



Research Article

Socio-Economic Impact of Human-Wildlife Conflict: A case study conducted among the frontline community of Malakkapara, Kerala

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| Abstract | Manuscript Information |
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| <p>The phenomenon of human-wildlife conflict has emerged due to the increased population rate, which leads to an increased need to balance and satisfy the resource demands of both animals and humans in common. Because of increased resource usage, especially in the post-industrial era, there is constant conflict between humans and wildlife. The article provides information about the socio-economic impacts of human-animal conflict among the frontline community of Malakkapara, Thrissur, a district situated in the middle of Kerala, India. A case study was conducted among ten members of the community through focus group discussion and the survey method among 150 community members over a period of three months. The analysis explains that there is socio-economic depredation in the community, and the most impacted is the economic stability of the frontline community in the area. The identification of the reasons affecting the conditions showcases that there should be proper protective infrastructure in the locality from the animal attack that can be a better cause of action, together with the collaboration of the state and the central government along with the local self-government of the area.</p> | <ul style="list-style-type: none"> ▪ ISSN No: 2583-7397 ▪ Received: 04-09-2023 ▪ Accepted: 29-10-2023 ▪ Published: 02-11-2023 ▪ IJCRM:2(6);2023:01-06 ▪ ©2023, All rights reserved ▪ Plagiarism Checked: Yes ▪ Peer Review Process: Yes <hr/> <p>How to Cite this Manuscript</p> <p>Ann Julie Fredy, Joby Mathew. Socio-Economic Impact of Human-Wildlife Conflict: A case study conducted among the frontline community of Malakkapara, Kerala. <i>International Journal of Contemporary Research in Multidisciplinary.</i> 2023; 2(6):01-06.</p> |

Keyword: Human-animal conflict, frontline community, socio-economic impacts, infrastructure

1. Introduction:

The phenomenon of human-wildlife conflict has developed due to the increased population rate and urbanization, which have led to an increased need for resources to satisfy the demands of both animals and human beings in common. Because of increased resource usage, especially in the post-industrial era, there is

constant conflict between humans and wildlife (Peterson et al., 2010). This increased conflict between the stakeholders made it difficult for both humans in terms of livelihood loss, loss of life, habitat loss, etc., and for the animals in terms of their life loss (Fjeldså, 2006). Thrissur is termed the cultural capital of Kerala,

India, with a total population of 3,121,200 people, according to the 2011 national census report of India. Malakkapara is a hill station in the district of Thrissur in Kerala, which is on the border between Kerala and Tamil Nadu. The study is conducted among the frontline community of Malakkapara, whose frequency of being attacked by animals is higher.

Frontline communities are those communities of people who face the challenges of issues with extreme intensity, and they will have the extra-ordinary capacity to show resilience (Sumner & Kinsella, 2021). The human-animal conflict has severe impacts on the frontline community in the form of crop depredation, property damage, human injury, and often human killing, and the suffering of these people will be greater when the impact is high (Sekar, 2013). The features and attributes of the people who are more prone to conflict with the animals are different from those who have a problem-free environment. The cost of living and the rate of poverty will be high for the frontline community to have constant interaction with the wildlife, which will affect the health concerns of the people (Senthilkumar et al., 2020).

Human-animal conflicts are interactions or actions occurring because of the sharing of landscapes and resources by the people and the wildlife, which result in being harmful to either one of the species (Parathian et al., 2018). These conflicts have increased the need to pay attention to the biological, cultural, economic, political, social, and physical intersections, which are dominant effects that counterpoint human life as well as that of other species (Aisher & Damodaran, 2016).

2. Methods

The study conducted among the frontline community of Malakkapara incorporated different types of recruits for the data set. The study used simple random sampling for the household survey and also focused group discussions to collect information about the socio-economic impact of the people affected by human-animal conflict.

The simple random method is the probability sampling method, and while studying a target group, the probability sampling method provides a wider breadth of data, which could add more liability to the findings (Etikan, 2017).

The study incorporated a focus group discussion (FGD) to generate rich qualitative data about the socio-economic impact of the frontline community that lives in conflict with wildlife. FGD is appropriate for research in a community setting. It stems from the storytelling ability of people about their drastic conditions (O. Nyumba et al., 2018). It allows the researcher to generate more information inductively.

