

## Final Evaluation Report

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Your Details	
Full Name	Rakesh Kalva
Project Title	Future of Asian Elephant ( <i>Elephas maximus</i> ) in Andhra Pradesh, India
Application ID	33320-1
Date of this Report	28th April, 2022

**1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

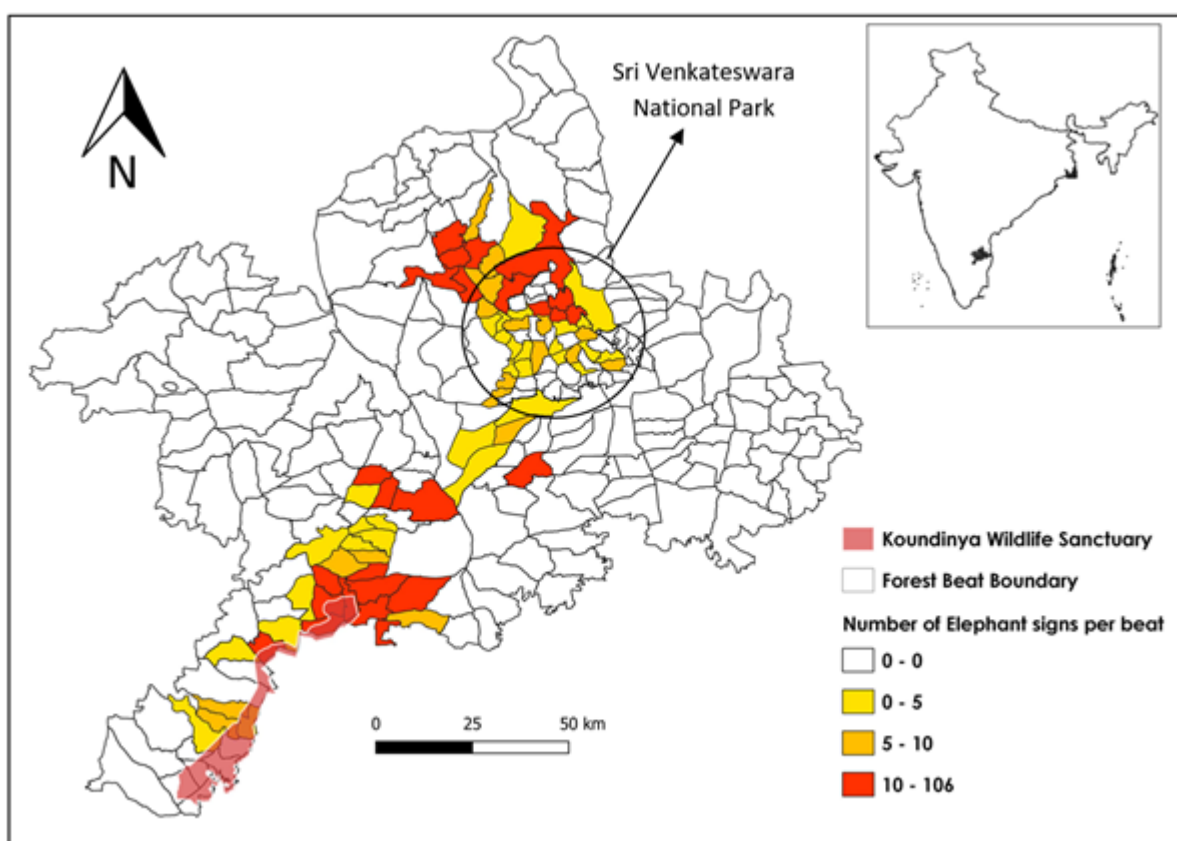
Objective	Not achieved	Partially achieved	Fully achieved	Comments
Establishment and improvement of functional corridor between Koundinya wildlife Sanctuary and Sri Venkateswara National Park (SVNP).				We conducted sign survey in the corridor area to assess habitat use.
Work with the Forest Department and the government in identifying and getting approval for construction of an underpass				The need for underpass is already agreed upon by the forest department and other authorities. A report regarding the same has already been submitted by the Principal Investigator to the Forest Department. The same was mentioned in the mid-term report.
Identify and priorities landscape in terms of priority areas and conflict hot spots through a map.				Find below the map based on the indirect sign survey we had conducted.
Implementation of low-cost conflict mitigation methods in the villages which are prone to Human-elephant conflict.				We were not able to conduct this on a full scale. Post the 3rd wave of COVID we were able to conduct few workshops. A booklet of the same is designed and will be distributed in the next phase of the project.
By adopting Market Based Strategy set up a cooperative society or take up the task of marketing and selling agriculture produce.				We could not achieve this during the project period. We had received resistance from the local middlemen who were buying the produce from the farmers. This would result in loss to them.
Start a dialogue between the other two bordering states of Karnataka and Tamil Nadu to have a tri-state strategy to deal with the elephant population in this landscape.				At the elephant meeting held at Tirupati on 20 <sup>th</sup> February 2022, Mr. Rakesh Kalva had presented to the department and had highlighted the need to have a tri-state approach. Based on this a tri-state virtual meeting was initiated by the

