the Community Forest Association (CFA) management that was in place in Ngare Ndare study site.

4.2.1. Current Policy and Legislative Instruments on Benefit Distribution

The Constitution of Kenya, 2010 identifies people's participation as one of the country's national values and introduces a system of devolved governments with the objective of enhancing equity and participation of all citizens including minorities and marginalized communities (GoK, 2010a). The Constitution's Fourth Schedule notes that the functions of tourism development and policy formulation lie with the National Government while regulation of local tourism enterprises is bestowed on County Governments. Aside from this, the document does not have any other provisions on tourism. The Constitution places a lot of emphasis on the area of social justice including equity, equality, inclusion, non-discrimination and safeguarding the rights of marginalized sections of the community. These are part of the country's national values and governance principles as provided for in Chapter 10(2)(b) of the Constitution. This is the policy document that has the most explicit and expansive provisions on social justice including equity and equality compared to the other ones discussed subsequently.

The Kenya Vision 2030 identifies tourism among the six priority sectors with high potential for growth, with ecotourism being part of the Niche Products Initiative that will support the country to achieve the country's economic goals (GoK, 2007). Through this initiative, the country plans to create high-value products including an additional 3,000-bed accommodation facilities. The Kenya Vision 2030's Second Medium Term Plan (2013-2017) identifies tourism as one of the six priority sectors within the economic pillar aims to create structures and frameworks to spur the growth of ecotourism in the country (GoK, 2013a). Planned activities include securing wildlife-rich community areas that bear high potential for ecotourism development, mapping of potential ecotourism development sites, facilitating incentives for development of ecotourism and community-based tourism enterprises including homestays, developing ecotourism standards and promotion. The plan provides a budget of Ksh 5,578 million for development of the Niche Products, spread out over the 5-year period from 2013/2014 to 2017/2018 financial years. The budget for development of ecotourism and creation of ecotourism frameworks and infrastructure is however not indicated.

Sessional Paper No. 1 of 2010 on Enhancing Sustainable Tourism in Kenya is a national tourism policy that was developed to move the country's tourism industry towards sustainability (GoK, 2010b). This national policy document identifies promoting of community participation in tourism as one of the eight reasons why it was formulated in addition to having community values, benefits and public participation among its guiding principles. In the policy, the government plans to support community participation in tourism through capacity building, promotion of public-private partnerships and joint ventures, local participation in tourism planning and implementation, formation of umbrella associations and procurement of local services and goods. The policy, however, appears to place the responsibility of development of community-based tourism to the private sector through partnerships, outsourcing arrangements, joint ventures and provision of markets for local goods and services. While this may assist communities, it is important to note that this is a low level of participation that leaves communities dependent on the private sector investors. The policy also calls for formulation of regulations, standards, guidelines and other responsible tourism tools but these are yet to be formulated. The policy is also silent on issues of equity, inclusion and other aspects of social justice as far as the tourism industry is concerned.

National Tourism Blueprint (NTB) 2030 aims to support attainment of Kenya Vision 2030 by making provisions for coordination of product development, management, marketing, human resource development and stakeholder engagement within the country's tourism sector (GoK, 2017). The NTB observes that one of the tourism industry's weaknesses is that there are limited benefits that go to communities and identifies the need to enhance development and promotion of existing and new community-based tourism enterprises including homestays as one of the strategic actions required to enhance the tourism experience in all destinations in the country. This includes promotion and developing community enterprises around attractions like scenic sites, wildlife-rich areas, adventure, sports and voluntourism. It also includes assessing the skills gaps in 420 community tourism projects and building community capacities through training, coaching, mentorship and business linkages. In addition to the planning

provisions, the NTB provides specific budgets for the proposed improvements spread between 2018 and 2030 including Ksh 669 million for building capacity of 420 community tourism enterprises, Ksh 186 million for development or improvement of 175 community tourism facilities and Ksh 669 million for promotion of 413 community tourism enterprises. The proposed products for development are however too few and it is not clear where the funds are to come from. The document makes a specific mention of Il Ngwesi Lodge and observes that such community-based tourism facilities are within the product strategy though they might not be attractive to private sector investors. Though this policy document is not strong on issues of social justice, it has the most explicit and elaborate provisions as far as promotion of community participation in tourism is concerned.

The Sector Plan for Tourism 2013-2017 is a policy document that aims to elaborate on the proposals of the Second Medium Term Plan 2013-2017 (GoK, 2013c). Among the programmes and projects proposed for the 2013-2017 period is development of a homestay programme to support local participation in tourism, identification of sites with ecotourism potential, supporting developers to access incentives, development of ecotourism standards, creation of awareness and marketing. The plan provides for a Women and Youth in Tourism Empowerment Programme in order to address gender inequality and youth unemployment using the opportunities provided by the tourism industry. Though budgets are provided for the other programs including the homestays, there are no figures in the budget line for the women and youth in tourism empowerment programme. The plan therefore has express provisions on community participation and engagement of women and youth but is silent on issues of benefit sharing.

The Tourism Act No. 28 of 2011 requires the Minister for tourism to develop a national tourism strategy every five years to guide development, management, regulation and marketing of tourism in Kenya (GoK, 2011). The Act notes that the national tourism policy should, among other things, prescribe requisite measures towards achievement of equitable benefit distribution within the tourism industry. The Act also establishes the Tourism Finance Corporation (TFC) whose functions include financing communities to

establish, expand or maintain tourism facilities and services. Aside from these provisions, the bulk of this policy document is on formation of the different tourism development, management and regulatory institutions including the Tourism Regulatory Authority (TRA), Kenya Utalii College (KUC), Kenya Tourism Board (KTB), Kenyatta International Conference Centre (KICC), Tourism Fund (TF) and Tourism Research Institute (TRI). The Act therefore has a gap in that its provisions for community participation in tourism are limited to the financial support rendered by TFC.

The Wildlife Conservation and Management Act, 2013 allows individuals or groups to establish wildlife sanctuaries and conservancies in cases where wildlife inhabits on their land (GoK, 2013b). The Act expressly provides for equity in benefit distribution with one of its seven guiding principles being ensuring that wildlife benefits are shared equitably by Kenyan citizens. It bestows on Kenya Wildlife Service (KWS) the function of developing mechanisms for sharing benefits with communities that live in areas where there is wildlife. It further provides that the Cabinet Secretary in charge of wildlife shall formulate guidelines for benefit sharing with at least 5% of them going to the communities that border national parks. The Act also establishes a Wildlife Endowment Fund to, among other things, support wildlife-related initiatives of local communities. This Act therefore has strong provisions for benefit distribution and community participation. It however leaves communities at the mercy of the State as far as development of the benefit sharing mechanisms and guidelines is concerned.

The Forests Conservation and Management Act, 2016 identifies development of tourism and recreation facilities as one of the 17 functions of Kenya Forest Service (KFS) (GoK, 2016a). The Act permits forest-adjacent communities that form a Community Forest Association (CFA) to develop ecotourism and recreation facilities as one of the forest user rights conferred when they sign a Forest Management Agreement (FMA) with KFS. It also requires investors in forests to share benefits with the forest-adjacent communities including by providing employment and supporting development of social amenities. The Act bestows the responsibility of developing guidelines for benefit sharing on the Cabinet Secretary in charge of forestry matters. The Act is strong on matters of community

participation is ecotourism but devoid of any provisions on equity, equality and inclusiveness.

KFS Strategic Plan 2014-2017 notes that ecotourism shall be developed in forests through various strategies including sites identification and mapping, product development, standards development, awareness creation, incentives and marketing (KFS, 2014). The plan makes provision for development of seven facilities in designated National Forest Parks (NFPAs) including a budget of Ksh 70 million. There is however no mention of community participation in these parks and other proposed ecotourism facilities. The plan further proposes to support community participation through engagement guidelines, capacity building and incentives. Gender equity is one of the plan's stated core values and it provides for strategies to ensure 30% of procurement opportunities go to the youth, women and persons with disabilities. The budget provided for this (Ksh 3 million) is however inadequate. Most significantly, the strategy is silent on the issue of equity in benefit distribution in other areas including ecotourism development.

KWS Strategic Plan 2012-2017 notes that one of the objectives within the Customer and Stakeholder Perspective is enhancement of Corporate Social Responsibility (CSR) in order to achieve social equity among other goals (KWS, 2012). The plan further provides for building capacity of local communities, supporting establishment of wildlife conservancies and creating linkages between local communities and private investors and donors and provides budgetary allocation for each for the five years. The objective of some of these provisions, however, undermines their effectiveness. For example, the strategic objective of establishment of wildlife conservancies and creation of community-investor/donor linkages is reduction of human wildlife conflicts rather than improvement of the lot of local communities. Additionally, use of CSR indicates that communities are at a weak position and rely on the goodwill of KWS. The strategy does not carry the spirit of the Act. It has no provision on benefit distribution or equity whatsoever and is more inward-facing and KWS-centric.

The study further explored the frequency mentions of key terms or phrases in the policy and legislative documents. The findings of this investigation are shown in Table 4.9.

Table 4.9: Frequency of mention of key terms or phrases in policy documents

Key term or phrase	Policy or legislative document*										
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1. Ecotourism	0	1	15	3	3	1	15	2	0	2	17
2. Responsible tourism, sustainable tourism	0	0	0	60	29	13	7	0	0	0	0
3. Community tourism, community-based tourism	0	0	2	1	40	0	4	0	0	0	0
4. Benefit sharing, benefit distribution	0	0	0	0	0	0	0	9	0	3	3
5. Community benefits, local benefits	0	0	0	3	0	0	1	0	0	0	0
6. Equity, equality, inclusion	32	19	36	2	1	9	5	2	1	1	8
7. Community participation, engagement or involvement	0	1	1	2	0	0	1	2	0	6	4

***(a)** Constitution of Kenya, 2010; **(b)** Kenya Vision 2030; **(c)** Kenya Vision 2030-Second Medium Term Plan 2013-2017; **(d)** Sessional Paper No. 1 of 2010 on Enhancing Sustainable Tourism in Kenya; **(e)** National Tourism Blueprint 2030; **(f)** Tourism Act, 2011; **(g)** Sector Plan for Tourism 2013-2017; **(h)** Wildlife Conservation and Management Act, 2013; **(i)** Kenya Wildlife Service Strategy 2.0, 2012-2017; **(j)** Forest Conservation and Management Act, 2016; **(k)** Kenya Forest Service Strategic Plan 2014-2017.

Table 4.9 shows that while majority of the policy documents made mention of the term ecotourism, those of some agencies, specifically Kenya Wildlife Service (KWS) and Kenya Forest Service (KFS), did not make any mention of responsible tourism, sustainable tourism, community tourism or community-based tourism. This indicates the likelihood of there being a policy disharmony as the two agencies manage key tourist destinations and their policies should mirror the sustainability terminology of others in the sector.

The table further demonstrates that the Constitution of Kenya 2010, Kenya Vision 2030 and its Second Medium Term Plan 2013-2017 has placed emphasis on issues of social justice including equity, equality and inclusion. The other policy and legislative documents have however not mirrored the spirit of these principal documents. Additionally, most of the policy documents have no mentions of benefit sharing whatsoever aside from the Wildlife Conservation and Management Act 2013, the Forest Conservation and Management Act 2016 and the Kenya Forest Service Strategic Plan 2014-2017. While the Wildlife Conservation and Management Act 2013 has the highest number of mentions of benefit sharing, the Kenya Wildlife Service Strategy 2.0, 2012-2017 has no mention of the same whatsoever. This is evidence of a gap in translation of the policy document to institutional plans.

From the foregoing discussion, the study undertook a Strengths, Weaknesses, Threats and Opportunities (SWOT) analysis of the policy and legislative instruments and the results of this are shown on Table 4.10.

