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SOCIAL CHANGE IN LOCAL PERSPECTIVE: WILD ANIMAL QANUN AND ELEPHANTS IN CRU ACEH, INDONESIA

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ABSTRACT

Social change in local communities is often influenced by legal frameworks and conservation efforts. This study examines how Qanun No. 11 of 2019 on Wildlife Management and the Conservation Response Unit (CRU) in Sampoiniet impact social change in Ie Jeureungeh Village, Aceh. This study aims to determine the social changes that occurred in Ie Jeureungeh Village. In addition, to find out the understanding of the residents of Ie Jeureungeh Village towards the wildlife Qanun. This research was conducted using descriptive qualitative method and focal animal sampling. The research subjects were 24 people with the technique of taking using purposive sampling technique. The study to determine the social changes that occurred in Ie Jeureungeh Village used 3 factors, namely, causative factors, pushers and inhibitors. The results showed that there were social changes that occurred in Ie Jeureungeh Village, and the people of Ie Jeureungeh Village tended to know about the wildlife Qanun.

Keywords: *Qanun; wildlife; sumatran elephant; cru*

INTRODUCTION

The Sumatran elephant (*Elephas maximus sumatranus*), a subspecies of the Asian elephant, plays a crucial role in Sumatra's ecosystem. However, its population has drastically declined due to habitat destruction, poaching, and escalating human-elephant conflicts. Once numbering between 2,800 and 4,800 individuals in the 1980s, the species was classified as Critically Endangered by 2011 (Abdullah et al., 2012, 2019; Hedges et al., 2005; Koenig, 1957; Kuswanda, 2018; Rodríguez et al., 2011; Soekanto, 1982). In Aceh, frequent conflicts arise when elephants enter farmland, leading to economic losses and retaliatory killings. In response, conservation efforts such as the Conservation Response Unit (CRU) in Sampoiniet, Aceh Jaya, were initiated through collaboration between government agencies and conservation organizations.

This study examines social change in local communities affected by human-elephant conflicts, focusing on shifting perceptions, adaptation strategies, and conservation efforts. By analyzing the role of regional policies, such as Aceh's *Qanun* No. 11 of 2019 on Wildlife Management, this research highlights how local governance, traditional knowledge, and external conservation initiatives shape community responses. Understanding these dynamics is essential for fostering coexistence between humans and elephants while ensuring sustainable conservation efforts.

The conflict between Sumatran elephants (*Elephas maximus sumatranus*) and humans has triggered significant social changes within local communities, particularly in Ie Jeureungeh Village, Aceh Jaya. Social change in this context refers to transformations in values, norms, and organizational behavior that shape interactions within the community (Abdullah et al., 2019; Rahmatan et al., 2022). These changes are often categorized into planned and unplanned social changes, each with distinct implications for community adaptation and resilience.

Planned social change occurs through structured interventions, such as the establishment of the Conservation Response Unit (CRU) Sampoiniet in Ie Jeureungeh. This initiative aims to mitigate human-elephant conflict (HEC) by fostering coexistence strategies and promoting community-based conservation efforts. Research indicates that CRUs play a crucial role in reshaping local perceptions of wildlife, increasing awareness, and providing economic opportunities through ecotourism and alternative livelihoods (Jones et al., 2024; Qomariah et al., 2019; Yiamjanya et al., 2024). Consequently, these structured changes have contributed to shifts in attitudes, reducing direct retaliation against elephants and fostering a sense of environmental stewardship.

In contrast, unplanned social changes arise as immediate responses to escalating conflicts. The destruction of agricultural lands by elephants has led to economic instability, forcing farmers to modify their traditional practices or seek alternative sources of income (Abdullah et al., 2023). This shift has altered local social structures, with some communities resorting to deterrent methods that may conflict with conservation goals. Additionally, social cohesion is affected as differing viewpoints on conflict management emerge, sometimes leading to tensions between conservationists and local farmers (Ferdian et al., 2023).

Given the vital role of CRU Sampoiniet in addressing these socio-ecological challenges, it is essential to systematically document local perspectives on social change. Understanding how communities perceive and adapt to HEC can inform future conservation policies and ensure that interventions align with cultural and socio-economic realities (Slater et al., 2024). Thus, integrating local knowledge and participation in conservation initiatives is imperative for sustainable human-elephant coexistence in Aceh Jaya.