3. Results

Considering the scenario in India, the human-wildlife conflict is more common in rural areas where the constant contact between humans and wild animals is comparatively high considering the other locations of the country, and the conservation of the rural household is given priority. According to data collected from 5196 households in 11 wildlife reserves in the country, human-wild animal conflicts have severe impacts on crop damage, human casualties, and livestock losses, and elephants, tigers, and wild pigs (Gulati et al., 2021) cause most of the damage. Severe

crop damage was caused by wild animals in the district of Thrissur from 2009 to 2012 due to the acquisition of forestland and the movement of wild animals from the forest area to the mainstream. 10 species of wild animals destroyed 11 crops, which caused tremendous economic loss to the farmers throughout those years. Protection measures such as electric fences, chili rope fences, and yellow-colored plastic sheet fences (Greeshma et al., 2016) While conducting the study in the proposed area, out of the 150 respondents from Malakkapara, 86% (n = 129) responded that they are facing the socio-economic impacts of human-wildlife conflict in the area. The rest of the respondents, 21 (n = 21), have said that they are not affected by the social and economic impacts in the locality due to the conflict.

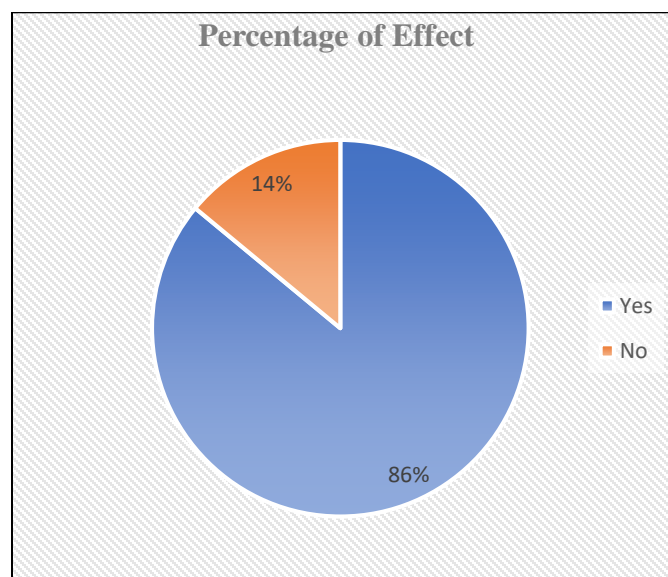


Table1: Effect of Socio-Economic Impact

According to the frontline community of Malakkapara, the most impacted aspect of human-wildlife conflict in the locality is the economic aspect. About 64.67% (n = 97) have responded that they suffer more economic instability than any other loss. The least affected aspect of society is culture, according to 6.67% (n = 10).

As per the words of a native man,

“It is very difficult for the lower-class people in the community who work in the plantations to overcome the situation of the financial crisis after they face wildlife attack”.

(Focus Group Discussion conducted among the community members aged above 40 dated 29th May 2022).

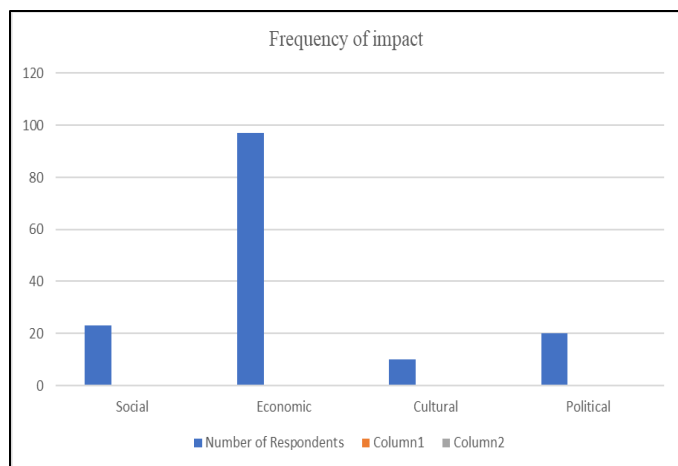


Table 2: Frequency of Impact

The natives of Malakkapara responded that the main cause of economic liability for the people in the locality is crop depredation, according to 76.67% (n = 115) of respondents from the area. The community relies mostly on agricultural farmland, so the destruction of these areas makes them struggle because of low productivity and financial insufficiency.

