

Perceptions on the Status of Livelihoods Among Communities in Lower Tana Delta Conservancy in Tana River County Along the Kenyan coast

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Abstract

Human effort towards establishment of conservancies is important for the conservation of biodiversity. Perceptions of the local communities towards the Lower Tana Delta Conservancy (LTDC) effort for livelihoods improvement in Tana River County along the Kenyan coast are not well understood. The key objective of the study was to determine perceptions among the local communities living in Chara, Ozi and Konemansa Locations on LTDC towards their livelihood improvements in Tana River County. The study was conducted through a randomized study design using semi-structured questionnaire, Key Informant Interviews (KIIs) and Focus Group Discussion (FGDs). The research was conducted between December 2015 and February 2016. The participants who were interviewed came from 207 households, 15 key informants who consisted of some conservancy board members, community leaders and elders. *R* statistical software was used to analyze the categorical data sets. There were significant differences on the participants' perceptions on LTDC contribution towards institutional governance, benefits of the conservancy to the community. Overall the results showed differential perceptions on contributions of LTDC towards livelihood improvements of local communities in Tana River County and suggest that the establishment of the conservancy as a resource has had accrued benefits to different communities living in the conservancy.

Keywords: Lower Tana Delta Conservancy; Community Livelihoods; Institutional governance

Introduction

Sustainability on the conservation of natural resources is paramount in order to safeguard the livelihoods of the local communities and decrease the poverty levels (Kiper, 2013). Over the many decades, conservation of wildlife, biodiversity was carried out by establishing parks and zoos and creating strict laws regarding the use of wild flora and fauna (Martins *et al.*, 2011). These methods of natural resource conservation and management may be costly (Bashir *et al.*, 2010). Community Conservancies differ from National parks and private conservancies in that they neither create 'hard' boundaries which separate people from wildlife nor do they exclude them from using the land (King *et al.*, 2015). Community Conservancies recognize the coexistence of people, their livelihoods and wildlife and the integration of all these in the management of land (Goldman, 2011; Ogotu *et al.*, 2016).

The main aim of conservation is to ensure the survival of fauna and flora and for economic exploitation by local communities while safeguarding the interest of future generations to benefit from the resources with long term conservation efforts within the community conservancies, providing long term solutions for communities living among the natural resources (Brooks *et al.*, 2013).

The need to engage communities in conservation was heightened by the realization that biodiversity resources are both subject to, and depend upon processes and policies, which act at national and global scale (Ancrenaz *et al.*, 2007). Consequently, an approach which can reconcile the needs of biodiversity conservation and economic development has had opportunities as an important tool for cooperation between such establishments and local communities as stakeholders particularly in developing nations (Kaswamila, 2012).

Materials and Methods

Tana River County has a total area of 38,862.2 Km² with a projected population of 261,348 and covers about 76 km² of the coastal strip (Mbwana *et al.*, 2013). Average annual temperatures are about 30⁰C with the highest being 41⁰C around January-March and the lowest being 20.6⁰C around June-July (Mbwana *et al.*, 2013). The main production system in this County is farming and pastoralism with a small portion of the population engaged in fishing (Weiss, 2004). Tana River County is home to two major tribes: the Pokomo, who are farmers, and the Orma, who are pastoralists. The study was conducted in the three selected locations of Chara, Ozi and Konemansa which covers the conservancy (Figure 1).

