



Examining People's Perceptions of Elephants in the Context of Human-Elephant Conflict in Aceh Selatan, Aceh, Indonesia

Cut Nurmaliah^{1*}, Gina Yulia Putri¹, Abdullah Abdullah¹, Dewi Andayani¹,
Aries Munandar¹, Samsul Muarriif²

¹ Department of Biology Education, Universitas Syiah Kuala, Banda Aceh, Indonesia
² Research Centre for Elephant and Biodiversity Conservation, Universitas Syiah Kuala,
Banda Aceh, Indonesia

cutnurmaliah@usk.ac.id

Abstract. Elephants are animals with wide home ranges, so they need routes to move from one home range to another. The increase in population has reduced the home range for elephants, especially in Sumatra. This causes negative interactions between elephants and humans. Therefore, it is necessary to understand people's perceptions of elephants to overcome these negative interactions the research was conducted through interviews with people affected by these negative interactions. The location of this study comes from Trumon Tengah District, South Aceh, from 5 villages, namely Naca Village, Ie Jeureuneh Village, Jambo Papeun Village, Ladang Rimba Village, and Pulo Raya Village. Respondents were determined by purposive sampling of 30 respondents, comprising six respondents from each village. The results of this study contained two topics, namely Negative Perceptions of Human and Wild Elephant Conflict, Respondents stated 66.67% agreed (S) that elephants are plant-eating animals when entering land, and respondents stated 53.33% agreed (S) that elephants are crop-destroying animals. As well as Perceptions of Negative Treatment of Wild Elephants, Respondents stated 70% agreed (S) that elephants were evicted if they entered community land, and respondents stated 75% strongly disagreed (STS) if traps were made to prevent elephants from entering community land.

Keywords: Human-elephant Conflict, South Aceh, People's Perception.

1 Introduction

Indonesia has a vast tropical forest with a very high level of biodiversity. These tropical forests have served as a refuge for various animals and biodiversity. However, the increase in the number of people who depend on these forests has led to massive clearing of forests for plantations and caused significant fragmentation [1].

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Fragmented forests will significantly disrupt the activities of large animals such as elephants, tigers, rhinos, and bears. Elephants, for example, need large home ranges to find food and mates. However, forest fragmentation will hinder the ability of elephants to explore. The expansion of human settlements and agricultural areas has also reduced forest connectivity, resulted in habitat loss, and increased the impact of negative human interactions on elephant populations [2]. This impact results in frequent conflicts, ranging from damage to crops to human casualties due to interactions with elephants and abuse of the elephants themselves.

Elephas maximus sumatranus is an elephant found on the island of Sumatra and is one of three sub-species of the Asian elephant or *Elephas Maximus* [3]. The conversion of forests to plantations has divided the habitat for animal populations inhabiting Sumatra forests, including elephants [1]. Habitat fragmentation can increase the risk of extinction of animals, such as elephants, which require large areas as a habitat for food and mating partners [2]. Reduced elephant habitat causes elephants to leave their habitat and interact with humans, which can have positive and negative impacts.

One of the locations in Sumatra where fragmentation of the Sumatran elephant habitat has occurred is South Aceh District. This district is included in the province of Aceh and is part of the Leuser Ecosystem Area. This habitat fragmentation causes frequent interactions between elephants and humans in this area. Therefore, this research was conducted in this area to understand people's perceptions of elephant-human interactions, both positive and negative interactions.

Understanding public perceptions of interactions between elephants and humans is expected to be the basis for efforts to deal with and reduce negative interactions between the two parties and will save more individuals among elephants and humans. Furthermore, understanding these perceptions can be a long-term first step in addressing negative interactions between elephants and humans.

2 Method

The sample for this study was the people of Trumon Tengah District, South Aceh, from 5 villages, namely Naca Village, Ie Jeureunch Village, Jambo Papeun Village, Ladang Rimba Village, and Pulo Raya Village. The selection of the five villages as research locations was that the five villages were directly adjacent to the forest, had experienced conflict with elephants, and were close to the elephant conflict mitigation handling center, namely CRU Trumon. In addition, the location is also in 1 home range which is connected to a location that is currently in conflict, so there is a potential for elephant conflict to occur.

Respondents were determined by purposive sampling of 30 respondents, comprising six respondents from each village. The selected respondent criteria are people of female or male gender with an age range of 18-65 years, people who own land as elephant habitat points or elephant home ranges, people who have experienced conflict with elephants and are affected by the conflict the people who have the potential to conflict with elephants, as well as community leaders and village heads.

This study used a closed questionnaire using four answer choices. This research is divided into two indicators: people's perceptions of human-elephant conflict and community mitigation of human-elephant conflict. Indicators of public perception of human and elephant conflict consist of negative public perception of wild elephants, positive public perception of wild elephants, public perception of the treatment of wild

elephants, and community perception of losses due to conflict adapted from [4] and added to perceptions the community about the role of officers and the existence of CRU Naca. Meanwhile, community mitigation indicators for human and elephant conflict indicators were adapted from [5].

The collection of public perception data was carried out through guided interviews using a questionnaire guide. This was done to help direct respondents in filling out the questionnaire and to make it easier for the public to understand every aspect of the statement.

3 Results and Discussion

3.1 Negative Perceptions of Human and Wild Elephant Conflict

Respondents stated that 66.67% agreed (S) elephants are plant-eating animals when entering the land, and respondents stated 53.33% agreed (S) elephants as plant destroyers. These results can be seen in Fig. 1.