Table 4.10: SWOT analysis of the policy and legislative instruments

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strong social-justice provisions in the Constitution, the country’s apex legislative instrument. These including on equity, equality, inclusion and non-discrimination • Existence of a wide range of policy and legislative instruments • Existence of different policy and legislative provisions for promotion of community participation in tourism • Existence of wide range of implementing and regulating public agencies the different sectors. 	<ul style="list-style-type: none"> • Failure of existing policies and legislation to reflect and expand on the strong social-justice ethos of the Constitution and the Kenya Vision 2030 • Lack of clear prescriptions on equity in benefit distribution with some of the existing policy instruments leaving this for further legislation • Absence of substantive legislation on benefit sharing within tourism and the natural resources sector in general • Overambitious provisions and plans that are incongruous with the country’s pace of economic growth and extant challenges besetting the tourism industry • Absence of budgets for some critical equity provisions including the Women and Youth in Tourism Empowerment Programme • A disempowering policy environment that leaves communities dependent on state agencies, private sector and other stakeholders • Uncoordinated policy direction.
Opportunities	Threats
<ul style="list-style-type: none"> • Existing best practices on good governance in natural resource management in different countries • Local community participation enjoys goodwill and support from different stakeholders including donor agencies • Political will or interest to amend legislation to address perceived gaps • Global drive for sustainability, equity and participation of indigenous peoples • Having a single repository for all existing policies, legislation, regulations and other instruments rather than the current situation where they are in the custody of the different agencies. 	<ul style="list-style-type: none"> • Private sector and/or political interest to maintain the status quo in terms of landholding and benefit sharing • State interest to increase the revenue collected from tourism facilities • Negative impacts of global events on local tourism (e.g. terrorist attacks, Covid-19 pandemic) • Slowdown in growth of the country’s economy • The country’s prioritization of other sectors like agriculture, health, housing and manufacturing.

Table 4.10 shows that there exists a wide range of policy and legislative instruments in addition to implementing and regulating agencies as far as community participation and benefit distribution in ecotourism is concerned. There are also opportunities to enhance community participation and benefit distribution through the prevailing global drive for sustainable development and participation of indigenous peoples in resource management and development processes. Existing policies and legislation have however failed to reflect and expound on the strong social-justice foundation set by the Constitution of Kenya 2010. They are also uncoordinated, over-ambitious and disempowering as local community participation is dependent on actions of other players including state agencies. Above all, the country lacks substantive legislation on benefit sharing within the tourism industry. The impacts of these policy and legislative instruments has also been hampered by the challenges that the tourism industry faces due to narrow private sector interests, prioritization of other sectors by the state and global happenstances like terrorist attacks and the Covid-19 Pandemic.

4.2.2. Gaps in Policies and Legislation on Community Participation and Benefits Sharing

From the preceding discussion on the policy and legislative instruments that impact on community participation and benefit distribution in ecotourism, the following policy gaps have emerged:

- (i) Existing policies and legislation have failed to reflect and expand on the Constitution's strong social-justice ethos including on the issues of equity, inclusion and non-discrimination;
- (ii) They also lack clear prescriptions on equity in benefit distribution with some of them, like the Forest Conservation and Management Act 2016, leaving this for further legislation;
- (iii) Some of the critical equity provisions have not been budgeted for in the respective policy document. These include the Women and Youth in Tourism Empowerment Programme;

- (iv) The policies have overambitious provisions and plans that are incongruous with the country's pace of economic development and the challenges that have affected the tourism industry negatively over the recent years including terror attacks;
- (v) The policies are not coordinated, with agencies taking different policy directions according to their priorities;
- (vi) The policy environment is generally disempowering as far as community participation is concerned. It leaves communities under the control of state agencies, private sector and other stakeholders;
- (vii) The country lacks substantive legislation on benefit sharing within the tourism industry and the natural resources sector in general.

Policy recommendations to address these gaps have been discussed in Chapter 5.

4.2.3. Institutional Arrangements and Benefit Distribution

The study examined the role that devolution had played in benefit distribution and community participation in ecotourism in the two study sites. The Constitution of Kenya, 2010 identified people's participation as one of the country's national values and introduced a system of devolved governments with the objective of enhancing equity and participation of all citizens including minorities and marginalized communities (GoK, 2010a). The Constitution's Fourth Schedule stipulates that the functions of tourism development and policy formulation are bestowed on the National Government while that of regulating local tourism lies with the County Governments (GoK, 2010a). The study sought to establish the role of the two county governments as far as influencing community participation and benefit distribution within the two study sites was concerned.

The County Government of Laikipia's County Integrated Development Plan (CIDP) 2013-2017 recognizes Il Ngwesi as one of the four international standard hotels in the county and allocates Ksh 37.5 million for graveling of the 15km access road to the facility (County Government of Laikipia, 2013). Though the plan allocates tourism &

wildlife a 5-year budget of Ksh 1.758 billion for formulation of policy and strategy, development of new products, promotion and branding, the only allocation that could facilitate community participation in tourism, amounts to Ksh 1.5 million to hold one-day awareness meetings in each Ward every year (the county has 15 Wards). The study learnt that the County Government of Laikipia was yet to roll out any of the proposed tourism activities due to inadequacy of financial and human resources, prioritization of other sectors over tourism and unclarity on the specific tourism functions that had been devolved to county governments (KI3, personal communication, September 11, 2016). This informant further noted that the County Government of Laikipia did not have any information on benefit distribution or community participation in Il Ngwesi Group Ranch. From the foregoing discussion, the study observed that devolution and the attendant County Government of Laikipia had not affected community participation or benefit distribution in ecotourism in Il Ngwesi study site in any way.

The County Government of Meru's County Integrated Development Plan (CIDP) 2013-2017 allocates the tourism sector a 5-year budget of Ksh 625 million that targeted upgrading of existing hospitality facilities, development of new facilities including wildlife conservancies and promotion of tourism in the county (County Government of Meru, 2013). Though Meru County Government's plan appears more realistic compared to Laikipia's, it neither makes any mention of Ngare Ndare Forest Trust nor does it have any specific allocation for activities aimed at enhancing community participation or benefit distribution in tourism. The study learnt that though the County Government of Meru had given NNFT a one-time grant of Ksh 200,000 in July 2016 to support general operations, their main support was through featuring them on their official website and other media whenever the opportunity arose (KI4, personal communication, August 2, 2016). The same informant further noted that the County Government of Meru did not have specific information on the status of benefit distribution or community participation within NNFT though it was thought to be fair since their revenue was not shared out to individuals but invested in community-wide projects. From the preceding discussion, the study observed that though the County Government of Meru had supported ecotourism in

Ngare Ndare to some extent, this had not impacted on community participation or benefit distribution within NNFT.

The management of Il Ngwesi Group Ranch and Ngare Ndare Forest Trust are institutions that impacted on benefit distribution within the two study sites. The study noted that Il Ngwesi is a Group Ranch that was constituted as per the Land (Group Representatives) Act of 1968 (GoK, 1968) and currently the Community Land Act of 2016 (GoK, 2016). The Group Ranch is managed entirely by the local community using a Constitution that provided for three different management units: Group Ranch Committee (GRC), the supreme organ that set policies and oversaw other management organs; Il Ngwesi Community Trust (ICT) that managed fundraising and community development projects, and; Il Ngwesi Company Limited which oversaw the group's income generating activities specifically Il Ngwesi Lodge, the cultural centre and campsites (Il Ngwesi Group Ranch, 2005). In Ngare Ndare on the other hand, community participation was through Ngare Ndare Forest Trust (NNFT) which operated as per provisions of the Societies' Act (NNFT, 2017). The Trust Deed named nine trustees, one for each of the six settlements that surrounded Ngare Ndare Forest in addition to one for Kisima Farm, Lewa Wildlife Conservancy and Northern Frontier Ventures (NNFT, 2004). NNFT registered as a Community Forest Association (CFA) in 2007 to conform to requirements of the Forests Act 2005 (Chomba *et al.*, 2015). The study noted that these differences between the Group Ranch and the CFA affected community participation and benefit distribution in ecotourism.

While Il Ngwesi Group Ranch's Constitution provided for an Annual General Meeting (AGM) where all registered members were permitted to attend, speak and vote, Ngare Ndare's Trust Deed stipulated that only trustees could attend AGMs where NNFT accounts were presented and approved¹ (Il Ngwesi Group Ranch, 2005; NNFT, 2004). It further emerged that the proportion of respondents who attended meetings was higher in Il Ngwesi study site (80%) than Ngare Ndare (58%), with 89% of those who attended

¹ The Trust Deed also stipulates that Trustees should hold a meeting with their members at least once every year but presentation and approval of accounts is only done at the AGM.

meetings in Il Ngwesi specifying that they attended AGMs. The study learnt that Il Ngwesi Group Ranch management held regular Annual General Meetings (AGMs) in Nadungoro and all members were free to attend and discuss the group's finances openly. On this, one respondent from Il Ngwesi study site observed:

There is a yearly general meeting they convene after tourism happens for one year. Resource management committee for tourism in Il Ngwesi calls a meeting on how to distribute this money that has been received. So there is no issue of saying one side is favoured because it is based on mutual agreement. Yes, we have an AGM every year. (Il Ngwesi Male, FGD11, September 9, 2016)

It was further learnt that AGMs ensured that that not only were benefits shared transparently but members were satisfied with their distribution. A respondent from Il Ngwesi study site observed:

We usually have a big meeting, AGM, every year, where we are told about the profits, the losses that have arisen, and the money that is left, and their plans, and the specific thing they plan to do. So everybody gives their opinion. "So, members, do you support?" It is like an open forum. (Il Ngwesi Male, FGD11, September 9, 2016).

In Il Ngwesi study site therefore, AGMs ensured equity in distribution of benefits of ecotourism in addition to giving the community an opportunity to contribute directly to decision making at the highest possible level. The case of Il Ngwesi Group Ranch was therefore dissimilar to that of Group Ranches in Kajiado where the management makes decisions consulting their membership (Rutten, 2002 & 2004). The study therefore noted that community participation in Il Ngwesi study site was at the highest level termed Spontaneous Participation where the community itself has full managerial responsibility (Tosun, 2006).

In Ngare Ndare study site, there was a lower number of people who attended meetings compared to Il Ngwesi as noted earlier. It was further learnt that NNFT has reportedly

never held an AGM to report on the funds they receive, the progress they have made and to give the community an opportunity to give them feedback (Ngare Ndare Male, FGD8, October 22, 2016). Various FGD sessions reported that it was difficult for the community to know about benefit distribution as NNFT management did not openly disclose its revenues and expenditures as there was no AGM where such could be discussed. In this regard, a participant from Ngare Ndare study site noted:

We do not know how much money they get and how they share it. They are not open. There is no general meeting to educate community and to give an opportunity to tell us if there is no benefit or if there is. (Ngare Ndare Male, FGD8, October 22, 2016)

NNFT women reported being made to sit for two hour meetings when they were found going into the forest for firewood (Ngare Ndare Female, FGD2, September 24, 2016). A respondent from the same study site reported:

We usually have sub-group meetings. During the meeting we come and agree on what is to be done. You know why we are having differences? It is because what we say is not what is done. Some people will go this way and others that way. In the middle of all that is money which is shared but misappropriated. That is where the differences started... It is what those big people want that they will do. (Ngare Ndare Female, FGD4, September 24, 2016)

It was further learnt that the limited flow of information to the community emanated from governance challenges that NNFT was experiencing with some trustees having exceeded the terms of office as stipulated in the Trust Deed, some settlements having not held elections within the required period and settlement-level meetings only being convened when there was an outstanding issue like an upcoming tree planting exercise or a conflict that needed to be resolved. The study therefore observed that in Ngare Ndare study site, poor governance was hindering community participation and benefit distribution in ecotourism. From the foregoing observations the study noted that community

participation in NNFT was at the low level termed Induced Participation where the community has a voice but cannot ensure that their views will be taken into account (Tosun, 2006).