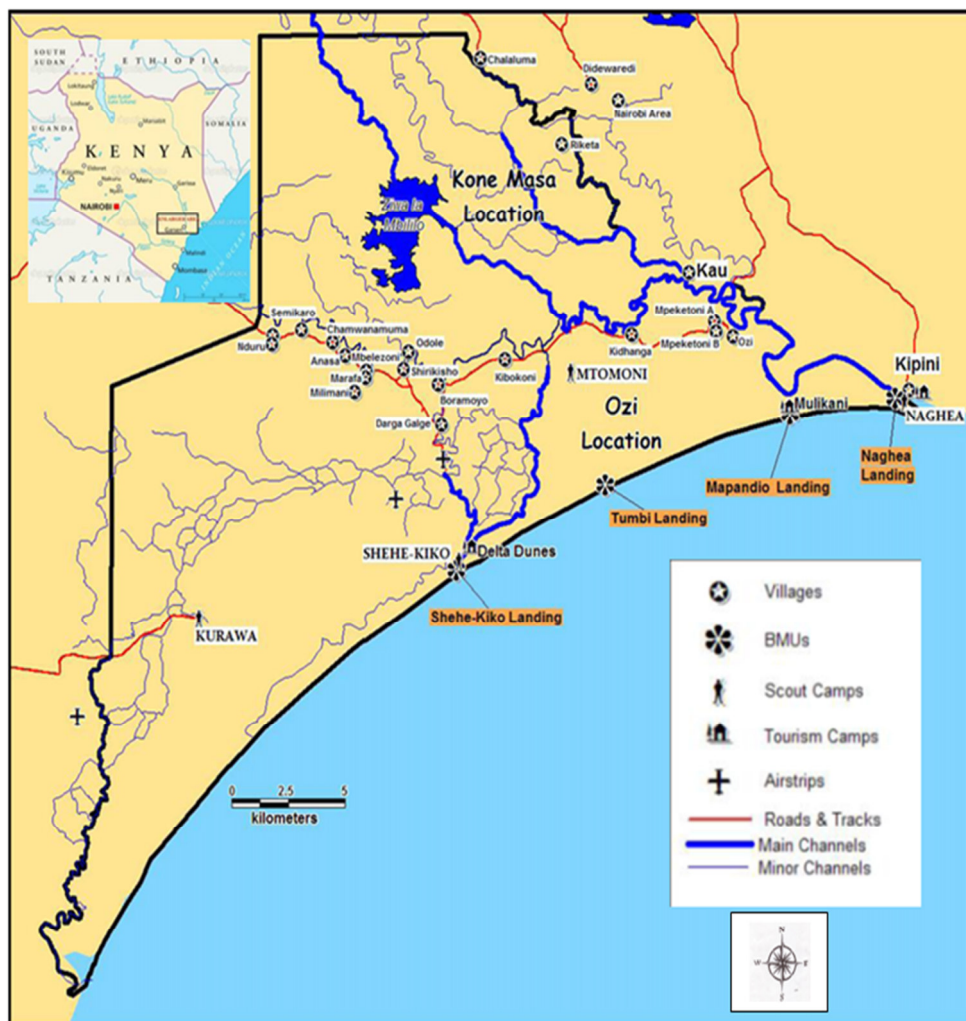


Figure 1: A map showing Lower Tana Delta conservancy (Source: Mireri, 2010)

The study employed a descriptive study design as it sought to obtain information relating to the current status of the perceptions of the local community towards the Lower Tana Delta Conservancy. Thus the purposes of this study were to describe “what exists?” with respect to situational variables. It looks at relationship between and among variables (Mugenda and Mugenda, 2003). The study was based in Lower Tana Delta Conservancy (LTDC) and the target population was 1915 households (Mbwana *et al.*, 2013).

A sample of 207 households in the LTDC was selected. The following formula by Ross (2002) for sample size calculation was used to obtain the sample size.

$$\frac{n = NZ^2 * 0.25}{d^2 * (N-1) + (Z^2 + 0.25)}$$

Where, n=sample size

N= Target population

d= precision level normally expressed in terms of 0.05

Z= number of standard (*Standard Deviation*) units of the sampling distribution correct to desired confidence level

Total number of households=1915

95% confidence level and ± 5 percent precision level (d = .05, Z = 1.96)

Data was collected using questionnaire, Key Informant Interview and Focus Group Discussion. Respondents have adequate time to give well thought out answers (Kothari, 2004). The data was recorded in the questionnaire tool in the field during the survey. Open ended questions and interview data were sorted and coded into themes. The data in the physical tool of the survey were then feed into the excel sheet with columns carrying the variables under investigations while the rows carried the observations. The research data was both quantitative and qualitative in nature and in most instances the quantitative data was transformed into qualitative data using the table function in R to allow for inferential statistics to be carried out.

