

**SOCIO-ECONOMIC IMPACTS OF MAU FOREST DISPLACEMENT ON THE
OGIEK COMMUNITY IN KENYA.**

BY

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DECLARATION

Declaration by the Student

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DEDICATION

To my dear wife Nancy Jeptoo, our children Patience, Deborah and Nickson and our parents- Paul and Sally for their prayers, constant support and encouragement during my studies.

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ABSTRACT

There has been a global concern about reduction of land under forest cover in the world. In Kenya; this has resulted in forest eviction. Mau forest complex which is located in the central region of the rift valley of Kenya is the biggest water tower in eastern Africa. Much of the forest in this tower has been excised. This has led to stringent measures taken by government to conserve the forest including eviction. The study was conducted in part of Eastern Mau, covering Nandi and Uasin Gishu Counties. The purpose of this study was to assess the socio- economic impact of forest displacement among Ogiek community. The specific objectives was to assess the actual impacts of displacement on household livelihoods, to examine Environmental impacts of displacement on Mau forest, the challenges facing the displaced Ogieks in their new resettlement site and the strategies employed by the evictees to cope up with new environment, and to suggest the best practices in Mau forest management. This study adopted a descriptive survey method. The sampling frame for this study comprised of 15,000 (N= 15,000), key informants, drawn from Government Agencies, Community Based Organizations (CBOs) and non-governmental organizations while respondents were drawn from household members of Ogiek. Multi-stage-cum-stratified random sampling technique was used in selecting respondents for this study. The instruments to be used for collection of data relevant to this study were questionnaires, interview schedules and focus group discussions. The study utilized descriptive statistics techniques for analysis. Quantitative data were analyzed by use of measures of central tendencies such as frequencies, means and percentages while qualitative data were summarized and interpreted in line with the research objectives and questions. Results of data analysis were presented in form of figures and tables. The study thus aimed at documenting Socio-Economic impacts of Mau forest eviction and forest conservation .The study was conducted between the month of September 2013 and May 2014. The Socio-economic impacts of displacement of Ogiek Community, majority of the respondents agreed that Mau forest displacement has affected the use of common property. The displacement has even gone to the extent of causing death to the affected. On environmental impacts majority of the respondents were of the opinion that the Mau displacement has brought about positive environmental impacts. For example majority of the respondents agreed that displacement has affected the Mau forest environment, other respondents had a positive opinion that the planting of conifers has positively affected the Mau forest environment. The study concluded that displaced persons are prone to a lot of social-economic problems. They have to struggle much for livelihood in the new place, he or she is always under stress and that because the social, cultural, economic and other values of the village life differs with that in their original place and undergo several changes which is quite strenuous. From the study it is noted that the Ogiek community suffers economically as they compete for resources and opportunities in their new areas, they are also socially challenged though it was revealed in the study that they struggle as much as possible to mingle with the host community so as to bridge the gap. The study recommended that the government should ensure that victims of forced evictions in the Mau Forest Complex and all other forest areas are provided with assistance in accordance with international human rights standards, including access to resettlement sites with effective access to basic services.

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OPERATIONAL DEFINITIONS OF TERMS

Displacement is often taken to mean the forced removal of local communities from their land. However, the World Bank's definition now includes displacement from resources without community movement:“(i) relocation or loss of shelter; (ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location, or the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons” (World Bank, 2002).

“Livelihoods” refer to the means used to maintain and sustain life. “Means” connotes the resources, including household assets, capital, social institutions, and networks (kin, village, authority structures), and the strategies available to people through their local and transnational communities. (Ellis, 1998; Olwig and Sorensen, 1999). According to UNDP 1995, Livelihood is defined as means, activities, entitlement and asset by which people make a living. The asset in this case includes natural resources, social networks, human development, economic and physical infrastructure.

The term ‘livelihood’ often refers to the access of individuals to these various types of capital, opportunities and services (Ellis, 2000), but has also been defined as comprising the capabilities, assets and activities required for a means of living (Carney, 1998; Sunderlin *et al.*, 2005). Livelihoods can be improved, for example, if natural capital is managed sustainably, and vulnerability to changes in the environment or market is lowered (Kaimowitz, 2003).

‘Forest’ is also defined differently by different actors. The Food and Agriculture Organization of the United Nations (FAO) considers forest to be land with a tree canopy cover of more than 10%, which has a larger area than 0.5 ha and is not specifically under a non-forest land use (FAO, 2001).

LIST OF ABBREVIATION

MFC - Mau forest complex.

MRG - Minority Rights group.

UNDP - United Nation Development Programme.

NTFP- Non Timber Forest Products.

APF - African Park Foundation.

NGO - Non-Governmental organization.

CPR - Common Property Resource.

CBA - Cost Benefit Analysis.

FAO - Food and Agricultural organization.

WWF- World Wide Fund

CHAPTER ONE

INTRODUCTION

1. 1 Background Information

It is estimated that 90% of the world's poor depend on forests for at least a portion of their income (World Bank, 2000; Scherl *et al.*, 2004; USAID, 2006). In India, 50 million people are estimated to directly depend on forests for subsistence alone while in Africa, 600 million people have been estimated to rely on forests and woodlands for their livelihoods (Anderson *et al.*, 2006).

Studies on conservation displacements highlights some of the major findings (Brockington *et al.* 2006). Most articles documented case studies of displacements, but provided little quantitative information on the total number of protected areas where forced displacement (defined here as physical removal) has occurred, or the number of people that have been removed. Consequently, estimates range from 900 000 to 14.4 million people displaced (Geisler & de Souza, 2001; Geisler, 2003a, 2003b). For Central Africa, estimates of the number of people displaced from 12 parks (45% of the total for the region) were used to produce an overall estimate of 120 000 displaced to date, with the potential for another 170 000 if there are no changes in conservation policy (Cernea & Schmidt-Soldau 2006)

From India's Rengali project, Ota (1996) reports that the percentage of landless families after relocation more than doubled-from 4.6 percent to 10.9 percent; while Reddy (1997) documents that in the coal mining displacements around Singrauli, the proportion of landless people skyrocketed from 20 percent before displacement to 72 percent after. A sociological study of Kenya's Kiambera Hydropower project found that farmers' average land holdings after resettlement dropped from 13 to 6 hectares; their livestock was reduced by more than one-third; yields per hectare decreased by 68 percent for maize and 75 percent for beans. Family income dropped from Ksh. 10,968 to Ksh. 1,976-a loss of 82 percent (Mburugu 1993; Cook 1993). In Indonesia, a survey by the Institute of Ecology of Padjadjaran University (1989) around the Saguling reservoir found that resettled families'

land ownership decreased by 47 percent and their income was halved. Similar evidence is available from Brazil (Mougeot 1989). Findings from anthropological field studies show that loss of land generally has far more severe consequences for farm families than the loss of the house.

1.1.1 History of Mau Forest

The Mau Forest Complex (MFC) is the largest forest left in Kenya—as big as the forests of Mt. Kenya and the Aberdares combined, which are also among Kenya’s major “water towers”. Some 30 million people depend on water sources originating in the Mau—in Kenya and beyond (Omboto 2010). It is the traditional home of Ogiek people as well as nurturing trees used by communities and the nation, the Mau feeds some major rivers, for example River Sondu and River Mara, which provide the water for millions of Kenyans, in both rural and urban areas. The rivers sustain six major lakes: Nakuru, Naivasha, Baringo, Natron, Turkana, and Victoria. Forest destruction in the Mau means that the ground does not absorb and filter water well, imperiling these rivers, lakes, the Maasai Mara National Reserve and even the Serengeti.

Because of the cooling action of millions of trees—as well as the carbon dioxide they store—the Mau forest also moderates the effect of climate change. It helps maintain the climate necessary for tea and other major crops in the region as well.

The Mau Forest Complex supports key economic sectors in Rift Valley, Western and Nyanza provinces, particularly agriculture and tourism. The market value of tea and tourism in which the Mau plays a vital role is more than Ksh 20 billion a year (Omboto, 2010). The Mau sustains some of the country’s most valuable tourism sites, including Maasai Mara and Lake Nakuru. In addition, the estimated potential hydropower generation in the MFC catchments is over 500 megawatts—more than 40 percent of the total electrical generating capacity of Kenya today. The total value of the Mau would also include the timber, firewood, fodder and medicinal plants used by nearby communities. In addition are its benefits to climate stabilization, water supply and filtration. The Mau Forests Complex is variously known as the Mau, the Mau Complex, the Mau Forest, the M

au Forest Complex .This is the area including the 2001 forest excisions. The original gazetted area was 452,007 ha. Including Transmara, Ol Pusimoru, Maasai Mau, Eastern Mau, Mau Narok, South-West Mau, Western Mau, Mt. Londiani, Eburu, Molo and South Molo. In the northern section are the forests of Tinderet, Northern Tinderet, Timboroa, Nabkoi, Kilombe Hill, Metkei, Maji Mazuri, Chemorogok and Lembus.

1.1.2 History of Ogiek Community in Kenya

The Ogiek indigenous community is a hunter gatherer group who depend on the forest for food, medicine, shelter and preservation of their culture. They are foresters and conservators of nature, and so live in places where trees, birds and wild animals provide them with psychological comfort. The Ogiek have a population of about 20,000 people throughout Kenya inhabiting mainly the Mau Forest Complex in the Great Rift Valley Province, and Mount Elgon. Approximately 15,000 Ogiek live in the Mau Forest Complex, which they have occupied for at least 150 years (MRG2009). The Mau is divided into 22 areas, with Ogiek inhabiting 12 of these (Marishooni, Nesuit, Saino, Sururu, Kiptungo, Sogoo, Nkaroni, Tinet, Sasimwani, Oltpirik, Nkareta and Olmekenyu).

However, in common with most indigenous people, the Ogiek have no title deeds evidencing their property rights over the land. Both international and domestic courts have recognized that indigenous groups have a specific form of land tenure that creates a particular set of problems. Common problems faced by indigenous groups include the lack of “formal” title recognition of their historic territories, the failure of domestic legal systems to acknowledge communal property rights, and the claiming of formal legal title to indigenous land by the colonial authorities (Movement for Rights Group-MRG, 2009). The current leading international case on this issue, *The Mayagna (Sumo) Awas Tingni v Nicaragua* before the Inter-American Court of Human Rights, has held that as a result of customary practices, possession of the land should suffice for indigenous communities lacking real title to obtain official recognition of that property. Articles 26 and 28 of the 2007 United Nations Declaration on the Rights of Indigenous Peoples sets out these rights clearly, providing not only that indigenous peoples have the right to lands, territories and resources that they have “traditionally owned, occupied or otherwise used or acquired” but that they have the right to redress, including restitution or fair and equitable compensation

for such lands that have been taken without their free, prior and informed consent. MRG therefore believes that the Ogiek are the legal owners of the land in question (MRG, 2009). According to the Special Rapporteur on adequate housing, Miloon Kothari, signaled in his report on his mission to Kenya that the past destruction of the forest upon which the Ogiek people depend, primarily due to logging, has affected the rights of the Ogiek to housing, health, food and a safe environment, threatening to destroy their cultural identity and the community as a whole.

1.2 Statement of the problem

The Ogiek people are the last remaining forest dwellers and the most marginalized of all indigenous peoples and minorities in Kenya. The Ogiek are traditionally honey gatherers, who survive mainly on wild fruits and roots, game hunting and traditional bee keeping and are, therefore, friendly to their environment on which they depend. They were nicknamed 'Dorobo' a derogatory term given to them by their neighbours, the Maasai. The correct term used by them is 'Ogiek' which literally means 'the caretaker of all plants and wild animals'.

