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HUMAN-ELEPHANT CONFLICT: CASE STUDY FROM TAMIL NADU

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Abstract: In India, the increase in population of elephant with no increase in forest area poses danger to the farmers of both small scale subsistence agriculture and international agribusiness. This leads to human-elephant conflict to get place in major national and regional newspapers. There are cases of human kill, human injury, cattle kill, house damage and crop damage and also retaliatory killing of wild elephants. Hence a case study was conducted at the Coimbatore district in Tamil Nadu to understand the extent of damage caused by elephants to the farmers and their families in agriculture and animal husbandry. This study confirmed that pretending to be dead after the attack of elephant may help the affected individual at some extent. The common reasons for the intrusion of elephants into cultivable land are the replacement of elephant habitat by agriculture, increased elephant population, etc., The main strategy to mitigate the HEC is change in cultivation practices, use of modern ICT tools to drive away the intruding elephants.
Keywords: Human-elephant conflict, case study, mitigation, elephants.

INTRODUCTION

Human-wildlife conflict (HWC) arises when there is a compulsion to share common limited resources, such as land, game, livestock or fish (Schwerdtner and Brend, 2007 and Graham *et al.,* 2012). There has been more livestock loss in areas where people took their livestock to graze inside a reserve. The above said studies have shown this to be a common practice in India, where law enforcement is difficult. According to Distefano (2005), a set of global trends has contributed to the escalation of HWC worldwide. These can be grouped into human population growth, land use transformation, habitat loss of wild species, degradation and fragmentation, growing interest in ecotourism and increasing access to nature reserves, increasing livestock populations and competitive exclusion of wild herbivores, abundance and distribution of wild prey, increasing wildlife population as a

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result of conservation programmes, climatic factors and stochastic events. Hence a study was undertaken to find out the strategies followed by the local farmer to mitigate HEC and also how they cope up with the present trend of elephant intrusion into their field.

METHODOLOGY

The study was conducted at the Karanodai Block of Coimbatore District in Tamil Nadu. This is district is purposefully selected for study as it showed higher human death due to human-elephant conflict (Jagadesh, 2014). In this district, among the injured person an individual who survived in spite of elephant attack was interviewed to get an idea about how he escaped from the clings of death.

RESULTS and DISCUSSION

Thiru.S.Sakthivel, aged 57 years residing at Maanar village of Karamadai block of Coimbatore district was an agriculture farmer educated up to the sixth standard. He owns nearly 4 acres of cultivable land in which banana, coconut etc., was cultivated. He had witnessed the human - elephant conflict close to 40 years in his village because of decreasing forest land and cutting down of trees in large numbers.

The farmer encountered many constraints due to the elephant conflict in his village. He had lost his crops such as banana, coconut, arecanut *etc,* due to elephant intrusion into the cultivable lands. The loss estimated was about Rs.60,000 /- per annum.

In the month of July 2012, the farmer tried to drive the intruded elephant and during this operation he was charged and threw away by the lone elephant. He escaped from the further attack of the elephant by pretending as dead. He was saved by nearby tribal people and given treatment for his fractured rib for Rs.3.00 lakhs at private hospital. He followed few traditional methods to overcome the Elephant conflict. Further he expressed that cultivation of plantain, coconut and arecanut attracts the forest elephants to maintain their feeding status. Distefano (2005) also observed that cultivation practices of banana and arecanut attracted more elephant than other crop varieties. These elephants were fond of pith of these trees rather than edible products of the trees such as fruits or tender coconut. Similar observations were recorded by Singh (2006). Traditional agricultural practices productive than modern methods, allow for a more harmonious relationship between humans and elephants through resource partitioning (Fernando, 2005).

Mitigation strategies suggested by the farmer

The farmer practiced few methods to curtail elephant intrusion into the village which is mentioned below:

- Use of search light served as a mitigating factor to avoid elephant intrusion into the villages from the nearby forest areas. But it might be habituated in due course.
- Torches and Charge lights can be used to drive away the elephants temporarily into the forest area.
- Provision of electric wire fencing around the cultivable lands helped to some extent to mitigate the elephant conflict.
- Boundary clearing and digging trenches temporarily curtailed the elephant intrusion into the villages.
- Burning Crackers and drum beating helped considerably to drive away the intruded elephant herd.
- Community-based HEC mitigation is ultimately only a fire-fighting solution
- Use of mobile phones to alert the neighbouring land owners

Although construction of electric wire fencing may mitigate the elephant intrusion to some extent, but it is questionable in near future because Choudhury (2004) observed in his study that construction of electric fencing has failed to eliminate conflicts in Hollongapar (now Gibbon Sanctuary) despite its initial success. The study conducted by Zimmermann*, et al,* (2009) also revealed same results that Community-based Human-elephant mitigation is the most preferred way to mitigate HEC. Similar findings were recorded by Ramkumar *et al.,* (2014). Use of spotlights and fire crackers is also being followed in Sri Lanka to mitigate HEC (Santiapillai, 1996).

CONCLUSIONS

This case study confirmed that pretending to be dead after the attack of elephant might help the affected individual at some extent. The common reasons for the intrusion of elephants into cultivable land by the respondent are the replacement of elephant habitat by agriculture, increased elephant population, etc. The main strategy to mitigate the HEC is change in cropping pattern, and use of modern ICT tools to drive away the intruding elephants.

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