Results

Perceptions of Local Community on the contributions of Institutional Governance of LTDC towards Community Livelihoods Improvements

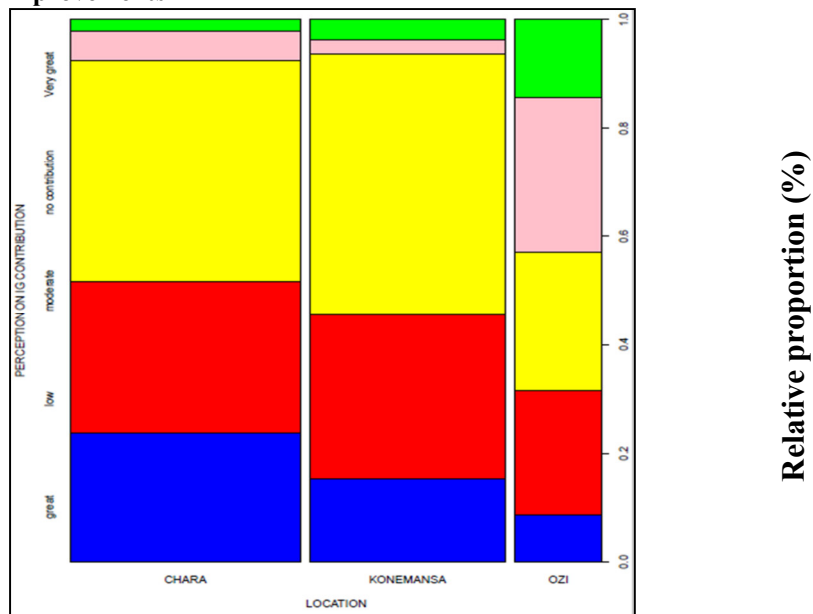


Figure 2: A Figure showing perception of the respondents towards the Contribution of Institutional Governance on Community Livelihoods

The respondents were asked to rate the contribution of institutional governance on community livelihoods. Majority of the respondents in Chara (41%) and Konemansa (46%) locations perceived that institutional governance had moderately impacted on community livelihoods as compared to the respondents in Ozi location (27%). In Chara (22%) of the respondents rated impacts of institutional governance as great as compared to those in Konemansa locations (13%) and in Ozi location (8%). In Ozi, most of the respondents rated the impact of institutional governance on community livelihoods between low (23%) and no contribution (30%). There was a small proportion of respondents in Chara who opined that the impact was very great (1%), a similar proportion in Konemansa (1%) who opined that there was no contribution of institutional governance on community livelihoods.

Respondents Knowledge about Lower Tana Delta Conservancy

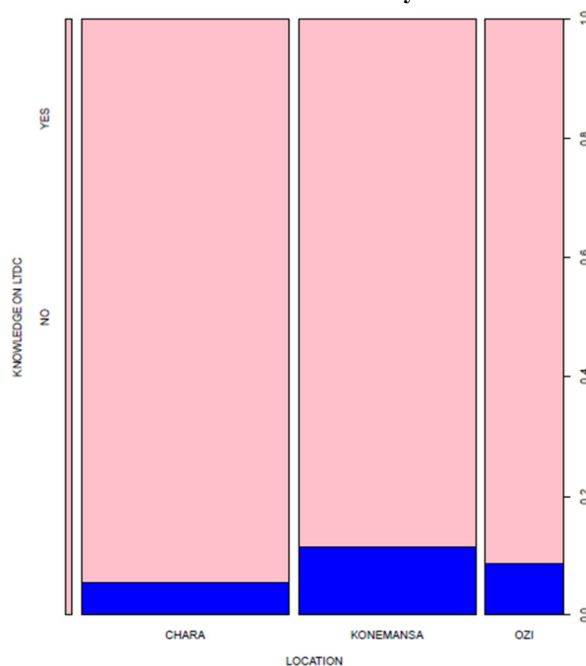


Figure 3: A figure showing Knowledge of respondents' on about Lower Tana Delta Conservancy

The respondents' knowledge about Lower Tana Delta Conservancy was gauged on their awareness about

the existence of the conservancy. Most of the respondents in Chara (98%) were aware than the respondents in Konemansa (95%) and Ozi (97%). The proportion of the respondents in Konemansa that were not aware about the existence of the conservancy was slightly higher (5%) than the proportion of the respondents in Ozi (3%) and Chara (2%).

