

Local Community Perspectives on Management and Benefit Sharing in Wildlife Sanctuaries in Amboseli Ecosystem, Kenya

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DOI: <https://doi.org/10.47772/IJRISS.2026.100801203>

Received: 09 September 2026; Accepted: 14 September 2026; Published: 06 October 2026

ABSTRACT

Wildlife conservation in Kenya begun with the establishment of pioneer parks such as Nairobi and Amboseli, whereby local people were alienated from resources. A paradigm shift took place in 1990s, when community based conservation which emphasized on local participation in wildlife conservation through establishment of wildlife sanctuaries was introduced. Kimana sanctuary in Amboseli ecosystem was established in 1996, and recently, several private and communal sanctuaries have been established after Kimana sanctuary failed in 2010. This study which was undertaken in four sanctuaries examined the extent of local community's awareness on the establishment and management of the sanctuaries, and also assessed benefits received and benefit sharing mechanisms. The study used semi structured interviews where 310 randomly selected respondents from Osupuko (34), Kilitome (49), Elerai Rupet (43) and Motikanju (184) sanctuaries were interviewed. Data were analyzed using chi-square test for goodness of fit and cross tabulations to determine differences in frequencies of responses and establish relationships between attributes. Most of the interviewees (63.2%) were not aware of plans to establish sanctuaries. A significant majority (84.2%) of the respondents were not aware of how the sanctuaries were managed, while slightly more than half (52.8%) of the respondents received benefits. A significant number of respondents (88.4%) were aware of the benefit sharing system. The study concludes that there is low awareness and limited involvement among the local communities on establishment and management of sanctuaries and existence of the partly unimplemented benefit sharing mechanisms. The on-going establishment of new sanctuaries should ensure involvement of local communities at all stages of planning, management, benefit sharing, monitoring and evaluation for them to become sustainable and avoid their collapse.

Keywords: Amboseli Ecosystem; Community-based Conservation; Community Opinions; Wildlife Benefit Sharing Mechanisms; Wildlife Sanctuaries

INTRODUCTION

Conservation thinking internationally has been dominated by the United States (US) idea of the national park as a pristine or wilderness area and the British notion of nature reserves managed for wild species (Adams and Hulme, 1998). Conservation involved the creation of protected areas, exclusion of residents and prevention of consumptive use, and minimization of other forms of human impacts in these areas (Adams and Hulme, 1998). Nature was wrapped up in protected areas that excluded other forms of land use (Kameri 2002). The protected areas concept evolved with the establishment of Yellowstone National Park in the USA in the late 19th Century, and the park was gazetted in 1872 (Beresford and Philips, 2000), and thereafter it served as a model of creating protected areas in other parts of the world (Ramadhan, 2006; Seno, 1998). Adams and Hulme (1998) note that the Yellowstone model has been influential in Sub-Saharan Africa, and protected areas such as Nairobi National Park (1946), Tsavo National Park (1948), Serengeti National Park (1951) and Murchinson Falls National Park (1951) were declared and established.

The protectionist approach coupled with enforcement measures enabled East Africa to avert the extermination of wildlife, although the protectionist measures proved insufficient to meet the challenges of wildlife conservation (Western 1989). The critique against fortress conservation is primarily that it did not deliver well

on biodiversity management and much less on livelihoods and local benefits and reduced costs of the park (Vedeld et.al 2012). Further, the failure of the centralized approach to natural resource management to arrest irretrievable losses of biodiversity during colonial and post-colonial independence period led to a search for an alternative natural resource regime, which was deemed capable of addressing social, economic and ecological concerns (Mulenga 2002). In the realm of wildlife conservation, a paradigm shift took place in the 1990s and the “fortress conservation” was replaced by community based conservation, which emphasizes the importance of local participation and decentralization of conservation management from the state to local communities (Meguro and Inoue 2011).

Therefore, community based conservation was conceptualized and became the mainstream approach in wildlife conservation in the mid-1990s (Meguro 2011). As a result, the dominant exclusionary or fortress approach used in the establishment of protected areas remains unpopular and therefore enjoys no more support worldwide and particularly in Africa, since it has been challenged by another approach known as community conservation (Adams and Hulme 1998).

Over the past two to three decades, there has been a change of focus, from supply driven top-down approach to participatory, demand driven approach Barrow and Marshall (1998). This is because the state –led approach no longer enjoyed hegemony in Africa or globally Adams and Hulme (2001). Thus community conservation emerged in a whole series of projects in 1970s and 1980s by the man and biosphere reserves launched in 1985 Adams and Hulme (2001). In Africa, the projects were usually implemented in the form of Integrated Conservation and development projects (ICDPs). Such projects include Communal Areas Management Projects For Indigenous Resources (CAMPFIRE), In Zimbabwe; Luangwa Rural Development Project (LIRDPA) in Zambia; Community Wildlife Management in Tanzania among other areas (Mburu 2004; Songorwa 2009).