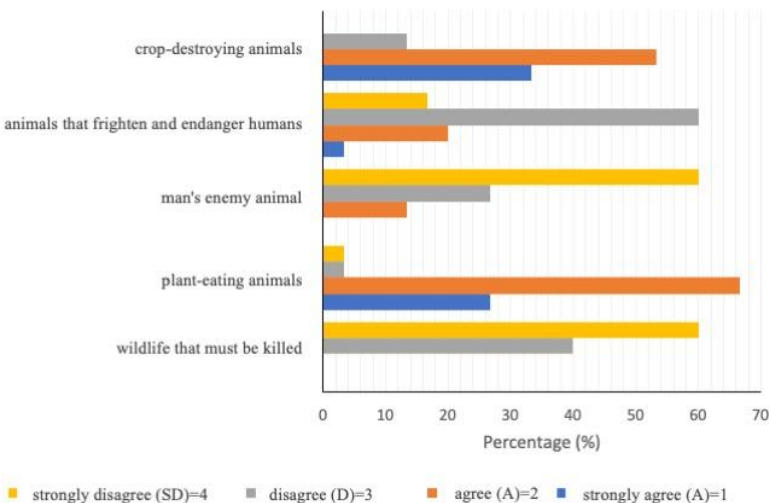


Fig. 1. Negative perceptions of human and wild elephant conflict

The arrival of elephants in the community's agricultural and plantation areas, which damaged cultivated plants, created a negative perception of the community towards elephants. The community agrees that elephants are plant-destroying animals. This perception arose based on the community's experience when the arrival of elephants would damage crops due to elephant tracks or if elephants rest in the area and eat crops so that the community suffers losses [4]. Meanwhile, the determination of the arrival season of elephants cannot be predicted [6], [7]. In general, the arrival time of elephants on community land is at night in the range of 20.00-02.00 WIB [8], [9].

The negative perception of the community shows that the community strongly disagrees that elephants need to be destroyed. The results differ from research [4], where as much as 70% of the public agrees that elephants are wild animals that need to be destroyed, and 90% think elephants are enemies to humans. The community's perception was influenced by the role of officers and the presence of CRU Naca in resolving and mitigating conflicts in the Trumon Tengah District.

3.2 Perception of Negative Treatment for Wild Elephants

Respondents stated that 70% agreed (S) elephants were evicted if they entered community land, and respondents stated 75% strongly disagreed (STS) if traps were made to prevent elephants from entering community land. These results can be seen in Fig. 2.

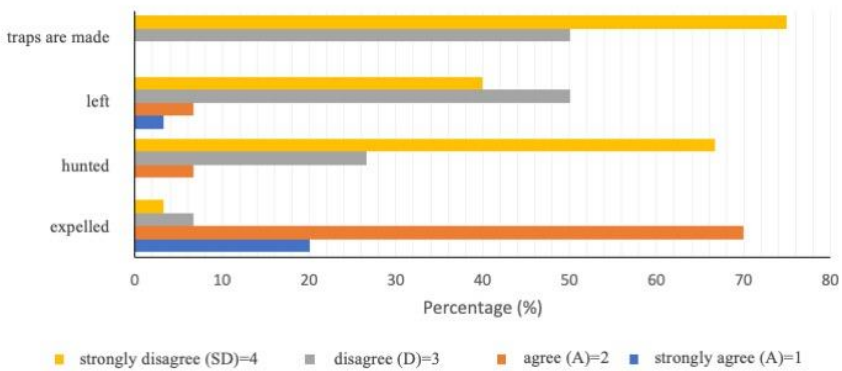


Fig. 2. Perception of negative treatments for wild elephants

The majority of people strongly disagree about elephant hunting activities. Poaching of elephants or other animals occurs in society due to demand through illegal sales (black market) of elephant ivory at high commercial prices so that it becomes a quick source of income for the community to boost the economy. Meanwhile, the community generally disagrees and strongly disagrees that elephants are trapped because the community already knows that elephants are legally protected animals.

The community strongly agreed that elephants should be expelled if they entered community land. The purpose of expelling the elephants is that such crops on agricultural land and plantations are well protected. The expulsion of elephants that are not following proper procedures will cause harm to both the animals and the humans themselves. One of the further stages of the expulsion of elephants, based on the results of an interview with Syarkhawi as a mahout at CRU Naca, is by escorting them using tame elephants brought from CRU Naca to the conflict location to return to the forest. Using elephant patrols to overcome human and Sumatran elephant conflicts is a practical action both ecologically, economically, and socially [9].

4 Conclusion

The Trumon Tengah District community exhibits a complex perception towards elephants. While they recognize the damage elephants can inflict on agricultural lands, they do not advocate for harmful retaliatory measures. Instead, the majority supports non-lethal interventions, such as eviction. This nuanced understanding is a departure from previous findings where elephants were largely viewed as adversaries. The influence of entities like CRU Naca in shaping these opinions cannot be understated, highlighting the transformative power of awareness and engagement initiatives.

In addition, the widespread community sentiment against trapping and hunting signals an appreciation for the elephants' protected status and the legal implications of harming them. This humane inclination, demonstrated by the preference for using tame elephants to guide their wild counterparts away from conflict areas, underscores the potential for harmonious coexistence and emphasizes conflict mitigation approaches that value the safety and well-being of both humans and elephants.

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