Table 1: A table showing perception of respondents' towards the Contribution of the Board of Management on community livelihoods

	Locations		
	Ozi	Chara	Konemansa
Very Great (%)	2	1	1.1
Great (%)	12.5	31	19.5
Moderate (%)	20.5	17	12
Low (%)	29	35	50
No Contribution (%)	35	15	17

From table 1 above, majority of the respondents (35%) in Ozi location perceived that the Lower Tana Delta board of management had no contribution towards community livelihood compared to the respondents in Chara (15%) and Konemansa locations (17%). In Konemansa, majority of the respondents perceived that the contribution of the conservancy board towards community livelihoods improvement was low (50%) than the respondents in Chara (35%) and Ozi (29%). In Chara, 31% of respondents rated the contributions as great. In addition, very few respondents in Chara (1%) and Konemansa (1.1%) opined that the contribution was very great compared to the respondents in Ozi (2%).

Perception on Peace sub-committee Contribution to Community Livelihoods

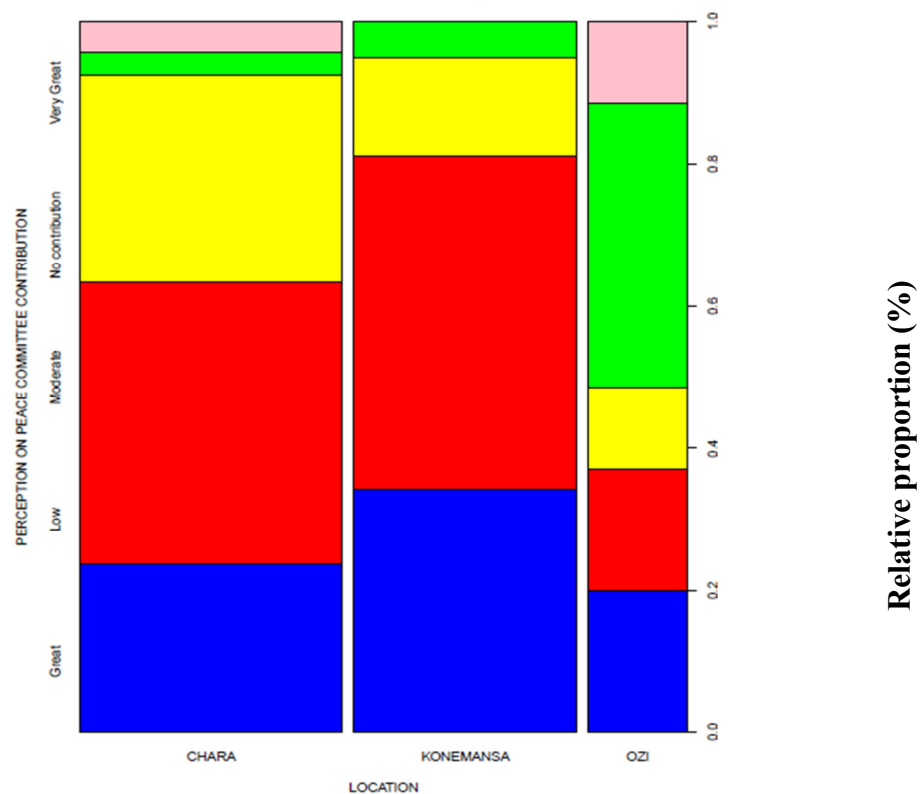


Figure 4: A Figure showing perception of respondents' towards the Contribution of Peace Sub-committee towards Community Livelihoods

The results in figure 4 shows that majority of the respondents (41%) in Ozi location perceived that the peace sub-committee had no contributions on the livelihoods of the community. In Konemansa, majority of the respondents (47%) felt that the contribution of the peace sub-committee was low compared to the respondents in Ozi (18%) and Chara (40%) who were of similar opinion. In Chara, very few respondents (1%) opined that the peace sub-committee had no contribution compared to the respondents in Ozi (41%) and Konemansa (2%).

Table 2: A table showing perception of respondents' towards the Contribution of Tourism Sub-Committee towards Community Livelihoods

	Locations		
	Ozi	Chara	Konemansa
Very Great (%)	5	0	0
Great (%)	15	6	14.5
Moderate (%)	26	15	13
Low (%)	28	58	49.5
No Contribution (%)	27	20	23

Results in table 2 shows that most of the respondents in Chara location (58%) viewed that tourism sub-committee had low contribution towards community livelihoods as compared to 49.5% in Konemansa and 28% in Ozi locations. In Chara and Konemansa, there were no respondents who opined that the contribution of tourism sub-committee towards community livelihoods was very great with very few of the respondents in Ozi (5%) noting the contributions as very great. In the three locations, among the respondents who noted the contributions were great; majority were in Ozi (15%) followed by the respondents in Konemansa (14.5%) then Chara (6%).