			Andhra Pradesh Forest Department with the neighboring states in June 2021.
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Apart from the above objectives we were also able to take up capacity building for the forest department staff. We realised that having the support of the local forest department and working in tandem with them towards the conservation of the species and the landscape was far more effective.

For objective one and three above, we did an extensive sign survey in the protected areas (PA) of Koundinya Wildlife Sanctuary (KWS) & Sri Venkateswara National Park (SVNP). We also conducted survey between the two PAs to identify the area between the two sanctuaries used by elephants. A total of 976 signs (dung, direct sighting, feeding signs, tracks, etc.) of elephants were recorded in the trial survey.

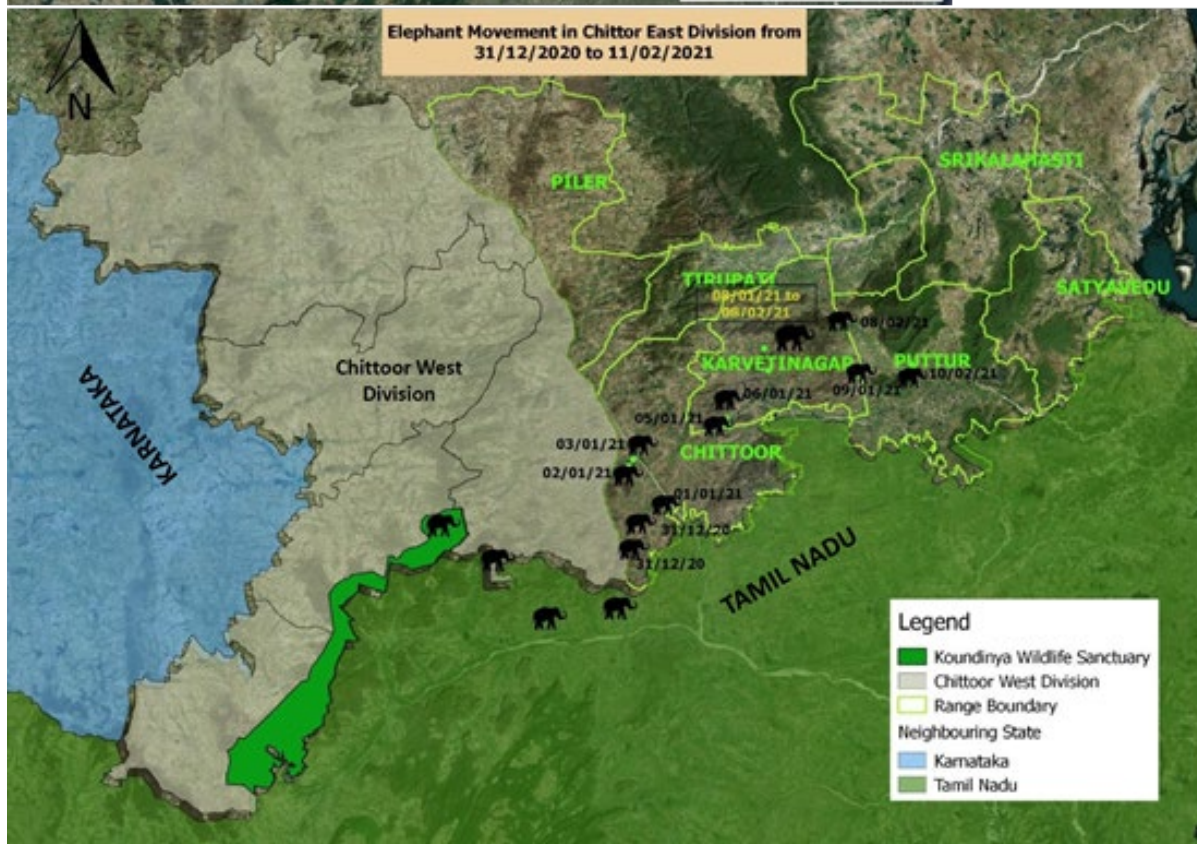
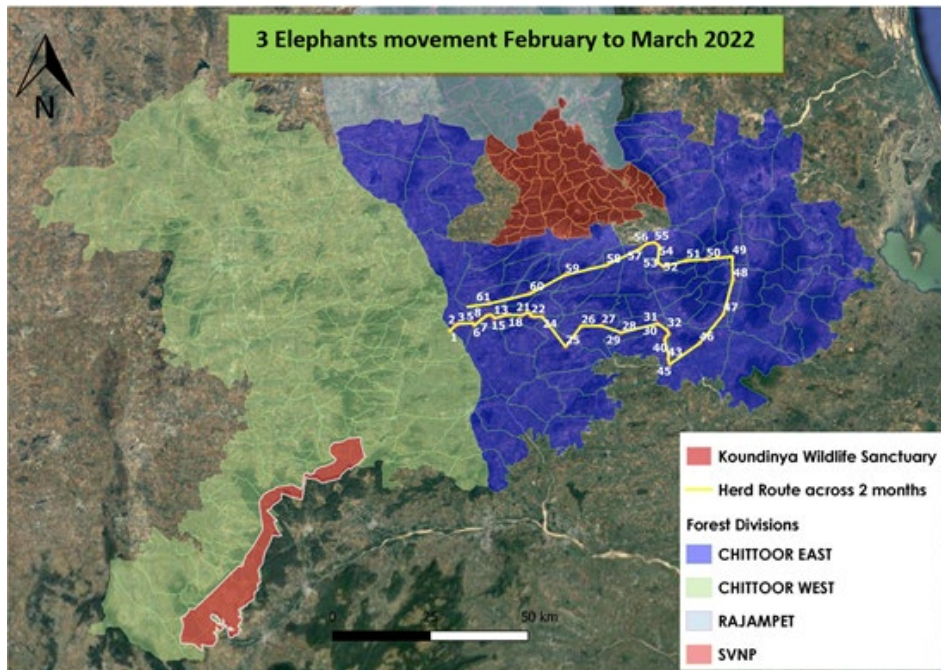
Taking the forest department beat as a sample unit we used number of signs as a proxy for intensity of use. We broadly divided the area into four categories.



The above map shows beats/area regularly used by elephants and the area in between KWS and SVNP. The area in between consists of some forest department reserve forest (RF) area and some agriculture fields. This we identified as a potential corridor between KWS and SVNP.

Apart from the above sign survey we also got the opportunity to track two herds during our study period. Both these herds happened to be all male group of 3

individual elephants. This was crucial to understand elephant movement between the two PA's.





**2. Describe the three most important outcomes of your project.**

- a). Recognition of elephant corridor and a report submitted to Forest Department about the proposed expressway and mitigation measures to be taken.
- b). Capacity building of forest department and farmers to deal with conflict.
- c). Establishing that the population in Koundinya is not an isolated population and there is constant movement of elephants from the west into Koundinya WLS.

