

Effects of Land Use Change on the Livelihoods of Indigenous Communities: A Case of the Ogiek Community of Mau East, Kenya

Betty C. Koskei¹ Erick Bor² Wokabi Mwangi²

1 Halls Department, Njoro Campus, Egerton University
P.O. Box 536, Egerton, Kenya

2 Department of Peace Security and Social Studies, Njoro Campus, Egerton University
P.O. Box 536, Egerton, Kenya

*Email of corresponding author: bettykobei@yahoo.co.uk

Abstract

Land and other natural resources are critical for the survival of any community especially the indigenous and those living in marginal areas. Traditionally, Ogiek community was hunters and gatherers and has distinctive histories of interaction with the natural environment. They have depended on forests for food, medicine and shelter. In the 1990s' Kenyan government initiated land resettlement of Ogiek households living in of Mau East, the land was demarcated and allocated to individuals in order to enable them live in a modern way and practice new methods of agriculture and trade. The study therefore, sought to investigate effects of land resettlement on socio-economic livelihoods of Ogiek households in Mau East. Through a cross –sectional survey, primary data was collected using sets of structured and semi-structured questionnaires and focused group discussions while secondary data was obtained from documented materials. To select respondents to be interviewed, snowball sampling was used to pick the household heads from the five locations in Mau East to give 150 respondents. The unit of analysis was household heads from the five locations in Mau East. The data was analyzed using Statistical Package for Social Sciences (SPSS). Subsequently, descriptive statistics was used to describe the results, and Chi-square performed to explore the relative importance of a number of variables in examining the effects of land resettlement on socio-economic livelihoods of the Ogiek household. The results indicated that, resettlement led to introduction of formal education, primary health care, spread of Christianity, new sources of income, destabilization of social values and norms. It was concluded that, land resettlement transformed the Ogiek's lifestyle of hunting and gathering to that of agriculture and entrepreneurship. It is recommended that creation of awareness and increasing access to educational facilities, infrastructure and technological improvements and, marketing of farm produces is needed. Further, it is anticipated that the findings of the study will add to the knowledge of policy makers on improving the socio-economic livelihoods of the Ogiek households in general.

Keywords: Natural Environment, Land Resettlement, Livelihoods, Ogiek

1. Introduction

Land and other natural resources are critical for the survival for any community especially the Ogiek (Kameri, 2006). The Ogiek are a hunters and gatherers who live in groups and clans in some parts of Nakuru County, Kenya (Towett, 2004). They were regarded as the aborigines of Eastern Africa together with Watta, Sanye, Boni, Sengwer, and Elmolo. The population of the community is approximated at 10,000 to 20,000 people, and are scattered in various part of East Africa. The majority reside in Nakuru others in Mt Elgon, Koibatek, Nandi and Narok while others live in Tanzania. They have known their environment best and exploited it in the most conservational manner (Yeoman, 1979). Before land resettlement carried in 1990's by the Kenyan government, the Ogiek households derived their economic livelihood from hunting wild game and gathering of wild fruits, roots, herbal medicine and bee keeping. The forest acted as their warehouse in terms of food, medicine shelter and social identity. They had a traditional land tenure system which involved sharing of land as per clans "konoito" which means a ridge owned by a given clan and was further assigned and used either by particular families or entirely by the clan depending on the user rights (Rono, 2011). Each household was accountable for all the wild animals and plants within their allocated areas after approval of the elders (Towett, 2004). They had the freedom to lay traps, put beehives and settle in the same territory within the clan boundary (Rono, 2011). According to Blackburn (1976), this traditional land was neither demarcated nor had boundaries for individuals, but each clan identified its territory and land ownership using valleys, rivers, streams and sacred trees. They had no title deed or any form of document, which legalized their stay in the great Mau Complex (Kratz, 1994). The Ogiek considered their connection to the forest as spiritual and most of their ceremonies such as initiation, birth, death and marriages were linked to the forest (Oduor, 2004; Sang, 2006).