According to Blackburn (1971), the Ogiek are uniquely specialized people intimately related to a particular ecosystem. They are incapable of retaining their essential characteristics, if that ecosystem is destroyed. In the beginning of the last century their ancestral lands were taken from them in a manner little different from the seizure of the Native American hunting grounds in today U.S.A, but with the difference that no Ogiek Reserves were retained. To this great injustice has been added the effects of the forest policy that has progressively and on immense scale replaced their natural forests with conifer forests that are, to the Ogiek, totally sterile and unproductive, useless for either bees or wild animals. Ironically and tragically, the employment offered by the forest department makes them work for their own extinction. Every hectare of plantation trees they plant is a hectare of their birthright lost forever.

According to Dundas (2008), the Ogiek have a unique way of life well adapted to the forest. Their adaptation and their traditions have made them successful foresters and greater environmentalists than any other community in Kenya. The survival of the indigenous Mau

Forest is inextricably linked with the survival of the community. The Ogiek are believed to be the first people to have settled in Eastern Africa and were found inhabiting all Kenyan forests before 1800 AD. Due to domination and assimilation, the community is slowly becoming extinct with the 1989 figures showing about 20,000 countrywide. In July 2008, the Kenyan Government launched an aggressive campaign to evict people living in the Mau Forest Complex that it deems to be living there “illegally”, including the Ogiek, ostensibly in order to protect Kenya’s forests. The action was taken in response to concern about the loss of forest cover in Kenya and its wide-ranging negative impacts, including drought, loss of livelihood and reduced access to basic environmental services such as clean water. An official Government statement later claimed that although the Ogiek would be removed from the Mau, they would then be allowed to return (Gitau, & Laban. 2008).

The displacement within the forest has jeopardized lifestyle and livelihood for a number of families’ values (lowity 2013). It is unclear where the Ogiek will be resettled (temporarily or permanently) but it is clear that in Kenya there is very little in the way of fertile, empty land that would suit them. The Ogiek are also used to the cool mountain climate of the Mau Forest Complex and do not have resistance to the diseases which are prevalent in hotter more humid or drier areas of Kenya. As a result, the removal and eviction of the Ogiek from their ancestral environment is likely to result in the death of their culture, language, livelihood and therefore their existence, which is ultimately bound to their habitation in the Mau Forest Complex whole (MRG, 2009). Using Kipkurere, Kelbui, Cengallo and Chemusya as a reference, this study aims at assessing the socio-economic impact of displacement among the Ogiek community from Mau forest complex.

1.3. General objective

This research aimed at identifying, assessing and documenting the impacts of displacement on household livelihoods, environmental impacts, challenges and the coping strategies of Mau forest displacement among the Ogiek community.

1.4 Specific objectives

- i. To examine the impacts of displacement on household livelihood of Ogiek community.
- ii. To examine environmental impacts of displacement and best practices in management among the Ogiek Community.
- iii. To assess challenges facing Ogieks in their new resettlement site.
- iv. To investigate coping strategies employed by the Ogieks in their new environment.

1.5 Research questions

- i. What are the impacts of displacement on household livelihood of displacement of Ogiek community?
- ii. What are the environmental impacts and best practices of displacement on Mau forest?
- iii. What are the challenges facing ogieks in their new resettlement site?
- iv. What are the coping strategies employed by the Ogieks in their new environment?

1.6 Research Justifications

Despite the recognition by Articles 26 and 28 of the 2007 United Nations Declaration on the Rights of Indigenous Peoples setting out these rights clearly Ogieks community were displaced and has affected the rights of the Ogiek to housing, health, food and a safe environment, threatening to destroy their cultural identity and the community as a whole. This study will enhance an understanding of the extent of socio-economic impact of displacement of Ogieks from their ancestral land. Recommendation of the study will be useful in promoting the welfare of ogieks.

1.8 The Scope of the study and study area

The study covered, Ogieks in Nandi and Uasin Gishu Counties. It was confined to Kipkurere, Serengonik and Kelbui forest evictee camps all in the southern part of central Mau forest complex and chemusya settlement scheme in Uasin Gishu County. It tried to bring out the socio-economic impacts of forest displacement among ogieks of Mau forest complex. The study was conducted between the month of September, 2013 and May 2014.

1.9. Limitations of the study

- i. There was difficulty in translating information into English and most of them lost its meaning in some words due to illiteracy and lack of understanding of some respondents, since many of those with information are old and illiterate.
- ii. It only applied to forest evictees similar to Mau forest complex.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

It is estimated that 90% of the world's poor depend on forests for at least a portion of their income (World Bank, 2000; Scherl *et al.*, 2004; USAID, 2006). In Africa, 600 million people have been estimated to rely on forests and woodlands for their livelihoods (Anderson *et al.*, 2006), and in India, 50 million people are estimated to directly depend on forests for subsistence alone.

The users of forest products include forest dwellers, nearby farmers, commercial users (including small traders, producers and employees) and the urban poor. Timber, non-timber forest products (NTFPs) and animal protein are all used by the rural poor for subsistence, and also as a source of income and employment (Angelsen & Wunder, 2003). Depending on circumstances, forest products may offer both a 'daily net' and a 'safety net'. The 'daily net' describes everyday use, with products meeting current household needs, offering a reliable source of income to purchase agricultural inputs (Shackleton & Shackleton, 2004), or fodder for livestock herds.

A 'safety net' comes into play when other sources of household income (e.g. plantations) fail to meet dietary shortfalls, or whenever a quick cash option is required (McSweeney, 2003). In Brazil, for example, the sale of one palm species supports over two million people and is most important during agricultural difficulties (WWF, unpublished). NTFPs are a key resource for many poor communities (Sunderlin *et al.*, 2005). In West Africa, for example, bush meat provides 25% of protein requirements, and can be the principal source for some indigenous groups (Bennett, 2000). NTFPs are often open-access resources, and require little processing or the use of low cost (often traditional) techniques.

An overview of case studies indicates that forest products contribute between 20% and 40% of total household income in forest areas, and that poor households tend to be disproportionately dependent on forest resources (especially fuel wood and fodder) (Vedeld

et al., 2007). Based on this type of finding, investment in NTFP use has often been proposed as a method of poverty alleviation (Brown & Williams, 2003). Although NTFP sales often supplement income, it has been suggested that the same open-access characteristics that make them available to poor households in the first place make them poor candidates for poverty reduction schemes (Arnold & Perez, 2001; Belcher, 2005).

2.2 Displacement

Displacement is often taken to mean the forced removal of local communities from their land. However, the World Bank's definition now includes displacement from resources without community movement: "Relocation or loss of shelter; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected persons must move to another location, or the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons" (World Bank, 2002)

Communities living in or around strictly protected areas, where resource restriction is incurred, could therefore now fall under the World Bank definition. This review adopts the traditional interpretation of displacement as the physical removal of communities from the land, with the costs of restricting resources for local community use. The most documented example of displacement is the removal of indigenous communities from Yellowstone National Park by the US army (Burnham, 2000). It has been suggested that Yellowstone served as a 'protectionist' model for the American West and then the rest of the world (Stevens, 1997). The displacement of local people from national parks is 'one of the most controversial and contested aspects of protected areas' (West & Brockington, 2006), and is often used to highlight the conflict between biodiversity conservation and poverty reduction (Nepal, 2002; Borgerhoff & Mulder, 2005; Brockington, 2004).

2.3 Displacement and international policy

A United Nations Declaration on the Rights of Indigenous Peoples was adopted in June 2006 by the UN Human Rights Council and then by the UN General Assembly in September 2007. The Declaration requires that states prevent any form of population transfer that has the aim or effect of violating or undermining rights of indigenous peoples (Lustig & Kingsbury, 2006): 'Indigenous peoples shall not be forcibly removed from their

lands or territories. No relocation shall take place without the free and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.’ (Article 10) States [must] obtain the free and informed consent of the indigenous people prior to the approval of any project affecting their lands and other resources (Article 30).

If displacement is planned during a development scheme, the World Bank requires that less drastic options should be explored before resettlement is used; and that resettlement should either improve the condition of the displaced communities or restore them to a situation no worse than before (World Bank, 2002). The rights and wellbeing of displaced communities, and those facing resource restrictions due to protected areas, are now also recognized within the policy of major conservation bodies, including IUCN (Beltran, 2000), WCS (Redford & Fearn, 2007), and WWF (WWF, 2003).

2.4 The number of people displaced from protected areas

A review of approximately 250 published articles on ‘conservation displacements’ from 1970 onwards highlights some of the major findings (Brockington *et al.* 2006). Most articles documented case studies of evictions, but provided little quantitative information on the total number of protected areas where forced displacement (defined here as physical removal) has occurred, or the number of people that have been removed. Consequently, estimates range from 900 000 to 14.4 million people displaced (Geisler & de Souza, 2001; Geisler, 2003a, 2003b).

For Central Africa, estimates of the number of people displaced from 12 parks (45% of the total for the region) were used to produce an overall estimate of 120 000 displaced to date, with the potential for another 170 000 if there are no changes in conservation policy (Cernea & Schmidt-Soldau 2006). The estimate is contested by NGOs in Central Africa, who suggest that ‘the information on which it is based is poorly gathered and makes false assumptions’ (Redford & Fearn, 2007).

There is a similar lack of information on the number of people currently living within protected areas. Brockington and Igoe (2006) provide details of studies in India, South America, Mongolia and Central Africa, which suggest that there are communities living

within 56 to 85% of protected areas. Information on the numbers or densities of people living within these protected areas is not available. This not only demonstrates our poor knowledge of the scale of displacement events, long-term residency and migration into protected areas, but also restricts our ability to predict how many people may be affected by displacement in the future. The lack of quantitative data does not prevent fierce debate. A current dispute involves the twelve new national parks in Gabon, jointly run by WWF and WCS in partnership with the

Gabonese government, who have been accused (Brockington & Schmidt-Soltau, 2004) of under-reporting the number of people living within the parks and threatened with displacement. A recent unpublished study used rural population densities to estimate the number of those displaced in Gabon at 14 000 (Kramkimel 2005). This was rigorously refuted by the Gabonese government and Redford & Fearn (2007), who report that no displacements have taken place in Gabon and that Gabon's low rural population, combined with the 1940s national practice of relocating villages on main roads (regroupements), meant that it was possible to locate the parks in areas of extremely low population densities. These disputes, with few unbiased quantitative studies, make impartial assessments difficult.

2.5 Displacement occurrence

Although much of the displacement literature has described historical events (articles published in 1990 describing 1970s events), a quarter of the papers reviewed document displacements after 1990. For example, 500 people were removed from the Nechasar National Park in southern Ethiopia in 2004 and resettled outside its borders (Pearce, 2005). This forced displacement was undertaken by the government before handing the park management over to a contracted Dutch-based organization, the African Parks Foundation (APF) (Adams & Hutton, 2007). Some case studies provide examples of a tightening, rather than a relaxing, of Protected area laws. For instance, Nepal (2002) reports that 'the Thai cabinet has resolved to relocate hill tribes living in ecologically 'sensitive' areas, thus reversing the previous government's undertaking to respect the land rights of communities established before the protected areas were gazette'. Similarly, Kothari (2004) claims that four million people face eviction in India as the result of the revision of conservation

legislation. Despite these cases, Brockington and Igoe (2006) hypothesise that forced displacements are much less frequent or severe now than they were before 1980.