METHOD

This research was conducted in August 2022. The research location is in Ie Jeureungeh Village, Sampoiniet District, Aceh Jaya Regency, Aceh Province. The research method is descriptive and focal animal sampling (Klassen et al., 2012; Yuliani, 2018). Focal animal sampling method used to collect data on elephant feeding activity over a 10 minute time interval, so that the duration of behavior that appears during observation is obtained (Abdullah et al., 2009, 2019; Bosholn & Anciães, 2018).

The research subjects were 24 people, with the sampling technique using purposive sampling technique (Etikan et al., 2016). Data collection techniques are interview methods, observation methods and documentation methods. Descriptive data analysis, where the data will be presented in the form of tables and graphs as well as in the form of images.

RESULT and DISCUSSION,

Social Change in Ie Jeureungeh Village Community

The research was conducted based on 3 factors, namely the causative factor, the driving factor and the inhibiting factor. Based on the results of interviews that have been conducted with research subjects in Ie Jeureungeh Village, data on the factors of social change were obtained.

Table 1. Factors of Community Social Change

No	Causative Factors	Pushers Factors	Inhibitors Factor
1	The weather in Ie Jeureungeh Village tends to rain in certain months and causes flooding 3-4 times a year.	Interaction with the community, the community tends to interact with other villages	The traditional attitude of the community, there has been no outside influence that has changed the village customs in Ie Jeureungeh Village
2	Natural resources/products in Ie Jeureungeh Village are Rice, Rubber, Oranges, Cocoa and Chili.	Cultural elements carried out by the community in Ie Jeureungeh Village are Maulid Nabi, seunujoh and tahlilan	Access to information in the village, some say that access to information in the village tends to be difficult, and some say that access to information in the village is easy
3	Livelihoods in Ie Jeureungeh Village are Farmers, Wood Pelangsir and Fishermen	The education system in Ie Jeureungeh Village only has levels from elementary to high school	
4	Social Organizations in Ie Jeureungeh Village are Tuha peut, Pokdarwis (Group of Tourism Awareness)	Tolerance, from the results of interviews there are those who say that the people of Ie Jeureungeh Village lack solidarity with foreigners/minorities, there are also those who say that the people of Ie Jeureungeh Village have no problems interacting with foreigners, some are less aware of the tolerance of the people in Ie Jeureungeh Village.	

Based on Table 1. Social change can be defined as a process of change in social aspects, be it changes in values, attitudes and behavior as well as geographical and cultural aspects.

Figure 1. Interview for Communities Around CRU Sampoiniet Aceh Jaya

Social change in community life occurs due to the desire for transformation, either consciously or unconsciously, as a response to internal and external factors (Martono, 2012). Social change can originate from two main sources: random factors and systematic factors. Random

factors include climate changes, weather variations, or the presence of certain groups. Meanwhile, systematic factors involve deliberately created social changes, such as policy interventions or development programs aimed at improving community welfare.

The driving factors of social change include contact with other communities, cultural diffusion, an advanced education system, and the community's openness to innovation (Yuristia, 2017). In the context of Ie Jeureungeh, the role of education in reducing human-elephant conflict is a crucial aspect to consider. Increasing community awareness of elephant ecology and conservation can shift their attitudes toward wildlife. A study by (Abdullah et al., 2019) found that communities with better access to education tend to support conservation efforts more than those who rely solely on agriculture or hunting for their livelihoods.

Economic dependence on the agricultural sector also influences the dynamics of social change in Ie Jeureungeh. The destruction of farmland due to elephant movements causes economic instability and can escalate tensions between the community and conservation efforts. In some cases, farmers who suffer losses from elephant raids are more likely to oppose the presence of these animals and seek ways to drive them away, even if such actions contradict conservation goals (Galley & Anthony, 2024). However, the presence of the *Conservation Response Unit* (CRU) Sampoiniet offers a solution by providing education and alternative livelihoods for the community, which can help reduce conflicts and foster tolerance toward elephants.