Modern land tenure has been central to Kenya's aspirations to alleviate poverty and create wealth (Kipuri, 2008). Land settlement schemes were therefore, initiated to facilitate land redistribution for new settlement, for individual and household beneficiaries to shoulder new economic and political responsibilities of citizenship

hence, improving the livelihoods of the households. In the 1990s, the government of Kenya initiated land resettlement scheme for the Ogiek households in Mau East. Part of the forestland was demarcated and allocated to individuals. The objective of land resettlement was to enable the Ogiek live in a modern way and practice new methods of agriculture and trade. The resettlement of the Ogiek people from the forest to settled life was expected to influence their socio-economic livelihoods. The study therefore, sought to investigate effects of land resettlement on socio-economic livelihoods of Ogiek households in Mau East.

2. Materials and Methods

The study was carried out in five locations, namely, Teret, Nessuit, Ndoshwa, Sigotik and Kiptunga of Mau East, Njoro District, Kenya. These are the locations where the majority of the Ogiek resided after resettlement. Njoro district receives an average rainfall of 1270mm per annum covering areas above 2400m above sea level. A sociological inquiry in form of interview schedule was used, with structured, semi-structured and unstructured set of questionnaires being employed as the primary data collection instruments. The unstructured part of the questionnaire consisted of probing questions or comments intended to solicit more information from the respondent. These were used to get deeper information since it provided a high degree of objectivity and clarification. Additionally, secondary data was obtained from documented materials. Ex post facto (“before/after”) research design was used in the study because the research dealt with an already implemented treatment as documented by Kathuri & Pals (1993). Further, both purposive and snowball sampling were used whereby purposive sampling was applied in order to get the location in which the units of observation have the required characteristics. Snowball sampling technique was used to obtain a sample size in each of the five locations identified giving a total sample size of 150 respondents. The unity analysis was the household heads from each selected households. The data was analyzed using Statistical Package for Social Sciences (SPSS). Subsequently, descriptive statistics was used to describe the results, and Chi-square performed to explore the relative importance of a number of variables in examining the effects of land resettlement on socio-economic livelihoods of the Ogiek household.

3. Results

3.1 characteristics of household respondents

Table 1 below presents the results of age distributions of the respondents, majority of the households interviewed ranged between the age of 36 and 55years. This was the prime age of Ogiek household heads that had the ability to adapt any change in their livelihoods. Additionally, the findings also revealed that the minimum age of household heads was 22 years and maximum age of 83 years.

Table.1: Age Distribution of the respondents

Age	Frequency	Percentage
22-35	25	16.3
36-50	61	44.7
51-65	48	24.8
66-83	16	14.2
Total	150	100

It was observed from the analysis of focus group discussion that family size had effect on the socio-economic livelihood of the household, the larger the household the more the food was required. The average household size was 9, minimum of 1 and maximum of 20. This is an indication that there is an increase in population pressure on land within Mau. The finding shown in table 2 indicates that 94.7% of the household heads were married, 2% were single and 3.3% were widowed. The results shows that majority of the household were married. The widowed had lost their partners through natural death. The single household head were female who opted to raise the family on their own.

Table 2. Distribution of respondents according to their Marital Status

Marital Status	N	%
Married	142	94.7
Single	3	2.0
Widowed	5	3.3
Total	150	100

Polygamy was a prestigious kind of lifestyle, which enabled men to acquire more acres of land. For example, a man having three wives would receive twenty acres of land, since five acres land was the minimum number allocated to an individual irrespective of gender. The more the acres, the more economic activities one could undertake to meet the increased demand for food by the big household.

Figure 1 below indicates the religion of the respondents, 60.7% respondents were Christians and 39.3% worshiped traditionally. This shows that despite the wide spread of Christianity quite a number of the Ogiek were still traditionalist. This could be attributed to the conservative nature of the community since they were

hunters and gatherers; they were less exposed external influences such as religion. They still follow their traditional ways of worship. They valued the sacred places and trees, which was very significant to the community. Land settlement of the 1990's brought with it Christianity. Constructions of churches have rapidly increased in most areas inhabited by the Ogiek and the present generation is no longer held together by honey but by the Christian.