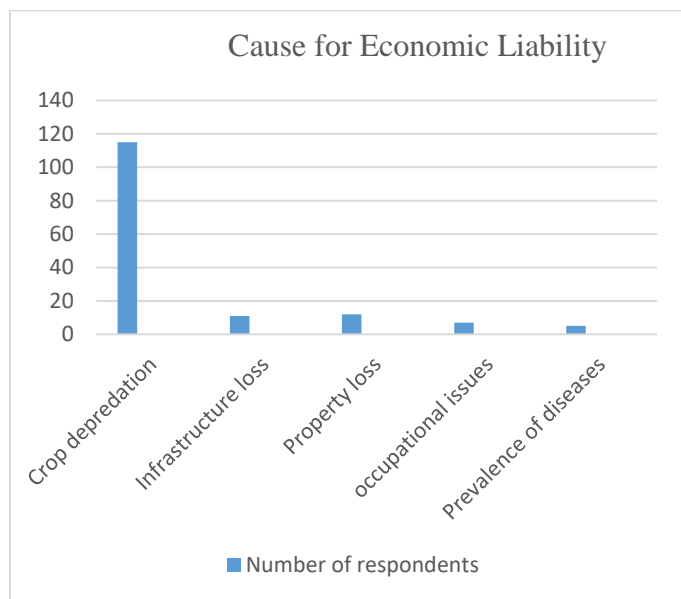


Table 3: The primary cause of Economic Liability

When we look into the reason for human-animal conflict, one of the major factors is the crop depredation by the animals, because farming and cultivation are the main occupations of the people living near the forest locality.

The factors determining the extent of human-animal conflict in the locality are categorized under different aspects, such as crop damage, livestock depredation, human life loss, property loss, and infectious diseases. The majority of the households in the locality have responded that the major factor that explains the extent of human-wildlife conflict in Malakkapara is crop damage, which constitutes 58% (n = 86) of the total respondents.

Also, 21% (n = 32) said that livestock depredation is also considered a factor to determine the extent of human-wildlife conflict, followed by property loss, which was responded to by 11% (n = 17) of the respondents, and 10% (n = 15) responded that infectious disease is also a factor to determine the extent of human-wildlife conflict.

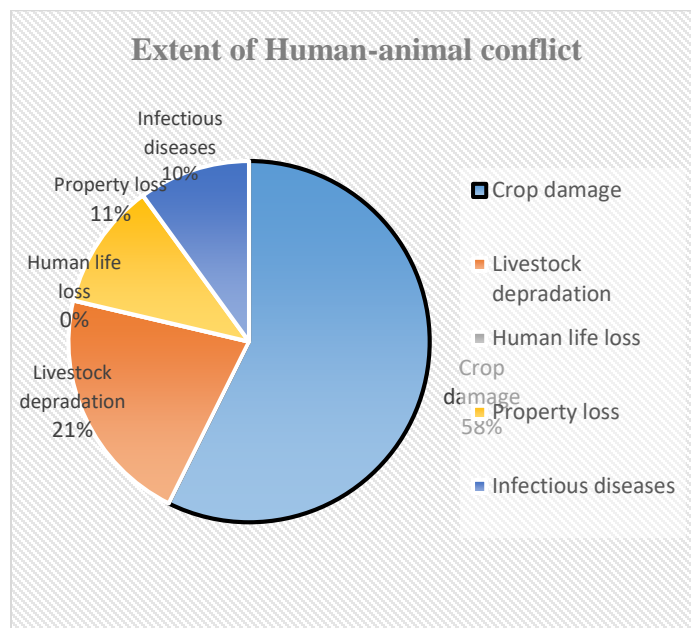


Table 4: Extent of human-animal conflict

Out of the 150 households, 48.67% (n=73) responded that they are burdened with financial crisis most often and it affects their monthly budgeting and expenditure pattern. Also, 36% (n=54) said that they sometimes face financial insecurity due to human-animal conflict in the area.