Such projects ensure that community living around the protected areas are involved in wildlife and natural resource conservation as well as benefiting from the same wildlife and natural resources they are conserving. This results in a win-win situation, where both the biodiversity is protected and conserved as well as the community benefiting in return from their conservation efforts Grimble and Laidaw (2002). Despite this, ICDP have faced many challenges including failure to implement a bottom up, participatory approach, to meet the basic needs of the communities, and to raise interest among members (Songorwa 2009). Ogotu (2002) notes that only few members benefit from community conservation initiative in Eselenkei Community conservation area in Amboseli ecosystem. Similarly (Thompson & Homewood, 2002) in their study of Maasai Mara ranches noted that group ranch members were excluded from wildlife dividends.

Formal conservation in Kenya begun with the establishment of pioneer parks such as Nairobi National Park (1946), Amboseli National Park (1947), Tsavo National Park (1948) and Mt. Kenya (1949) (Akama 1998), which are managed by Kenya Wildlife Service. With the advent of formal conservation in Kenya, local people were alienated from natural resources, denied access to their herding and agricultural resources as well as user rights such as rights of access to grazing and transit rights (Barrow et. al 2000; Sindiga 1995; Akama 1998; Kimeri 2002, Mohammed 2010). This led to and created animosity between local people, conservation agencies and wildlife. Beginning in the 1970s in the Amboseli and 1980s in the Maasai Mara ecosystems, a number of experiments involving local participation in conservation were encouraged (Okello et.al 2003; Western 1989).

The approach entailed covering the opportunity costs of wildlife from the adjacent park incurred by Maasai land owners, participating in hunting and tourist enterprises, and a voice in the management of wildlife through local committees (Western 1989) through the district councils which collected fees from hunting and tourism (Kimeri 2002). The fees were used to develop public utilities and compensate local people for the inconveniences and economic and personal losses accrued from the maintenance of wild animals on their land (Kimeri 2002).

Formalized and legalized community conservation began in 1992 when Kenya Wildlife Service established the Community Wildlife Service Department which was charged with ensuring good management of wildlife outside protected areas for the benefit of communities who interact with wildlife, to create trust and dialogue

between KWS and those communities (Meguro 2010; Kameri 2002). The department was also mandated to help communities benefit from wildlife and protect them against losses caused by wildlife, and also initiate collaboration with other sectors concerned with land use (Kameri 2002).

The evolution of the community conservation paradigm in Kenya led to the establishment of community sanctuaries in Amboseli ecosystem, such as Kimana Community Wildlife Sanctuary (KCWS) (Meguro 2010). Community sanctuaries are protected areas with tourism facilities formed on communal or individual lands. Community sanctuaries in Kenya were pioneered by Kimana Community Wildlife Sanctuary which was established in 1996 and is located in the former Kimana Group Ranch (Meguro 2010).

Besides this, a number of community wildlife sanctuaries have either been established or planned for in wildlife dispersal areas in the group ranches in the Amboseli ecosystem as a response to the local community's desire to be part of, manage and benefit from wildlife that roams freely in their land (Okello 2005, Okello et. al 2003). In all the group ranches except Rombo Group ranch, there are one or more ecotourism ventures or wildlife sanctuaries or a concession area (Okello et.al 2011).

The establishment of community wildlife sanctuaries has gained tremendous support from conservation organizations, tourism investors and the government (Okello et.al 2003). However, Kimana Community Wildlife Sanctuary failed, and closed down. In spite of the support and benefits accrued, inequitable distribution of benefits from these wildlife sanctuaries (Kellert et. al 2000, Okello et.al 2011) and inadequate local participation are a major impediment to continued existence and support for these sanctuaries by local communities.

With Kimana Community Wildlife Sanctuary failure within the same landscape and ecosystem, therefore, it is important to establish whether the initiative of establishing the community sanctuaries still has community support, and studying why it was established, and the process from how it was established, its operations and management will give valuable insights to other actors establishing wildlife sanctuaries in the Amboseli ecosystem. This study aimed at gaining insights from already established sanctuaries in the Amboseli ecosystem so as to give recommendations on how to build the success of recently established sanctuaries which are gaining momentum in the Amboseli ecosystem.