The study noted that though Ngare Ndare Forest Trust's 2004 Trust Deed limited the term of office of trustees to three terms of three years each, some of the initial ones who had been named in that document were still in office at the time of fieldwork, 12 years later². Respondents from Ngare Ndare raised this concern and indicated that it had a negative impact on community participation in ecotourism as one of them pointed out:

We need to disband and overhaul the entire Trust. The Trust was inaugurated in 2003 and has operated for thirteen years without conducting general elections as stipulated in the Forest Act 2005. Its bad management has caused many not to attend meetings. Many have lost trust in its management of financial affairs. (Ngare Ndare Male, FGD3, September 24, 2016)

The study further noted that while Il Ngwesi Group Ranch was owned entirely by the local community, Ngare Ndare was a public forest where the local community had been granted a concession to operate ecotourism facilities (KFS, 2009). Though NNFT operated the concession, Kenya Forest Service (KFS) still had the legal mandate to manage and conserve the area as it was a public forest (GoK, 2005; GoK, 2016a). It however emerged that KFS maintained a low presence in Ngare Ndare Forest marked by the absence of a forest station manager and a staff of only four forest protection officers and one revenue collection clerk as at the time of fieldwork (NNFT, 2017). On one hand, it was observed that this gave NNFT the necessary leeway to manage the forest which it had done by having an office, staff quarters, a land cruiser vehicle, three motorcycles and 26 full time staff including the manager and 19 rangers (KI1, personal communication, August 3, 2016). On the other hand, it emerged that the low presence of KFS had created a gap in information flow to the community, with the state agency resorting to posting

² The Trust Deed does stipulate that half of the first trustees serve an initial term of 2 years and the other half 4 years. Even when this is taken into account, the last year these trustees should have been in office was 2014, i.e. an initial term of 4 years and two subsequent terms of 3 years.

notices as the one shown in Plate 4.9 which read: “Announcement! We are charging for grazing and firewood collection tomorrow on 10th January 2017. Ensure you load the money into your phone. Let us not trouble one another unnecessarily please. By KFS”



Plate 4.9: KFS communication on a forest boundary post in Mbuju settlement, Ngare Ndare study site. (Source: Researcher, 2017)

The low presence of KFS in Ngare Ndare and the consequent information lacuna also engendered misunderstanding and negative attitudes among community members with NNFT often being blamed wrongly as was noted by the following respondent:

The state forest should not have been sold to the Trust. Since when they took over the forest the services that community member used to get for free have now to be paid for and no male can go into the forest to collect firewood. (Ngare Ndare R1, personal communication, September 8, 2016)

This respondent mistakenly assumed that the government had sold Ngare Ndare Forest to NNFT while the fact was that this was a CFA that was managing the forest under a concession as noted earlier. The other assumption that NNFT introduced charges that the government would not have brought in was also erroneous since these were gazetted fees paid to KFS as provided for in The Forests (Fees and Charges) Rules, 2016 (GoK, 2016b).

4.3. Distribution of Benefits and Community Attitudes to Ecotourism

This section covers the third objective of the study which was “to examine how the distribution of benefits affects community attitudes to ecotourism.” It begins by establishing respondents’ attitudes in form of their levels of satisfaction with ecotourism. It then explores the association between socio-demographic factors and satisfaction with ecotourism. This is followed by an investigation of the association between benefits and satisfaction with ecotourism. The section ends with an examination of the themes that emerged from qualitative data analysis on benefit distribution and community attitudes.

4.3.1. Community Attitudes on Ecotourism

The study sought to establish community attitudes on the level of satisfaction with ecotourism. Level of satisfaction with ecotourism was measured using a 5-level Likert scale that sought to know how satisfied respondents were with the current level of

benefits they were receiving from ecotourism. A summary of the respondents' responses is presented in Table 4.11.

Table 4.11: Respondents' level of satisfaction with ecotourism

Level of satisfaction	Il Ngwesi		Ngare Ndare		Total	
	No.	%	No.	%	No.	%
Completely Satisfied	8	3.4	40	12.4	48	8.6
Somewhat Satisfied	155	66.2	112	34.8	267	48
Neither Satisfied Nor Dissatisfied	20	8.5	23	7.1	43	7.7
Somewhat Dissatisfied	23	9.8	59	18.3	82	14.7
Completely Dissatisfied	22	9.4	80	24.8	102	18.3
Non responsive	6	2.6	8	2.5	14	2.5
Total	234	100	322	100	556	100

Table 4.11 shows that 57% of all respondents fell in the “Completely Satisfied” and “Somewhat Satisfied” categories which implied that in general more people were satisfied with ecotourism and its benefits than those who were not. This concurs with the findings of Abas & Hanafiah (2013), Alexander (2000), Chandralal (2010), Kaplan (2015), Ramseook-Munhurrin & Naidoo (2011), Wang (2017) and Zhang (2008) that local residents generally exhibit positive attitudes to tourism in their areas. Table 4.11 further shows that Il Ngwesi study site had 70% of its respondents in the “Completely Satisfied” and “Somewhat Satisfied” categories while those who fell in this group in Ngare Ndare study site were 47%. It also shows that Il Ngwesi had 19% of its residents in the “Somewhat Dissatisfied” and “Completely Dissatisfied” categories while Ngare Ndare had 43%. These findings demonstrated clearly that there were higher levels of satisfaction with ecotourism in Il Ngwesi study site as compared to Ngare Ndare.

The study noted that the differences in satisfaction levels could not be explained by the number of benefits as it emerged that Il Ngwesi, the study site that exhibited higher levels of satisfaction, had a lower mean number of benefits ($\bar{X} = 2.16$) than Ngare Ndare ($\bar{X} =$

2.56). The study noted that Il Ngwesi's higher levels of satisfaction could be attributed to good governance that was characterized by transparent and participative leadership as discussed earlier in Section 4.2.3. Another likely source of higher satisfaction levels in Il Ngwesi was the study's earlier observation that it had more benefits that accrued directly to the individual than Ngare Ndare including bursaries (57% Il Ngwesi, 3% Ngare Ndare), loans (26% Il Ngwesi, 0% Ngare Ndare), employment (11% Il Ngwesi, 6% Ngare Ndare) and market opportunities (11% Il Ngwesi, 2% Ngare Ndare). This finding concurred with those of Abas & Hanafiah (2013), McGehee *et al.*, (2002) and Munyiri *et al.*, (2016) that those who receive personal benefits have more positive attitudes towards tourism and its development.

The study noted that respondents' level of satisfaction had a significant association with their settlement in both Il Ngwesi study site ($X^2(1) = 19.330, p = .000$) and Ngare Ndare study site ($X^2(1) = 54.753, p = .000$). The study thus noted that there were disparities in levels of satisfaction in the different settlements of each study site. Within Il Ngwesi study site, the proportion of satisfied respondents for Nadungoro settlement was 93%, Sanga 84% and Chumvi 64%. It was therefore clear that the two settlements that were closest to the conservation area (Nadungoro and Sanga) had significantly higher levels of satisfaction than the one that was farther away. The study consequently noted that within Il Ngwesi, differences in satisfaction levels could have emanated from the more benefits that settlements close to the conservation area enjoyed compared to those farther away in line with the findings of Matiku *et al.*, (2012), Musyoki *et al.* (2013) and Wang (2017) that distance from protected areas has an inverse association with community participation with those living nearer to protected areas exhibiting higher levels of participation than those living farther away. The differences in satisfaction levels were also in agreement with the observation of Zhang (2008) that negative attitudes among local residents increase as distance from the tourism facility increases.

Within Ngare Ndare study site, the proportion of satisfied respondents ranged from 86% in Ngare Ndare settlement, 69% in Kisima and 35% in Mbuju. The study noted that all of Ngare Ndare study site's settlements adjoined the conservation area and therefore

distance could not account for these differences in satisfaction levels. It was however learnt that Ngare Ndare settlement's downstream location implied that it was the only one that benefited from water that flowed from the forest. On this, a respondent from Ngare Ndare settlement observed:

We benefit more than the people upstream. This is because of the water. And because of this we have more cattle here than the people up there. Culture is also more entrenched here. People here know and use herbs more than those from up there. Our benefits are more because of our geographical location. (KI10, personal communication, September 21, 2016).

The study noted that Ngare Ndare study site was a low-rainfall cultivation-agriculture area and thus access to water for farming was a critical benefit for the local community. Residents of Ngare Ndare settlement would store water from the forest in polythene-lined dams that they had constructed on their farms and use it to irrigate crops during the dry season as shown in Plate 4.10.



Plate 4.10: One of the polythene-lined dams that residents of Ngare Ndare settlement used to store water from Ngare Ndare forest. (Source: Researcher, 2016)

It was therefore considered likely that this geographical advantage that Ngare Ndare settlement had over the others could explain the higher satisfaction levels that were found among its residents. The study further learnt that while NNFT management had put in place limitations on the number of days that its members could collect firewood from the forest, residents of Ngare Ndare settlement had defied this and ended up accessing firewood for more days than those from other settlements. In this regard, a woman from Kisima settlement observed:

We are not equal. The people of Ngare Ndare [settlement] became headstrong and now collect firewood for 30 days. We are not equal. I think on our side we are too obedient, that is why we are oppressed. We are not like Ngare Ndare [settlement]. (Ngare Ndare Woman, FGD4, September 24, 2016)

The study therefore noted that higher satisfaction levels among respondents of Ngare Ndare settlement were associated with the disproportionately higher level of benefits they received due to their downstream geographical location and non-conformity to NNFT's limitations on utilization of forest resources. Unequal distribution of firewood in Ngare Ndare study site showed that this community-operated ecotourism enterprise had a clear case of unequal distribution of benefits to its membership similar to tourism initiatives that are associated with state-owned protected areas and private sector-local community partnerships as has been reported by Mutanga *et al.*, (2013), Ondicho (2012) and Tumusiime & Vedeld (2012).

The study further noted that respondents' level of satisfaction with ecotourism had a significant association with gender in Il Ngwesi study site ($X^2(1) = 3.886, p = .049$) but not in Ngare Ndare ($X^2(1) = .160, p = .689$). In Il Ngwesi, it was noted that 83% of women respondents were satisfied with ecotourism compared to 76% of men. As noted earlier, Il Ngwesi study site had a number of benefits that targeted women including loans and market opportunities. It was further observed during fieldwork that Il Ngwesi Group Ranch was constructing a new workshop for women to produce menstrual hygiene kits and other products as shown in Plate 4.11.



Plate 4.11: The women's workshop, store and office unit under construction in Chumvi area of Il Ngwesi Group Ranch. (Source: Researcher, 2016)

Zhang (2008) has noted that there is no significant association between gender and attitudes to tourism. This study however found a weak significant association in one study site (Il Ngwesi) but not in the other (Ngare Ndare). Garraway (2008) and Mensah & Ernest (2013) have noted that ecotourism has potential to create opportunities for previously marginalized groups like women as was the case in Il Ngwesi study site. The study therefore noted that the significant association was likely to have emanated from affirmative action that Il Ngwesi Group Ranch had taken to channel the benefits of ecotourism to women.

The study further observed that respondents' levels of satisfaction had a significant association with age in Il Ngwesi study site ($X^2(1) = 9.465, p = .002$) but not in Ngare

Ndare ($X^2(1) = 1.402, p = .236$). In Il Ngwesi study site, it was noted that youth aged below 29 years had the lowest proportion of satisfied respondents (64%) compared to the other age categories of 30-39 years (84%), 40-49 years (78%) and 50 years and above (90%). As noted earlier, youth from this study site reported that the management of Il Ngwesi Group Ranch gave too much attention to women at the expense of other sections of the community. One youth from this study site stated:

In this our group of Il Ngwesi, when I look they have not identified with these youth groups. They have not involved themselves with youth groups... There are many other projects including the weaving that target women. But specifically there is none that targets youth, so youth and men are left out. It seems like they are focusing much on women empowerment. (Il Ngwesi Youth, FGD13, September 20, 2016)

Il Ngwesi youth further indicated that though they were the ones who took care of livestock and suffered defending the community whenever insecurity incidences arose, their management did not have any intervention aimed at addressing the challenges they faced especially unemployment. The study noted that this was the likely source of low satisfaction levels among the youth in Il Ngwesi. The case of Il Ngwesi was in agreement with the findings of Zhang (2008) that older residents have more positive attitudes to tourism developments than younger ones. In Ngare Ndare study site on the other hand, it was noted that youth below 29 years had the highest proportion of satisfied respondents (62%) compared to the other age categories of 30-39 years (41%), 40-49 years (57%) and 50 years and above (55%). Ngare Ndare youths observed that they benefited from both permanent and temporary jobs with one of them reporting as follows:

There are job opportunities. There is one of digging trenches to take water to the camping site. Something like that. Casual jobs, and even permanent ones. We have three rangers and a driver [employed by NNFT] from here. (Ngare Ndare Youth, FGD9, October 22, 2016)

The study noted that this support could have engendered the high levels of satisfaction among Ngare Ndare youth. Though Zhang (2008) has shown that it is older people who have more positive attitudes to tourism development than younger ones, the case of Ngare Ndare showed that the presence of youth-targeted benefits has the potential to reverse this.

4.3.2. Benefits and Community Attitudes on Ecotourism

As indicated in the data analysis section, the study used ordinal regression to analyze the relationship between the benefits that respondents received and their attitudes to ecotourism as the response variables were ordered likert scales. The results of this analysis are shown in Table 4.12.