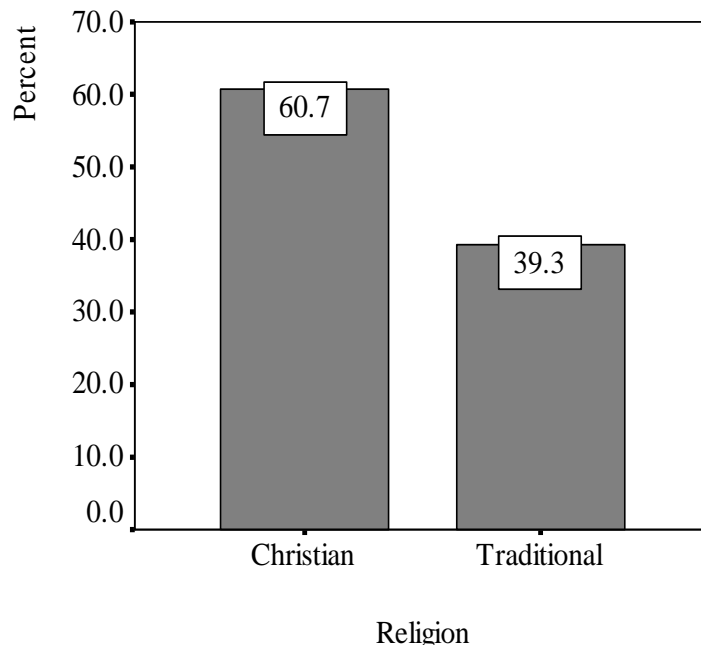


Figure 1: Religion of the respondents

Table 3 below presents the results of educational level of household heads of Ogiek, it was observed that 30% of the household heads had no formal education, 46 % were the majority who managed to attain primary level, and 8.7% attain high school level, 4% attain diploma level, 0.7% attain first degree and the most learned respondents managed to acquire postgraduate diploma. From the table above, it clearly shows that majority of the household heads had only primary level of education.

Table 4.4: Education level of Household Head

Level of Education	N	%
Not gone to school	45	30.0
Primary	69	46.0
High school	28	19.6
Diploma	1	4.0
First Degree	1	0.7
Postgraduate Degree	1	0.7
Total	150	100

The findings showed (Table 4) that 98.7% of the respondents used seasonal rivers and springs as their main source of domestic water and 1.3% used communal sources found in their villages. This implies that any kind of farming and herding can be done in the area since there was sufficient water resource..

Table 4: Sources of Domestic Water

Source of water	N	%
Seasonal rivers/spring	148	98.7
Communal sources	2	1.3
Total	150	100

As shown in table 5 it was observed that the household heads that were above 66 years never had any formal education except four who attained secondary and diploma level of education. From the respondents surveyed, 45 of the respondents ranging from 25 to 83 never went to school at all. The largest proportion of respondents attained primary level, were 69 followed by secondary level with 28, six had a diploma in various courses and one had a degree. Age and the level of education were important attributes to most household heads in Mau East. They were influenced by land resettlement in one way or the other. Land was only allocated to individuals who were above 18 years of age despite their levels of education. The probability was found to be larger than the significance level as *p* value is higher than 0.05. Therefore, it was observed that there was a relationship between

age of the household head and level of education. The association between the two variables was very strong as indicated by Crammer's V of 0.582. From the above statistics, one can conclude that the younger generations are more literate than the older ones. The likely cause is that land resettlement exposed the community to education which was initially considered part of western culture.

Table 5: Age of the Household Head and Level of Education

Highest level of Education	Age in years				Total
	22-35	36-50	51-65	66-83	
Not gone to school Primary	3	11	21	10	45
Secondary	16	32	19	2	69
Diploma	6	14	6	2	28
First Degree	2	4	0	0	6
Postgraduate	1	0	0	0	1
Total	29	61	46	14	150

Df=250 V=0.582 p>0.05

The correlation between age and marital status revealed some interesting trends. 26% (Table 6) of the respondents were between the age of 22 to 35 years were married and 3 were single. Majority of the household heads who were married were between the ages of 22 to 83 years. Those widowed ranged between the ages 51 to 65 years. 14 % of the respondents who were married ranged between the ages of 66 to 83 years. The calculated chi-square value was found to be negative and insignificant at the 0.05 significance level. The p- value was calculated to be smaller than 0.05 ($p = 0.000$). This meant that there was relationship between age and marital status of the household head.