In addition to driving factors, social change is often hindered by several obstacles. Deeply rooted traditional attitudes, such as the belief that elephants are threats that must be expelled or hunted, can impede the adoption of community-based conservation strategies. Furthermore, limited access to information and technology makes it difficult for the community to adapt to more environmentally friendly conflict mitigation methods (Besinga & Mukete, 2025). Economic uncertainty also reinforces resistance to change, as people tend to prioritize short-term survival over long-term ecological impact.

Climate change also plays a role in the social and ecological dynamics of Ie Jeureungeh. The increasing frequency and intensity of floods, for example, not only affect human settlements but also influence elephant behavior. Changes in elephant migration patterns due to habitat loss can exacerbate human-wildlife conflicts, especially in areas with declining natural resources (Shiweda et al., 2023). Therefore, understanding the interaction between social change and environmental change is crucial in designing sustainable mitigation strategies.

One example of planned social change in Ie Jeureungeh is the establishment of the CRU, which aims to reduce human-elephant conflict through community-based conservation approaches. This program not only helps protect elephants but also contributes to shifts in community perspectives and behavior in managing the environment. On the other hand, unplanned social changes, such as the frequent floods in the area, shape the community's adaptation patterns to an ever-changing environment.

Understanding of Wildlife Qanun

Primary data

Based on interviews with the residents of Ie Jeureungeh Village and newcomers who visited CRU Sampoiniet for research purposes, data were collected on community perceptions regarding the Wildlife Qanun. Most respondents acknowledged awareness of the qanun regulating wildlife conservation, particularly concerning Sumatran elephants. However, while the villagers are aware of these regulations, their level of understanding varies.

Regarding the use of elephant snares, respondents admitted that certain villagers still engage in illegal snaring activities despite knowing that it is prohibited (Anggriani, 2011). This highlights a gap between knowledge and compliance, suggesting that legal awareness alone is insufficient to deter harmful practices.

Secondary Data

Further insights were gathered through interviews with multiple respondents regarding the implementation of Article 17 of the Wildlife Qanun, which addresses prevention strategies against the use of lethal traps for species such as deer and wild boars. Respondents agreed on the importance of enforcing this regulation across Aceh but noted that its effectiveness remains uncertain.

The implementation of the Wildlife Qanun faces several challenges, particularly in law enforcement. While the qanun stipulates legal penalties for wildlife crimes, its enforcement remains weak, as evidenced by ongoing cases of illegal hunting and the use of elephant snares. Respondents expressed concerns that local authorities do not consistently apply these penalties, leading to uncertainty about the law's deterrent effect. Moreover, public awareness of specific sanctions for violations is limited, further reducing the effectiveness of enforcement efforts.

Several factors hinder the effective implementation of the qanun. Limited resources and personnel pose significant constraints, as conservation officers and law enforcement agencies often lack the logistical and financial support necessary to monitor and prevent wildlife crimes. Additionally, economic dependence on forest resources creates further challenges, as some villagers rely on hunting and trapping for their livelihoods. Without viable alternative income sources, strict enforcement of the qanun may face strong resistance from local communities. Furthermore, a lack of coordination between conservation agencies, local government, and law enforcement bodies results in fragmented efforts rather than a cohesive approach to wildlife protection.

Public awareness and engagement are crucial in ensuring compliance with the qanun, yet current awareness campaigns are deemed insufficient. Many respondents highlighted the limited dissemination of wildlife qanun regulations through mass media, as most campaigns are restricted to occasional workshops or community meetings. To improve public understanding and compliance, respondents suggested expanding awareness efforts through television, radio, newspapers, and social media platforms to reach a broader audience.

A comparative analysis of qanun enforcement across different districts in Aceh could provide valuable insights into best practices. In regions where community engagement is strong and enforcement is strict, wildlife protection measures tend to be more effective. For example, areas with well-established collaboration between conservation organizations and local authorities report lower instances of illegal wildlife activities. By examining such cases, strategies for improving enforcement in regions like Ie Jeureungeh can be developed and implemented.

Human Elephant Conflict (HEC)

Human-elephant conflict (HEC) remains a pressing issue in Aceh, with 150 Sumatran elephants recorded as killed between 2012 and 2016. While this statistic highlights the severity of the conflict, it is essential to analyze current HEC trends and assess whether existing mitigation efforts, particularly the Conservation Response Unit (CRU), have been effective in reducing these conflicts. In recent years, CRU Sampoiniet in Ie Jeureungeh Village has played a crucial role in managing HEC by facilitating non-lethal conflict resolution strategies. However,

the long-term impact of CRU interventions on reducing HEC incidents in Aceh remains a subject of debate.

