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NAVIGATING THE HUMAN-WILD PIG CONFLICT IN TAMIL NADU: ASSESSING THE DAMAGE AND EXPLORING SOLUTIONS FOR KRISHNAGIRI DISTRICT

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Abstract

The rising wild pig population in India, coupled with stagnant forest areas, has led to an increase in human-wild pig conflict (HWPC), particularly in Tamil Nadu. This case study examines the situation in Krishnagiri district, where farmers and their families face crop damage, financial loss, and even physical injury due to the presence of wild pigs on their land. By exploring the reasons for the intrusion, such as altered cropping patterns and increased wild pig populations, the study aims to develop a better understanding of local attitudes towards the conflict and propose effective mitigation strategies. These include solar fencing, wire net fencing, and the use of modern ICT tools to drive away the intruding wild pigs, helping to reduce the negative impact of HWPC on the agricultural community.

INTRODUCTION

Human wildlife conflict (HWC) is a serious problem for the livelihoods of people worldwide and wildlife conservation. The HWC is becoming more rampant as population of human as well as wild animal is increasing with shrinkage in forest land (Madden, 2004 and Schwerdtner and Brend, 2007). 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 result of conservation programmes, climatic factors and stochastic events. A growing literature on the subject illustrates that HWC has emerged as a distinct form of the "conservation-development dilemma" or "people versus parks" issue (Ogra, 2009).

In the recent times, vertebrate pests such as rodents, wild boars, blue bulls and monkeys start plundering crops and causing huge damage to the farming community. Among them, wild boar has become regular menace for farmers in major crops resulting into enormous damage (Tisdell, 2013).

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The wild pigs are widely distributed in North Africa, Europe and Asia. At present, there were 16 species of wild boars and wild pigs are available worldwide. The species present in India is Eurasian wild boar (*Sus scrofa cistatus*). This species of wild pig is distributed in almost all the states of India. The population of wild pig is increasing as they are prolific breeders and apparently breed throughout the year. The reproduction period in wild boar is seasonal and mostly correlated with availability of food and other climatic factors (Agarwal *et al.,* 2016). As per IUCN, wild boar is listed under 'least concerned' category, while it is under Schedule III of Indian Wildlife Protection Act 1972. The occurrences of human-wildlife conflict were classified by Allwin (2016) *et al.,* as low, medium and high based on the intensity. Low level of conflict includes infrastructure damage, water source contamination, rooting of land and ecological damage, whereas moderate level includes agricultural crop raiding, livestock preying, damage to forest restoration and grasslands and high level of conflict includes injury to humans, causing fatalities. Hence a study with high level of HWPC was undertaken to find out the strategies followed by a local farmer to mitigate human-wild pig Conflict (HWPC) and also how they cope up with the present trend of wild pig intrusion into their field.

METHODOLOGY

The study was conducted at the Denkanikottai Block of Krishnagiri District in Tamil Nadu, India. This district is purposefully selected for study as it showed higher human-wild pig conflict. In this district, among the injured person, an individual who survived in spite of wild pig attack was interviewed to document causes and strategies to mitigate the humanwild pig conflict.

RESULTS AND DISCUSSION

Thiru M. Anand a vegetable grower aged about 47 years from Thenkanikottai of Krishnagiri district completed eight years of formal education and possessed 30 years of experience in agriculture. He also worked on part-time basis as a driver in the local call taxi

travels agency. He owned 1.5 acres of cultivable land and wild pigs frequently entered his land and caused heavy damage to crops, vegetable, *etc.,*

The farmer faced severe problems due to the wild pig interference in their habitation. He was attacked by a group of wild pigs when he went to the field in a bike along with his friend in the early morning and was hospitalised for treatment for which both had spent nearly Rs.7 lakhs. Besides, he cultivated horticultural crops such as tomato, cabbage, *ragi* etc., in his field. The wild pig in groups of 50 -100 nos. entered into the field and destroyed his crops and vegetables, which accounted for a loss of about Rs.30,000. Standing sleepless night for guarding the fields at night time and meeting the economic loss was highly stressful.

Further he expressed that cultivation of plantain, coconut and arecanut attracts the forest elephants to maintain their feeding status.

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Further, he expressed that cultivation of vegetables such as tomatoes, cabbages, *ragi* (finger millet) etc., instead of floriculture attracts the wild pig to maintain their feeding status. He had witnessed the human-wild pig conflict recent years in his village because of decreasing forest land and cultivation of tuber crops/ vegetables. In previous years, the farmers practiced to cultivate flowers than vegetables. Similar observation was recorded by Chauhan (2009) who suggested villagers should avoid cultivating crops which are highly susceptible to damage near forests and should try changing cropping patterns by growing other cash crops.

He followed few traditional methods to overcome the Human-wild pig conflict. He used human hairs to mitigate the entry of wild pig in to his field. But it was found that this strategy was futile after few days as the wild pigs

used to the presence of human hairs and continued to intrude the agriculture field. Similar technique was recorded by Rao *et al.,* (2015) and they observed that several Telengana state farmers were extensively practicing this method in different crops and controlling the damage caused by wild boar to the extent of 40-50%. The damage was controlled as the wild pigs mobility mainly depends on their sniffing mechanism as they are having poor vision and hearing, the human hair in the movement routes of the wild boar gets sucked through nostrils causing severe respiratory irritation. Due to this the wild boar gets totally disturbed and loses its track by making distress calls, which will ward off other wild boars entering into the cropped area. But

Kamsano *et al.,* (2018) washed the human scalp hair with non-ionic detergent-acetone as prior to apply in the field to remove all impurities that might stick on them. In addition, they used fermented corn bait along with human hair to get more success rate than other methods and succeeded in Malaysia. This strategy may be followed by the farmer in the ensuing days to mitigate the HWPC.

In addition he used solar fencing to prevent the entry of the wild pigs into his field.

But the initial cost for installing solar fencing was too high to bear the same.

Mitigation strategies suggested by the farmer

The farmer personally narrated the following mitigate strategies to reduce the human-wild pig conflict in their area

- Forest officials can provide regular trainings and awareness campaigns to the farmers in the conflict areas on various recent mitigation/control measures to reduce man-wild pig conflict.
- Burning crackers, solar fencing and wire net fencing around the cultivated lands reduce wild pig attack.
- Higher compensation amount should be provided to the affected farmers by the state government without undue delay in disbursement.
- Releasing the wild pig from the scheduled animal list by the state forest department
- Use of mobile phones to alert the near-by farmers who is guarding the field during night time.
- Forest department could give permission to hunt the wild pig with the help of forest officials.
- Use of traditional dogs to scare away intruding wild pigs.

CONCLUSIONS

This case study confirmed that the human-wild pig conflict not only causes agricultural field damage, but also human injury. The common reasons for the intrusion of wild pigs into cultivable land by the respondent are the changed cropping pattern (from floriculture to olericulture) and increased wild pig population. The main strategy to mitigate the HWPC suggested by the respondent is solar fencing, wire net fencing and use of modern ICT tools to drive away the intruding wild pigs.

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