**3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

As was mentioned in the mid-term report, PI of the project had met with an accident while on field and was unavailable for 2 months. As a result, to ensure majority of the proposed work is completed, we had requested Rufford for a 2-month extension of the project which was approved. The second and third wave of COVID had also put a restriction on crowd gathering and we weren't able to conduct the workshops to the level we intended to. We did communicate the same through personal one on one conversation while visiting the crop fields damaged by elephants.

**4. Describe the involvement of local communities and how they have benefitted from the project.**

Through the years the local community in this landscape just depended on the forest department team coming in and driving the elephants away from their crop field. But through the workshops, posters and personal communication we got the message out that there needs to be an extent of personal responsibility towards protecting their crops. We were hoping to involve them more through the incorporation of cooperative society but received resistance from the already existing middlemen who were buying the produce from the farmers and selling it to the market. If a cooperative society is established, the produce will go directly to the market thus resulting in additional income to the farmers. We have spoken to the forest department about this and trying to get this implemented as a government strategy to aid the farmers, to ensure less resistance.

**5. Are there any plans to continue this work?**

We will definitely be continuing this work. In this phase of the project, we were able to build good rapport with the local forest department and local communities. We have proven that there is constant movement of elephants into Koundinya and further movement was recorded towards the north-eastern side of the sanctuary. We wish to make the crop protection by farmers as a general practice so that they are not completely dependent on the forest department and work towards establishing the cooperative society. The next phase of the project will be more towards working with the local communities.

**6. How do you plan to share the results of your work with others?**

We have already shared some of the finding of this study in the webinar on the occasion of World Wildlife Day 2021. Apart from that we had used the data collected in this project to write up mitigation measures and need for elephant underpass along the national highway in a report submitted to Divisional Forest Officer, Chittoor West Division. This report will be instrumental towards taking mitigation measures to ensure continuity of the corridor.

We will be getting the finding of this study out through a popular article and the same will be communicated in local newspaper. The research work of the project will be submitted to a peer-review journal.

**7. Looking ahead, what do you feel are the important next steps?**

We see that it is inevitable that there is going to be conflict no matter how many mitigation measures are taken. We want a more practical approach to this and aim to minimise the conflict to the greatest extent possible and in cases where there is conflict with humans, we wish to minimise the hardship.

We wish to use market-based conservation strategy in future to aid the local communities to compensate the loss they face because of conflict with elephant. We want to change the mindset of people towards feeling that conservation is more to do with helping wildlife and less towards aiding the people sharing the landscape with wildlife.

**8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

The Rufford Foundation logo was acknowledged as a project partner in Wildlife Research & Conservation Society (WRCS) website. Rufford Foundation was also acknowledged in the Andhra Pradesh Forest Department webinar conducted on World Wildlife Day, 2021. The logo was used to mention and acknowledge the foundation. The logo was also used in the workshop banner made to be presented in the villages where the workshop was conducted. The foundation was also acknowledged in the capacity building workshops conducted for the Forest Department.

**9. Provide a full list of all the members of your team and their role in the project.**

**Rakesh Kalva - Project Leader**

Field Work, networking with local forest department, fund raising, project design, analysis and reporting

**Eswar Satyanarayana - Volunteer**

Aided in capacity building workshop with the forest department

**Shivani. U - Research Assistant**

Field work, Planning and conducting Workshops

**Shankar. G - Field Assistant**

He is a local tribal who assisted the team in the forest. His knowledge of elephants and the landscape was important for the field survey and getting a better understanding of the landscape and the people.

**Dr. Justus Joshua - Mentor**

**Dr. Joshua** had worked in this landscape in the past and his knowledge of the species was useful in study design and interpreting of field data.

**10. Any other comments?**

Despite the COVID situation, this project has resulted in some lasting relationships with the forest department and local communities. Now that the base is set, the focus in future would be towards a positive change for the conservation of the species and aid in establishing a self-sustainable conflict mitigation strategy in this landscape. By training the forest department, local communities and ensuring the cooperative society module is established and run by the local community, we will be able to achieve this.



An all-male herd of seven elephants that came into Koundinya WLS.