Table 6: Cross tabulation of Marital Status and Age

Marital status	Age in years				Total
	22-35	36-50	51-65	66-83	
Married	26	60	44	14	144
Single	3	0	0	0	3
Widowed	0	1	2	0	3
Total	29	61	46	14	150

($X^2 = 154.95$ df=100 $p < 0.05$ $p = 0.000$)

The findings summarized in table 7 indicated that majority of the those interviewed (96.%) indicated that there were no schools before resettlement while a minority of 3% having a contrary opinion. The absence of availability of schools before land resettlement was to the government's constant threat of eviction which led to closure of schools in all the locations inhabited by the Ogiek. The few primary schools available at that time were scattered a distance of 12 kilometres.

Table 7: Availability of schools before resettlement

Availability of schools	Frequency	Percentage
Yes	5	3.3
No	145	96.7
Total	150	100

It was also noted through focused group discussion that, There was an increase in the number of schools both primary and secondary, in the five locations of Mau East and many households took their children to school exposing them to the outside world with new technologies in various fields. From the above results, it was conclude that education was not a priority to the community hence they did not emphasized the construction of schools but, after they were resettled they interacted with their neighbouring communities.

4. Conclusion and recommendation

The highest level of education attained by the household heads from the five locations was postgraduate. The largest proportion attained primary level, however, land resettlement have stimulated more construction of schools in the community. Majority of the household heads had monogamous families and a few were polygamist. Polygamy was valued by some as a way of acquiring more land for the household. It was observed that, the level of Christianity has risen; this implies that negative traditional practices are likely to fade off and give a chance to modern ways of soci-economic production systems which will uplift the livelihoods of the Ogiek communities. From the findings, it is recommended that more research needs to be conducted to cross check the findings of the current study and if possible analysis more issues so as to provide clear data or findings which can be used by both National and Count Governments in policy formulations to improve the livelihoods of indigenous people in Kenya. Such policies should target to increase availability and access to education facilities, improved technologies, extension services and infrastructures.

5. Reference

- Blackburn, R. (1976), "The Ogiek History Kenya before 1900", *MBA Thesis*, East African Publishing House Limited, Nairobi, Kenya.
- Kameri, P. (2006), "*The Gender Dimension in the Ogiek claim to Mau Forest*", Weaver Press, Harare, Zimbabwe.
- Kathuri, N. J & Pals, D.A. (1993), "*Introduction to Educational Research*", Egerton University Press, Egerton, Kenya.
- Kipuri, N. (2008), "*Indigenous People's Rights to land, Territories and Resources Related to Discrimination in Employment and Occupation*", Case study on Practices of Pastoralist and Hunting- Gathering in Kenya, International Labour Organization.
- Kratz, C. (1994), "*Affecting Performance*", Smithsonian Institution Press, U.S.A.
- Oduor, A.J. (2004), "Following God's Constitution, The gender Dimensions in the Ogiek claim to Mau Complex", *M.A. Dissertation*, Southern and Eastern Africa, Regional Centre for Women's law, University of Zimbabwe, Zimbabwe.
- Rono, T. (2011), "Influence of Indigenous Education on Environmental Conservation", The case of The Ogiek of Mau, Kenya 1895-1992", *Ph D Dissertation*, Egerton University Press, Egerton, Kenya.
- Sang, J. (2002), "*Supporting the Right of a Kenyan Indigenous Group*", Ogiek Welfare Council Publishers, Nakuru, Kenya.
- Towett, K. (2004), "*Ogiek Land Cases and Historical Injustices 1902-2004*", Ogiek Welfare Council, Kenya.
- Yeoman, G. (1979), "*High Altitude Forest: Conservation in Relation to Ogiek People Recommendations*", Government Printer, Nairobi, Kenya.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

