

ABSTRACT

Introduction: Elephants are a classic symbol of strength, patience, loyalty, and wisdom. In Sri Lanka, the elephant plays a vital role in the culture. In modern Sri Lanka, elephants are rarely being used for hauling and heavy labour. They are primarily used for ceremonial occasions. Although elephants are highly regarded in the country, the human deaths due to human-elephant conflict in the border villages are increasing yearly. Apart from death and casualties, crop damage due to wild elephants is also a significant burden to the country. Surprisingly a minimal number of studies have been done locally and internationally related to this topic.

Objectives:

The aim of this study is to assess the knowledge, attitudes and mitigation practices of farmers on emergency preparedness of human-elephant conflict in the Lahugala PHI area

Methods: A community-based descriptive cross-sectional study was conducted among farmers in the Lahugala PHI division. The sample size was calculated using a standard formula. The estimated sample size was 178. A simple random sample was selected from the doxycycline register maintained at the MOH office. A structured pre-tested interviewer-administrative questionnaire was used to collect data. The study instrument consisted of knowledge on emergency preparedness for human-elephant conflict, attitudes on emergency preparedness for human-elephant conflict and mitigation practices on emergency preparedness for human-elephant conflict.

Results: A total of 178 respondents participated in the study. The response rate was 100%. Out of the total respondents, 90.4% (n=161) were males. The highest number of participants was the 35-50 age category, 41.6% (n=74). There were 44.9% (n=80) participants who have passed O/L as their educational qualification, and 11.2% (n=20) are only went up to grade 5. Most participants have stayed in their current residences for >10 years, 95.5% (n=170). The forest can be reached less than one-hour duration from their residence and crops in all respondents. The most raided crop by elephants was paddy, 97.8% (n=174) and 1.7% (n=3) stated that 'Bada Irignu' is also raided by elephants. Out of responders, 49.4% (n=88) think that activities of humans cause human-elephant conflict and 24.2%(n=43) believe that natural reasons cause conflict. Out of responders, 46.0% (n=82) mentioned carrying the patient and running to the hospital. About 29.0% (n=52)

mentioned looking for airway and breathing. Out of responders, those in the age group 20-35 years, 60.0% (n=30) thought that deterrents are more effective to minimise the conflict; the percentage was similar in other age groups. However, the results were not statistically significant. Most professional farmers believe that power fence (50%, n =36) is equally effective as deterrents (47.5%, n=34). About 71.0% (n=66) thought deterrents are more effective among the farmers employed in the government sector. However, the results were not statistically significant.

Conclusion and recommendations: With regards to the farmers' knowledge, most of the farmers knew the type and time the elephants' raided crops. Regarding the time period of crop damage, property damage and human casualties, it was well known that they have been occurring throughout the year. The majority of the farmers believed that humans and elephants should co-exist. Most professional farmers believe that a power fence is equally effective as a deterrent. There should be proper information sharing, cooperation and collaboration with farmers and government authorities. Community-based solutions should be promoted by listening to the farmers to prevent and manage human-elephant conflict. Farmers should be given a capacity building program for basic life support skills. Knowledge and training should be provided on airway and breathing before transporting patients to the hospitals.

Keywords: *Human-elephant conflict, preparedness, emergency*