Table 4.12: Results of ordinal regression analysis of benefits and community attitudes to ecotourism

Benefit	Attitudes on Distribution of Ecotourism Benefits		Attitudes on Significance of Ecotourism Benefits		Attitudes on Fairness of Current Benefit Distribution	
	Il Ngwesi	Ngare Ndare	Il Ngwesi	Ngare Ndare	Il Ngwesi	Ngare Ndare
Envtl. improvt.	-	-1.933**	-	-1.171**	-	-2.648**
Security	-2.773**	-	0.474	-	-2.058**	-
Water	0.031	-3.764**	-0.836	-1.772	-0.355	-3.084**
Pasture	-	-2.234**	-	-1.592**	-	-1.192
Loan	-1.439**	-	-0.896	-	-0.322	-
Trainings	-1.366**	0.023	-0.49	-0.313	-0.228	0.079
Roads	-	-0.465	-	-0.429	-	-0.686**
Bursary	-0.003	-	-0.813	-	-0.528	-
Cash	-2.17	-	1.324	-	-0.828	-
Firewood	0.969	-	-0.978	-0.053	0.299	0.801
Market	0.208	0.305	-1.27	0.061	-0.254	-0.241
Educ. facilities	0.809	0.011	4.133	-0.225	1.21	-0.129
Employment	0.369	-0.387	-1.072	-0.19	-0.185	-0.038
Health	-0.895	-	-0.903	-	-0.486	-

**Parameter estimate with a significant p value at 0.05 level of significance

Table 4.12 shows that in Ngare Ndare study site, attitudes to ecotourism had a significant relationship with the benefits of environmental improvement, water, pasture and roads while in Il Ngwesi study site attitudes had a significant relationship with security, loans and training. The parameter estimate indicated an inverse relationship and the study examined the contingency tables in order to establish the nature of this relationship. Figure 4.1 and Figure 4.2 shows the mean scores of attitudes of environmental improvement and security benefits in the scale on attitudes on distribution of ecotourism benefits:

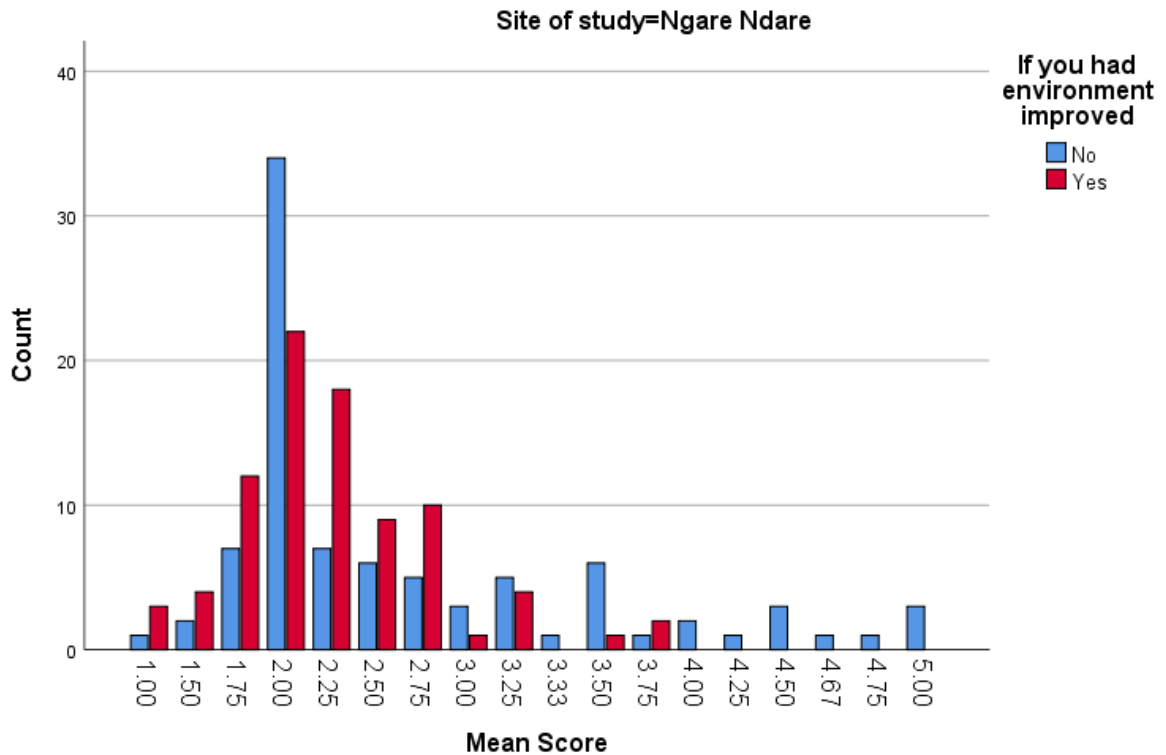


Figure 4.1: Attitudinal scores of Ngare Ndare study site respondents vis-a-vis the benefit of environmental improvement

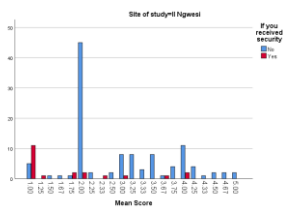


Figure 4.2: Attitudinal scores of II Ngwesi study site respondents vis-a-vis the benefit of security

With the scale ranging from 1 for Strongly Agree to 5 for Strongly Disagree, Figure 4.1 and Figure 4.2 show that many of those who received the benefits scored highly, with no respondent having a mean score of less than 3.75 among those who received the benefit of environmental improvement or 4.00 among those who received security. It also shows that a high number of those who did not receive the benefit scored 2.00 (Agree) in both cases and these could have been the cause of the negative parameter estimate that was recorded by the study. With the significant relationships that were noted, the study established that there is an association between benefits and attitudes in ecotourism though it is not overtly positive as recorded by Chandralal (2010) and Ramseook-Munhurrun & Naidoo (2011). This study further established that the association between

attitudes and tourism benefits is not limited to perceived personal benefits alone as has been observed by Abas & Hanafiah (2013), McGehee *et al.*, (2002) and Munyiri *et al.*, (2016). This is because this study established associations even with benefits that did not do not accrue directly to individuals like roads and environmental improvements.

4.3.3. Themes on Benefits Distribution and Community Attitudes

Analysis of Focus Group Discussions (FGDs) revealed disparities in attitudes to ecotourism between the two study sites. In Il Ngwesi study site, the first theme that emerged was fair benefit distribution. Different FGD sessions enumerated the benefits that the community received from ecotourism and indicated that these were distributed fairly to all community members. During one FGD session with women from Il Ngwesi study site similar to the one shown in Plate 4.12, one of them made the following observation:

It is fair to us all. Because if it is terms of security, it is not provided for the child only or the old man only. It is provided for everybody. The same applies to pasture. It is for everyone, unless you do not own cows or sheep. Even for children, as long as you have a child in high school, you will receive bursary. (Il Ngwesi Female, FGD17, November 12, 2016)



Plate 4.12: The researcher conducting a FGD session with women from Il Ngwesi study site. (Source: Researcher, 2016)

It was therefore observed that many Il Ngwesi respondents were likely to be satisfied with ecotourism as they felt there was fairness in benefit distribution. This was in agreement with the earlier quantitative finding that 70% of Il Ngwesi respondents were satisfied with ecotourism and its benefits, being in either the “Completely Satisfied” or “Somewhat Satisfied” category. It was also in line with the findings of Abas & Hanafiah (2013), Alexander (2000), Chandralal (2010), Kaplan (2015), Ramseook-Munhurrun & Naidoo (2011), Wang (2017) and Zhang (2008) that local residents are generally positive about tourism in their areas.

Closely related to fair benefit distribution in Il Ngwesi was the theme of open information sharing. Various FGD sessions indicated that benefit distribution in Il Ngwesi was fair because the management held Annual General Meetings (AGMs) every year where all

members were free to attend and discuss finances and other issues openly. It is likely that this transparency led Il Ngwesi respondents to be satisfied with benefit distribution even in the light of apparent disparities in distribution as one of them indicated:

If something happens here [in Nadungoro settlement] for example livestock is stolen, the local police would get here before the Group Ranch security team because they are far. If it happens to those living near the lodge, it would take a very short time for them to respond because they live there. So it might look like they are benefiting unduly but it's not that they are being favoured. It is just that *miti huangukia aliye karibu!* [The tree falls on those who are nearby]. But we have no complaint. Everything in Il Ngwesi is done fairly. (Il Ngwesi Male, FGD15, September 20, 2016)

It was therefore clear that in addition to the benefits noted in the quantitative section, local attitudes to ecotourism were positively influenced by Il Ngwesi management's transparency in sharing information on benefit distribution. This community-operated ecotourism enterprise was therefore different from joint ventures between private investors and local communities where Ondicho (2012) and Rutten (2002 & 2004) have recorded distortions in benefit distribution emanating from non-transparency on the part of the community's leadership.

In Ngare Ndare study site, the first theme that emerged was unfairly-distributed benefits. Various sessions acknowledged the benefits that the community received from ecotourism but noted that there were disparities in their distribution. Within Ngare Ndare study site, respondents noted that residents of Ngare Ndare settlement collected firewood for more days than the others contrary to NNFT management's policy regulating this benefit. A respondent from Mbuju explained Ngare Ndare settlement's advantage as follows:

They have a benefit because even their grazing is not like ours which has rules, here there are a lot of rules, not like there... yes, for grazing as well as for

firewood collection. They don't have as many rules as here. We collect firewood three times a week, but on the lower side they do it the whole week. (Ngare Ndare Male, FGD3, September 24, 2016)

The study observed that such inequalities in benefit distribution were likely to have caused the low levels of satisfaction with ecotourism that characterized Ngare Ndare study site. It further emerged that there were negative attitudes among Ngare Ndare women which were associated with the benefit of firewood collection. FGD participants cited a myriad of challenges associated with this activity included NNFT's limitation on the number of days; KFS's restriction to only M-Pesa payments; women's personal safety from thugs and dangerous wild animals while in the forest; women being forced to sit through unplanned meetings by rangers when found in the forest collecting firewood, and; mistreatment of women by rangers while in the forest including destruction of ropes and confiscation of machetes. Even the fact that women had to ferry the firewood on their backs was a source of dissatisfaction as one of them observed:

Yes, here we are given [firewood], but you have to remove it on your back. There we are discriminated against. Let me talk here... it is with our backs! Yes. Even when you have an event, you are told *tafuta wamama* [look for women], if you are not in good terms with women you are in problems because you will not be allowed to enter the forest... It is only us women who are allowed to collect firewood. Our backs have been broken. (Ngare Ndare Female, FGD7, October 22, 2016)

In addition to being the only gender that was allowed to collect firewood, women from Ngare Ndare study site were dissatisfied at the tediousness of having to undertake this chore only "on their backs" as shown in Plate 4.13.



Plate 4.13: Women from Ngare Ndare’s Kisima settlement exit the forest carrying firewood on their backs. (Source: Researcher, 2016)

The quantitative findings indicated that there was no significant association between gender and satisfaction with ecotourism in Ngare Ndare study site ($X^2(1) = .160, p = .689$). The data however showed that in this study site the proportion of women who were dissatisfied (“Completely Dissatisfied” and “Somewhat Dissatisfied”) was slightly higher (49%) than that of men (47%), with 29% of women being “Completely Dissatisfied” compared to 22% of men. These gender disparities in Ngare Ndare and the significant association found between gender and satisfaction with ecotourism in Il Ngwesi ($X^2(1) = 3.886, p = .049$) all demonstrated that contrary to the findings of Zhang (2008), there is an association between gender and attitudes to tourism. The study noted that this

association was likely to manifest in enterprises that had gender-specific benefits or costs like the case of loans and markets in Il Ngwesi study site or firewood in Ngare Ndare.