From a community perspective, the CRU initiative receives mixed reactions. Some villagers acknowledge its role in mitigating conflicts by monitoring elephant movements, reducing crop raids, and providing compensation mechanisms. However, others view CRU as a government-driven project with limited community engagement. The effectiveness of CRU is often questioned due to the persistence of elephant raids on farmlands, leading to economic losses for farmers. Additionally, the lack of direct community involvement in CRU's decision-making processes has contributed to skepticism regarding its long-term sustainability. Strengthening community participation through capacity-building programs and inclusive conflict resolution strategies could improve local acceptance of CRU initiatives.

A comparative analysis with other CRU models in Indonesia provides valuable insights into best practices for HEC mitigation. For example, CRU programs in Sumatra's Way Kambas National Park and Bukit Barisan Selatan National Park emphasize active collaboration between conservation authorities and local communities, resulting in more integrated conflict management approaches. In these regions, community-led patrol teams and alternative livelihood programs have significantly reduced elephant-related crop damage. Implementing similar approaches in Aceh could enhance the effectiveness of CRU Sampoiniet by fostering stronger community involvement and promoting sustainable coexistence between humans and elephants.

Sumatran Elephant Existence at CRU Sampoiniet Aceh Jaya

The study was conducted with 1 female Sumatran elephant at CRU Sampoiniet, Aceh Jaya. The Sumatran elephant studied was named Isabella and was 38 years old. The following is data on morphology, daily behavior, and types of feed consumed at CRU Sampoiniet.

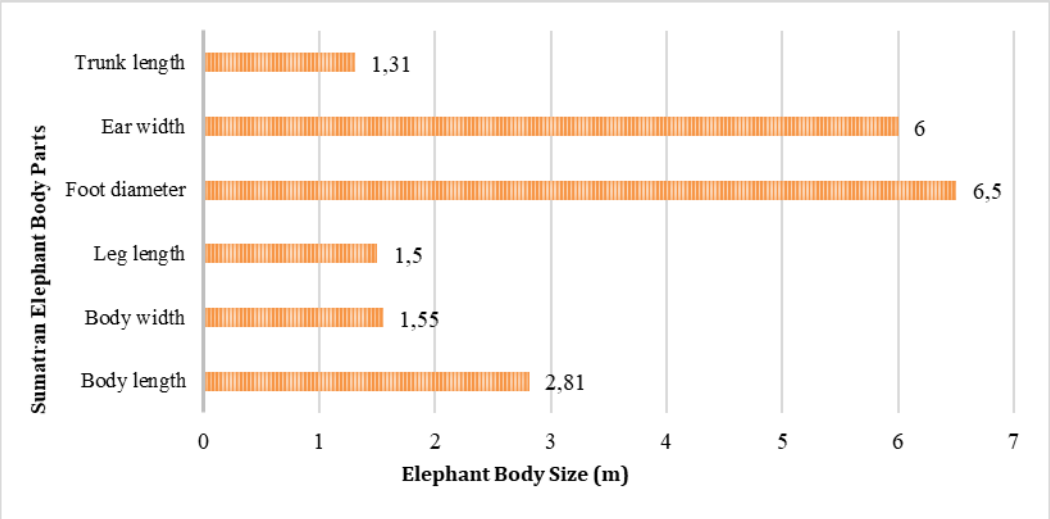

Figure 2. Data Morphology of Sumatran Elephant in CRU Aceh Jaya

The measurement of the morphology of the Sumatran Elephant Isabella was carried out in rainy weather conditions and the researchers and the elephants measured were wet. It was found that the body length of the elephant was 281 cm, the width of the body was 155 cm, the length of the legs was 150 cm, the diameter of the feet was 65 cm, the width of the ears was 60 cm, the length of the trunk was 131 cm. trunk and tail length as long as 547 cm.