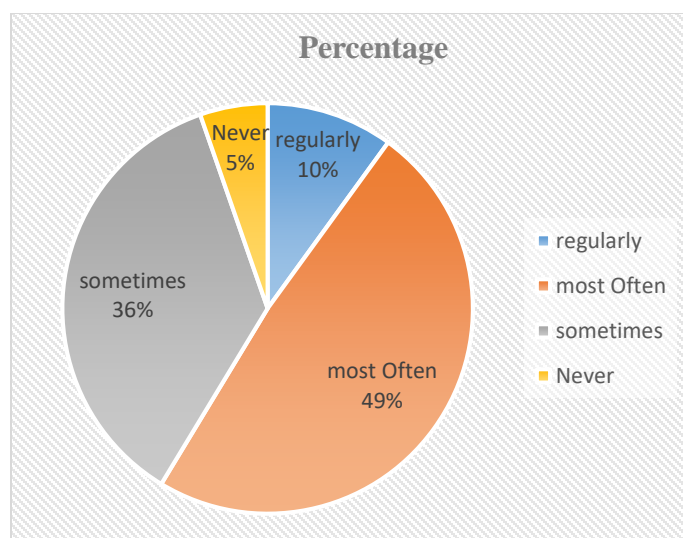


Table 5: Frequency of financial burden caused by Human-Animal conflict for the community people.

As per the response of the households in Malakkapara, 44% (n = 67) have said that they face a financial liability of more than Rs. 20, 000 whenever they are subjected to it. The amount of the financial crisis depends on the extent of the losses that occurred in the community.

According to the natives of the tribal community,

“We face financial loss in our locality mainly because of the crop loss and also due to physical ill health caused by animal attacks.”

“The plantation workers do not go to work daily because they are feared of elephants and tigers on the estate.”

(Focus Group Discussion conducted among the community members aged above 40 dated 29th May 2022).

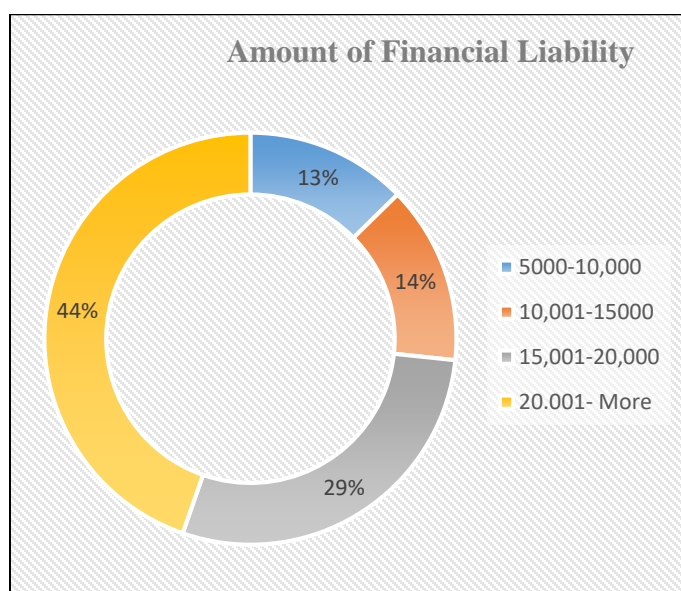


Table 6: The range of financial burden for the community people

Out of the 150 households taken for participation, 58% (n = 87) have responded that the financial crisis severely affects their mental health and is a real stress in their lives. The phenomenon of substance abuse has been seen among youngsters in the locality recently, and this negatively affects the health of the people.

According to the community people,

“Alcohol use is also common in our locality among the youth, which is found to be a stress relief for them from the disturbances of the conflict.”

(Focus Group Discussion conducted among the community members aged above 40 dated 29th May 2022).

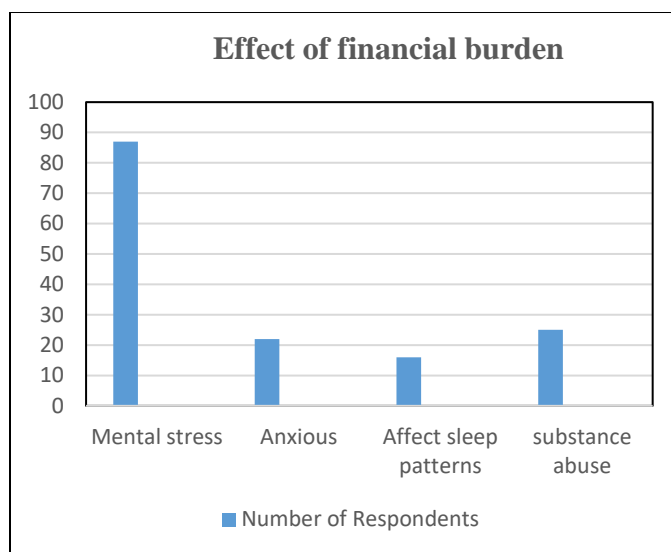


Table 7: chart showing the impact of financial liability to people.