Benefits of the Lower Tana Delta Conservancy to the community

Table 3: A Table showing proportions in the perceptions of the participants towards Lower Tana Delta Conservancy benefits to community in the different administrative locations of Chara, Ozi and Konemansa

	Locations		
	Chara	Konemansa	Ozi
Yes (%)	90	85	42
No (%)	10	15	58

The respondent's awareness was gauged on the benefits of Lower Tana Delta Conservancy to the community. From table 3, most of the respondents from Chara (90%) and Konemansa (85%) perceived that there were benefits accrued from the conservancy as compared to respondents in Ozi location (42%). In Ozi location (58%), majority of the respondents were of the opinion that the conservancy had no benefits to the community.

Table 4: A Table showing perception of respondents' on the Contribution of the Conservancy towards Education in the different administrative locations

	Locations		
	Ozi	Chara	Konemansa
Yes (%)	46	84	72
No (%)	54	16	28

The respondents were further required to point out specific benefits that accrued from the conservancy one of them being education. From the results in table 4, most of the respondents from Chara (84%) and Konemansa (72%) perceived that the conservancy contributed to education as compared to respondents in Ozi location (46%). In Ozi, majority of the respondents (54%) perceived that the conservancy had not contributed to education in the area compared to the respondents in Konemansa (72%) and Chara (84%).

Table 5: A Table showing perceptions of the respondents towards contribution of the conservancy to peaceful coexistence in different administrative locations of Chara, Ozi and Konemansa

	Locations		
	Chara	Konemansa	Ozi
Yes (%)	95	98	73
No (%)	5	2	27

From the findings in table 5, most of the respondents in Chara (95%) and Konemansa (98%) agreed that the conservancy has contributed to peaceful coexistence among the communities compared to the respondents in Ozi (73%). In the three locations, the respondents perceived that the conservancy had not contributed to peaceful coexistence with majority having been in Ozi (23%), followed by the respondents in Chara (5%) then Konemansa (2%).