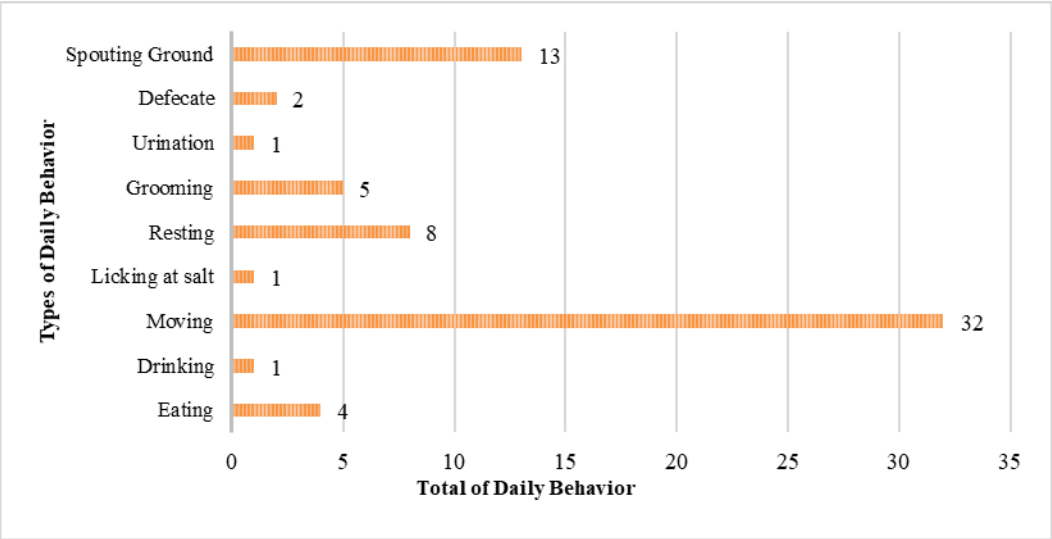

Figure 3. Sumatran Elephant Daily Behavior in CRU Aceh Jaya

The study was conducted for 15 minutes per 3 hours and the elephants studied were in an active state and moved a lot. The results of daily behavioral observations of Sumatran elephants at CRU Sampoiniet, Aceh Jaya showed that elephants had the highest proportion of behavior was moving (0.38%), then spraying the ground (0.22%), resting (0.14%), grooming (0.08%), eat (0.07%), defecate (0.03%), drink, salt, and only urinate (0.01%).

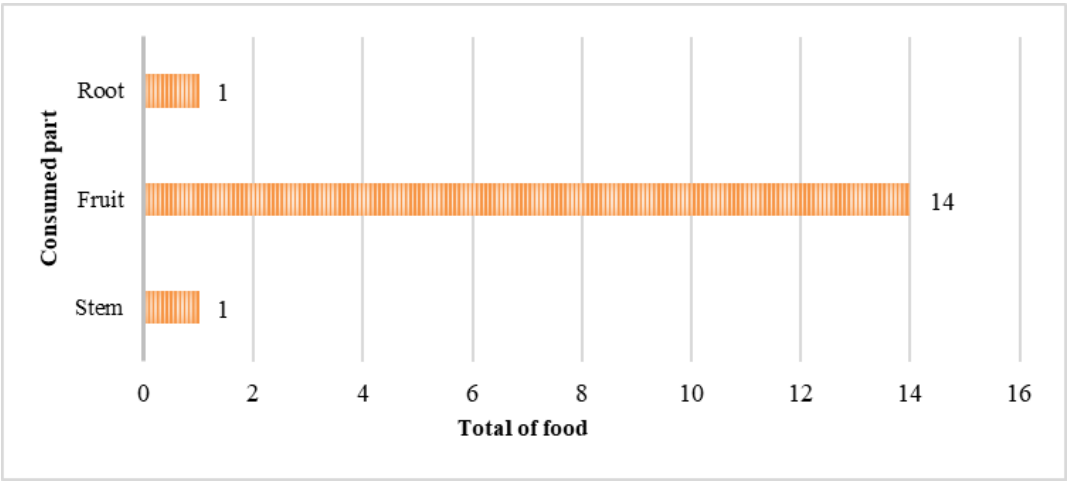

Figure 4. Part of Plants Consumed by Sumatran Elephants at CRU

Sumatran elephants need about 250 kg of food a day (Abdullah: 2006). Sumatran elephant food generally comes from plant parts such as leaves, branches, bark, roots and fruit. At CRU Sampoiniet, there are 4 types of natural food for elephants that have the highest frequency, namely stems from the tub tampu, durian fruit, banana fruit, and areca nut. Information on Sumatran elephant feed at the Sampoiniet CRU was obtained from a mahout who works at the Sampoiniet CRU, Aceh Jaya. From the overall data on forage plants, it can be seen that the most consumed part is fruit.