This study sought to assess the opinions and expectations of the local community living in the Amboseli ecosystem towards wildlife sanctuaries. To realize this, the study was guided by the following specific objectives:

1. To identify and document the reasons for the establishment of wildlife sanctuaries in the Amboseli ecosystem.
2. To investigate the extent of local community's awareness on the establishment and management of wildlife sanctuaries established in the Amboseli ecosystem.
3. To evaluate the local community's opinions on acceptability of wildlife sanctuaries and their future in the Amboseli ecosystem.
4. To determine the benefits accrued and benefit sharing mechanisms among wildlife sanctuaries in the Amboseli ecosystem.

MATERIALS AND METHODS

Study Area

The study was done in four sanctuaries namely Osupuko, Kilitome, Elerai Rupet, and Motikanju located in the Amboseli ecosystem, southern Kenya (Figure 1). Amboseli ecosystem comprises of Amboseli National Park and the surrounding community group ranches. Osupuko and Kilitome sanctuaries are located within the former Kimana group ranch which has been fully subdivided. Motikanju sanctuary is located in Kuku group ranch, and Elerai Rupet sanctuary in Elerai ranch.

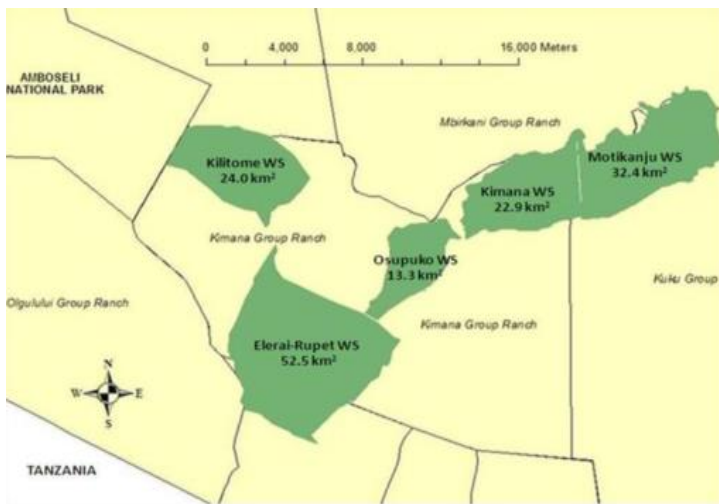


Figure 1: Study area.

The area is a semi-arid and arid rangeland that experiences a bimodal pattern of rainfall with short rains occurring from March/April to May while short rains occur in November and December (Ntiati, 2002). The average annual rainfall received within the area is 400mm to 500mm, with 30% being received in the short rains period and 45% received in the long rains period (Irigia, 1995). Temperatures range from 12°C in July to 35°C in February with averages of between 21°C and 25°C in each month (Worden 2003). Soils in this region are classified as volcanic and are generally highly saline and alkaline (Gachimbi, 2000).

METHODS

The study utilized a blend of methods to obtain the sample and collect information. For Kilitome and Osupuko sanctuaries which had a definite number of land owners, namely fifty (50) and hundred (100) members respectively, a list of members' names was obtained and the names assigned number which was picked randomly. For Elerai–Rupet sanctuary, since the members (land owners) lived together within the sanctuary, the number of settlements, commonly known as manyattas or bomas and households in the sanctuary were estimated using a local guide. All the manyattas (bomas) where interviews were conducted were randomly selected and all households within each boma were selected for interview based on willingness to participate. The sampling unit was the household. For Motikanju sanctuary, manyattas (bomas) were mapped and listed with assistance of local informants and the administration, and given a unique number. The bomas were then randomly picked and interviews conducted in all households of each selected boma.

To examine local people's opinions, interviews at the households were done using semi structured questionnaires and discussions with key informants within the sanctuaries from November 2011 to June 2012. Only one person from each household was interviewed, an adult male, who was the household head. In the absence of the head, an adult female household was interviewed. Where both the head and their adult female were not available, the eldest son or daughter above the age of eighteen was interviewed. The interviews were held in seclusion away from anyone else. All responses given in the questionnaires were tallied and entered in the Statistical Package for Social Sciences (SPSS) Version 9 for Windows.

Frequencies of respective responses to an issue were summarized and further analysis done using the chi-square goodness of fit. Chi-square goodness of fit was used to determine differences in frequencies of responses on particular issues. To establish factors influencing certain responses and particular relationships with specific attributes, chi-square cross tabulations were employed with the help of the SPSS Version 9 for Windows (SPSS Inc 1998). Statistical tests were considered significant when p-values were equal or less than 0.05. For goodness of fit, if the p-value was equal to or less than 0.05, then the frequencies were viewed to be significantly different and contrary if p-value were greater than 0.05. For chi square cross tabulation, if the p-value were equal or less than 0.05, then a response was considered dependent on the attribute, and independent of the attribute if the p-value was greater than 0.05.