The second theme that was identified in Ngare Ndare study site was weak governance. Different FGD sessions indicated that community members were not clear on benefit distribution within NNFT as the management did not share this information openly. In this regard, one respondent stated:

Since the inception of the Trust in Ngare Ndare, there has never been a day that a general meeting has been held that would educate or inform the community that since the Trust was formed this has been the progress, we have received this amount of money, or even give the community a chance to state whether they are getting benefits or not. (NNFT Male, FGD8, October 22, 2016)

It was learnt that the management of Ngare Ndare study site did not hold all-member AGMs where residents could discuss benefit distribution as was the case in Il Ngwesi. It also emerged that some trustees of NNFT had exceeded their terms of office as stipulated in the Trust Deed. It was further pointed out that some settlements had failed to hold elections as scheduled. Respondents also noted that there was an ongoing conflict between NNFT management and the leadership of Ngare Ndare settlement which was affecting community attitudes negatively. Discussing this issue, a respondent from Ngare Ndare settlement observed:

It's like the Trust [leadership] has refused them [our leadership]. We love them but Trust does not want them. That is the disagreement that is there now, nothing else. We would want to know what the problem is, because we are staying without a chairman and so information no longer gets to us. We don't have any representative. When they convene a Board meeting, we do not have a representative there. (NNFT Female, FGD7, October 22, 2016)

The study observed that such shortcomings in leadership were bound to engender negative attitudes among the community. The case of Ngare Ndare demonstrated that

community owned and operated ecotourism enterprises were also vulnerable to bad governance challenges that have been reported in other models of tourism businesses by Omondi & Kamau (2010), Ondicho (2012), Rutten (2002 & 2004), Safari *et al.*, (2015) and Sebele (2010).

4.4. Distribution of Benefits and Community Participation in Ecotourism

This section covers the fourth objective of the study which was “to analyze how the distribution of benefits affects community participation in ecotourism.” It begins by examining the status of community participation in ecotourism through attending meetings followed by an exploration of the association between it and the benefits of ecotourism. It then establishes the status of community participation in environmental conservation through tree planting before ending with an investigation of the association between it and the benefits of ecotourism. The section relies on data that was collected using interview schedules, discussion guides and questionnaires.

4.4.1. Community Participation in Ecotourism through Meetings

Before investigating associations between benefits and community participation, the study sought to establish the status of community participation in ecotourism. The study measured community participation in ecotourism using the indicator of attending ecotourism-related meetings. The variable of attending meetings was chosen as it clearly exemplified participation in that one had to personally execute a physical action of going unlike other variables like receiving security, roads, loans or bursaries that were not associated with such an overt action. The status of participation in ecotourism meetings in the two study sites is shown in Table 4.13.

Table 4.13: Participation in ecotourism meetings in Il Ngwesi and Ngare Ndare study sites

Settlement	Sample size (n)	Attending meetings		
		No. who attended	% within settlement	% within study site
<i>Il Ngwesi study site:</i>				
Nadungoro	65	62	95.4	26.5
Sanga	80	64	80	27.4
Chumvi	89	61	68.5	26.1
Total	234	187	-*	80
<i>Ngare Ndare study site:</i>				
Kisima	60	45	75	14
Mbujū	184	117	63.6	36.3
Ngare Ndare	78	23	29.5	7.1
Total	322	185	-*	57.4

*Total of percentages not given here as they relate to different settlements.

Table 4.13 shows that more respondents participated in ecotourism meetings in Il Ngwesi study site (80%) compared to Ngare Ndare (57%). It also shows that there were disparities in participation within each study site. In Il Ngwesi study site, those who participated in ecotourism meetings ranged from 95% of the respondents from Nadungoro, 80% of Sanga and 69% of Chumvi. In Ngare Ndare study site, those who participated in ecotourism meetings were 75% of the respondents from Kisima, 64% from Mbujū and 30% from Ngare Ndare settlement. The study established that indeed region of settlement had a significant association with participation in ecotourism in both Il Ngwesi study site ($X^2(2) = 16.87, p < .001$) and Ngare Ndare ($X^2(2) = 35.35, p < .001$).

The study learnt that in Il Ngwesi Group Ranch, all meetings including AGMs were held in Lokusero, an area within Nadungoro settlement. It was therefore clear that respondents' participation in ecotourism meetings was inversely proportional to the distance of their residence from Nadungoro settlement. This finding was in accordance with that of Liu *et al.*, (2012) and Musyoki *et al.*, (2013) that persons dwelling near protected areas enjoy higher levels of participation than those living farther away. The source of the disparities in participation within Ngare Ndare study site was not apparent as it was learnt that each settlement organized their own meetings. Respondents from Ngare Ndare settlement that had the lowest proportion of members who participated in meetings however noted that ordinary activities of their area including meetings had been affected adversely by an ongoing conflict between their leadership and that of NNFT, as one of them indicated:

You know there before, we had our CBO chairman who used to represent us in the Board. He used to bring us a lot of things, and he would invite us to meetings where they explained to us what was going on. But there came a time when there emerged differences between them. But even with the differences, the Trust still comes but they do not come through that chairman. So now the way they organize the meetings, some people do not get the information. (NNFT Female, FGD7, October 22, 2016)

It was therefore considered likely that community participation in Ngare Ndare study site had been affected negatively by the governance challenges that the community was experiencing. The study also found a significant association between participation in ecotourism meetings and gender in Il Ngwesi study site ($X^2(1) = 9.61, p = .002$) but not in Ngare Ndare ($X^2(1) = 2.65, p = .103$). The data showed that in Il Ngwesi study site, participation in meetings was reported by 88% of male respondents and 72% of females while in Ngare Ndare it was reported by 61% of males and 52% of females. In both study sites therefore, the participation of men was higher than that of women. This concurred with the findings of Mensah (2016) and Safari *et al.*, (2015) that more males participate in tourism developments than females. In Il Ngwesi study site where the significant

association was found, women from all the three settlements averred that they participated in their Group Ranch's meetings without restriction and that the management provided a vehicle to transport people to the venue. They however noted that it was mostly men who ended up participating as the means of transport provided was not sufficient for everybody and they considered walking too strenuous and unsafe for them. They also reportedly missed AGMs due to household commitments or not giving priority to participating in what one of them described as "a meeting with too many people who want to talk at the same time" (Sanga Female, FGD17, November 12, 2016). This was an indicator that though Il Ngwesi did not have what Sproule (1996) termed "unspoken" restrictions on women's participation in tourism, there were other factors that limited their engagement including their roles and socialization as has been noted by Safari *et al.*, (2015).

Apart from settlement and gender, the study noted that participation in ecotourism meetings did not have significant associations with any of the other socio-demographic factors including wealth indicators such as family size, level of formal education and scale of economic activity in terms of the number of livestock owned and size of landholding. This was contrary to the findings of Liu *et al.*, (2012), Mensah (2016) and Mugizi *et al.*, (2017) that those with more land and higher incomes participate in tourism more than those with less. With the study having found a similar absence of significant association between most benefits and these wealth indicators as demonstrated in section 4.1.10, it was underscored that Il Ngwesi Group Ranch and Ngare Ndare Forest Trust appeared to pursue equality rather than equity as far as community participation and benefit distribution to the rich and the poor was concerned.

4.4.2. Benefits and Community Participation in Ecotourism

The study sought to establish the likelihood of certain benefits influencing people's participation in ecotourism. To explore this, the study investigated whether there was a relationship between receiving the different benefits of ecotourism (independent variable)

and participating in ecotourism meetings (dependent variable) by using logistic regression analysis. The results of this test are shown in Table 4.14.

Table 4.14: Results of logistical regression analysis between benefits and participation in ecotourism

Benefit	Il Ngwesi		Ngare Ndare	
	β	Sig.	β	Sig.
Firewood	-1.602	0.023**	0.872	0.013
Total No. of benefits received	0.922	0	0.599	0
Training	3.092	0.01	0.053	0.895
Roads	-3.29	0.074	0.747	0.022
Employment	0.397	0.596	0.818	0.23
Security	-0.453	0.445	0.85	0.336
Honey	16.817	1	0.184	0.873
Cash	-0.064	0.927	20.166	1
Water	0.973	0.217	-1.69	0.122
Market opportunities	-1.429	0.073	1.071	0.307
Bursary	0	0.999	1.367	0.223
Education facility improvement	19.836	0.999	0.267	0.724
Loan	0.989	0.069	-	-
Health facility improvement	18.144	0.999	-	-
Pasture	-	-	-0.654	0.502
Herbs	-	-	1.033	0.201
Poles	-	-	2.176	0.116
Environment improvement	-	-	0.012	0.97

**Significant p values are at 0.05 level of significance and are shown in bold.

Table 4.14 shows that in Il Ngwesi study site, attending meetings had a relationship with the benefits of firewood, training and the overall number of benefits a participant

received. Respondents who benefited from training and those who received more benefits in general had a higher likelihood to attend ecotourism meetings. Those who received firewood were however associated with a reduced likelihood to attend ecotourism meetings. A likely cause of this was gender since the study found a significant association between participation in ecotourism meetings and gender in Il Ngwesi study site ($X^2(1) = 9.61, p = .002$), with meeting attendance being reported by 88% of male respondents as compared to 72% of females. During FGD sessions in Il Ngwesi, it emerged that women were responsible for collection of firewood but faced challenges in attending meetings as one of them reported:

Here in Sanga it is men who do most things. Even when meetings are called, the highest turn up is men... Like now if they say there is a meeting in Il Ngwesi, who can walk from here to Il Ngwesi? No one. Only men. It is far, there are no means of transport, and it is unsafe for us women, so we leave it to the men to go. (Il Ngwesi Female, FGD17, November 12, 2016)

Table 4.14 further shows that for Ngare Ndare study site, respondents who benefited from firewood, roads and those who received a higher number of benefits overall were more likely to attend ecotourism meetings than others. The association between the number of benefits and participation in ecotourism meetings in both study sites concurred with the findings of Ramseook-Munhurrin & Naidoo (2011) that those who perceive to have received more benefits from tourism exhibit more support for its development. It also demonstrated that it was not only personal benefits that were associated with positive attitudes to tourism as has been noted by Abas & Hanafiah (2013), McGehee *et al.*, (2002) and Munyiri *et al.*, (2016) since even benefits that accrued to the wider community like roads were associated with higher levels of participation in ecotourism.

Table 4.14 further shows that other benefits did not have any significant effect on participation in ecotourism. These include employment, security, honey, cash, water, market opportunities, bursaries, loans, pasture, herbs, poles, environmental improvement, health facility improvement and education facility improvement. It is therefore clear that

majority of the benefits did not affect community participation in ecotourism. The study noted that this could have emanated from community attitudes on the fairness with which the benefits were distributed. This is illustrated in the following observation:

Like the way I know and understand, I know that there is money that comes from the Trust and they go into the CBOs, now they are supposed to go to the user groups so that they reach the community. But if when the money comes, it is like there is no benefit we have received. For example, if Ksh. 200,000 is given out, you'll find the community gets about Ksh. 30,000, no one knows where Ksh. 170,000 has gone. So if you ask me if that is a benefit, I'll say it is not. Because it was supposed to be Ksh. 200,000 and I have only received Ksh. 30,000. Do you see that? That is what leaves us wondering, that there could be a lot of things coming into this project and they do not reach the community (Ngare Ndare Male, FGD 5, September 24, 2016)

Here the community was admitting that there were indeed benefits but they did not want to recognize them as such as they felt that there were financial leakages and general lack of transparency in how funds were distributed. The second possible explanation on why majority of the benefits did not affect community participation could be that after receiving these benefits for a lengthy period, the community felt they were no longer as valuable as they were initially. This is exemplified by the following two observations from the FGD sessions:

When the women go into the forest [to collect firewood], they don't have adequate security. Because when they go in, it is only by God's grace. Even if she goes and gets an accident there or falls from a tree, and you know that woman has paid money, even that Ksh 50 is insurance. She is supposed to be fully catered for financially. But there is nothing that they get. (Ngare Ndare Youth, FGD6, September 24, 2016)

Those that I see benefiting are the ones who are getting these loans. But to people like these who have finished school and are here maybe they will go there and do that attachment for maybe six months, but at the end of the tunnel you will come back home... you cannot get direct employment... or you go and look elsewhere. So I don't see much benefit for the youth. (Il Ngwesi Youth, FGD13, September 20, 2016)

Here the community was admitting that there were benefits including firewood, loans and training opportunities, but these were no longer valued as their management was not providing additional benefits in terms of insurance cover for women who went into the forest to collect firewood or ultimate employment for youths who benefited from training opportunities. The study observed that this was in line with the observations of Benabou & Tirole (2003), McLeod (2018) and Sadri & Bowen (2011) that rewards cease to motivate behaviour in the long term when it is felt that a need has been met substantially. It was likely that constantly receiving these benefits had desensitized the community and they thereafter no longer influenced their participation in ecotourism.

