

# **The Rufford Foundation**

## **Progress Report**

### **Developing a Comprehensive Conservation Plan to Reduce Human-Elephant Conflict in Wayanad Plateau: A Rapidly Degrading Summer Range of Asian Elephants, India**



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## INTRODUCTION

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The Brahmagiri-Nilgiri-Eastern Ghats (NEG) landscape of southern India is home to over 8000 Asian elephants (Baskaran 2013). The NEG landscape holds the largest breeding population of elephants in Asia and is identified as a key landscape for the long-term survival of this megaherbivore (Sukumar, 2003; Gajah 2010). The NEG landscape is prone to seasonal fluctuation in resource availability where a large tract of dry forest reduces its carrying capacity for elephants during summer due to lack of surface water and poor forage quality (Baskaran 1998). Once, the vast area of NEG landscape with different vegetation types and rainfall regimes lost most of the wet forest tracts in the last century for agriculture land-use. However, the remaining forest in the Wayanad Plateau of the NEG landscape is a key wet tract which supports several perennial water sources and low-lying swamps due to its unique geographical features. Hence, this region is expected to be acting as an important micro-habitat for elephants in the NEG, especially during the summer months (Easa and Sankar 2001). Despite the importance of the remaining forest in the Wayanad Plateau for elephants in the NEG landscape, Wayanad received very little research attention. Wayanad is also an area of high Human-Elephant Conflict with no efforts to understand conflict and measures to mitigate it. Also, the forest in the Wayanad is degrading drastically due to various anthropogenic and bio-climatic processes. Similarly, increasing human-elephant conflict poses a serious challenge to elephant conservation in the region. Given this, the proposed project aims to understand what drives the conflict situation in Wayanad and what measures can be taken to mitigate it.

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## PROGRESS MADE

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We have started the project by October 2019. So far we have finished the occupancy sampling of elephants in two seasons *viz.* post-monsoon (Nov-Dec 2019) and summer (March-May 2020). We have also gathered data on Human-Elephant Conflict (HEC) from compensation claims made by the farmers. We prepared a detailed land-use land-cover map of the study area marked with elephant corridors which is shared with the forest department and local NGOs. We have published one article from the project in the peer-reviewed journal 'Current Science' and another manuscript and a general article are submitted for publication.

HEC is a major conservation challenge in Wayanad and continues to show an increasing trend with some areas more seriously affected than others. An interesting finding from the project so far is regarding the distribution pattern of elephants in Wayanad. Bulls especially crop-raiders mostly occupy the study area during post-monsoon and monsoon when paddy, jackfruit, and mango are available in the production landscape. However, the abundance of herds is high during summer but human-elephant conflict is less during this time since female elephants rarely involve in conflict. Conflict is due to a few bulls that mostly involve in crop-raiding in Wayanad, hence it is important to understand the behavior of individual elephant bulls to disentangle the HEC issue. Going beyond the scope of this project, we have started identifying crop raiders individually from Wayanad and other parts of the Nilgiri Biosphere Reserve. This information will contribute to the mitigation of HEC and it needs to be done systematically in the next phase of the project. We have conducted an awareness and training program for a local NGO named Ferns Nature Conservation Society based in Wayanad. The interviews with the local people and awareness to the students and other stakeholders are not happened in the proposed timeframe because of restriction in commutation and interaction with local people due to the Covid19 pandemic. We have also sourced videos for making a documentary film on HEC in Wayanad. We expect to finish the fieldwork of the project by September 2020.



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## IMAGES FROM THE FIELD

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**Fig 1.** Paddy field raided by elephants in North Wayanad Forest Division.



**Fig 2.** A stone wall erected in the forest and village boundary is damaged by elephants.



**Fig 3.** Elephant dung survey in Wayanad Wildlife Sanctuary.



**Fig 4.** Elephant Proof Trench and fence erected on the boundary of village and forest.



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## REFERENCES

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