

## Abstract

### **Sustainable Strategies for Managing Human-Elephant Conflict (Based on the Galnewa Divisional Secretariat Division)**

Human-elephant conflict in Sri Lanka has emerged as a result of negative interactions between elephants, which are historically, environmentally, and culturally significant animals, and humans. Over the past 30 years, this conflict has led to 2,011 human deaths and 5,954 elephant deaths. Additionally, the government incurs an annual cost of approximately 500 million rupees to compensate for the damages caused by this conflict. Despite implementing various management strategies and approaches to mitigate this situation, they have not achieved satisfactory success. This issue is also significant in the Galnewa Divisional Secretariat Division of the Anuradhapura District, located in the dry zone. Given this context, 11 Grama Niladhari Divisions within the Galnewa Divisional Secretariat were selected as the study area for this research. The primary objective of this study is to evaluate the effectiveness of the current management strategies and approaches used to mitigate human-elephant conflict and to propose recommendations based on practical experiences and perspectives of the local community to enhance their sustainability. A combination of both quantitative and qualitative data collection methods was employed in the research. The findings of this research indicate that human-elephant conflict in the region has led to crop damage, property destruction, and loss of human lives, significantly disrupting the social and economic activities of local communities. The study also revealed that the ineffectiveness and unsustainability of existing management approaches stem largely from a lack of community consensus and cooperation. Although electric fences have shown partial success, inadequate maintenance has prevented them from delivering the desired results. In response, farmers have shifted from cultivating paddy, which attracts elephants, to alternative crops such as gherkin and gingelly. The community advocates for sustainable management strategies based on practical approaches, including increasing food and water availability within forest areas, controlling the elephant population, and utilizing technology. Key recommendations derived from the study include strengthening electric fences, promoting alternative crops, and providing incentives for such changes. Considering the region's unique conditions, key proposals include implementing appropriate measures to restore disrupted social activities and educational opportunities caused by elephant intrusions. This involves utilizing technology to facilitate the conservation of elephants, such as providing villagers with real-time information on elephant movements through their mobile phones.

**Key Words:** Human-Elephant Conflict, Management, Sustainable Strategies, Effectiveness, Technology