Figure 5. Process Observing Morphology of the Sumatran Elephant at CRU

The behavioral observations of Isabella, a 38-year-old female Sumatran elephant at CRU Sampoiniet, provide insights into her daily activities and well-being. The highest proportion of behavior recorded was movement (0.38%), followed by spraying the ground (0.22%), resting (0.14%), grooming (0.08%), eating (0.07%), defecating (0.03%), and minimal instances of drinking, salting, and urination (0.01%). While these behaviors align with general Sumatran elephant activity patterns, their interpretation requires further analysis to assess whether Isabella's behavior reflects a healthy condition or potential stress factors.

In wild Sumatran elephants, movement is a dominant behavior as they forage and travel long distances in search of food and water. Isabella's high movement rate may indicate good physical condition, but it is essential to determine whether this movement is natural exploration or a response to environmental stressors such as restricted space or social isolation. The relatively low frequency of eating (0.07%) could raise concerns about whether Isabella has sufficient access to food or whether environmental factors influence her feeding habits. However, since she consumes a variety of plant-based foods, including stems, fruits, and nuts, her diet appears to meet the nutritional needs of a Sumatran elephant.

Another notable behavior is ground-spraying (0.22%), which may suggest cooling strategies during the rainy weather conditions in which the study was conducted. Grooming, which was observed at 0.08%, is a common elephant behavior associated with hygiene and social bonding. However, in a semi-captive environment like CRU Sampoiniet, individual grooming may be more frequent due to the absence of herd interactions. The low frequency of drinking and urination may be attributed to the short observation periods or environmental conditions at the time of the study.

CONCLUSIONS and RECOMMENDATIONS

The study concludes that the community in Ie Jeureungeh Village generally has an understanding of the Qanun on wildlife conservation and the dangers of elephant snares. Social changes in the village occur through both planned and unplanned factors. A notable planned change is the establishment of the Sampoiniet CRU, which plays a role in mitigating human-elephant conflicts. Meanwhile, unplanned changes include recurring natural disasters such as floods, which impact both the community and wildlife. Regarding the existence of elephants, Isabella, a female Sumatran elephant at CRU Sampoiniet, exhibited active behavior with a high level of movement during the observation period. Her dominant diet consists of tampui tree stems, durian fruit, bananas, and various other fruits. Additionally, the Sumatran elephant at CRU Sampoiniet also serves as a tourist attraction, contributing to the local economy of Ie Jeureungeh Village.

To strengthen conservation efforts in Ie Jeureungeh Village and improve the effectiveness of the Qanun on wildlife, structured policy recommendations are necessary. In terms of legal enforcement, stronger penalties for poaching and the use of elephant snares should be implemented to deter illegal activities. Additionally, monitoring and enforcement mechanisms

need to be improved to ensure that violators are effectively prosecuted. Enhanced coordination between local law enforcement, conservation agencies, and the judicial system is also crucial for streamlining legal actions against wildlife crimes. Community engagement plays a key role in fostering long-term conservation efforts, which can be achieved by integrating conservation education into local school curricula and conducting regular awareness campaigns through television, radio, and social media to reach a wider audience. Furthermore, alternative livelihood programs should be provided for villagers who rely on illegal hunting or forest resource exploitation, ensuring economic sustainability without harming wildlife. Regarding CRU management, increasing funding for the Sampoiniet CRU is essential to enhance elephant care, veterinary services, and overall facility conditions. Additionally, structured training programs for mahouts and conservation staff should be developed to improve elephant welfare and handling practices. Expanding eco-tourism initiatives that benefit both conservation and the local economy while ensuring ethical wildlife tourism practices is also a key strategy for sustainable conservation. By implementing these recommendations, policymakers and conservation stakeholders can enhance wildlife protection, gain community support, and ensure better management of Sumatran elephants in CRU Sampoiniet.

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