Perception on Increase on incomes with the establishment of the conservancy

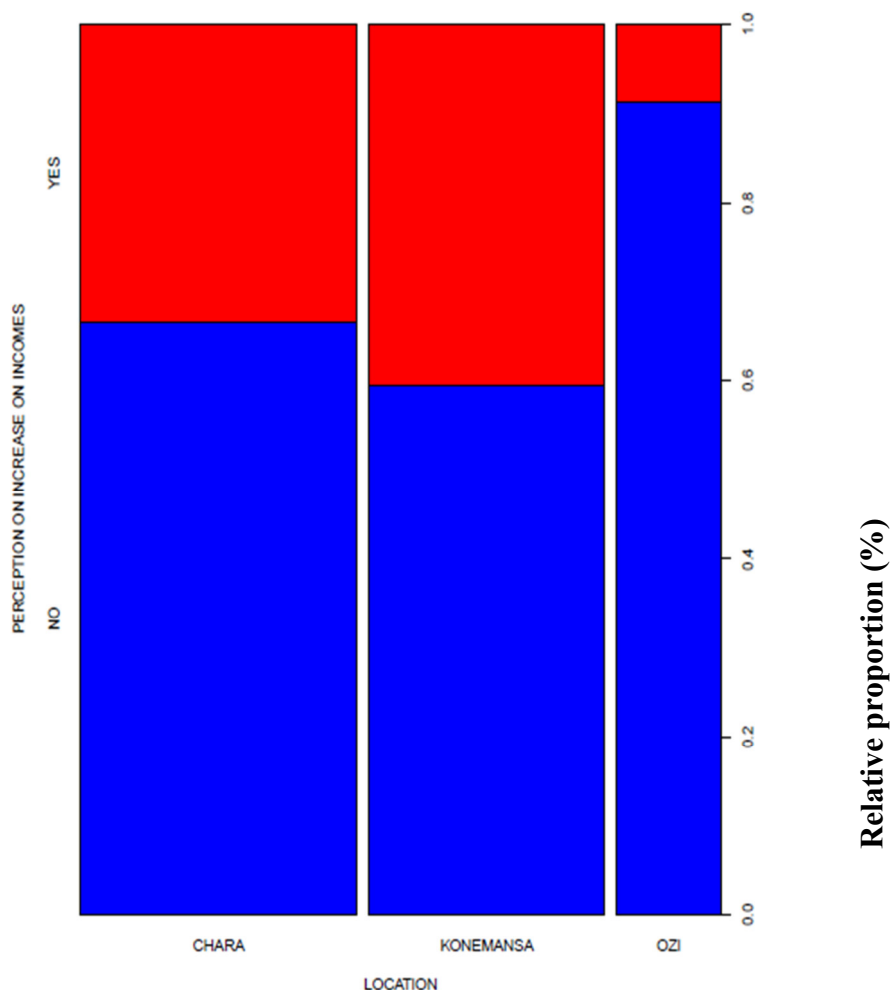


Figure 5: A figure showing perception of respondents’ on increased income as a result of establishment of the conservancy in the different administrative locations in which respondents perceptions were (Yes) Red and (No) Blue.

From the results in figure 5 above, Most of the respondents in Ozi location (92%) indicated that their income had not changed as a result of the establishment of the conservancy compared to respondents in Chara (65%) and Konemansa (59%) locations. In the three locations, among the respondents who perceived that their income had changed as a result of the conservancy; majority were in Konemansa (41%) followed by the respondents in Chara (35%) then Ozi (8%).

Discussion

The results imply that most of the respondents in all the three locations are aware of the existence of the Lower Tana Delta Conservancy. The high level of awareness could be due to the Lower Tana Delta Conservancy board comprising of members from all the three locations who are democratically elected from the villages. According to one of the key informant from Chara location (R 04);

“Lower Tana Delta Conservancy board conducts quarterly awareness meetings and annual general meetings to create awareness about the conservancy projects and programmes.”

The finding is supported by the study by Northern Rangelands Trust (NRT) (2007) who observed that awareness is being created through peer process by visiting existing conservancies, where community members interact with Board and management and discuss challenges and opportunities of the conservancy model. In fact, Bennett and Dearden (2013) notes that inclusivity is a prerequisite to good governance that is promoted through legitimacy, transparency, accountability, equity, coordination, capability, and adaptability. Bennett and Dearden (2013) further assert that the success of a conservancy is determined by community’s perceptions of the impacts that are experienced by local communities and opinions of management and governance.

Although the awareness about the existence of the conservancy is high, the findings show that most of the respondents rate board of management influence as moderate. The average rating by most of the respondents

could be due to lack of capacity in terms of education level of the committee members which hinders the understanding of conservation issues. Another reason that could have resulted to the moderate rating of board members is the limited funding to implement conservancy activities and projects. As expressed by one of the Key informant (R 02);

“The conservancy covers an area of about 50,000ha and 15,000 people across the three locations of Chara, Ozi and Konemansa with annual budget of about KES 4 million. This limits the effective implementation of the conservancy activities by the board to cover the expansive conservancy area.”

In line with the above information the conservancy’s main challenge is adequate funding to implement the projects. African governments find it difficult to fund community conservancies adequately and thus they are facing severe threats from poaching and human encroachment (Lindsey *et al.*, 2014). In fact, the little funding for community conservancies comes from donors in and outside the country. Funds are important for the initiation of community projects that promote development of the society; therefore if the projects are not sufficiently funded they may not achieve the objectives. Muhumuza and [Balkwill](#) (2013), further argue that community perceptions about the influence of governance may be negative if the benefits are only enjoyed by few individuals who are close to the leaders.

The perception on the contribution of the tourism sub-committee to community livelihoods was generally low. This might be because of poor marketing skills by the sub-committee. A similar study by Saarinen (2010) and Lacey (2015) in Namibia found that tourism had significant contributions to the economic welfare of rural residents through provision of employment from the revenues collected. Ashley (2000) argued that a well capacitated conservancy management committee can be able to generate enough money to cover operating costs such as salaries, office maintenance, and other operation from tourism. Ashley (2000) further noted that a conservancy that does not invest and rely on donors in the long run won’t be economically viable and as a result conservation in those areas would not succeed.