4.4.3. Benefits and Community Participation in Environmental Conservation

The study further explored the presence of association between the benefits of ecotourism (independent variable) and community participation in environmental conservation (dependent variable). This was in order to establish the likelihood of certain benefits influencing respondent's engagement in Pro-Environmental Behaviour (PEB), an environmental psychology concept that represents the actions that people take deliberately to reduce their impact on the environment (Kollmuss & Agyeman, 2002). For this study, participation in environmental conservation was measured using the indicator of voluntary tree planting. This was done due to the realization that tree planting embodied PEB as it was an action that respondents executed deliberately to improve the environment. It was also a common form of PEB in Il Ngwesi and Ngare Ndare, an important consideration as it allowed for comparison of the study's findings between the

both study sites in addition to application of quantitative tests. For the study, only tree planting carried out from the year 2010 to the time of data collection was considered.

Before investigating the association between benefits and tree planting, the study first sought to establish the status of community participation in this activity in both study sites and this is shown in Table 4.15.

Table 4.15: Participation in tree planting in Il Ngwesi and Ngare Ndare study sites

Settlement	Sample size (n)	Tree Planting		
		No. that planted	% within settlement	% within study site
<i>Il Ngwesi study site:</i>				
Chumvi	89	48	53.9	20.5
Nadungoro	65	29	44.6	12.4
Sanga	80	5	6.3	2.1
Total	234	82	-*	35
<i>Ngare Ndare study site:</i>				
Mbuju	184	177	96.2	55
Kisima	60	57	95	17.7
Ngare Ndare	78	22	28.2	6.8
Total	322	256	-*	79.5

*Total of percentages not given here as they relate to different settlements.

Table 4.15 shows that there was a higher proportion of respondents who participated in tree planting in Ngare Ndare study site (80%) than Il Ngwesi (35%). The study observed that this disparity could have emanated from the differences in predominant livelihood activities in the two study sites as it had been observed earlier that Ngare Ndare was a cultivation-agriculture area where 97% of respondents owned land privately while Il

Ngwesi was a pastoralist area where 50% of the respondents had no private land. The study noted that private land ownership could have contributed to higher participation in tree planting in Ngare Ndare than Il Ngwesi as Danquah (2015), Herbohn *et al.*, (2005) and Kulindwa (2016) have established that secure land tenure has a positive association with planting trees.

The disparity was also likely to have emanated from the support that Ngare Ndare Forest Trust was giving to planting trees in both members' farms and Ngare Ndare Forest. It was learnt that NNFT management promoted on-farm tree growing through the "1-for-1 On-farm Tree Planting Programme" where it gave a free seedling for each that a member purchased (NNFT, 2017; KI1, personal communication, August 3, 2016). It was further learnt that every year, it would collaborate with the local community, Safaricom Foundation and other partners to plant trees in different sections of Ngare Ndare Forest where there was degradation as shown in Plate 4.14.



Plate 4.14: Tree seedlings that had been planted in a degraded section of Ngare Ndare Forest adjacent to Mbuju settlement. (Source: Researcher, 2016)

Table 4.15 further shows that there were regional disparities in participation in tree planting within both study sites. In Il Ngwesi study site, the proportion of those who participated in tree planting ranged from 54% of the respondents from Chumvi settlement, 45% of Nadungoro to 6% of Sanga while in Ngare Ndare study site it varied from 96% of Mbuju respondents, 95% of Kisima to 28% of Ngare Ndare settlement. It further emerged that there were significant associations between settlement and participation in tree planting in both Il Ngwesi study site ($X^2(2) = 45.70, p < .001$) and Ngare Ndare ($X^2(2) = 166.26, p < .001$). For the association in Il Ngwesi study site, the study noted that participation in tree planting had a significant association with land size ($X^2(1) = 12.94, p < .001$) and corresponded to the size of landholding; Chumvi settlement that led in participation in tree planting also had the highest proportion of respondents who held more than one acre of land (23%) followed by Nadungoro (19%) and then

Sanga (8%). This was in line with the findings of Ashraf *et al.*, (2015), Danquah (2015), Kulindwa (2016) and Oeba *et al.*, (2012) that larger landholders plant trees more than smaller ones. In Ngare Ndare study site, the size of landholding had no significant association with participation in tree planting ($X^2(1) = .050, p = .823$). It was observed that Ngare Ndare settlement exhibited a very low level of participation in tree planting compared to both Kisima and Mbuju. Members of this settlement indicated that their engagement in tree planting was low due to the conflict that was there between their leadership and that of NNFT. One respondent from this settlement stated:

We would implore the government to intervene because the way Ngare Ndare forest is right now, it is dying... When you enter the centre of Ngare Ndare forest, you will see that it is becoming a desert. Because of these wrangles. (Ngare Ndare Male, FGD8, October 22, 2016)

Though the study found no evidence of the respondent's claims of significant forest degradation, it was clear that inter-settlement differences in participation in tree planting could have emanated from disillusionment among members of Ngare Ndare settlement due to leadership conflict.

4.4.4. Benefits and Community Participation in Environmental Conservation

The study sought to explore the association between benefits and community participation in tree planting as a form of Pro-Environmental Behaviour (PEB). To achieve this, the likely effects of benefits on participation in tree planting were analysed using logistical regression and the outcomes are shown in Table 4.16.

Table 4.16: Results of logistical regression analysis between benefits and participation in tree planting

Benefit	Il Ngwesi		Ngare Ndare	
	β	Sig.	β	Sig.
Market opportunities	1.832	0.003**	-1.482	0.346
Firewood	0.739	0.304	1.273	0.023
Water	0.636	0.316	-2.509	0.05
Trainings	0.506	0.227	1	0.142
Cash	-20.912	0.998	15.547	1
Honey	-21.111	1	0.781	0.611
Security	-0.96	0.091	17.877	0.999
Road	-0.643	0.729	1.841	0.1
Employment	-0.431	0.43	-2.181	0.053
Bursary	0.18	0.569	18.43	0.999
Education facility improvement	1.103	0.365	20.749	0.998
Loans	-0.244	0.513	-	-
Health facility improvement	0.4	0.677	-	-
Poles	-	-	0.734	0.627
Pasture	-	-	-0.324	0.808
Herbs	-	-	-0.298	0.8
Environment improvement	-	-	0.827	0.224

**Significant p values are at 0.05 level of significance and are shown in bold.

Table 4.16 shows that tree planting had significant relationship with market opportunities in Il Ngwesi study site in addition to firewood and water in Ngare Ndare study site. Respondents who benefited from markets and firewood had a higher likelihood to engage in tree planting that others. It was considered likely therefore that these benefits motivated pro-conservation behavior. This was in line with the findings of Stem *et al.*,

(2003) that receiving personal benefits from tourism is associated with higher levels of engagement in pro-conservation activities. For Ngare Ndare study site however, the table shows that respondents who benefited from water had a lower likelihood of planting trees. Further examination of the data showed that indeed a lower proportion of those who received water participated in tree planting (27%) compared to that of those who did not receive it but still planted trees (95%). Respondent's region of settlement may have been the underlying cause of this significant association since the two settlements that did not receive the forest's water at all (Mbuju and Kisima) had the highest proportion of respondents who participated in tree planting. Respondents from Ngare Ndare settlement were also associated with negative pro-conservation attitudes emanating from the ongoing dispute that existed between their leadership and the management of Ngare Ndare Forest Trust. This is illustrated in the following two observations by respondents from Ngare Ndare settlement:

But when you enter into the centre of this forest of Ngare Ndare, you'll see that it is becoming a desert. Because of these wrangles. Because for this forest of Ngare Ndare, if the community does not conserve it, and it is left to the manager and the workers to protect it, wont they destroy all of it? Even if you are in charge of 100 people and all of them refuse to work, won't the work diminish? (Ngare Ndare Male, FGD8, October 22, 2016)

And we feel very bad because when there is something like a forest fire, that day the vehicles of Lewa, all the vehicles of the Trust, you won't miss them. They will come here collecting people throughout this community, "Let us go and contain the fire, you know this fire is ours, you know this forest is ours" but when it gets to their turn [to support the community], it becomes a problem. So in our view, it is the issue of full involvement that is the biggest problem that is surrounding Ngare Ndare Forest Trust. (Ngare Ndare Male, FGD8, October 22, 2016)

It was therefore likely that the ongoing dispute had given rise to apathy among respondents from Ngare Ndare settlement as far as conservation of the environment was

concerned. Table 4.16 further shows that participation in tree planting did not have any significant association with majority of the benefits in both study sites including trainings, cash, honey, security, roads, employment, bursaries, loans, poles, pasture, herbs in addition to improvement of educational and health facilities. Wang (2017) notes that there is no correlation between receiving tourism benefits and having a positive attitude to environmental conservation as the latter is influenced by other factors including literacy levels and locals' relationship with protected-area management. Kollmuss & Agyeman (2002) and Gifford (2011) further show that Pro-Environmental Behaviour is motivated by an array of interrelated factors which are both internal and external to the individual. It was therefore reasonable that this study did not find significant associations between pro-environmental behaviour and majority of the benefits.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0. Introduction

This section begins by giving a summary of the study's findings arranged according to the objectives. It then states the key conclusions that emanated from the study before ending with recommendations in terms of policy direction and areas of further research.

5.1. Summary of findings

On the first objective of the study, it emerged that respondents received two types of benefits from ecotourism and associated conservation areas: those that accrued directly to individuals namely firewood, pasture, bursaries, training, water, loans, employment, market opportunities, cash, herbs, energy saving stoves, honey, poles, land for cultivation, sand, biogas system, improved livestock breeds and beads, and; those that accrued to the wider community specifically environmental improvement, roads improvement, security improvement, cultural preservation, education facility improvement, trees seeds or seedlings for groups, health facility improvement, water supply equipment for groups, water troughs in the conservation area, tree nursery equipment for groups, greenhouse facilities, games equipment, recreational opportunities and forest soil for groups' tree nurseries. It further emerged that there were regional disparities in distribution of the benefits of ecotourism within both study sites. In Il Ngwesi settlements near the conservation area received more benefits of ecotourism than those farther away especially those that related to accessing resources in the conservation area. In Ngare Ndare there was disproportionate distribution of benefits to the different settlements which emanated from diversity in their geographical locations, settlement-specific development priorities and one settlement's non-conformity to NNFT's policies regulating utilization of natural resources in the conservation area. Ecotourism had yielded benefits to previously-marginalized groups specifically women from Il Ngwesi study site while culturally-defined gender roles were having a negative impact on the participation of females in Ngare Ndare. While youths below 29 years received fewer

benefits than other age categories in both study sites, those from Ngare Ndare reported more benefits than Il Ngwesi with the latter feeling that their management had given priority to women at the expense of other sections of the community. There was evidence of equity in provision of bursaries in Il Ngwesi as the study established that respondents with higher levels of formal education had a lower likelihood of receiving bursaries compared to those with lower levels. In Ngare Ndare study site however, respondents with higher levels of education had a higher likelihood of receiving the benefit of employment than those with lower levels. In the same study site, more educated persons were found to be more likely to impact positively on the conservation area's environment by receiving less of firewood, a benefit that entailed extractive utilization of natural resources. On one hand, the absence of significant relationships between respondents' family size, land size or number of livestock and majority of benefits showed the likelihood of there being equality in benefit distribution to the poor and the rich in both study sites. On the other hand, it demonstrated an absence of equity as it showed that there was no notable effort to channel benefits to the poorest members of both Il Ngwesi and Ngare Ndare study sites.

On the second objective, the study observed that there exists a wide range of policy and legislative instruments that impact on benefit distribution and community participation in ecotourism. These have however failed to expound on the strong social-justice foundation set by the Constitution of Kenya 2010. They are also uncoordinated and disempowering as local community participation is dependent on actions of other players including state agencies. Their impact has also been limited by challenges that beset the Kenyan tourism industry including narrow private sector interests, prioritization of other sectors by the state and global happenstances like terrorist attacks and the Covid-19 Pandemic. Above all, the country lacks substantive legislation on benefit sharing within the tourism industry. The study further established that both the County Government of Laikipia and County Government of Meru were neither informed on the status of benefit distribution in the two study sites nor did they influence it in any significant way. It further emerged that while the Group Ranch Committee (GRC) and Constitution gave members of Il

Ngwesi Group Ranch the opportunity to participate and influence benefit distribution through regular and transparent general meetings, there were challenges in the Community Forest Association (CFA) of Ngare Ndare Forest Trust (NNFT) emanating from non-adherence to the Trust Deed, weaknesses in governance and the low presence of Kenya Forest Service (KFS) Ngare Ndare Forest. The study therefore adjudged community participation in ecotourism in Il Ngwesi study site to be at the higher level of Spontaneous Participation while in Ngare Ndare it was deemed to be at the lower level of Induced Participation according to the typologies of Cevat Tosun.