The frontline community of Malakkapara, which faces constant attacks from wildlife, compensates for the financial crisis they face mainly with financial aid from the banks and through microfinance.

Community people rely on microfinance more, according to 62% (n = 93) of respondents from the area, and according to them, government support is meager to compensate for the financial crisis. Only 3% (n = 5) said that they were satisfied with the government's support.

According to the community member,

“The projects and plans proposed by the government do not provide justice to us, they are not implemented properly.”

(Focus Group Discussion conducted among the community members aged above 40 dated 29th May 2022).

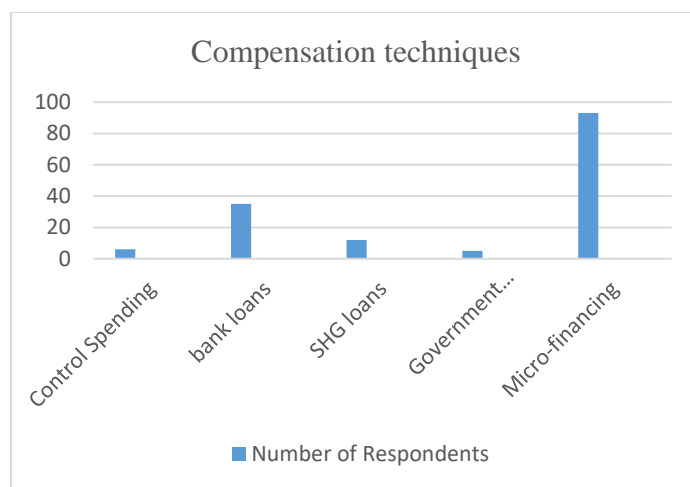


Table 8: The compensation techniques employed by the people.

Out of the 150 households taken for study, 53.33% (n = 83) said that the most pressing social issue is the destruction of their living infrastructure, which in turn paves the way to an economic crisis for the low-paid people in the locality. Only 9.33% (n = 29) responded that they have issues with community safety.

According to a tribal community member,

“It is very difficult for us to send our children to schools because of wild elephants’ hindrance in the ways and the schools are about 90kms away from our locality and it makes it difficult for our children to acquire even primary knowledge.”

(Focus Group Discussion conducted among the community members aged above 40 dated 29th May 2022).

| Issue | Number of Respondents | Percentage |
|-----------------------|-----------------------|------------|
| Education | 23 | 15.33% |
| Transportation | 15 | 10% |
| Living Infrastructure | 83 | 53.33% |
| Community Safety | 29 | 19.33% |
| Social Stigma | Nil | 0% |

Table 9: Social impact of Human-Animal Conflict

The human-animal conflict in the locality of Malakkapara is a severe threat to the interaction among the community members, and it decreases their leisure time. Social gatherings and associations with the people are minimized, causing inequalities among the community members.

The people were very enthusiastic to answer, “*What are the factors that affect their social life in the community?*” as they shared those feelings from their experiences.

4. Discussion

The study found that there is financial instability for the community members, and the main cause of the liability is crop depredation, as the major occupation of the people in the community is farming, and some of them also work in the tea plantations. The crop depredation in the community makes it difficult for the people who sustain a living, as they depend mainly on farming coconut, areca nuts, coffee, and pepper. Due to the presence of tigers on the tea plantations even in the morning, the workers are afraid to move out for work. This difficulty affects the economic condition of the family to meet daily expenses such as groceries, energy bills, etc., as well as clearing debt.

The financial instability caused by the conflict is solved by the people themselves through microfinance and bank loans, as the authorities paid less attention to the losses in the locality. The households are not satisfied with the level of complementing the financial crisis with the daily needs of the people.

One of the problems experienced by the frontline community is with the social interaction and social gatherings in their locality. Due to the constant presence of wild animals in the locality, there

is reduced freedom of movement and exposure to institutional inequalities, which affect the interaction capacity of the people with their fellow beings. However, the government authorities do not take any measures to ensure personal as well as community safety in the place. Because of this, the frontline community itself opts for their own measures to tackle the problem through different resilience methods. These improper control measures have indirectly affected economic conditions as well. Those conditions are the result of improper working patterns and the loss of cultivation that makes it difficult for people to satisfy their basic needs.

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