

# Darwin Initiative: Half Year Report

(due 31 October 2009)

<b>Project Ref. No.</b>	16-007
<b>Project Title</b>	Building capacities for mitigating human-elephant conflicts in Assam, India.
<b>Country(ies)</b>	India
<b>UK Organisation</b>	North of England Zoological Society (Chester Zoo)
<b>Collaborator(s)</b>	EcoSystems-India
<b>Project Leader</b>	Alexandra Zimmermann
<b>Report date</b>	October 2009
<b>Report No.</b>	HYR 3
<b>Project website</b>	<a href="http://www.assamhaathiproject.org">www.assamhaathiproject.org</a>

## 1. Outline progress over the last 6 months (April – September) against the agreed baseline timetable for the project.

### Crop protection measures

- *Watchtowers*: three wooden watchtowers were built in trees in Dhankhona village, Sonitpur in May, and are being used for elephant sightings. Regular inspection of existing watchtowers continues.
- i) *Chilli smoke*: chilli smoke was used successfully on 10 occasions to deter elephants from the cultivated fields in Nichinta, Lakhipur and Bengkanda villages, Goalpara
- ii) *Chilli ropes*: were installed in Gamani (500m) and Morisuti (300m) villages in Sonitpur to protect fields and homes respectively.
- iii) *Chilli nursery*: in July the local Forest Department bought 200 chilli plants from our nursery in Sonitpur. The money from this sale has been ploughed back for improvement of the nursery. In addition, 100 chilli plants were sent to the Goalpara site for raising a nursery in the demo plot.
- *Tripwire*: A 100m tripwire was installed around a homestead as a demo in Dharikati village, Sonitpur.
- *Electric fence*: the communities continue to undertake regular maintenance of the electric fencing. The fencing in Sonitpur requires replacement of about 900 m of wire and some accessories. The local tea-estate has continued its agreement to provide the wire and the AHP will provide the accessories. The repairs will be completed by end of October 2009.
- Following the fence installation in Bengkanda, Goalpara, five households that had moved away from the village three years ago have returned. Villagers have also started cultivating patches of land (approx. 2ha) for ginger and banana that remained fallow prior to fencing.
- *Demonstration plot*: Goalpara: land preparation for chilli plantation was undertaken, and 200 saplings planted.
- *Searchlights*: 8 spotlights were distributed to 8 villages in Sonitpur and 6 distributed to 3 villages in Goalpara.

### Capacity building

Workshops: in order to provide the most beneficial assistance to communities, we have been providing workshops based on the requests of the villagers. The following workshops were conducted.

- A 10-day jute handicraft training workshop was held in Sonitpur in collaboration with a local NGO. This proved immensely popular, with 37 women attending (we had expected 15-20) from 13 villages and many from local self-help groups. Participants have requested a follow-up workshop on jute dyeing techniques.
- A 2-day educators' training was held in Sonitpur in July for 11 middle and high school teachers from 9 villages. The agenda was interactive environment education teaching methods with a focus on human-elephant conflict issues.
- A day-long training on cash crop cultivation for 12 office bearers from five self-help groups was held in Goalpara, in partnership with The Energy and Resources Institute (TERI).

### Follow up

- A participant of the cash crop cultivation workshop in Sonitpur procured 60 chilli plants from AHP in May 2009. He has since raised a thriving plantation and is selling chilli fruits at the local market.
- Five trainees from the jute handicraft workshop have begun to supply products to local shops,

including the one run by the widow of project staff Dibakar Baruah.

- Two follow up meetings (post-veterinary training) were held in Bongaon and Morisuti villages, Sonitpur. All the participants stated that they had substantially improved their livestock husbandry through adoption of best practices learnt during the training. About 30% reported that they were making profits from livestock rearing.
- The follow up meeting for cash crop training held at Dhankhona, Sonitpur revealed that lack of irrigation, inadequate capital and small land holdings were constraints in implementation of agricultural schemes.