On the third objective, the study established that Il Ngwesi study site had higher levels of satisfaction with ecotourism than Ngare Ndare. The study noted that this disparity was likely to have emanated from Il Ngwesi's emphasis on benefits that accrued directly to the individual and its more transparent governance in comparison to Ngare Ndare which had an ongoing leadership conflict and apparent inequalities in benefit distribution. The study further noted the presence of disparities in levels of satisfaction within each study site with Il Ngwesi exhibiting decreasing satisfaction as one moved away from the conservation area while Ngare Ndare had more satisfied respondents in the settlement that received disproportionately more benefits due to its downstream location and non-adherence to NNFT's resource-access regulations. Attitudes also varied with gender whereby Il Ngwesi women had higher levels of satisfaction than men possibly due to the presence of women-targeted projects while Ngare Ndare females exhibited lower levels of satisfaction largely due to the many challenges associated with collecting firewood from Ngare Ndare Forest.

On the fourth objective, the study established that community participation in ecotourism varied by region of settlement with higher participation being recorded in areas that were proximal to the ecotourism area in Il Ngwesi study site and those that were not affected by the leadership conflict in Ngare Ndare. It also varied by gender with involvement of women being lower than that of men in both study sites due to disparities in gender roles, socialization and other factors. The study revealed that local participation in ecotourism was likely to be unmotivated by both the benefits that accrue directly to the individual like

firewood and those that accrue to the wider community like roads. A notable finding was that key benefits like pasture, water, loans and bursaries had no relationship with community participation in ecotourism possibly due to the behavioural-psychology effect of constant rewards ceasing to motivate behaviour beyond a certain threshold. On the association between benefits and pro-environmental behaviour, the study established that there were regional disparities in this activity in both study sites emanating from differences in size of landholding in Il Ngwesi study site and demotivating effect of the leadership conflict in Ngare Ndare. The study further observed that pro-environmental behaviour associated with benefits that accrued directly to individuals specifically market opportunities and firewood collection. The study however did not find significant relationships between majority of the benefits of ecotourism and pro-environmental behaviour as it is motivated by a multiplicity of interrelated factors that are both internal and external to the individuals.

5.2. Conclusion

Tourism offers an opportunity to enhance social welfare and fight poverty for rural residents living in marginal areas (Snyman, 2012). This study of Il Ngwesi Group Ranch in Laikipia County and Ngare Ndare Forest Trust (NNFT) in Meru County clearly demonstrated that the two community-owned and operated ecotourism enterprises had significantly contributed to this by offering a wide variety of benefits to locals and ensuring equality in their distribution to the rich and the poor. Each of the two enterprises however still faced some of the challenges that hamper community participation and benefit distribution in other types of tourism businesses including governance weaknesses that led to some benefiting more than others; biases in benefit distribution against sections of the community including women, those with low levels of formal education and those dwelling farther away from the conservation area, and; failure to affirmatively channel significant benefits to the poorest members of the community. Distributive justice is concerned with achieving equity rather than equality by ensuring that deprived sections of the community receive proportionately more benefits than others (Dangi, 2016; Jamal & Camargo, 2014). The study therefore affirmed the observation of Afenyo

and Amuquandoh (2014) that full control of enterprises by local communities does not always lead to equity in benefit distribution. As noted by Mensah (2017), such autonomous enterprises will only be successful when they have in place adequate capacities, systems and structures.

Many local communities in Africa and other developing countries remain poor even though they occupy areas that are rich in tourism resources and having a lengthy history of participating in tourism. This study has demonstrated that the pursuit of equality rather than equity is one of the causes of this prevailing poverty. Management of community enterprises chose the equality (egalitarian) approach to avoid being perceived as biased by their members and the associated negative consequences of this including conflicts (Martin, Gross-Camp, Kebede, McGuire & Munyarukaza (2014). This approach however is not affirmative and sustains the disadvantaged status of the poor and other vulnerable sections of the community.

It is important for the tourism industry to embrace current approaches to development including the equitable degrowth concept that places local rights and interests above business and profit motives. In fact, the pinnacle of community participation is reached when locals manage and operate their own entities. This study has demonstrated that even communities that have reached this summit are falling short as far as attaining equity in benefit sharing is concerned. It has revealed a critical need for the tourism industry to continually evaluate the sustainability of all enterprises including those considered as models of best practices.

5.3. Participants' Benefits from the Study

Participants from the study benefited from an increased awareness on the status of community participation and equity within their ecotourism operation. This was especially so in Ngare Ndare study site where sections of the community expressed dissatisfaction with the benefits that they received and their participation. The study's Focussed Group Discussions provided an avenue for participants to collectively explore

the challenges facing their group and how these could be resolved. Equipped with such information, members of this community continue to agitate for changes in how their leadership manages the ecotourism enterprise. In May 2021, community members burnt down a section of the popular canopy walkway and part of the reasons they cited was that Ngare Ndare Forest Trust's rangers harassed women while they were collecting fuelwood and that its management had failed to hold elections as required (Nation, 2021; The Standard, 2021). Though this was an undesirable negative occurrence and was triggered by confiscation of livestock, such unprecedented escalation of community action is testament to the power of heightened awareness that such studies can impart.

5.4. Recommendations

5.4.1. Policy Recommendations

- i There is need for a dedicated policy on community participation in tourism in Kenya.
- ii There is need to review existing tourism policies and legislation in order to reflect the Kenyan Constitution's strong social-justice ethos including its provisions on equity, inclusion and non-discrimination.
- iii The revised policies should have clear provisions for promoting equity in benefit distribution.
- iv The revised policies should seek to empower communities in order to move away from the current situation where their participation and benefits are controlled by state agencies, private sector and other stakeholders.
- v Policies and plans should be realistic, taking into account the country's pace of economic development and the challenges facing the tourism industry at that specific period.

- vi There is need for inter-agency coordination during the policy review or formulation process. This will ensure that policies are harmonized and thus are more effective in their impacts.
- vii There is need for dedicated policy on benefit sharing within the tourism industry and the natural resources sector in general.

5.4.2. Recommendations for Further Research

- i The role of state and non-state actors in ecotourism development in Kenya.
- ii The status of equality and equity in other forms of tourism in Kenya.
- iii The environmental impacts of different types of ecotourism businesses in Kenya.
- iv Comparative study of the sustainability of different ecotourism businesses in Kenya using the triple bottom line framework (financial, social and environmental sustainability).

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APPENDICES

Appendix 1: Interview Schedule for Individual Household Heads

COMMUNITY PARTICIPATION IN ECOTOURISM QUESTIONNAIRE

Date: _____ Location (CBO & village): _____

1. Name: _____ Tel No: _____

(a) SOCIO-DEMOGRAPHIC BACKGROUND

2. Gender: Male: _____ Female: _____

3. Age:

- (a) Below 19 years old: _____
- (b) 20 – 29 years old: _____
- (c) 30 – 39 years old: _____
- (d) 40 – 49 years old: _____
- (e) 50 – 59 years old: _____
- (f) 60 – 69 years old: _____
- (g) 70 years and above: _____

4. Marital status: Married: _____ Single: _____

5. Number of dependants: _____

6. Level of education (*tick ONE below as appropriate*):

- (a) No formal education: _____
- (b) Primary education (up to standard 8): _____
- (c) Secondary education (up to form 4): _____
- (d) Tertiary education (post secondary school certificate, diploma or degree): _

7. Major livelihood activity:

(a) **Pastoralist** (*tick ONE below as appropriate*):

- i. Less than 10 livestock _____
- ii. Between 11 and 100 livestock _____
- iii. Between 101 & 500 livestock _____
- iv. Over 501 livestock _____

(b) **Cultivation agriculture** (*tick ONE below as appropriate*):

- i. Below 1 acre _____
- ii. Above 1 – 5 acres _____
- iii. Above 5 – 10 acres _____
- iv. Above 10 – 20 acres _____
- v. Above 20 acres _____

(c) **Paid employment** (*tick below wherever appropriate*):

- i. Earning a gross of less than Ksh 10,000 per month _____
- ii. Between Ksh 10,001 and 100,000 per month _____
- iii. Over Ksh 100,001 per month _____

(d) **Business person** (*tick ONE below as appropriate*):

- i. Approximate stock worth Ksh 10,000 or less _____
- ii. Between Ksh 10,001 and 100,000 _____
- iii. Between Ksh 100,001 and Ksh 1 million _____
- iv. Above Ksh 1 million _____

(e) **Other** (please specify)

8. Length of stay in the study area (in years) _____

(b) MEMBERSHIP/AFFILIATION

9. What is the nature of your AFFILIATION TO NNFT/ II NGWESI GROUP RANCH? (specify position e.g. member, chairman, staff-manager, supplier of x)

10. Do you belong to any SUB-GROUP WITHIN NNFT/II NGWESI GROUP RANCH? If yes, give its name and specify your position

11. Do you have any AFFILIATION WITH THE ECOTOURISM ENTERPRISE(S) OF NNFT/IL NGWESI GROUP RANCH? If yes, specify e.g. scout, supplier of x

12. Specify actions you have PERSONALLY undertaken that have POSITIVELY OR NEGATIVELY affected Ngare Ndare Forest/II Ngwesi Group Ranch, the ecotourism enterprise or the general environment in the last 5 years?

Nature of activity (e.g.	Location (state forest, own	Year (specify month if	Other details including estimated value/cost
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no of seedlings planted)	farm)	possible)	incurred (e.g. each seedling was worth Ksh 20)

(c) PARTICIPATION/INVOLVEMENT

13. Which activities do YOU OR A MEMBER OF YOUR HOUSEHOLD participate in as far as Ngare Ndare Forest/Il Ngwesi Group Ranch is concerned?

Activity (e.g. firewood collection, etc)	Who participates? (you, your wife, your son, etc)	Specific details including activity/good/service, month/year, quantity, monetary value/amount paid, outcome

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14. Have YOU OR A MEMBER OF YOUR HOUSEHOLD participated in the following as far as ECOTOURISM OR ENVIRONMENTAL CONSERVATION here is concerned?

Activity	Who participated? (you, your wife, your son, etc)	Specific details including activity/good/service, month/year, quantity, monetary value/amount paid, outcome
i. Meetings/ Forums for planning or decision making on ecotourism or environmental conservation		

ii. Training on ecotourism or environmental management issues		
iii. Management or operation including employment in ecotourism enterprise		
iv. Supply of goods and/or services for the ecotourism enterprise, etc		
v. Others (please specify)		

15. (a) How satisfied are you with YOUR current level of INVOLVEMENT/PARTICIPATION? *Tick one below*

Completely satisfied	Somewhat satisfied	Neither satisfied nor dissatisfied	Somewhat dissatisfied	Completely dissatisfied

(b) How would you like NNFT/Il Ngwesi Group Ranch Mgt to INVOLVE YOU MORE?

16. (a) In your opinion, how FAIR is the current status of COMMUNITY PARTICIPATION? Fairness in terms of ensuring equitable participation across different sections (men, women, youth, PWD), areas/regions, livelihoods (e.g. cultivators, pastoralists), levels (members, management, board) etc. *Tick one below*

Completely fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Completely unfair

(b) In your opinion, are there specific areas/regions, groups or sections of the community that participate MORE or LESS than others? If yes, explain WHICH ones and describe HOW this happens

(c) How can this situation be CORRECTED/ REMEDIED or how can COMMUNITY PARTICIPATION BE ENHANCED?

(d) BENEFITS OF ECOTOURISM

17. Which BENEFITS have YOU OR A MEMBER OF YOUR HOUSEHOLD received from ECOTOURISM in NNFT/II Ngwesi Group Ranch in the last 5

years?

Benefit/ beneficial development	Who received? (you, your wife, your son, etc)	Specific details of the benefit including month/year and monetary value

18. Have YOU OR A MEMBER OF YOUR HOUSEHOLD been a BENEFICIARY of the following from NNFT/II Ngwesi Group Ranch as far as ECOTOURISM is concerned?