RESULTS

Socio –Economic and Demographic Profile of Respondents

A total of 310 respondents from Kilitome (49), Elerai-Rupet (43), and Osupuko (34) and Motikanju (184) were interviewed, 115 (37.1%) were males and 195 (62.9%) were females respectively (Table 1).

Table 1: Socio –Economic and Demographic Profile of respondents

Variable	Category	Frequency	Percent
Sex	Male	115	37.1
	Female	195	62.9
Age	18-25	68	21.9
	25-35	80	25.8
	35-45	64	20.6
	45-55	50	16.1
	55+	48	15.5
Level of education	None	217	70
	Primary	61	19.7
	Secondary	29	9.4
	Tertiary	3	1
Land tenure	Group ranch	126	40.6
	Individual	184	59.4
Sanctuary	Osupuko	34	11
	Kilitome	49	15.8
	Elerai Rupet	43	13.9
	Motikanju	184	59.4
Primary livelihood source	Pastoralism	19	6.1
	Agriculture	18	5.8
	Agropastoralism	272	87.7
	Others	1	0.3

Reasons for Establishment of the Sanctuaries

Most respondents stated that they formed their sanctuaries to promote wildlife tourism (37.4%), conserve wildlife corridors (28.4%) and to keep people away from wildlife (28.1%) (Table 2).

Table 2: Respondents views on reasons for establishment of sanctuaries

Frequency	Osupuko		Kilitome		Elerai Rupet		Motikanju		
Reasons for sanctuary establishment	Freq	%	Freq	%	Freq	%	Freq	%	% total
Wildlife corridor conservation	29	85.3	44	89.8	1	2.3	14	7.6	28.4

Protection of land from being sold	5	14.7	5	10.2	3	7	0	0	4.2
Wildlife tourism	0	0	0	0	30	70	86	46.7	37.4
Cattle grazing area	0	0	0	0	1	2	1	0.5	0.6
Keep people away from wildlife	0	0	0	0	8	3	79	43	28.1
Not aware	0	0	0	0	0	18.6	4	2.2	1.3
Total	34	100	49	100	43	100	184	100	100

Extent of Local Community Awareness and Involvement in Establishment of Sanctuaries

A significant majority of the interviewees (63.2%, n =310) were not aware of plans to establish wildlife sanctuaries during their initial formation ($\chi^2 = 21.690$; df = 1; $P < 0.001$) (Table 3). Awareness of plans during the formation of the sanctuaries was dependent on age ($\chi^2=24.490$, df=4; $p < 0.001$) and sex ($\chi^2 =35.469$, df = 1, $p < 0.001$). Most of the male respondents (58%) were aware while most females respondents (75.6%) were unaware of the plans to establish the sanctuaries. Respondents between the ages of 25-45 (55.3%) were the most aware.

A significant majority of respondents (65.7%, n =310) were not consulted ($\chi^2 = 29.729$; df = 1; $p < 0.001$), and were never involved during the establishment of the sanctuary compared to 34.5% respondents who indicated that they were consulted (Table 3). Views on consultation were dependent on age ($\chi^2=20.496$, df=4, $p < 0.001$), and sex ($\chi^2=25.528$, df=1, $p < 0.001$). (Table 3), and more male respondents (56.1%) than females (43.9%) were consulted. More men than females were consulted. Respondents from Kilitome, Osupuko and Elerai Rupert sanctuaries who reported to have been consulted stated that consultations were done through a series of meetings, seminars and workshops organized by AWF officers. Respondents aged over 55 years indicated that they were the most consulted compared to very few young people (8.4%) and those above 25 years (91.6%)

Table 3: Respondents opinions with regard to establishment and management of sanctuaries

Information sought	Responses from the people	Number of respondents (n=310) frequencies and percentages	Chi square goodness of fit; df; p value
Awareness of plans to establish sanctuary	Yes	114 (37.8%)	$\chi^2 = 21.690$; df = 1; $P < 0.001$
	No	196 (63.2%)	
Community opinions sought /consulted during sanctuary establishment	Yes	107 (34.5%)	$\chi^2 = 29.729$; df = 1; $p < 0.001$
	No	203 (65.7%)	
Awareness of how the sanctuary is managed	Yes	49 (15.8%)	$\chi^2 = 144.981$, df= 1, $p < 0.001$
	No	261 (84.2%),	
Community opinions consulted by the sanctuary management	Yes	56 (18.1%)	$\chi^2 =126.465$, df =1; $p < 0.001$
	No	254 (81.9%)	
Satisfied with management	Yes	160 (52.5%)	$\chi^2 =0.738$; df = 1; $p < 0.390$
	No	150 (47.5%)	