There was mixed perceptions on contribution of the peace sub-committee in community’s livelihoods. Generally, the respondents rated the contribution as moderate and no contribution. The low perception could be because the peace sub-committee is incapacitated in terms of staffs and education to handle a wide variety and complex issues. According to focus group discussants, resource-use conflicts tend to increase during the dry spell and since the conservancy covers three locations the staffs takes a lot of time to resolve the issues. As expressed in the following statement; during the dry season there is a high demand for the little pasture and water that is available in very few places. This situation makes the pastoralist quarrel as everyone wants the best for their animals. When all this cases are reported to the authority, they became very many to be handled within the required time because of few staff members who can resolve the conflicts amicably.

The main activity of the conservancy is natural resource conservation and management, nevertheless, the conservancy also supports the local community in their livelihoods development. The conservancy has a livelihood component as one of its core objectives. Therefore, the presence of the Lower Tana Delta Conservancy has had positive household-level effects on communities’ wellbeing. The provision of bursaries, improving infrastructure, study tours and revolving fund to support youth and women to undertake income generating activities (IGAs). This has helped greatly towards improving livelihoods and education standards in the study area. This is further expounded by a key informant interviewee (R 01) from Chara, who narrated that:

“The LTDC provides bursaries to the needy students in the Kenya Certificate of Primary Education (KCPE) examinations every year in each of the locations and has employed Early Child Development (ECD) teachers.”

The finding from the household questionnaires also supports the perceptions of the key informants that indeed the conservancy contributed to education positively. Therefore, the conservancy through this livelihood component supports the community in achieving better education for their young people.

On further probing the respondents were asked to state the specific benefits accrued from the conservancy. This study reveals that local community members have benefited from the community conservancy. There was a significant difference among the perceptions of the participants across the three locations. One of the key informant (R 08) explained;

“The community members benefit from the conservancy as it provides employment, protecting the environment, promotes peaceful coexistence, advocates for land rights of the community.”

The information from households’ questionnaires also agrees with the key informant opinion that the conservancy has brought peaceful coexistence among community members. The local communities of Orma (pastoralists) and Pokomo (farmers) have previously been in perennial conflicts dating back to the 19th Century and most recently in 2013 (Kirchner, 2013). According to the focused group discussant, the conservancy has built bridges and comprises the ethnic Orma and Pokomo communities who own the conservancy. Further the discussants explained that the conservancy acts as a tool for advocating peaceful coexistence among the community members and the benefits accrued from the conservancy are shared among the communities equally thereby building community support. In addition, the conservancy has joint activities including annual football

tournaments for the youths (Orma and Pokomo) that bring peace and social cohesion in the region. The findings of this study are also similar to those of Glew *et al.* (2010) who noted that households living in conservancy communities have higher increase in empowerment than their counterparts who do not participate in community conservation.

The finding of this study is in line with those of Agrawal and Perrin (2009) who acknowledged that the contributions of conservancy to livelihoods of the local community are well known. Agrawal and Perrin (2009) further adds that conservancy contributes to the community in terms of job creation (employment of community rangers, managers and accountants), building of peace and security, promotion of ecotourism, support to education (bursary allocation), natural resource management and enterprise development.

The respondents' opinion across the locations is that the conservancy had low contribution to the income of the community members. This might be due to the fact that the conservancy targets the general social welfare of the community rather than direct monetary benefit to the community.

Conclusions

The study concludes that institutional governance contributes to community livelihoods. The researcher established that the governance of committees such as tourism committee and board of management committee contributes to community livelihoods through their activities. Finally, the study concludes that there were benefits accrued from the conservancy. The communities from all the three locations of Chara, Ozi and Konemansa are aware of these benefits of LTDC to the community such as promotion of education through bursaries provision, improving infrastructure, provision of employment opportunities and peace coexistence.

Recommendations

1. There is need to build capacity among the local communities in order to empower them for the day-to-day management of the conservancy. Given the high illiteracy level in the study area, it is recommended that the Lower Tana Delta Conservancy and associated partners invest more in formal education and training to help promote good governance and management of the conservancy.
2. To make Lower Tana Delta Conservancy a sustainable investment, it is important that the local communities' attitude towards natural resources as the most central component be enhanced by avoiding situations that may undermine the co-existence between humans and wildlife.

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