

Project Update: November 2019

Brief Description

Tarangire-Manyara Ecosystem (TME) is among areas that have diverse biodiversity found both within protected areas and adjacent community lands. Apart from diverse of wildlife in the area, there is increase in human population, especially the pastoral communities who highly depend on wildlife resources for their existence. Therefore, human-wildlife interaction is inevitable in the area that accelerate to human-wildlife conflict. On the project of understanding community attitude towards the effect of retaliation, the villages surrounding Tarangire-Manyara Ecosystem were all surveyed using questionnaires and discussions.

There is a great variation in attitude of the people living in TME based on the historical record of either retaliation has ever occurred or not within their village areas. Moreover, factors such as education levels, age groups of the participants also influence ones feeling and opinion regarding lion killings and their conservation.

Awareness and attitude of the community on the rate of wildlife attacks

Respondent reported there is an increase rate in wildlife problem that are caused by carnivores lead by hyaena in the field and boma. Most people have claimed that hyaena have increased in the village areas due to the presence of Wildlife Management Areas, WMAs, that keep and protect wildlife hence leading animals to move freely in the areas that they used to fear. Moreover, people feel that wildlife are given much protection thus why they cause massive attack on livestock and threaten humans, also the use of poor livestock enclosure has accelerated loss of livestock by hyaena. While some claimed there is a decrease in wildlife problems especially those caused by lions in the boma as they usually follow the migration of herbivores (zebra), which often are not sighted because of drought and hunger. In addition, the decrease was associated with increase in human settlement into areas that were utilised by wildlife as dispersal areas, hence preventing predators such as lions to migrate across. Also, in some villages were support of building fortified livestock enclosure using chain-link fence has helped to decrease livestock attack by lion and hyaena.

A chi-square test of independence was performed to test the relationship of the independent variable with the dependent variable of the rate of the problem were education ($\chi^2 = 14.9$, $df=6$, $p<0.05$) thus individual that were illiterate 74% perceived more increase of the rate of wildlife problems than individual that had primary 59%, tertiary 50% and secondary education 42%. Also, gender ($\chi^2 = 10.8$, $df=2$, $p<0.05$) showed significant association, were male 76% perceived an increase in wildlife problem more than female 54%.

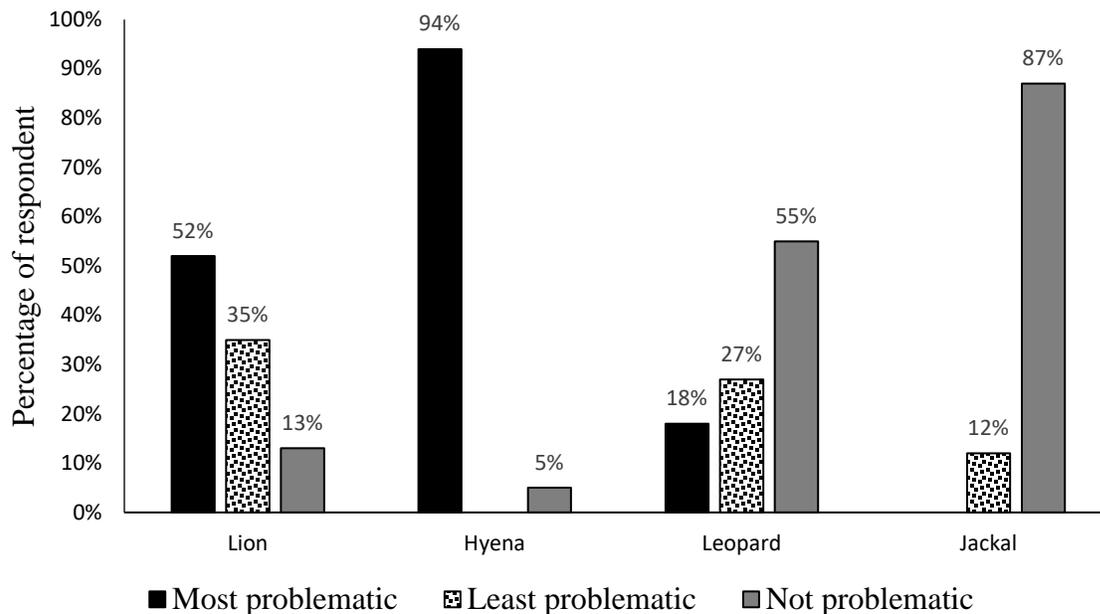


Figure 1: Depicts the rate of livestock attacks by different carnivores as they were able to be identified by the community during interview

Knowledge of the community on lion population trend

Many respondents feared to admit that actions of retaliatory killing have impacted the lion population. As they claim to say that only few individuals within a group are killed and not all of them. From the survey respondents think lions give birth spontaneously some said like dogs and so they are many lions at present because they are no longer killed. Some respondents claimed that lion population has decreased as they have not caused livestock attack in the houses for about 2 years and in rare cases on the grazing areas when the herder leaves the cows scattered. Others thought that lions are scared and aware that killing livestock is bad and may lead to them been killed. A total of 47 respondents did not know whether population of lions has increased or decreased and only 20 individuals could not respond to these at all. There was a significant variation in the perception of lion population trend by the occupation ($\chi^2= 24.1$, $df=8$ and $p<0.05$). Other independent variables were insignificant.

Attitude of the community towards lion existence, lion killing and effect of retaliation

More than half of the respondents had a positive attitude towards lions and other wildlife existence. They acknowledge that wildlife presence has led to natural resource protection and increased tourism activities within their villages. Often, suggested that wildlife should be restricted in the protected areas not to migrate into human dominated landscape. Nearly half of the respondents, 45%, answered that wildlife should be punished when they attack livestock, although they are fully aware that it is not allowed. Only 32% of the respondents had suggested that all wildlife should be translocated and if possible, killed, this is attributed by respondent experience on loss of livestock with no realistic compensation. A total of 80% of the respondents claimed to have not heard any

event of lion killing in the village areas over the past five years, in contrast to what was reported by key informants and other NGOs.

Our index of internal reliability (Cronbach's α) was 0.602, lower than the ideal cutoff value of 0.7. This suggests that 60.2% of the variability in our attitude data represents the true score of what we measured.

The above are some findings that will be used in publication of the work that is current been written, and the full manuscript will be shared in the near future soon after the paper has been accepted.

Upcoming activities

- Manuscript writing.
- Report on lion survey.