2.6 Spatial occurrence of displacement

Most records of displacement reviewed by Brockington and Igoe (2006) came from Africa, South and South East Asia and North America. There were relatively few reports for South and Central America, Australia, Europe or the former Soviet Union, or most of the Caribbean and Pacific although some authors suggest this represents a lack of reporting rather than of displacement (Poirier & Ostergren, 2002). The majority (69%) of recorded displacements reviewed were from protected areas in IUCN Category II, and 88% came from Categories I – IV, seen as more ‘strictly protected’ categories. Countries may be more likely to displace people from protected areas if their history has been one of strict government control. There is also some evidence of ulterior political motives for displacement. For example, the Tanzanian government used displacement from protected areas to resettle communities in collective villages, and evictions in South Africa were particularly vigorous during the Apartheid era (Koch, 1997).

2.7 Socio-economic impacts of displacement

The ‘Impoverishment Risks and Reconstruction’ framework outlines Eight major risks to displaced peoples (Cernea, 1997), many of which are also relevant to communities living around protected areas: Landlessness (expropriation of land assets and loss of access to land), Joblessness (even when the resettlement creates some temporary jobs), Homelessness (loss of physical houses, family homes and cultural space), Marginalization (social, psychological and economic downward mobility), Food insecurity (malnourishment etc), Increased morbidity and mortality, Loss of access to common property (forests, water, wasteland, cultural sites), Social disarticulation (disempowerment, disruption to social institutions).

Although case studies exist that describe the effects of displacement on livelihoods, few provide rigorous documentation (examples include Neumann, 1998; Saberwal *et al.*, 2000; McLean & Straede, 2003; Hitchcock, 2001; McCabe, 2002). Only a handful has used quantitative methods to measure the costs of displacement. The most well known study is

that of McLean and Straede (2003) who conducted a ‘before and after’ study of forced displacement of 2 000 Tharu people from the Royal Chitwan National Park, Nepal. The displaced people were relocated onto areas with poorer soils, three hours away from water and forest resources. Brockington (2002) also showed that the removal of pastoralists from the Mkomazi game reserve led to a collapse in the local livestock market and economy.

Very few studies mention compensation for displacement, through land or money; those that do tend to provide examples of inadequate or absent compensation. The lack of detailed information on compensation mechanisms is not surprising, as most of these studies have been published to highlight the costs of displacement. Examples include the displacement of villagers from the Waza National Park, Cameroon, in 1998 (Bauer, 2003); of local people from the Mkomazi game reserve, Tanzania in 1988 (Igoe, 2003); and the Karrayu pastoral group from the Awash National Park, Ethiopia (Bassi, 2003).

2.8 Environmental impacts of Displacement

Even the strongest opponents of displacement recognize that reducing human population densities within protected areas can reduce pressure on species and ecosystems (e.g. West & m Brockington, 2006). However, displaced people often, unsurprisingly, hold negative attitudes towards conservation, which can result in biodiversity loss. In Uganda, the families that were allowed to resettle in the Lake Mburo National Park in 1986 after eviction in 1983 opted to slaughter the wildlife in an attempt to eliminate the area’s conservation value and preclude the possibility of being re-evicted (Hulme, 1997).

2.9 Challenges facing the displaced in the Resettlement site, Livelihoods and Subsistence Change

Throughout the world park-people conflicts have repeatedly centered on displacement (Brandon et al. 1998). While many researchers have examined the effects of human activity on wildlife and conservation projects, Brockington (2002) notes that there has been relatively little research into the effects of conservation related displacement and resettlement on human livelihoods.

Many of the people living within parks, whether historic inhabitants or recent migrants, have been already living at the margins of national society and thus are particularly

vulnerable to economic and social disruption. In describing the social repercussions of evictions from the Ugalla River area in Tanzania, Fischer (2002:133) contends that resettlement initiatives, in particular, often constitute “critical historical events;” defining moments in the recent history of a people.

Conservation-related resettlement exercises, set within already unstable and dynamic contexts of economic and social change, have often exacerbated preexisting conditions of poverty and social disintegration (Brockington 2002; Cernea and Schmidt-Soltau 2003). Cernea (1997a:19) lists eight of the most significant impoverishment risks from involuntary resettlement: landlessness; joblessness; homelessness; marginalization; food insecurity; loss of access to common property resources; increased morbidity and mortality; and community disarticulation. Rural societies have developed livelihoods and subsistence strategies contingent upon access to specific local resources.

As the goal of strictly protected areas is to limit or prevent human use of many of those natural resources central to rural livelihoods, conservation-related relocation has often disrupted and transformed such livelihoods, even when carried out in the most sensitive of ways (Cernea 1997b). As the evidence of the often socio-economically disastrous effects of “fortress conservation” practices and involuntary resettlement schemes has accumulated, many researchers and conservation practitioners have begun to ask, who should pay the price for conservation? (Borgerhoff Mulder and Copolillo 2005; Western and Wright 1994).

To date, displaced communities have borne the most immediate and devastating costs of biodiversity protection. With the loss of access to resources, some of the world’s poorest people have been pushed further to the margins of society and crushed under the weight of increasing poverty and starvation. Displaced people face challenging environments which often impose economic, environmental, and security burdens on their hosts. But viewing refugees as passive victims, who wait for relief handouts and bring only trouble to host communities, fails to see the multiple ways they pursue livelihoods for themselves and in so doing can contribute to the economic vitality of host areas.

The sustainable livelihoods approach is a useful way to think about how to reduce poverty in stable situations, and some writers have sought to apply it to refugee livelihoods (Hansen, 2000; Kibreab, 2001; Lassailly-Jacob, 1996). For refugees and refugee-hosting communities in conflict situations, however, the sustainable livelihoods approach needs to be adapted to emphasize the vulnerability of people exposed to constant threats of violence and displacement. Refugees and internally displaced persons (IDPs) in conflict areas are subject to new forms of risk that burden the pursuit of livelihoods.

Displacement tends to aggravate existing vulnerabilities and create new forms. Social groups that are politically or economically marginalized, like pastoralists in the Horn of Africa, or ethnic groups like the Twa in Rwanda, find themselves at double risk when they are displaced and have even more difficulty pursuing livelihoods. Displacement can result in new forms of gender and age vulnerability. For women, the loss of a husband and children can result in the loss of identity and social marginalization, as well as increased economic burden. In some societies, the loss of cultural adornments, clothes, head coverings, and other forms of traditional dress can affect women's identity and restrict their mobility and ability to take part in relief programmes like food distributions (IASC, 2000).

Women on their own can experience discrimination in the allocation of economic and social resources such as credit, relief commodities, seeds, tools, or access to productive land. For men, displacement and the resulting loss of livelihoods place them at increased risk for military recruitment, either forced or voluntary. Children must deal with the loss of parents and caregivers, and must often manage as heads of household, while being at risk for forced labour, sexual abuse, and abduction.

2.9.1 Coping strategies and Livelihood support and development

Immediate livelihood support will be required for the families relocated from the Mau Forests Complex. This issue needs to be clearly considered, in both scale and intent. These all these elements could be provided with some assistance from Government and NGOs. Already, organizations like World Vision and WWF are developing water projects

including roof catchment, water tanks, spring protection and boreholes and this help could be extended to communities closer to the forest Boundaries such support will in many cases lessen the resentment felt by those aggrieved by their relocation. Livelihood and rural development will be a critical component of the rehabilitation of the Mau forest ecosystem. New and improved agricultural practices that are compatible with water resources conservation need to be promoted. Economic incentives, including the establishment of markets will be required. Social infrastructure needs to be further developed.

According to Arnold (1998), the intensification of agriculture in Africa is critical in overcoming food security problems hence require measures to protect water sheds and arrest land degradation. This will be a crucial role for forest and trees in African landscape. Since water is a key resource, it is necessary to fully understand the role of forest. Ensuring food security especially in horn of Africa will partly depend on how trees are integrated into the farming systems and whether people have access to forest and tree resources during period of drought and famine. In many traditional communities the role of forest in protecting the environment is well understood. Religious and cultural systems ensure protection of trees and woodlands for their environmental and social values (longerst 1987).

Forest contribute to livelihood by providing materials for weaving, making storage implement, boats and hunting fish gear (World Bank, Warner 2001).They also provide inputs for farm systems such as fodder and mulch to soil nutrients cycling, help conserve soil and water and provide shelter and shades to crops and animals (Selby 1979,Egel and Dione 2000).

Results of surveys of small enterprises have shown that small forest product activities everywhere account for substantial proportion of total income (Liedholm and Mead 1992).Characteristically forest product related activities forms one part of household enterprise

A study of lowland village in phillipines, found out that 73% of household could not generate enough food or cash income from agriculture to meet their needs. All village households collected forest products for supplementary and emergency income with half depending on rattan collection and timber wage labor as a primary source of livelihood.

The average earning from rattan collection was greater than average wage from agriculture (Siebert and Belsky 1985)

The most widespread effect of involuntary displacement is the impoverishment of considerable numbers of people. In India, for instance, researchers found that the country's development programs have caused an aggregate displacement of more than 20 million people during roughly four decades, but that 75 percent of these people have *not* been "rehabilitated" (Fernandes 1991; Fernandes, Das, and Rao 1989). Their livelihoods have not been restored; in fact, the vast majority of development displaces in India have become impoverished .

2.9.2 Theoretical Framework

The study was guided by General conception theory, developed by John Rawls (1971). The theory states that it requires that all social values – liberty and opportunity, income and wealth, and the bases of self-respect to be distributed equally unless an unequal distribution of any, or all, of these values is to everyone's advantage (Rawls 1971). With respect to development-induced displacement, Rawls's general conception enables us to recognize some of the problems encountered by the "oustees" as injustices. An unsuccessful resettlement scheme can not only fail to benefit displaced persons and their families, but studies show that it can impoverish them. In Rawlsian terms, it can create new inequalities by depriving people not only of income and wealth but also of social goods in two other categories: liberty and opportunity, and social bases of respect. If Rawls' thinking is followed, justice forbids any inequalities unless they work to everyone's advantage. Then these effects of displacement can be seen not only as impoverishing but as unjust. The first contribution of the Rawlsian general conception of justice, then, is to synthesize these various impoverishing effects of bad resettlement plans. The second contribution is to support and somewhat strengthen standards for best practice in treatment of people displaced by development projects. The existing ideas of compensation and mitigation come nowhere close to satisfying this conception of justice. Rawls' justice requires that the condition of displaced people should be improved in terms of income and wealth (conceived broadly to include access to land, to productive resources, and to other subsistence resources such as forests, liberty and opportunity (entailing consultation and

self-determination for affected communities and individuals) and social bases for respect (including community social organization sufficient for cultural survival). This would suggest an alternative set of principles for justice in resettlement: The community and its members are not to be made worse off in assets or resources (broadly conceived); on the contrary, the outcome is to be advantageous to them. Displacement and resettlement are to be freely negotiated by the community, in a process in which all members are fairly represented.

2.9.2.1 Social Justice and Forced Displacements

Compulsory displacements that occur for development reasons embody a perverse and intrinsic contradiction in the context of development. They raise major ethical questions because they reflect an inequitable distribution of development's benefits and losses. Forced displacement results from the need to build infrastructure for new industries, irrigation, transportation highways, power generation, or for urban developments such as hospitals, schools and airports. Such programs are indisputably needed. They improve many people's lives, provide employment, and supply better services. But the involuntary displacements caused by such programs also create major impositions on some population segments. They restrict that population's rights by state-power intervention and are often carried out in ways that cause the affected populations to end up worse off. This raises major issues of social justice and equity (Fernandes 1991; Fernandes, Das, and Rao, 1989).