### **Support for livelihoods**

- As recommended in the Darwin MTR, we have continued to strengthen our support to Self Help Groups (SHGs). In Goalpara a SHG was keen to plant citrus plants as a cash crop, which has the additional benefit of acting as a deterrent barrier to elephants. The project assisted with sourcing the saplings, which are provided free by TERI as part of their mandate for development. So far, 500 mandarin plants have already been planted in Hatigaon village, Goalpara, with the aim to plant more. This is a long-term project, with the trees acting as an elephant barrier after 5 years and fruits being produced in six to seven years. The plantation will be maintained by the SHG members and will benefit 20 households.
- AHP field staff, Apurba Basumotari (Sonitpur) participated in a 2-week training programme on SHG operation and management.
- AHP helped TERI to prepare the DPR for Jhawani village, Sonitpur under the World Bank funded project on village electrification based on biomass gasifier technology. On the approval of the DPR, a 20 kW gasifier will be installed in Jhawani to provide power to homes, and for low end power applications. The gasifier will help the villagers to charge the spotlights and power electric fencing in future.

### **Handbook**

So far 377 copies of our "Living with Elephants in Assam" handbook have been distributed to various villages across both districts. A repeat survey to assess the effectiveness of the handbook as an outreach tool is underway. The handbook is also available to download in Assamese and English from the project website.

### **Elephant tracking and identification**

Monitoring of elephant movements and human-elephant conflict (HEC) incidents continued throughout the reporting period. To improve the quality of our tracking data we have been working with our field monitors on elephant identification. Individual elephant identification cards have been created to fulfil this purpose. In Goalpara, ID cards for two herds and 10 individuals have been distributed to field monitors. In Sonitpur, 9 elephant individual ID cards are ready for distribution and we also plan to increase in the number of identified individuals in this district. Since August, four new monitors have been recruited to undertake monitoring in Sonitpur, and two new monitors are planned for induction in Goalpara.

### **Other research**

*Foraging project:* the elephant feeding ecology project was started in June 2009. This 12 month project aims to identify the nutritional drivers of crop-raiding through monitoring the elephants feeding ecology throughout the year. Nutrition composition analysis will be undertaken at the Faculty of Veterinary Sciences Laboratory, Guwahati. Bidyut Das, a local Assamese veterinary student, is managing the field data collection and will use a subset of the data for his MVSc thesis.

*Kunkie survey:* data collection has almost been completed and analysis will be completed over the next 6 months and written into a report or scientific paper and results shared with local communities.

### **Publications and conferences**

We have recently published 3 articles (below), and are currently working on two peer-reviewed journal papers

Zimmermann, A., Davies, T.E., Hazarika, N., Wilson, S., Chakrabarty, J., Hazarika, B. & Das, JC. (2009). Community-based human-elephant conflict management in Assam. *Gajah*. IUCN SSC Asian Elephant Specialist Group. 30: 34-40.

Davies, T.E., Hazarika, N., Wilson, S. & Zimmermann, A. (in press). Living with elephants in Assam. *Lifelines*. BIAZA.

Davies, T.E., Zimmermann, A., Wilson, S., Hazarika, N. and Chakrabarty, J. (2009). Living with elephants in Assam: a community-based approach to conservation. *Ratel*. Association of British and Irish Wild Animal Keepers. 36 (2): 9-13.

The project manager, Nandita Hazarika, attended a 2-day HEC Mitigation Workshop in Beijing, hosted by the IUCN AsESG; and presented a poster on the project at the 10<sup>th</sup> International Mammalogical Congress in Mendoza, Argentina. We have submitted two papers to the International Elephant Foundation conference in January 2010.

**Documentary**

Plans are underway for the project to be featured in a documentary about human-elephant conflict in Assam; filming will take place in mid-November 2009.

**2. Give details of any notable problems or unexpected developments that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.**

*Bandhs* (total strike outs) delayed the community extension activities (crop training, SHG training). June to August are the season for agricultural operations which renders target community members unavailable for capacity building programmes.

**Have any of these issues been discussed with the Darwin Secretariat and if so, have changes been made to the original agreement?** Not applicable

**Discussed with the DI Secretariat:** no/yes, in..... (month/yr)

**Changes to the project schedule/workplan:** no/yes, in.....(month/yr)

**3. Are there any other issues you wish to raise relating to the project or to Darwin’s management, monitoring, or financial procedures?** No

If you were asked to provide a response to this year’s annual report review with your next half year report, please attach your response to this document.

**Please note: Any planned modifications to your project schedule/workplan or budget should not be discussed in this report but raised with the Darwin Secretariat directly.**

Please send your **completed form email** to Eilidh Young, Darwin Initiative M&E Programme at [Darwin-Projects@ectf-ed.org.uk](mailto:Darwin-Projects@ectf-ed.org.uk) . The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message eg Subject: 14-075 Darwin Half Year Report**