Extent of Local Community Awareness and Involvement in Sanctuaries Management

A significant majority of the respondents (84.2%, n=310) were not aware of how the sanctuary was managed ($\chi^2 = 144.981$, df= 1, $p < 0.001$) (Table 3). Views of the respondents on sanctuary management were dependent on sex ($\chi^2=36.802$, df=1, $p < 0.001$) and level of education ($\chi^2=19.177$, df=3, $p < 0.001$). More males (76%) were aware of how the sanctuaries were managed than the females (24%). Respondents with no education level (44.9%) were most aware compared to those who had attained tertiary education (2.1%) and were least aware. Osupuko sanctuary interviewees stated that their sanctuary is managed by the African Wildlife Foundation (AWF) and elected officials of the sanctuary. Further, game scouts employed by AWF were present to patrol the area and ensure security of wildlife and vegetation to curb illegal logging for charcoal production. Kilitome and Elerai Rupet sanctuaries are managed by investors owning the Tawi and Satao Elerai eco lodges respectively who also partner with the African Wildlife Foundation and the local elected officials. Community scouts are hired by African Wildlife Foundation who facilitated signing of lease agreements between landowners and the investors who operate and manage Tawi and Satao Elerai Eco lodges. Motikanju sanctuary is managed by group ranch officials from Kuku Group ranch.

A significant ($\chi^2 = 126.465$, df =1; $p < 0.001$) number of the respondents (81.9%, n=310) reported that their views and opinions are never sought by the sanctuary management as compared to those who noted that they were consulted (18.1%) (Table 3). Views on whether the communities were consulted by the sanctuary management were dependent on sex ($\chi^2 = 27.946$, df = 1, $p < 0.001$). More males (68%) were consulted compared to the females (32%). Slightly more than half of the respondents (52.5%) were satisfied with the management of the sanctuaries compared to 47.50% who were not satisfied with the management. However, there was no significant difference between the two responses from the two groups. For Motikanju sanctuary favouritism in employment, lack of benefits from the sanctuary, undemocratic hand picking of the management of the sanctuary by group ranch officials and lack of consultation by the management were cited as reasons for dissatisfaction.

Opinions on the Establishment and Future of Sanctuaries in the Amboseli Ecosystem

A significant majority of the interviewees (80.6%, n=310) ($\chi^2 = 124.727$; df = 1; $p < 0.001$) supported the establishment of the private sanctuaries compared to those who did not support their establishment (19.4%)

(Table 4). Support for sanctuary establishment was dependent on level of education ($\chi^2=13.497$, df = 3, $p = 0.004$) and primary source of livelihood ($\chi^2= 13.530$, df = 3, $p = 0.004$). Those with no education (65.5%) were more supportive than those with tertiary education (1.2%). Also, agro pastoralists (89.7%) were more supportive whereas the pastoralists least supported (3.6%). Respondents who did not support formation of sanctuaries cited reasons such as sanctuaries take up their grazing land upon sanctuary establishment, members are not allowed to graze, or are restricted on where to graze within the sanctuary and the restriction of movement of both cattle and people in the sanctuaries. This is as opposed to wildlife which always encroaches and traverses their lands without restriction, since it has unlimited access. With the creation of sanctuaries, collection of resources such as stones and other construction materials like trees was not allowed. Despite this, some respondents supported establishment of sanctuaries as security to prevent selling of their land by group ranch leaders.

A significant number of respondents (85.3%, n=310) ($\chi^2 = 149.813$; df = 1; $p < 0.001$) supported the establishment of community wildlife sanctuaries as compared to 14.70% who did not (Table 4). Support was dependent on level of education ($\chi^2=8.719$, df = 3, $p = 0.033$), and primary source of livelihood ($\chi^2 = 5.566$, df = 3, $p = 0.135$). Those without education (66.9%) were supportive of establishment of community wildlife sanctuaries compared to those with tertiary education who were least supportive (0.8%). Agro- pastoralists (88.8%) were also more supportive compared to pastoralists (4.6%) who were least supportive. Respondents who did not support the establishment of community sanctuaries contended that creating a wildlife sanctuary brought wildlife close to the people thus fuelling human-wildlife conflicts. Respondents also cited lack of benefits from the sanctuaries, corruption and lack of transparency and accountability, citing some earlier tourism establishments in sanctuaries like Kampi ya Kanzi, which did not deliver benefits to all, but only to very few members connected or related people to those in leadership.