The principle of the "greater good for the larger numbers," routinely invoked to rationalize forced displacements, is, in fact, often abused and turned into an unwarranted justification for tolerating ills that are avoidable. The outcome is an unjustifiable repartition of development's costs and benefits: Some people enjoy the gains of development, while others bear its pains (Fernandes 1991; Fernandes et.al 1989).

The most widespread effect of involuntary displacement is the impoverishment of considerable numbers of people. In India, for instance, researchers found that the country's development programs have caused an aggregate displacement of more than 20 million people during roughly four decades, but that 75 percent of these people have not been

“rehabilitated” (Fernandes 1991; Fernandes et. al. 1989). Their livelihoods have not been restored.

If impoverishment is the looming risk in displacement, the challenge is to organize risk prevention and provide safeguards. This can increase the benefits of development by eliminating some of its avoidable pathologies. It may not be feasible to prevent every single adverse effect. But it is certainly possible to put in place sets of procedures, backed up by financial resources that would increase equity in bearing the burden of loss and in the distribution of benefits. It is certainly possible, under enlightened policies, to protect much more effectively than current practices do the civil rights, human dignity, and economic entitlements of those subject to involuntary relocation (Scudder, 1981).

The conventional planning approaches that cause many to be displaced and allow only a few to be “rehabilitated” do not adequately protect against risks and loss of entitlements and rights (Sproul, 1995). Without social safety measures, they have led to recurrent failures. In most cases, they have been incapable of preventing the victimization, decapitalization and impoverishment of those affected. But the repeated instances of resettlement without rehabilitation point sharply also to congenital defects in the current domestic policies of many countries, not just in the planning procedures. We argue that such “development” policies, and the resulting planning methodologies, must be corrected or changed.

There are practical ways to fully avoid specific instances of involuntary displacement, or at least to decrease their magnitude. Although, historically speaking, relocations (as a class of processes) are unavoidable, not every individual case of displacement proposed by planners is either inevitable or justified. Further, even when displacement is planned, mass impoverishment itself is not a necessary outcome and therefore should not be tolerated as inexorable. There are many ways to reduce displacement’s hazards and adverse socioeconomic effects (Pearce, 2005).

Redressing the inequities caused by displacement and enabling affected people to share in the benefits of growth is not just possible but imperative, on both economic and moral

grounds. Socially responsible resettlement-that is, resettlement genuinely guided by an equity compass-can counteract lasting impoverishment and generate benefits for both the national and local economy. Yet, much too often, those who approve and design projects causing displacement are deprived of an “equity compass” that can guide them in allocating project resources and preventing (or mitigating) the risks of impoverishment (Cernea 1986, 1988, 1996b; Mahapatra 1991; Scudder 1981).

In an attempt to help develop such an equity compass, this paper proposes a risk-and reconstruction- oriented framework for resettlement operations. It argues against some chronic flaws in the policies and methodologies for planning and financing resettlement and recommends necessary improvements in policy and in mainstream resettlement practices (Cernea, 1986).

2.9.2.2 Major Impoverishment Risks in Displacement

Despite the enormous diversity of project-specific situations, the empirical findings of many resettlement researchers reveal the presence of several basic regularities. Clear patterns emerge from the evidence. Comparing these empirical findings, there are eight common identified processes and constructed a general risk-pattern. The convergent and cumulative effect of these processes is the rapid onset of impoverishment (Cernea 1990, 1995b). Before displacement actually begins, these are only impending social and economic risks. But if appropriate counteraction is not initiated, these potential hazards convert into actual impoverishment disasters.

These risks threaten not only the people displaced, they are risks incurred by the local (regional) economy as well, to which they may inflict major loss and disruption. Depending on local conditions, the intensity of individual risk varies. But pattern identification makes it possible to predict that such risks are typical and are likely to emerge in future comparable displacement situations. A concise description of each fundamental risk follows, illustrated by some evidence (Cernea, 1986).

2.9.2.3 Landlessness

Expropriation of land removes the main foundation upon which people’s productive systems, commercial activities, and livelihoods are constructed. This is the principal form

of de-capitalization and pauperization of displaced people, as they lose both natural and man-made capital.

Unless the land basis of people's productive systems is reconstructed elsewhere, or replaced with steady income-generating employment, landlessness sets in and the affected families become impoverished. Kayak documents in detail how the Kisan tribe of Orissa, India, has been deprived of its lands, how land compensation failed to restore its land basis, and how landlessness not only set in, but also snowballed into other risks and losses to the tribe.

2.9.2.4 Joblessness

Employed in enterprises, services, or agriculture. Yet, creating new jobs is difficult and requires substantial investment. Unemployment or underemployment among resettlers often endures long after physical relocation has been completed. The risk of losing wage employment is very high both in urban and rural displacements for those previously employed may lose in three ways: In urban areas, workers lose jobs in industry and services. In rural areas, landless laborers lose access to work on land owned by others (leased or sharecropped) and also lose the use of assets under common property regimes. Self-employed small producers-craftsmen, shopkeepers, and others-lose their small business.

2.9.2.5 Homelessness

Loss of shelter tends to be only temporary for many resettlers; but, for some, homelessness or a worsening in their housing standards remains a lingering condition. In a broader cultural sense, loss of a family's individual home and the loss of a group's cultural space tend to result in alienation and status-deprivation. For refugees, homelessness and "placelessness" are intrinsic by definition (Cernea, 1986).

2.9.2.6 Marginalization

Marginalization occurs when families lose economic power and spiral on a "downward mobility" path. Middle-income farm households do not become landless, they become small landholders; small shopkeepers and craftsmen downsize and slip below poverty

thresholds. Many individuals cannot use their earlier acquired skills at the new location; human capital is lost or rendered inactive or obsolete. Economic marginalization is often accompanied by social and psychological marginalization, expressed in a drop in social status, in resettlers' loss of confidence in society and in themselves, a feeling of injustice, and deepened vulnerability. The coerciveness of displacement and the victimization of resettlers tend to depreciate resettlers' self-image, and they are often perceived by host communities as a socially degrading stigma (McLean and Straede, 2003).

The facets of marginalization are multiple. The cultural status of displacees is belittled when they go to new relocation areas, where they are regarded as "strangers" and denied opportunities and entitlements. Psychological marginalization and its consequences (see Fernandes 2000) are typically overlooked in resettlement planning. Yet, cultural and behavioral impairments, anxiety and decline in self-esteem, have been widely reported from many areas (Appell 1986). Relative economic deprivation and marginalization begins prior to actual displacement, because new investments in infrastructure and services in condemned areas are discontinued long before projects start. Partial but significant loss of farming land (e.g., to roads or canals) renders some small farms economically nonviable, even though physically they may seem to survive.

High-productivity farmers from fertile valley-bottom lands tend to become marginalized when moved uphill to inferior soils. Marginalization also occurs through the loss of off farm income sources.

2.9.2.7 Increased Morbidity and Mortality

Massive population displacement threatens to cause serious declines in health levels.

Displacement-induced social stress and psychological trauma are sometimes accompanied by the outbreak of relocation-related illnesses, particularly parasitic and vector-borne diseases such as malaria and schistosomiasis. Unsafe water supply and improvised sewage systems increase vulnerability to epidemics and chronic diarrhea, dysentery, etc. The weakest segments of the demographic spectrum—infants, children, and the elderly—are affected most strongly (McLean and Straede, 2003).

Empirical research shows that displaced people experience higher levels of exposure and vulnerability to illness and severe disease than they did prior to displacement. An unintended byproduct of large infrastructure programs is often increased morbidity also among area groups that are not displaced. Overall, in the absence of preventive health measures, direct and secondary effects of dislocation include psychosomatic diseases, diseases of poor hygiene (such as diarrhea and dysentery), and parasitic and vector-borne diseases caused by unsafe and insufficient water supplies and unsanitary waste systems.

2.9.2.8 Loss of Access to Common Property and Services

For poor people, particularly for the landless and asset less, loss of access to the common property assets that belonged to relocated communities (pastures, forested lands, water bodies, burial grounds, quarries, etc.) results in significant deterioration in income and livelihood levels. Typically, losses of common property assets are not compensated by governments. These losses are compounded by loss of access to some public services, such as school (Mathur 1998; Mahapatra 1999a, 1999b), losses that can be grouped within this category of risks.

Kibreab offers a documented conceptual analysis of the linkages between common property resources (CPRs), poverty, and impoverishment risks. Given typical power structures and the vulnerability of the displacees, Kibreab demonstrates that the loss of CPRs has ravaging long-term consequences on their livelihoods and social standing. Empirical evidence shows that in all regions a significant share of the poor households' income comes from edible forest products, firewood, common grazing areas, and public quarries. Loss of these resources leaves a big gap. For example, in semi-arid regions of India, between 91 and 100 percent of firewood, between 66 and 89 percent of domestic fuel, and between 69 and 80 percent of poor households' grazing needs are supplied by lands held under a common property regime (Sequeira, 1994).

2.9.2.9 Social Disarticulation

Land and human capital is an important component of social network. The social capital lost through social disarticulation is typically unperceived and uncompensated by the

programs causing it, and this real loss has long-term consequences dismantled social networks that once mobilized (Omboto, 2010).

For the most part, however, the risks of impoverishment are currently not addressed explicitly and systematically during the planning of very many projects that cause displacement. This occurs frequently in domestic projects that are not subject to in-depth and multisided screening; but to a considerable extent it has also been true in projects assisted by various bilateral or multilateral donor agencies or by credit-export entities (McSweeney, 2003). The IRR model is to be used in conjunction with other analytical project tools, and it can help correct and improve some of them. We emphasize primarily the need to correct three entrenched flaws in the routine methodology of planning for such projects, flaws that account for the recurrent under treatment of impoverishment risks. These include:

- (a) The flaws and incompleteness of the conventional methods for project risk analysis;
- (b) The over-reliance of project justification on the cost-benefit analysis (CBA) despite its glaring insufficiencies; and
- (c) The absence of genuine consultation and involvement of the affected\ populations.

A few comments on each one are in order.