Nature of benefit	Recipient of benefit (you, your wife, your son, etc)	Details of benefit including month/year, good/service and monetary value
i. Received cash income		
ii. Secured employment		
iii. Got a market for my goods or services		

iv. Recipient of education support e.g. school bursary		
v. Recipient of health -related benefits e.g. treatment, ambulance transfer		
vi. Recipient of water -related benefits e.g. piped water, water trough for livestock		
vii. Benefited from improved roads		
viii. Benefited from improved environment or environmental management		
ix. Any other benefits (please specify)		

19. How would you RANK THE BENEFITS that accrue from ECOTOURISM in NNFT/II Ngwesi Group Ranch *List starting with the most important to the least important*

20. (a) How satisfied are you with YOUR current level of BENEFITS? Tick one below

Completely satisfied	Somewhat satisfied	Neither satisfied nor dissatisfied	Somewhat dissatisfied	Completely dissatisfied

(b) How would you like NNFT/II Ngwesi Group Ranch Mgt to BENEFIT YOU MORE?

21. (a) In your opinion, how FAIR is the current status of BENEFIT

DISTRIBUTION? Fairness in terms of ensuring benefits are distributed equitably across different sections (men, women, youth, PWD), areas/regions, livelihoods (e.g. cultivators, pastoralists), levels (members, management, board) etc. *Tick one below*

Completely fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Completely unfair

(b) In your opinion, are there specific areas/regions, groups or sections of the community that benefit MORE or LESS than others? If yes, explain WHICH ones and describe HOW this happens

(c) How can this situation be CORRECTED/ REMEDIED or how can BENEFIT DISTRIBUTION within the community BE ENHANCED?

(e) COSTS OF ECOTOURISM

22. Which COSTS have YOU OR A MEMBER OF YOUR HOUSEHOLD incurred from ECOTOURISM/WILDLIFE in Ngare Ndare/Il Ngwesi Group Ranch in the last 5 years?

Cost	Who incurred? (you, your wife, your son, etc)	Specific details of the cost including month/year and monetary value

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23. Have YOU OR A MEMBER OF YOUR HOUSEHOLD incurred the following COSTS from ECOTOURISM/WILDLIFE in Ngare Ndare/Il Ngwesi Group Ranch?

Nature of cost	Recipient of cost (you, your wife, your son, etc)	Details of cost (e.g. month/year, no. of goats lost, monetary value of each)
i. Incurred wildlife-related losses		
ii. Lost access to pasture		
iii. Lost access to other resources in the Forest Reserve/ Conservation Area		
iv. Suffered negative social-cultural impacts e.g. conflicts, disruption of traditional life		
v. Suffered environmental degradation associated with ecotourism/wildlife		
vi. Any other costs (please specify)		

24. How would you RANK THE COSTS that are incurred from ECOTOURISM/WILDLIFE in Ngare Ndare/Il Ngwesi Group Ranch *List starting with the most significant to the least significant*

25. (a) In your opinion, how FAIR is the current status of COST DISTRIBUTION?
 Fairness in terms of ensuring the costs associated with ecotourism/wildlife are borne equitable across different sections (men, women, youth, PWD), areas/regions, livelihoods (e.g. cultivators, pastoralists), levels (members, management, board) etc.
Tick one below

Completely fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Completely unfair

(b) In your opinion, are there specific areas/regions, groups or sections of the community that bear MORE or LESS of the costs than others? If yes, explain WHICH ones and describe HOW this happens

(c) How can this situation be CORRECTED/ REMEDIED and equity in COST DISTRIBUTION within the community BE ENHANCED?

(f) COMMUNITY ATTITUDES TO ECOTOURISM

26. For each of the statements below, put a mark on the box that represents the closest match to your feelings as far as ecotourism is concerned.

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
(a) Attitudes on distribution of ecotourism benefits					
I am satisfied with the distribution of ecotourism benefits in my community					
The benefits of ecotourism are widely distributed within the community					
The benefits of ecotourism are fairly distributed within the community					
Community members who are interested can participate and benefit from ecotourism					
There is not much else that can be done to better the current benefit distribution situation					
(b) Attitudes on significance of ecotourism benefits					
I support the ecotourism enterprises in my community					
Ecotourism development has been beneficial to my community					
Ecotourism has made lives in my community better					
My community is better off with the enterprises than when they were not there					
The ecotourism enterprises should continue					

END

Appendix 2: Focus Group Discussion Guide

1. How does your community participate in ecotourism?
2. Which are the benefits and costs of ecotourism in your area? How are these distributed within the community?
3. Are there institutional arrangements that affect distribution of benefits and costs? If yes, which are these and what is their influence?
4. Are there socio-demographic factors that influence distribution of benefits and costs? Which ones are these and what is their influence?
5. Does the distribution of benefits and costs affect community attitudes towards ecotourism? If yes, describe how this happens and the resultant attitudinal outcomes
6. Does the distribution benefits and costs affect community participation in ecotourism or environmental conservation? If yes, describe how this happens and what are its outcomes
7. How can the distribution of benefits and costs of ecotourism be enhanced?
8. How can community participation in ecotourism be enhanced?

Appendix 3: Focus Group Discussion Sessions Held

Date	Settlement	Venue	FGD No.	Participants	Time
24 th Sept 2016	Mbuju	“Gwa-Katheru” Shopping Centre, Ndurumuru	FGD1	Youth (8)	10:26am-11:37am
			FGD2	Women (8)	11:47am-12:48pm
			FGD3	Men (8)	1:17pm-2:36pm
24 th Sept 2016	Kisima	Havana Resort, Ex-Lewa Shopping Centre	FGD4	Women (7)	3:17pm-4:41pm
			FGD5	Men (7)	4:46pm-5:42pm
			FGD6	Youth (8)	6:21pm-7:05pm
22 nd Oct 2016	Ngare Ndare	“Kwa-Misheck”, Ngare Ndare Shopping Centre	FGD7	Women (9)	10:47am-11:55am
			FGD8	Men (8)	12:03am-1:33pm
			FGD9	Youth (8)	1:42pm-2:49pm
9 th Sept 2016	Chumvi	Full Gospel Church, Chumvi Shopping Centre	FGD10	Women (9)	11:05am-12:13pm
			FGD11	Men (9)	12:43pm-1:53pm
			FGD12	Youth (9)	2:00pm-2:50pm
20 th Sept 2016	Nadungoro	Mrs Piroris’ homestead, Nadungoro village	FGD13	Youth (8)	11:26am-12:26pm
			FGD14	Women (8)	12:48pm-1:35pm
			FGD15	Men (8)	1:54pm-3:13pm
12 th	Sanga	Lower Sanga	FGD16	Men (8)	11:06pm-12:10pm

Nov 2016		village	FGD17	Women(8)	12:48pm-13:50pm
			FGD18	Youth (8)	2:26pm-3:50pm

Appendix 4: Questionnaire for Key Informants

Name of respondent: _____

Organization: _____

Designation: _____

1. Describe the status of community participation in ecotourism in Ngare Ndare Forest Reserve and Il Ngwesi Group Ranch.
2. Describe the distribution of ecotourism benefits and costs in each of the two cases
3. Which are the factors that affect the distribution of ecotourism benefits and costs in each of the two sites above? Do institutional arrangements or socio-demographic factors influence it? If yes, how?
4. In your view, does the distribution of benefits and costs affect community attitudes towards ecotourism? If yes, describe how this happens and the resultant attitudinal outcomes
5. Does the distribution benefits and costs affect community participation in ecotourism or environmental conservation? If yes, describe how this happens and what are its outcomes
6. How can the distribution of benefits and costs of ecotourism be enhanced?
7. How can community participation in ecotourism be enhanced?

Appendix 5: Key Informants Interviewed

KI No.	Name	Institution	Position	Interview Venue (& date)
1	Dominic Maringa (Mr)	Ngare Ndare Forest Trust (NNFT)	Manager	His NNFT office (3 rd August 2016)
2	Patrick Karmushu (Mr)	Il Ngwesi Group Ranch	General Manager	Equator Hotel, Nanyuki (8 th Aug 2016)
3	Alice W. Matu (Ms)	County Government of Laikipia	Director for Trade, Investments and Tourism	Her office in Nanyuki town (11 th Sept 2016)
4	Beth Mbayu (Ms)	County Government of Meru	Ecotourism Officer	Her office in Kaaga Synod Building, Meru (2 nd August 2016)
5	Evans Maneno (Mr)	Kenya Forest Service (KFS)	Ecosystem Conservator, Meru	His office in Meru town (2 nd Aug 2016)
6	John Kinoti (Mr)	Lewa Wildlife Conservancy (LWC)	Community Development Manager	His office in LWC (9 th Aug 2016)
7	Geoffrey Mwangi (Mr)	Ngare Ndare Location	Chief	Ngare Ndare Shopping Centre (21 st Sept 2016)
8	Stanley Mburugu (Mr)	Mbuju CBO	Chairman	Outside NNFT office (4 th Aug 2016)
9	Joseph	Kisima CBO	Chairman	Outside NNFT office (5 th

	Kirimana (Mr)			Aug 2016)
10	Kashara Kitonga (Mr)	Ngare Ndare CBO	'Chairman' ³	His office in Ngare Ndare Shopping Centre (21 st Sept 2016)
11	Benedetta Tingoi (Ms)	Il Ngwesi Group Ranch	Coordinator, Days for Girls Programme in Chumvi area	Their workshop in Chumvi Shopping Centre (6 th Sept 2016)
12	Sammy Sakita (Mr)	Il Ngwesi Group Ranch	Director of Women Initiatives	Chumvi Shopping Centre (10 th Aug & 6 th Sept 2016)
13	Sammy Tema (Mr)	Il Ngwesi Group Ranch	Grazing Coordinator	Nadungoro village, (20 th Sept 2016)
14	Lunyuiko Mureithi Karmushu (Mr)	Ngare Ndare Forest Trust (NNFT)	Chairman of Grazers, Ngare Ndare	Ngare Ndare Shopping Centre (21 st Sept 2016)
15	Peter Kahendo (Mr)	Ngare Ndare Forest Trust (NNFT)	Vice Chairman, Ngare Ndare Water Project	Ngare Ndare Shopping Centre (21 st Sept 2016)

³As noted elsewhere in the document, various respondents from Ngare Ndare region indicated that though Mr Kashara was still their chairman, NNFT no longer recognized him. On one hand it was alleged that this was because he had failed to account for community development funds that had been advanced to him. On the other hand, others including him contended that he was being persecuted due to his quest for transparency and more community engagement by NNFT.

Appendix 6: Research Authorization from Kenyatta University



KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: N85/23433/2013

DATE: 12th April, 2016

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

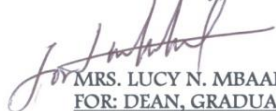
RE: RESEARCH AUTHORIZATION FOR IRERI PHILIP MURIITHI– REG. NO. N85/23433/2013

I write to introduce Mr. Ileri Philip Muriithi who is a Postgraduate Student of this University. He is registered for Ph.D degree programme in the **Department of Environmental Studies and Community Development**.

Mr. Muriithi intends to conduct research for a Ph.D Proposal entitled, “**Benefit Sharing and Community Participation in Ecotourism in Meru and Laikipia Counties, Kenya**”.

Any assistance given will be highly appreciated.

Yours faithfully,


MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL

EO/rwm

Appendix 7: Research Authorization from NACOSTI



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No.

Date:

NACOSTI/P/16/94945/12262

5th July, 2016

Philip Murithi Ileri
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “*Benefit sharing and community participation in ecotourism in Meru and Laikipia Counties, Kenya,*” I am pleased to inform you that you have been authorized to undertake research in **Meru and Laikipia Counties** for the period ending **4th July, 2017**.

You are advised to report to **the County Commissioners and the County Directors of Education, Meru and Laikipia Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Meru County.


The County Director of Education
Meru County.


Appendix 8: Research Clearance Permit from NACOSTI

THIS IS TO CERTIFY THAT:

MR. PHILIP MURITHI IRERI
of KENYATTA UNIVERSITY, 0-100
Nairobi, has been permitted to conduct
research in Laikipia , Meru Counties
on the topic: *BENEFIT SHARING AND*
COMMUNITY PARTICIPATION IN
ECOTOURISM IN MERU AND LAIKIPIA
COUNTIES, KENYA

for the period ending:
4th July, 2017.




Applicant's
Signature


Director General
National Commission for Science,
Technology & Innovation

Permit No. : NACOSTI/P/16/94945/12262
Date Of Issue : 5th July, 2016
Fee Received :Ksh 2000

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice**


REPUBLIC OF KENYA

NACOSTI
National Commission for Science,
Technology and Innovation

RESEARCH CLEARANCE
PERMIT

Serial No. A 9961

CONDITIONS: see back page