Table 4: Respondents opinions with regard to support and future of wildlife sanctuaries

Information sought	Responses from the people	Number of respondents (n=310) frequencies and percentages	Chi square goodness of fit; df; p value
Support private sanctuary establishment	Yes	252 (80.6%)	$\chi^2 = 124.727$; df = 1; p < 0.001
	No	58 (19.4%)	
Support communal sanctuary establishment	Yes	260 (85.3%)	$\chi^2 = 149.813$; df = 1; p < 0.001
	No	50 (14.7%)	
Future of individual wildlife sanctuaries	Yes	247 (80.8%)	$\chi^2 = 108.308$; df = 1; p < 0.001
	No	63 (19.2%)	
Future of communal wildlife sanctuaries	Yes	242 (80.9%)	$\chi^2 = 108.216$; df = 1; p < 0.001
	No	68 (19.1%)	

Majority of the respondents (80.8%, n=310) ($\chi^2 = 108.308$, df = 1, p < 0.001) indicated that the private wildlife sanctuaries had a future compared to 19.2% who thought the sanctuaries had no future (Table 4). These opinions were dependent on level of education ($\chi^2 = 17.457$, df = 3, p = 0.001). More respondents with no education (64.7%) opined that individual wildlife sanctuaries compared to those with tertiary education (1.3%). Likewise, a significant number of interviewees (80.9%, n=310) ($\chi^2 = 108.216$, df = 1, p < 0.001) contended that community wildlife sanctuaries still had a future compared to 19.1% who reported that community wildlife sanctuaries had no future (Table 4). Respondents noted that the future of community sanctuaries was based on the condition that there is transparency and accountability in the management of group ranch affairs, especially funds accruing to the group ranch from tourism investors.

Benefits and Benefit Sharing in the Sanctuaries

Over half of the respondents (52.8%, n=310) ($\chi^2 = 0.0941$; df = 1, p < 0.001) received benefits from their wildlife sanctuaries compared to 47.2% who were not receiving any benefits (Table 5). Views on receipt of benefits was dependent on gender ($\chi^2 = 7.144$, df = 1, p = 0.008). More females (55.6%) received benefits compared to the males (44.4%). Osupuko and Kilitome respondents received money through their individual bank accounts since they had signed an agreement in the easement program.

A significant majority of the respondents (59.9%, n=310) ($\chi^2 = 11.442$; df = 1; p = 0.001) were not satisfied with the benefits received compared to 40.1% who felt satisfied with the benefits they received (Table 5). Views on dissatisfaction were dependent on level of education ($\chi^2 = 7.880$, df = 3, p = 0.049). Respondents with no education (62.8%) were more satisfied whereas those with tertiary education were least satisfied (1.7%). Respondents not satisfied with the benefits received felt that the money received from the easement fees was too low since living standards had gone up, compared to returns from other land uses in the area such as agriculture, the lease fees were low. Respondents from Kilitome sanctuary lamented that an investor did not remit some of the benefits owed to the community such as aircraft landing fees payable to the landowners.

A significant number of respondents (88.4%, n=310) ($\chi^2 = 168.284$; df = 1; p < 0.001) were aware of the benefit sharing system in the sanctuaries compared to 11.6% who were not aware (Table 5). Opinions on awareness of the benefit sharing system was dependent on primary source of livelihood ($\chi^2 = 14.538$, df = 3, p = 0.002). Agro-pastoralists (89.7%) were most aware whereas pastoralists were the least aware (8%). Respondents from Kilitome and Osupuko sanctuaries stated that each member received Kenya Shillings 500

per acre of land twice per year, in the months of June and November through their individual bank accounts.

Table 5: Respondents opinions in regards to receipt of benefits, satisfaction with benefits and benefit sharing

Information sought	Responses from the people	Number of respondents (n=310) frequencies and percentages	Chi square goodness of fit; df; p value
Receive benefits	Yes	252 (52.8%)	$\chi^2 = 0.0941$; df = 1; p < 0.001
	No	58 (47.2%)	
Satisfied with benefits	Yes	260 (59.9%)	$\chi^2 = 11.442$; df = 1; p = 0.001
	No	50 (41.1%)	
Benefit sharing system in place	Yes	253 (88.4%)	$\chi^2 = 168.284$; df = 1; p < 0.001
	No	67 (11.6%)	