2.9.3 Conceptual Framework

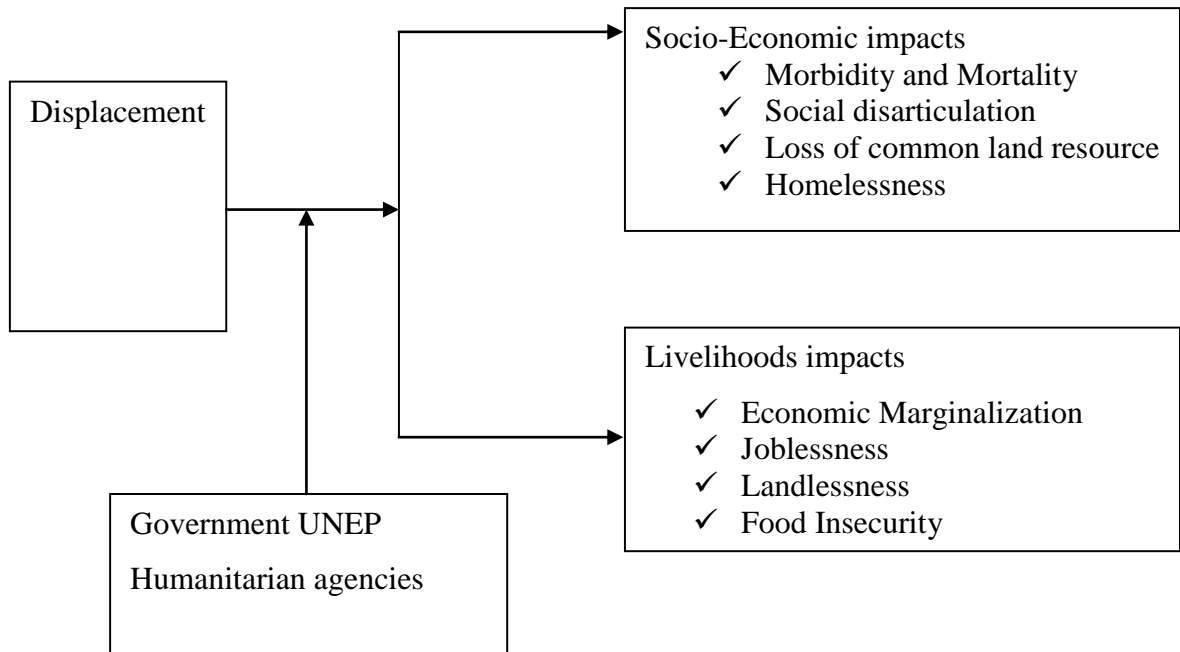
The study was guided by the following conceptual framework

Independent variables

Impacts of displacement

Dependent variable

Displacement



Intervening variables

(Source: Author, 2015)

Mau forest has in the recent past been on the public lame light as result of deforestation taking place in the forest. The impact of deforestation in the Mau has not only been felt in Kenya but within the region. This has led to government in collaboration with conservation agencies to embark on restoration of Mau forest complex. The restoration has resulted in displacement of communities living in the Mau forest including indigenous Ogiek community. The government and humanitarian agencies in intervening to mitigate against the impact of eviction among forest evictees, forced displacement and involuntary resettlement leads to socio-economic impact.

CHAPTER THREE

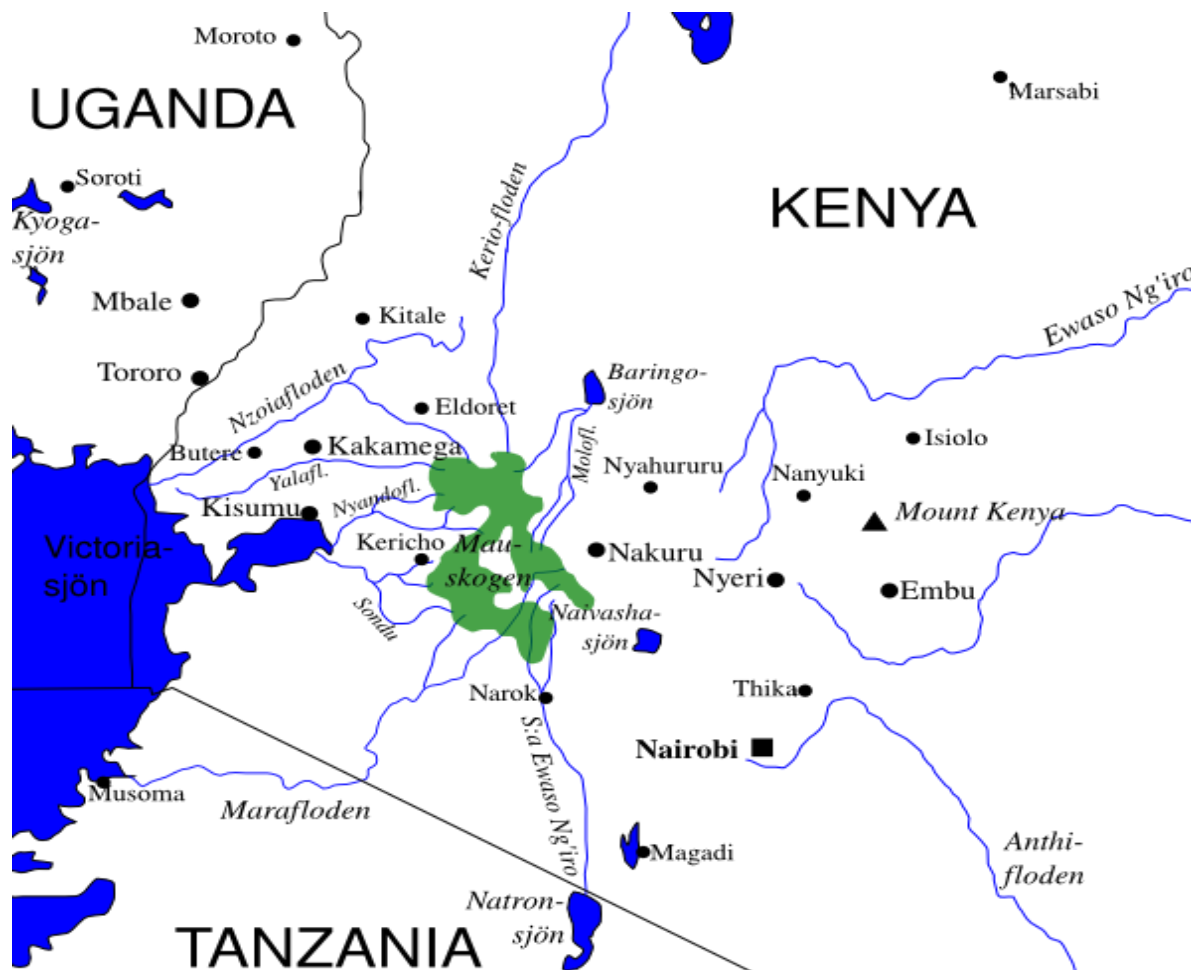
RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter presents the research methodology that was used for data collection, analysis and presentation. It presents the research design, sample frame, sampling procedures, methods of data collection and data analysis. In conducting this study, both primary and secondary data was used, while qualitative and quantitative techniques were used in data analysis.

3.1 Research Design

This study adopted a descriptive survey method. This method is appropriate for data collection in camps at a household level in Kipkurere, Serengonik Kelbui camps and Chemusya settlement scheme According to Sproul (1995), descriptive survey methods provide a suitable means through which community views, opinions, attitudes, perceptions, aspersions, and suggestions regarding the phenomenon under investigation are obtained.



Map of the Study area (Mau forest complex)

(Source: Google maps, 2015)

3.2 Sampling Frame

The sampling frame for this study was obtained from settlement office, provincial administration and special program ministry. Key informants, (based on Age, Education level and their position in the society), drawn , Government Agencies, Ogiek community leaders and non-governmental organizations and respondents drawn from household members.

3.3 Sampling techniques and sample size

Purposive sampling was used to choose Ogieks as a special group to be studied .Ogiek was categorized into four clusters namely Kipkurere, Kelbui, Cengallo and Chemusya settlement scheme. Sample size for each cluster was obtained proportionally using multi-

stage-cum stratified random sampling technique for accurate generalization of results. 10% of households in each cluster were selected by simple random sampling technique where the first household was picked by simple random sampling technique followed.

Table 3.1: Sample size determination Table

Size of population	Sampling percent
0-100	100%
101-1,000	10%
1,001-5,000	5%
5,001-10,000	3%
10,000 and above	1%

By Curry, (1984)

The total sample size for this study were 150 respondents since the total population of Ogiek was approximately 15,000 (Corrine, 2009) and three focus group discussions of 10 respondents from each cluster.

The sample size was obtained using the rule of thumb as indicated in the table above as this is suitable for smaller population (1% of 15,000 =150). This was deemed appropriate as the formula produced a manageable sample size of 150 which was less expensive during data collection, consumed less time and provided accurate results compared to widespread population.

Table 3.2 Sampling Frame

Cluster	Target population	Sample size (10% of N)
Kipkurere	298	≈ 30
Chemusyan	598	≈ 60
Cengalo	300	≈ 30
Kelbui	299	≈ 30
Total	1495	≈ 150

3.4 Sources of Data

Both primary and secondary data was obtained for the study by use of questionnaires, interview schedules and focus group discussions. Secondary data was obtained from review of published and unpublished materials from books, refereed journal articles, unpublished theses and dissertations.

3.5 Data collection instruments

The instruments used for collection of data relevant to this study were questionnaires and focus group discussions.

3.5.1 Questionnaire

Questionnaires were administered to household heads. The questionnaire consisted of both structured and non-structured questions. The unstructured items captured opinion, feeling and suggestions of the respondents in the space provided. All the questions in the questionnaire are related to the objective and the research questions of the study. According to Orodho, (2003) questionnaire allows the collection of a lot of data within a short period of time and at the same it is easy to administer. Similarly it also helps to ensure that all respondents reply to the same set of questions and that answers are in the words of the respondents and thus free from the interviewer's bias.

3.5.2 Focus Group Discussions (FGDs)

Organized FGDs with selected groups of participants, in consultation with the local leadership was used to gather data related to socio-economic impacts of forest displacement among Ogiek community. The importance of focus group discussions is to encourage participants to voice their own opinions on the subject and develop a common understanding. It has a self-correcting in-built mechanism where respondents are added, corrected or emphasized by other respondents and achieves in depth information.

3.6 Methods of data analysis and presentation

The study utilized descriptive analysis techniques. Quantitative data was analyzed by use of measures of central tendencies such as frequencies, means and percentages while qualitative data was summarized and interpreted in line with the research objectives and questions. Results of data analysis were presented in form of figures and tables.

3.7 Ethical Considerations

According to Luey (2005), ethics are the norms for conduct that distinguishes between acceptable and unacceptable behavior. A number of ethical issues can arise during the academic research, writing, and publishing process. These include plagiarism, fabrication or falsification of data, conflicts of interest, confidentiality, treatment of human subjects and animals in research, and authorship issues.

In this study, the following ethical considerations were made. First, before collecting data, I obtained authority to conduct research from the National Council of Science and Technology. During data collection, respondents were informed of the purpose of the research and were required to give their consent to participate. The respondents were assured of confidentiality and anonymity of the information they provided. Further, results, methods and procedures used were also honestly reported where there were no fabrications, falsifications or misrepresentation of data.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents an analysis of the data that was gathered using the research tools discussed in chapter three. First it presents and discusses the background information of the respondents and then the results of the study as per the study objectives.

4.2 Demographic characteristics of the respondents

The demographic information would assist in establishing if the information given by the respondents would be in any way related to the characteristics of the respondents. The respondents' demographics are presented in terms of age, gender, level of education and marital status of the respondents

4.2.1 Gender of the respondents

Table 4.1 Gender of the respondents

Gender	Frequency	Percent
Male	87	58.0
Female	63	42.0
Total	150	100.0

As per study responses in table 4.1 the findings indicated that majority 87(58%) of the respondents were male while the remaining 63 (42%) were female. The respondents were mainly male implying that the male comprises a bigger percentage in the camps being studied.

4.2.2 Age of the respondents

Table 4.2 Age of the respondents

Age	Frequency	Percent
Below 25 years	45	30.0
25-50 years	83	55.3
above 50 years	22	14.7
Total	150	100.0

The findings also indicated that 83 (55.3%) of the respondents were 25-50 years, 45 (30%) were below 25 years, 22 (14.7%) were above 50 years. Majority of the respondents were between 25-50 years implying that respondents of this age have been affected by displacement in the Mau Forest resettlement schemes.

4.2.3 Marital status

Table 4.3 Marital status

Marital Status	Frequency	Percent
Married	87	58.0
Single	54	36.0
Separated	9	6.0
Total	150	100.0

The findings indicated that majority of the respondents were married 87 (58%), 54 (36%) were single while 9 (6.0%) were separated. This implies that most married people who participated in the study were affected by the Mau displacement.

