



“Growing Sri Lanka’s Regenerative Organic Potential”

Mitigating human-elephant conflicts by providing a Bio-Fence in Giribawa Project Impact Report – December 2021



Introduction

Human-Elephant Conflict (HEC) is one of the biggest environmental and socio-economic crises of rural Sri Lanka, increasingly worsening over the last decade. Annually elephants cause over US\$10 million worth of crop and property damage to rural farmers. In retaliation farmers kill elephants. On average 225 elephants are killed per year. In addition elephants kill about 70-80 people every year. Most of these farmers are killed in their own villages, backyards and fields. The Sri Lankan elephant, by far the largest land animal in this Indian Ocean country, is both revered and feared. They have a high symbolic and conservation value, yet despite this importance to Sri Lankan culture, they are at the risk of extinction due to the growing number of illegal killings resulting from this conflict. The Regenerative Organic Lanka Foundation aims to mitigate the HEC of the island country of Sri Lanka, by working alongside experts in the field, farmers and the relevant authorities, ensuring that a positive impact is made in a transparent way, and for the regenerative benefit of all parties involved.



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We have had an active role in the community, discussing with farmers and authorities since 2020 on how we can best help mitigate the conflict, and after careful deliberation and planning we have begun our Giribawa bio-fence project.

Background

Marandankalla village in Giribawa lies in the North Western Province (NWP) of Sri Lanka, this district is home to 20% of the Sri Lankan elephant population. This elephant population is scattered in small pockets of habitats throughout the North Western Province as herds and individuals. The NWP is also the district with the highest number of elephant and human deaths, making it the most affected HEC area within the country.

Crop foraging or crop-raiding by wild elephants constitutes a major grievance to affected farmers in this area. Crop raiding mainly occurs in the evenings. During raids, elephants devour a wide variety of crops, mainly rice, banana, coconut, manioc, corn, and other fruits and vegetables. These raids have become more frequent, now almost becoming a daily occurrence to the rural farmers of Giribawa.

These raids constitute an enormous economic loss for affected farmers. The megaherbivores can devour large amounts of food in a short time, and they also trample down field crops and gardens and have been known to damage buildings, walls, and fences. As a consequence, rural farmers perceive wild elephants as agricultural pests.

At present the village has an electric fence to keep the elephants away, but the elephants have started to find ways to work around these fences by finding a weak area of the fence, and dropping large logs on it to try to break the fence down, according to the villagers the fence is susceptible to other issues such as temporary repairs (Fence shown below).





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The Issues We Face

- Daily encounters between elephants and rural farmers
- Strong elephant presence in Giribawa as it borders Thabbowa wildlife sanctuary
- Aggressive interactions with elephants attempting to break fence and take farmer crops
- Electric fence isn’t strong enough by itself (repairs take time)

Our Solution

Our solution after consulting Wildlife experts, the farmers and the local authorities, was to provide a bio fence made of citrus saplings behind the electric fence (on the farmers side) that would support the electric fence and provide an additional income for the farmers once the saplings mature . Citrus plants are a natural deterrent for elephants, as they dislike the smell of citrus plants, and they mask the smell of other crops to help prevent raiding from elephants. Agricultural consultant Suranga Vidanapathirana gave us advice on which plants to go for.

We have planted 3,000 citrus saplings (1,000 Orange saplings and 2,000 lime saplings) in a zigzag formation (pictures shown below) , which after 2-3 years will result in a fully grown bio-fence that would tackle the issue of HEC in the immediate area, providing protection for over 150 Families in the village, and the Elephants in the region as well. A special thanks to the volunteers from the Parabowa Organic Farmers Association and their chairman Rasika Premasiri who joined us in this project by providing their insights and actively helping the planting process.





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Outcomes & Benefits Of The Planting Process

- Farmers attitudes towards elephants are changing
- Farmers are more cooperative as the bio-fence will require a group effort to monitor till it is mature as they can gain an additional income from the sale of orange and lime once the bio fence matures
- Directly hiring a farmer family to water the plants for a year, providing additional income for them and improving their livelihood (watering is a difficult process as there are no pipes/ agro wells in the area, and all water has to be manually taken from the river and using a tractor, moved towards the bio-fence which is a labor intensive process)
- This project would reduce the HEC in the area

Next Stage Of Project : Build A Stable Observation Tower

Observation towers are vital to keep a lookout from a higher vantage point for elephants and herds, the current towers (shown below) are built using wood by the farmers, and are used to keep a lookout at night for elephants, these structures are often unsafe, made using makeshift ladders which lead to a certain height, after which in some towers, the farmers have to climb using the tree branches to reach the top. They spend the night on these small towers, often with very little space for movement and sleep. Our next step is to build a stable observation tower using strong concrete materials and stable pillars with adequate space for the farmers to keep a lookout, with access to electricity and light.





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Acknowledgement

A sincere and wholehearted thank you goes to Cha’s Organics (picture of Banner attached below) for funding this entire project, to help establish the first ever bio fence in the Giribawa region, without whom, none of this would be possible.