DISCUSSION

Reasons for the Establishment of Wildlife Sanctuaries in Amboseli Ecosystem

Most respondents reported that the motivation for establishment of wildlife sanctuaries in Amboseli ecosystem was mainly wildlife tourism and as well as protection of the wildlife corridor. This finding concurs with those of Okello et.al (2003) who reported that majority of local community members in the Tsavo-Amboseli region supported the establishment of community wildlife sanctuaries as an appreciation of the potential economic benefits. Communities in Amboseli ecosystem are eager to take advantage of securing benefits from wildlife that roams on their land through the lucrative tourism industry. Because of the wildlife richness, there is a high chance that tourism can thrive. Okello (2005) further notes that community ecotourism based conservation areas not only expand wildlife ranges outside neighbouring protected areas but also bring economic and employment benefits to the community. Given that the community shares land with wildlife most of the times, there exists an opportunity to tap into the tourism industry using wildlife as a resource, which in turn offers other spill over benefits like employment in the industry and the ecosystem in general.

Extent of Local Community Awareness and Involvement in Establishment of Sanctuaries

The study revealed that there was low awareness among respondents with regard to the establishment of the sanctuaries surveyed. Decision making in group ranches is vested in the group ranch committees. The low awareness on sanctuary establishment amongst the respondents is due to lack of proper, structured and timely information sharing by group ranch committee members. This finding concurs with those of Rutten (2004) who contends that the problem of representation and accountability is an issue that is not uncommon in group ranch projects which affects transparency in financial matters and decision making. For instance, in Kimana Group ranch, Rutten (2004) further notes that the group ranch committee went ahead and signed a contract without proper consultations with all Kimana group ranch members. Further, females are mostly unaware since sanctuaries revolve around land issues. Because of the patrilineal nature of the Maasai community, ownership of land is primarily vested on the male (Seno and Shaw 2002). This therefore implies that decision making on matters pertaining to land including leasing it to an investor as is the case with Elerai Rupet and Kilitome or for tourism development is dominated by the males.

Extent of Local Community Awareness and Involvement in the Management of Sanctuaries in the Amboseli Ecosystem

Regarding management of the sanctuaries, majority of the respondents indicated that they were not aware of how the sanctuaries were managed. This is because the management of most if not all the sanctuaries in the Amboseli ecosystem is vested in tourism investors and tourism operators who lease and run them. For

instance, in Elerai Rupet and Kilitome sanctuaries, Satao and Tawi lodge private management companies run the lodges in the respective sanctuaries. Wildlife based tourism is a complex business that needs expertise in management, marketing and ecology (Okello et. al 2011). Therefore, low levels of education and literacy rates among the Maasai, coupled with poor and low financial endowments contributes to leasing the sanctuaries to investors. With lack of education, and low levels of formal education attained and high levels of illiteracy, the local Maasai community is disadvantaged since they cannot manage their sanctuaries on their own, and lease them to business oriented and profit driven investors, who manage them on their behalf. Okello et.al (2009) state that managing a tourism enterprise needs vast experience in anticipating tourism demands and behaviour and constantly making the tourism product attractive. Seno (2012) opines that the low level of education is the reason why management of community initiatives has been transferred through lease agreements to private investors, making meaningful participation by communities impossible.

Opinions on Establishment of Sanctuaries

Most of the respondents supported the establishment of communal wildlife sanctuaries primarily because of benefits such as employment opportunities and monetary benefits guaranteed through land leases. This finding is supported by a previous study by Okello et.al (2003) where findings show that local people supported the establishment of community wildlife sanctuaries including the possibility that it was an appreciation of their potential economic benefits. Indeed, the sanctuaries, in partnership with investors offer employment opportunities to local people, either as permanent employees or casuals, which goes a long way in helping people improve their lives and reduce the poverty levels. Despite this, some respondents did not support establishment of wildlife sanctuaries because of restrictions to grazing in times of drought, and restrictions to collection of important resources such as stones and trees for building.

This is because the Maasai are dependent on the landscape and its resources for livelihood since land and access to its resources is so central to Maasai survival because the majority are not educated enough to get employment and alternative livelihood elsewhere (Okello et al 2009). They wish to establish wildlife sanctuaries that guarantee them access to resources such as water, pasture, plant resources and land for settlement, especially in the event of severe scarcity (Okello et al 2003). These resources are central to the survival of people, since they are imperative to and form part of their livelihoods and fit with their pastoral lifestyle. Respondents' lack of support for the establishment of sanctuaries was also due to fear of and suspicion that the government would take away their land in future without their consent, consultation and compensation by encouraging the establishment of sanctuaries, as it happened with Amboseli National Park. Elderly people recalled the setting up of Amboseli National Park, with their land being set aside a National Reserve and was later designated to be a national park (Rutten 2002), without compensation or consultation (Okello et al 2003).