4.3.4 Level of Education

Table 4.4 Level of Education

Level of Education	Frequency	Percent
never attended school	56	37.3
Primary	52	34.7
Secondary	31	20.7
Tertiary	8	5.3
University	3	2.0
Total	150	100.0

On the level of education, the findings as depicted from the table showed that majority of the respondents 56(37.3%) never attended school, 52(34.7%) had a primary level of education, 31(20.7%) had a secondary level of education, 8(5.3%) had a tertiary level of education while 3(2%) of the respondents had reached a university level of education.

4.3.5 Occupation of the respondents

Table 4.5 Occupation of the respondents

Occupation	Frequency	Percent
Farmer	69	46.0
Business	21	14.0
Employed	5	3.3
Self employed	55	36.7
Total	150	100.0

Table 4.5 indicates that 69 (46%) of the respondents were farmers, 21 (14%) were doing business, 5(3.3%) were employed and 46 (30.7%) were self employed.

4.4 Impacts of Displacement on household livelihoods of Ogiek Community

The study sought to investigate how displacements have in one way or another affected the livelihoods of Ogiek community. The findings are presented in figure 4.1

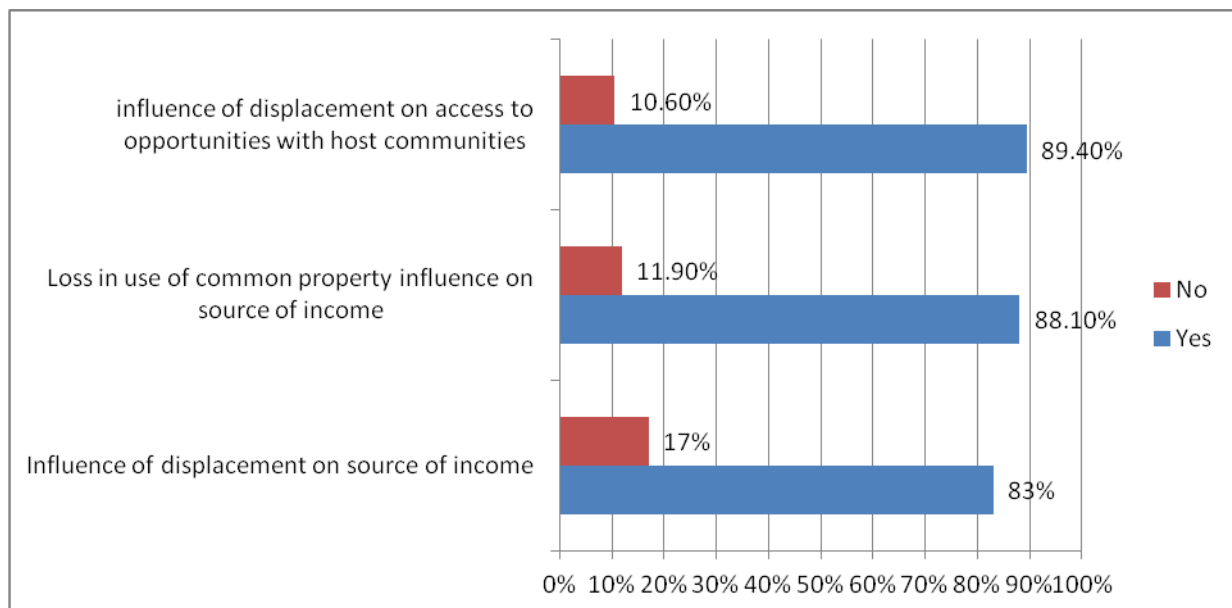


Figure 4.1 Impacts of Displacement on household livelihoods of Ogiek Community

The findings indicated that displacement have influenced a lot the livelihoods of the Ogiek community in Mau, for example 89.4% of the respondents agreed that displacement from Mau forest have affected access to opportunities with the host communities. Majority 98 (65.3%) of the respondents stated that there are unequal opportunities (table 4.6).

Table 4.6 Displacement and access to opportunities

How displacement have affected access to opportunities	Frequency	Percent
Unequal opportunities	118	78.6
Equal opportunities	18	12.0
more opportunities	14	9.3
Total	150	100.0

The findings also indicated that (figure 4.1) the loss in use of common property and services e.g. forest products and pastures have affected their source of income, this was supported by 88.1% of the respondents. Majority 84 (56%) of them noting that there is a significant deterioration in income (table 4.7)

Table 4.7 Loss of Property and its influence on source of income

How Loss of property have affected source of income	Frequency	Percent
Significant	129	86.0
improved income	21	14.0
Total	150	100.0

The study further indicated that displacement had a great influence on the residents' source of income. Majority 83% of the respondents agreed that displacement from Mau forest have influenced their source of income.

4.5 Socio-economic impacts of displacement of Ogiek Community

The study sought to assess the economic impacts of displacement of Ogiek community in Mau forest. This was necessary to analyze so as to make generalizations on what should be done to assist the affected community. The findings are presented in table 4.8 Below

Table 4.8 Social economic impacts

Social economic impacts	Descriptive	Yes	No	Total
Has displacement from Mau forest affected the use of common property?	Frequency	113	37	150
	Percentage	75.3	24.6	100
Has displacement from Mau forest affected your group activities?	Frequency	98	52	150
	Percentage	65.3	34.7	100
Has displacement from Mau forest led to loss of groups cultural space	Frequency	107	41	150
	Percentage	71.3	28.7	100
Has loss of group's cultural space resulted in alienation?	Frequency	97	53	150
	Percentage	64.7	35.3	100
Has the result to alienation influenced your self esteem?	Frequency	111	39	150
	Percentage	74	26	100
Has displacement from Mau forest exposed you to any diseases?	Frequency	101	49	150
	Percentage	67.3	31.7	100
Has displacement from Mau forest caused any death?	Frequency	91	59	150
	Percentage	60.7	39.3	100

The findings as depicted from the table indicated that displacement from Mau had caused a lot of negative economic impacts to those affected. As indicated in table 4. Majority of the respondents agreed that mau forest displacement has affected the use of common property. The displacement has even gone to the extent of causing death to the affected. One respondent noted that “*Displacement has lead to homelessness and some died due to cold environments*”.

In the displacement areas majority of the respondents noted that the host communities were hostile about their resettlements in the new areas.

4.6 Environmental Impacts of displacement of Ogiek

The study sought to investigate the environmental impacts of displacement of the Ogiek community in Mau forest. The findings are presented in figure 4.2

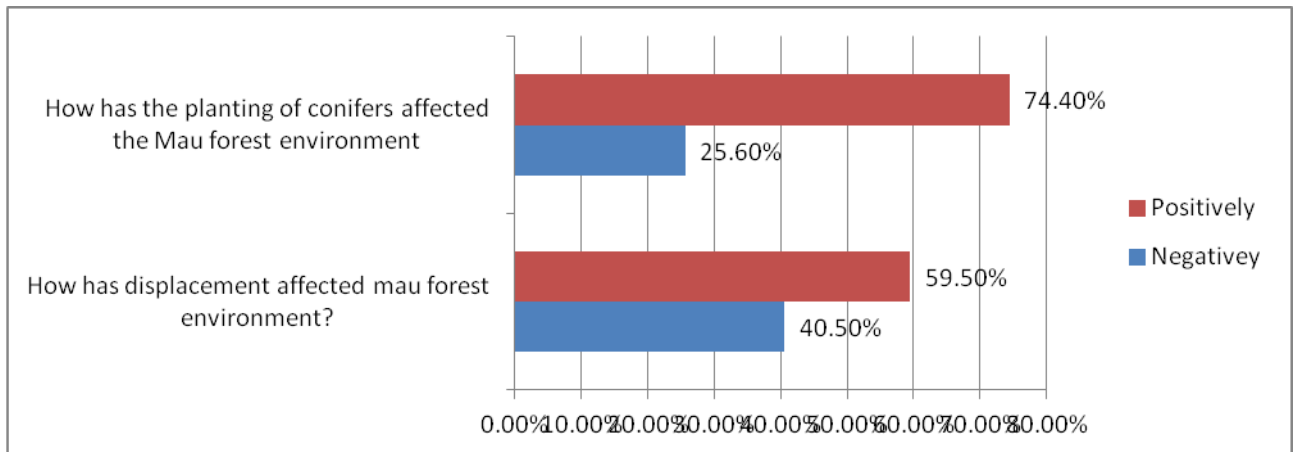


Figure 4.2 Environmental Impacts of displacement of Ogiek

Majority of the respondents were of the opinion that the Mau displacement has brought about positive environmental impacts. For example as presented in figure 4.2 majority (59.5%) of the respondents agreed that displacement has affected the Mau forest environment, another 74.4% also of the respondents had a positive opinion that the planting of conifers has positively affected the Mau forest environment.

Those who had negative opinions had their reasons 51.3% of them noted that there is decrease in land productive system while 13.3% noted that there is increased land productive system. These findings are presented in table 4.9

Table 4.9 Reasons for negative opinion on environmental impacts

Reasons for negative opinion	Frequency	Percent
Decrease in land productive system	77	51.3
Increased land productive system	20	13.3
Total	97	64.7

The study further sought to identify from the respondents if Mau forest should be restored. The findings indicated that majority of the respondents were in agreement, stating that it enhances the existence of wild animals. Having being inconvenienced of the displacements, the majority of the Ogieks community still feels that the forest should be restored.

Through the focus groups discussions, the respondents gave their opinions on how the forest should be restored. For example one respondent argued that the Ogieks should be returned to the forest and then trained on how to manage the forests noting planting of trees as one of them.

Table 4.10 Should the forest be restored

Should the forest be restored	Frequency	Percent
Yes	120	80.0
No	40	20.0
Total	150	100.0

4.7 Challenges facing Ogieks in their new settlement site

On resettlement to new areas, there must be challenges faced by the affected communities. The study therefore sought to assess these challenges, this was necessary in order to identify them and find long lasting solutions to such challenges. The findings are presented as follows;

Table 4.11 Challenges facing Ogieks in their new resettlement site

	Descriptive Statistics			
	N	Mean	Percentage mean	Std. Deviation
No access to forest resources leading to loss of income	150	1.2133	60.67	.41133
Increased cases of diseases	150	1.5133	75.67	.50150
Limited water supply for domestic animal use	149	1.5570	77.85	.49841
Limited land for grazing	150	1.5400	77.00	.50007
Loss of cultural sites	150	1.3333	66.50	.47298
Loss of forest network	150	1.6667	83.30	.47298
Forest destruction from non-inhabitants	150	1.4067	70.30	.49286
Increased mortality	150	1.6333	81.65	.48351
Food insecurity	149	1.3826	69.00	.48765

The study findings indicated that indeed the Ogieks community faced challenges in their new resettlement sites, loss of forest network was rated the biggest challenge as it was noted by the majority (83.3%) of the respondents. Others (81.65%) noted an increase in mortality while others (77.8%) noted that there is limited water supply for domestic animal use.

4.8 Coping strategies employed by Ogiek's in their resettlement site

The source of income of the community could assist in identifying the coping strategies in their resettlement areas. 84.7% of the respondents responded to this question. Majority (40%) of the respondents noted that they do farming to survive, 26% agreed that they do

business-off farm, 6.7% are in gainful employment while 12% engaged themselves in self employment (table 4.12).

Table 4.12 Source of income

Source of income	Frequency	Percent
Farming	60	40.0
business-off-farm	39	26.0
Gainful employment	10	6.7
Self employment	18	12.0
Total	127	84.7

Those who were in off-farm business involved themselves in sale of charcoal (15.8%), sale of honey (33.7%), sale of fruits (24.20%), sale of firewood (5.3%) and sale of herbal medicine (18.9%) as indicated in figure 4.4

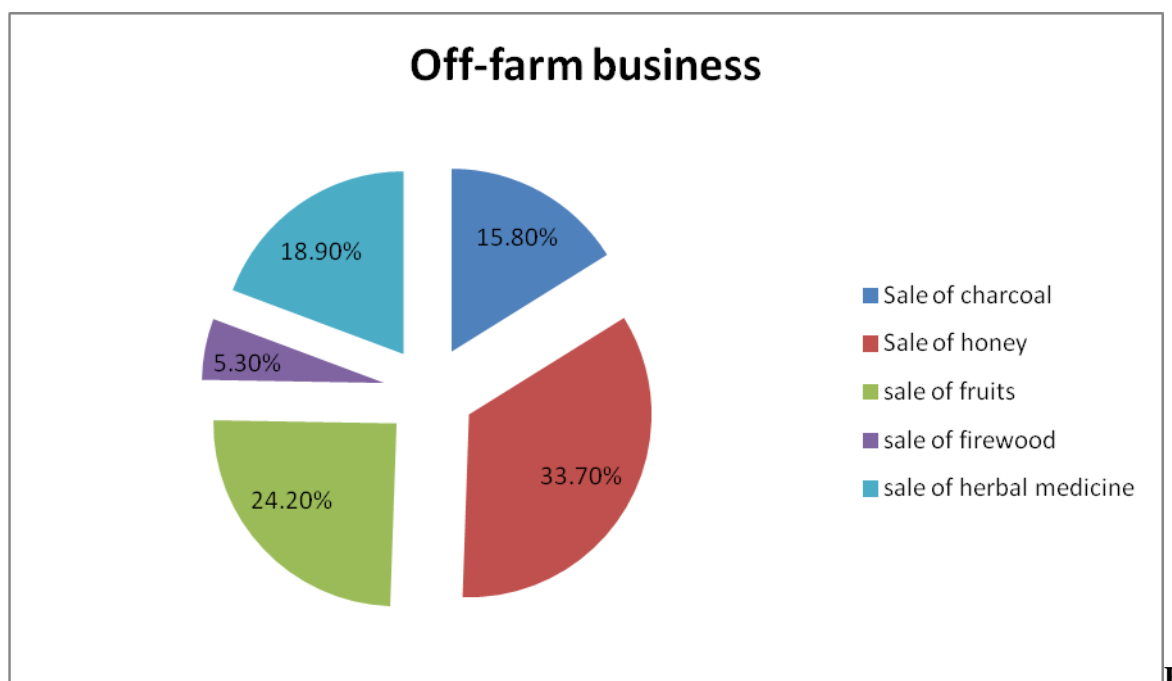


Figure 4.3 Off-farm business of the Ogiek community

The study sought to investigate the relationships between the Ogieks and the host community. There were 106 out of 150 responses from this question. The findings indicate a positive relationship between the two (Table 4.13)

Table 4.13 Cross-tabulation on interaction between the Ogieks and the host community.

Cross tabulation					
		How have you mingled with the host community?			Total
		Through intermarriage	Attending common social gatherings	Practicing common cultural practices	
Have you freely mingled with the host community?	Yes	66	20	12	98
	No	7	0	1	8
Total		73	20	13	106

The Ogiek community noted that they freely mingle with the host community, through inter-marriages (66), others have mingled by attending common social gatherings (20) and others (12) interact by practicing common cultural practices.

Those who did not mingle with the others according to the focus groups noted that the host community does not trust them. Others perceived that the host community fear competition of resources with them thus the negative social relationships.

On their health majority (64.3%) of them noted that they survive through the use of herbs while 35.7% get the opportunity of visiting a health center (see figure 4.4). This could be attributed by the numerous challenges they face and their economic status that they cannot afford to visit the health centers available in their area, distance and transport could also be a problem contributing to this.

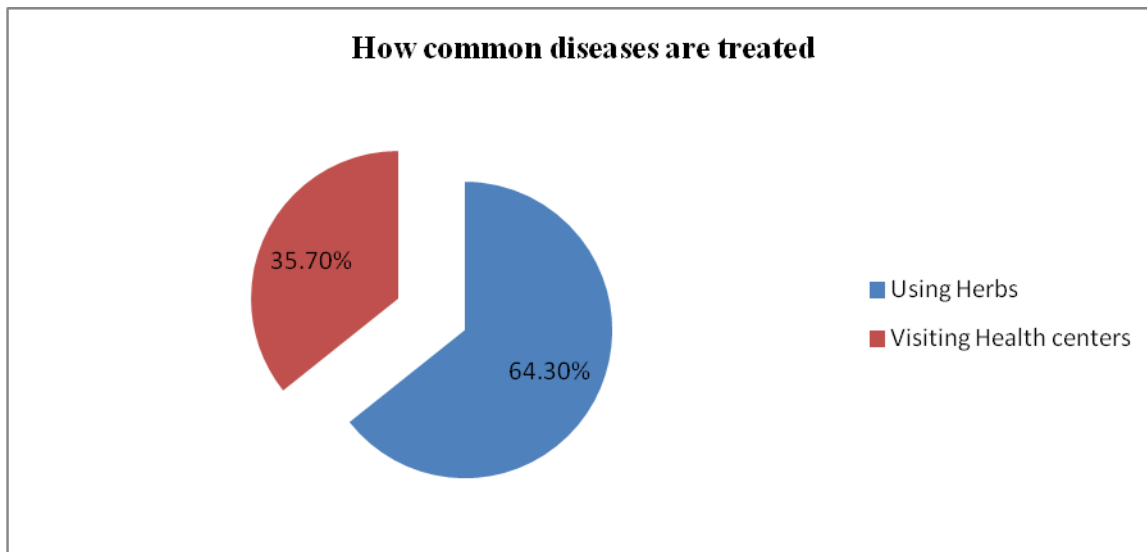


Figure 4.4 How common diseases are treated

According to World Bank (2006), redevelopment, renovations, or conversions of residential property can result in increased rents, displacement, and even homelessness. These effects can have indirect adverse effects on human health by causing poverty, loss of social support, and substandard living arrangements.

4.9 The best Practice of Mau forest management

The study sought to assess if there is any involvement of the community in the Mau forest management. The findings indicated that there was little involvement of the community in the management of the forest, for example majority (82.3%) of the community denied that they have ever been involved while only 17.7% were involved in the management of the forest (Table 4.14). This brings out a negative attitude of the government to the Ogiek community. One respondent noted in the open ended question that *“they see us as the cause of mismanagement in the forest”*.

Table 4.14 The best Practice of Mau forest management

	Frequency	Percent
Yes	32	17.7
No	118	82.3
Total	150	100.0

According to focus group discussion, from the respondents noted that the government does not recognize them, others noted that they are being alienated by the inhabitants of the people in the area.

The Ogiek's according to the focus groups noted that they feel they have the responsibility to manage the forests but the governments still don't have trust in them. Other respondents perceive that the government displaced them as they want to grab the Mau forest land.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

The findings presented in chapter four were further summarized here so that specific findings can be obtained clearly in relation to the research objectives. The findings are presented, interpreted and conclusions drawn based on the findings in order to show the research objectives. The recommendations are made on what should be done to improve the conservations of forests and resettlement of communities without infliction of harm.

5.2 Discussion of findings

5.2.1 Demographic Information of the respondents

From the findings the researcher was able to collect information from different background without biasness across diverse backgrounds for example, age, gender, level of education and the marital status of the respondents. This really assisted in establishing if the information given by the respondents would be in any way related to the characteristics of the respondents.

The findings indicated that displacement have influenced a lot the livelihoods of the Ogiek community in Mau, for example 89.4% of the respondents agreed that displacement from Mau forest have affected access to opportunities with the host communities.

These findings could be interpreted to mean that resettlement increases the population of the area they are moving to thus there will be competition of opportunities, with regard to this the host communities could be much favoured with the available opportunities thus making the displaced suffer.

According to Redford & Fearn, (2007), marginalized people in areas of IDP arrival leads to an increase in competition for unskilled labor is reducing daily wages and making livelihoods that are already precarious even more vulnerable. In some cases this is already

leading to conflicts, which may become more common and serious in future. In some cases, IDP livelihoods are dependent on the unsustainable use of natural resources.

5.2.2 Socio-economic impacts of displacement

On the Socio-economic impacts of displacement of Ogiek Community, majority of the respondents agreed that Mau forest displacement has affected the use of common property. The displacement has even gone to the extent of causing death to the affected.

These findings are inline with a study done by World Bank (2005), Forced displacement is a humanitarian crisis: but it also produces developmental impacts short and longer term, negative and positive - affecting human and social capital, economic growth, poverty reduction efforts, environmental sustainability and societal fragility. A prevailing view is that refugees are a burden on the development aspirations of host countries and populations and that negative socio-economic and environmental impacts and costs outweigh the positive contributions (actual or potential) that forcibly displaced people might make. The losses incurred by the displaced populations themselves reinforce perceptions of vulnerability and dependency and thus assumptions of the burden they might impose.

Another study done in Nepal by Lalitpur (2006) also was in agreement with the study findings. In the study while identifying and analyzing economic impact of the internal displacement the study has found positive towards employment status, business status and remittances status, and very negative towards agricultural status. In the urban, sub-urban and cities areas, active and educated people found good opportunity at the place of destination and they are satisfied with the work and the income they earning. The active but uneducated displaced people started doing small business like opening tea-coffee shop, bread shop etc and they are also satisfied with the income they earning at the place of destination. Due to forceful displacement many people flew to next country for earning for the survival for their family members. By the rebel party, people are forced to leave their home, property and their land. The rebel party captured and locked their homes. The displaced people were helpless and couldn't use their land for agriculture so agricultural status after displacement seems very poor.

Therefore displacement has socio-economic impacts which negatively affects the Ogiek community.

5.2.3 Environmental impacts of displacement

On environmental impacts majority of the respondents were of the opinion that the Mau displacement has brought about positive environmental impacts. For example majority of the respondents agreed that displacement has affected the Mau forest environment, other respondents had a positive opinion that the planting of conifers has positively affected the Mau forest environment. The study findings indicated that indeed the Ogieks community faced challenges in their new resettlement sites, loss of forest network was rated the biggest challenge as it was noted by the majority of the respondents. Others noted an increase in mortality while others noted that there is limited water supply for domestic animal use.

Other studies were inline with these findings for example a study done in Nepal by Bhattarai, and Mohan, (2001), indicated that at times displacement can help people learn new things about the new places. However, there are plenty of disadvantages of displacement. There are many challenges for the people who are displaced in the new place where they migrate. However, there can be some opportunities as well. For the rural residents who have no access to communication services, depend on agriculture for livelihood, have traditional life style and are superstitious and unskilled and uneducated thus resulting in lesser job opportunities and lesser knowledge about the world, their entry into the much developed cities gives them chances to learn new things and enjoy better facilities. But this advantage does not count when compared to the plight these displaced people have to face in the cities.

5.2.4 Coping strategies of Displacement

The study also highlighted the coping strategies used by the Ogieks to manage their resettlement problems for example majority of them engaged in farming activities in order to survive, others who did not engage in farming did other off-farm businesses like sale of honey, sale of fruits, charcoal among others. The community also had the opportunity of interacting with the host community, majority of them interacting through intermarriages, others through attending social gathering while others practiced common cultural practices.