Opinions on the Future of Wildlife Sanctuaries

Majority of the respondents opined that there is a future for community wildlife sanctuaries in the Amboseli ecosystem. However, this is dependent on sustained benefits to the local people, tourism investors upholding their agreements and transparency and accountability in leadership. This finding is in agreement with those of (Okello et.al 2009a) who argue that community wildlife conservation initiatives that seek to make wildlife conservation economically worthwhile to individual owners or communities inevitably must have a strong economic dimension.

The findings on the future of wildlife sanctuaries is also consistent with those of Meguro and Inoue (2011), who in their study also found that creation of new sanctuaries in Amboseli ecosystem was supported by communities. However, comparing private and community sanctuaries, Okello et.al (2011) asserts that wildlife sanctuaries fully owned by individuals or a group of organized land owners are likely to succeed than those owned jointly in communal ownership because of accountability and transparency issues.

Lack of expected monetary benefits from wildlife sanctuaries is a major disincentive to community conservation that has generally and greatly contributed to the inability of local Maasai to appropriately value and appreciate wildlife which has been and continues to use their land. Regarding transparency and

accountability, Okello et.al (2003) in their study reported corruption and lack of transparency within group ranch leadership, especially with regard to benefits from wildlife conservation and tourism, resulting to a general conclusion that wildlife is a burden to the local people. Van Der Duim (2010) affirms that transparency and accountability can play an important role in improving local attitudes towards conservation. Van der Duim (2010) further notes that revenues going to communities need to be substantial if they have to improve local attitudes towards conservation.

Benefits and Benefit Sharing in the Sanctuaries

Although a slight majority of respondents especially from Kilitome and Osupuko sanctuaries which are privately owned reported they received cash benefits, this is not the case for community owned sanctuaries that were surveyed. In the community sanctuaries, poor governance, misappropriation, corruption and embezzlement of funds by the leadership denied local community members benefits and other visible and tangible opportunities that are realized from the sanctuary. This finding concurs with those of Elliot and Sumba (2011), who note that benefits from CBNRM do not reach people due to governance issues.

For instance, findings of this study revealed that capture of benefits by the powerful leadership was also manifested during employment, where there was skewed employment with the most connected or those from the same clan being employed leaving out their opponents as well as the illiterate. Meguro and Inoue (2011) assert that benefitting local communities is critically important because it is the vital condition for which local people approve wildlife conservation on their land. Elliot and Sumba (2011) further argued that how benefits are shared is critical to give people incentives to conserve biodiversity and that the benefits need to be felt by all members of the community particularly by the poorest, making decisions about the resources or foregoing resource use.

Most members from community sanctuaries surveyed were unaware of the benefits sharing mechanisms as opposed to the privately owned sanctuaries where most were aware. This is because of the fact that in a community enterprise, decision making can be slow in terms of time for calling annual meetings. Given that group ranch committees call annual general meetings infrequently, such information may not be available to members on time. This finding is consistent with those in a study by Rutten (2004) in Kimana and Eselengei ranches where it was found that group ranch members were rarely consulted in decision making by the group ranch leaders, and were therefore largely left out of the process. Rutten also found that the group ranch officials were secretive and corrupt, and ran the sanctuary as a personal business.

CONCLUSIONS AND RECOMMENDATIONS

This study found out that tourism is the main reason for establishing the sanctuaries in the study area, with the main aim of benefiting from wildlife that uses their land through tourism operations. With respect to establishment and management of the sanctuaries, most of the members were unaware of the undertakings in community sanctuaries as opposed to private sanctuaries with few members where decision making is clear. Regarding the future of wildlife sanctuaries, most of the community members were optimistic of benefits and want sanctuaries in the long term. Finally, with regard to benefit sharing, most of the community sanctuaries have not fully implemented the benefit sharing mechanisms.

The study recommends that there should be all inclusive consultations during establishment of sanctuaries. With regard to management, clear institutional structures and mechanisms should be established between the investors and the community, as well good feedback mechanisms to allow flow of information and get rid of mistrust amongst the community and investors during the implementation of such undertakings. With respect to benefit sharing, through community representation cascaded from the group ranch management down to the village level, there should be well-documented benefit sharing mechanisms with inputs from all community members, and clearly publicized and published to be understood by all. Finally, the study recommends that a similar research be conducted in the other sanctuaries in the Amboseli ecosystem to compare and contrast findings.

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