Displaced communities respond to the challenges and losses of their changed circumstances by drawing on their remaining resources. Like the Ogiek's, other communities who are

displaced due to various reasons have their own coping strategies. For example Robertson et al. (2006) notes that many of the Somali and Oromo refugee women in a study had found it necessary to consult a medical professional in previous months. While health and energy is not often measured in studies regarding coping skills, as without good health and energy it is unlikely that the refugee will be able to cope with their individual circumstances.

Sidama Zone and Regassa (2011) examined displaced small holder farmers' coping strategies to sustained household food insecurity and hunger in Ethiopia. The results showed that households employed a number of strategies to cope including: minimizing the number of meals and amount of food consumption and out-migration of household members during chronic food shortage. Other scholars have identified different coping strategies. For instance, Longhurst, (2009) and Arun (2006) posit that the most important seasonal strategies include choice of cropping patterns in the eviction site to spread risks involving mixed cropping, cultivation of secondary crops, particularly root crops, off-farm income earning, selling productive assets, constricting food intake and migration. On the other hand, 6 cites use of common property resources, changes in consumption patterns, share-rearing of livestock, and mutual support networks as food insecurity coping strategies at the households' level.

In Canada, the indigenous community is involved in effective engagement; this is a sustained process that provides Indigenous people with the opportunity to actively participate in decision making from the earliest stage of defining the problem to be solved. Indigenous participation continues during the development of policies and the programs and projects designed to implement them and the evaluation of outcomes (Hunt, 2013).

Holmes (2011) also emphasizes that engagement with marginalized groups is particularly difficult. Such citizens may not have the capacities, or even the desire, to engage with governments. There may also be many practical barriers to their engagement. Government agencies may need to invest in building the capacity of more vulnerable groups to participate through non-government organizations (Head 2007). This was found to be so in implementing the Stronger Families and Communities Strategy of the Australian Government Department of Families, Housing, Community Services and Indigenous

Affairs (FaHCSIA) in relation to Indigenous projects (RMIT University CIRCLE, 2008). The strategy also found that considerable time was needed to build trusting relationships. Success was more likely when Indigenous projects were managed or overseen by capable support organisations with strong pre existing relationships with the Indigenous community.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusions

Displaced persons are prone to a lot of social-economic problems. They have to struggle much for livelihood in the new place, s/he is always under challenges and that because the social, cultural, economic and other values of the village life differs with that in their original place and undergo several changes which is quite strenuous. Peoples right to life are at stake and the children are badly affected by displacement and may take a long time to recuperate. From the study it is noted that the Ogiek community suffers economically as they compete for resources and opportunities in their new areas, they are also socially challenged though it was revealed in the study that they struggle as much as possible to mingle with the host community so as to bridge the gap. Economic problem can be considered to be the greatest problem a displaced person faces in the new place. The displaced people may need to face additional burden to meet expenses for house rent, food, education, medical treatment and others, which may create a lot of other problems.

Their health status are also at stake, as revealed in the study, most of them survive through the use of herbal medicine to treat common diseases which according to the ministry of health is not wise. They therefore still face rejection by the government as they are not given opportunities to manage or give decisions on their welfare with regard to the management of the forests.

6.2 Recommendations

1. The government should develop a policy and law requiring thorough social impact assessments for activities that may result in eviction, including in forest areas, and a mechanism for community participation to examine whether specific evictions are absolutely necessary, and whether there are alternatives to eviction, particularly for those groups who have traditionally lived in the forest.
2. The government should do a comprehensive relocation and compensation plan. Move swiftly to put in place a comprehensive relocation and compensation plan for

any proposed evictions, including in forest areas. The resettlement plan must be in accordance with international human rights and Internally Displaced Persons standards, including respect for the right to participation of those affected, and the parameters for such plans should be enacted in legislation. The plan should not be used as means to prevent legitimate return of groups to their areas of origin, particularly if it has been occupied by others. The resettlement plan must be designed in a way to minimize corruption and sufficient support is provided to ensure that livelihoods on new land are sustainable and that any costs in purchasing land in resettlement areas, to be incurred by those being resettled, are affordable.

3. The government should involve communities in the management of forests through training and employment opportunities in forest conservation initiatives. In this way forest destructions will be minimized and the communities living around them will escape unplanned evictions.
4. The government should ensure that all law enforcement officials who assist in carrying out of any eviction that they comply with the Code of Conduct for Law Enforcement Officials and the UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials. In addition the officials concerned should undergo human rights training and be made aware of provisions of international and national law in relation to evictions.

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APPENDICES

APPENDIX I: Questionnaire for Respondents

My name is Tiony John Kiplimo, a student in the University of Eldoret pursuing Masters degree course in the school of environmental studies. I am carrying out a research on socio-economic impact of Mau forest displacement among the ogiek community.

The research is purely academic and your information will be treated with confidentiality. Your ability to provide the required information that will enable me achieve my academic objective will be appreciated. Thanks.

Name of the interviewer

Questionnaire Serial No:

Use a **tick** in the boxes provided where appropriate.

1. What is your gender?

(i) Male (ii) Female

2. What is your age bracket?

(i) Below 25 years (ii) 25 – 50 years

(iii) Above 50 years

3. What is your marital Status?

(i) Married (ii) Single (iii) Separated

4. What is your highest level of education?

(i) Never attended school (ii) Primary (iii) Secondary

(iv) Tertiary (v) University

(vi) Any other (Specify).....

5. What is your occupation?

- (i) Farmer (ii) Business (iii) Employed
 (iv) Self employed Others (specify) -----

Impacts of displacement on household livelihoods of Ogiek community.

6 a) Has displacement from Mau forest influenced your source of income?

- (i) Yes (ii) No

b) If yes, state how-----
 -----.

(c) Has the loss in use of common property and services e.g. forest products and pastures affected your source of income?

- (i) Yes (ii) No

(d) If yes, state how (Multiple responses allowed)

.....

- (i) There is significant deterioration in income. (ii) Improved income

(iii) Any other (specify)

.....

e) Has displacement from Mau forest affected access to opportunities with the host communities?

- (i) Yes (ii) No

(f) If yes, state how.

- (i) Unequal opportunities (ii) Equal opportunities

(iii) More opportunities (iv) any other (specify).....

Socio-economic impacts of displacement of Ogiek community

7. (a) Has displacement from Mau forest affected the use of common property?

(i) Yes (ii) No

b) If yes, state how.-----

-----c)

Has displacement from Mau forest affected your group activities?

(i) Yes (ii) no

d) If yes, state how (Multiple responses allowed) -----

e) Has displacement from Mau forest led to loss of group’s cultural space?

(i) Yes (ii) no

(f) If yes, state how-----

-----g)

Has the loss of group’s cultural space resulted in alienation?

(i) Yes (ii) no

(h) If yes, has it influenced your self esteem?

(i) Yes (ii) no

(iii)Any other (specify)
.....
.....

(i) How were you received by the host community?

(i) Receptive (ii) hostile

(iii) Any other, specify

.....

(j) Has displacement from Mau forest exposed you to any diseases?

(i) Yes (ii) No

m) Has displacement from Mau forest caused any death?

i) Yes ii) no

n) If yes, state how(multiple responses allowed)-----

Environmental impacts of displacement of Ogiek

8. a) How has the displacement affected Mau forest environment?

(i) Negatively (ii) positively

b) If negatively, state how (multiple responses allowed)

.....

.....

.....

c) If positively, state how (multiple responses allowed)-----

d) How has the planting of conifers affected Mau forest environment?

(i) Negatively (ii) positively

e) If negatively, state how.

(i) Decrease in land productive system e.g. honey

(ii) increased land productive system

(iii) Any other (specify)
.....

f) Should Mau forest be restored?

(i) Yes

(ii) No

g) If yes, state how (multiple responses allowed)

.....
.....
.....

h) If no, state why? (Multiple responses allowed).

.....
.....
.....

Challenges facing Ogieks in their new settlement site.

9 (a) What major challenges do you face in your present environment? (Multiple responses allowed)

(i) No access to forest resources leading to loss of income

(ii) Increased cases of diseases

(iii) Limited water supply for domestic and animal use

(iv) Limited land for grazing

(v) Loss of cultural sites

- (vi) Loss of social network
- (vii) Forest Destruction by non-inhabitants
- (viii) Increased mortality
- (ix) Food insecurity
- (x) Any other (Specify).....

Coping strategies employed by the Ogieks in their settlement site.

10. a) What is your current source of income? (Multiple responses allowed)

- i) Farming. ii) business (off- farm)
- (iii) Gainful employment (iv) self employment
- b) If off-farm, specify
- i) Sale of Charcoal ii) sell of honey iii) sale of herbal medicine
- iv) Sale of fruits iv) Sale of firewood
- v) Any other, specify.....

c) Have you freely mingled with the host community?

- i) Yes ii) No
- d) If yes, state how.
- (i) Through inter marriage (ii) attending common social gatherings

iii) Practicing common cultural practices (iv) Any other, specify.....

.....
.....
.....

(e) If no why? -----

(f) How are the common diseases treated?

(i) Using herbs (ii) visiting health centers

(iii) Any other, specify.....

.....
.....

The Best practice of Mau forest management

11(a) Has the Government involved you in Mau forest management?

(i) Yes (ii) No

(b) If yes, state (multiple responses allowed)

.....
.....

(c) If no, state why (multiple responses allowed)

.....
.....

(d) Suggest the best practice of Mau forest management (multiple responses allowed).

.....
.....

APPENDIX II: Questionnaire for Key informants

My name is Tiony John Kiplimo, a student in the University of Eldoret pursuing Masters Degree course in the school of environmental studies. I am carrying out a research on socio- economic impact of Mau forest displacement among the Ogiek community.

The research is purely academic and your information will be treated with confidentiality. Your ability to provide the required information that will enable me achieve my academic objective will be appreciated. Thanks.

Name of the interviewer:

Questionnaire Serial No.

1. Effects of displacement from Mau forest on income.

.....
.....

2. Impacts of loss of common property and services on the source of income.

.....
.....

3. Impacts of displacement on accessibility to opportunities.

.....
.....

4. Impact of displacement on land productive system of the evictees.

.....
.....

5. Impact of displacement on social network mobilization.

.....
.....

6. Impacts of displacement on status of Ogiek.

.....
.....

7. Reception by the host community.

.....
.....

8. Displacement and vulnerability to diseases.

.....
.....

9. Displacement and mortality.

.....
.....

10. Current source of income.

.....
.....

11. Displacement and conservation success.

.....
.....

12. The best practices in Mau forest management (eco-management).

.....
.....
.....

APPENDIX III: Research budget

ITEM	TOTAL COST (KSHS)
Development of proposal	
• Literature search	3,000
• Stationary	5,000
• Typesetting and printing	2,000
• Transport and accommodation	5,000
Sub-total	15,000
Field work	
• Reconnaissance study	3,000
• Data collection	50,000
Sub-total	53,000
Data analysis.	
• SPSS software	15,000
• Typing and printing	5,000
Sub-total	20,000
Thesis writing	
• Typing and printing	8,000
• Binding of six copies of thesis	3,000
Sub-total	11,000
10% contingencies	13,450
Total	113,000

Appendix IV: Time Frame

Time Activity	May, 2013	June,- August 2013	September - November 2013	December, 2013 – July, 2015	August, 2015- December 2015	January 2016 – May2016	June, 2016
Proposal development							
Correction of proposal and Reconnaissance of study area							
Data collection							
Thesis writing							
Submission of first draft							
Correction of thesis							
Submission of thesis for examination							

