

# Darwin Initiative: Half Year Report

(due 31 October 2008)

<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>	30 October 2008
<b>Report No.</b>	HYR 2
<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.

**1) Working with elephant conflict-affected villages:** To extend our community outreach activities, as well as to help in observing elephant movement more closely in the vicinity of Sonai Rupai Wildlife Sanctuary (Sonitpur district), a cluster of three villages have been identified for addition as project villages. Partially accessible/difficult pockets (Dosorapara and Silorbori) within the study area (Goalpara district) were included for intensive monitoring, and two new monitors have been recruited to undertake the monitoring. Meetings were held with the new project village Bengkanda (53 households) to formalize the inclusion of the site as a project village. The community pledged its support and cooperation for the project activities, and the household survey was conducted for planning of future activities.

### 2) Elephant crop-raiding intervention measures:

a) *Watch towers:* regular inspection and use of the five wooden and bamboo watch towers in Jhawani village continues. One of these was damaged and repairs were carried out by the villagers, keeping in line with the “maintenance by the community” policy of the project. The tin roof and floor planks of the watch tower in Nichinta was damaged during a storm; villagers have promised to help with the repairs.

b) *Chilli deterrents:* Chilli smoke is being used frequently in the project villages as well as by monitors in their own villages. Chilli rope fencing installed in Sonitpur was removed from May onwards as the rains and agricultural operations had started. Also the presence of elephants during the summer/monsoon season is negligible. The rope fencing will be reinstalled in October when the harvesting begins.

c) *Chilli nursery:* The nursery in Sonitpur supplied 160 saplings to the project site in Goalpara for the agriculture demonstration plot. Seven households have managed to raise chilli plantations. Among these, two families have raised over 100 plants for commercial sale. A self-help group in Sonitpur has approached the project to establish a chilli nursery for large-scale plantation (>1000 plants) for supply to the project as well as for sale. Preparation for raising new plants is underway in Sonitpur.

d) *Search lights:* Fourteen new modified search lights were distributed in Sonitpur and Goalpara. Minor repairs were needed for a few lights. The problems were attributed to improper maintenance.

e) *Electric fencing:* Regular inspection of the 2km (2- strand) electric fencing protecting fields of 6 villages in Rupajuli in Sonitpur continues. The maintenance and minor repairs is being carried out by the community and tea estate management. Maintenance kits have been given for use during inspection by project staff. Two solar fencing installations are on the anvil for Goalpara to benefit the following project sites: 1) Bengkanda village with 51 households. A 2.7 km solar fencing will protect the homes and crop fields of this unelectrified village. Despite their poor economic condition, the villagers have agreed to contribute Rs300 (£4)/family. The ground survey for the installation has been completed and the installation will be undertaken in November 2008; (2) Spurred by the success of the fencing in Sagunbahi hamlet, and the failure of the local leader to honour his promise of financing the extension of fencing, the inhabitants of the main village have requested our project to help in addition to the present fencing up to 3.25km. This extension will protect the fields (62 acres) of 86 households. Meetings and discussions with the community had led to the raising of Rs25,000 (£350), and the community will contribute labour and wooden posts. The survey of fencing area etc. is complete, and installation is expected to be completed

by November. Acting upon the request by the community members, preliminary meetings were held at Dhankhona village at the edge of the Sonai Rupai sanctuary. Final decision will be made in October after detailed field visits and feasibility of installing electric fencing.

*f) Household electrification:* On repeated request of the unelectrified Sagunbahi hamlet in Nichinta, we decided to electrify the 11 households and the church with solar power. Each household contributed Rs500 (£7) towards the costs. Two solar modules (35 Wph each) and a storage battery were provided to power two 6 W CFL lights in each home. The lights are operational for three hours in the evening.

*g) Demonstration plot for alternative crops training:* A demonstration plot of 0.5acre has been established at Goalpara site to raise alternative cash crops including chilli. This plot will serve as a model for farmers during training on cash crop farming. Land has been prepared to grow chilli and other crops. About 160 chilli saplings have been planted. For irrigation a borewell is planned. All intervention devices/systems (watch towers, search lights, electric fencing, chilli rope) installed in the project villages are being maintained by the community members themselves, and any expenses incurred are borne by the beneficiaries. The use and effectiveness of the interventions are being monitored and monthly log sheets are being maintained by the field staff.

### **3) Training & Workshops**

*a) Workshops:* Farmers' training on cash crops at Hatigaon, Goalpara in May 2008: a day-long workshop on alternative cash crop training in partnership with Spices Board and local office of the Agriculture Department was organized for 40 beneficiaries (farmers). The participation of a large number of women was encouraging. Following the farmers' workshop, a one-day training on operation of SHGs (self-help-groups) for micro-credit use was conducted in Goalpara. Participants were taught about formation of groups, book-keeping, guidelines to apply for funding, day-to-day administrative operations. In Sonitpur as a follow-up action of SHG training held in early 2008, nine proposals (pisciculture, horticulture, turmeric cultivation) were submitted to RGVN for funding in July. These are pending approval. In May 2008, workshop on HEC awareness was conducted for high school students at Chamdhora, Sonitpur. About 40 students from five schools participated in the activities such as essay and painting, and recycling of waste material competitions. An illustrated talk on HEC and project was also delivered.

*b) Meetings:* Monthly meetings of field/community monitors are organized to discuss the progress and problems faced in monitoring exercise. Public meetings were organized in 42 villages in Sonitpur to create awareness on HEC issues, and project activities. In addition, demos were given on chilli as a deterrent. In Goalpara, wildlife documentary films (BBC Planet Earth series, etc.) were screened for awareness generation. Senior field staff were invited by Forest Department for these events to participate in a public interaction among the HEC affected people. Mr MC Malakar (PCCF Wildlife) requested our project to help in training the Forest Department staff in chilli deterrents.

**4) Data collection & Elephant monitoring:** The district and village level monitoring of elephant movement (tracking) as well as HEC incidents continued through the reporting period, although severe floods and frequent bandhs (political strike-outs) made accessibility to some villages difficult. A daily record of the monitoring exercise is being maintained by the community monitors.

*a) Goalpara study site:* (data collected between 01/04/08 and 31/8/08): 225 individual records of elephant activity collected, 9 of which reported crop loss, a total of 3.34 ha, worth Rs22 800 (£285). 12 of the 225 recorded building damage; 41 buildings reported damaged by elephants, worth Rs150,000 (£1875). Three people were reported injured by elephants and 1 elephant was reported injured.

*b) Sonitpur study site:* (data collected between 01/04/08 and 30/6/08): 91 individual records of elephant activity collected, 3 of which reported crop loss, a total of 0.6ha, worth Rs7000 (£88). 27 of the 91 recorded building damage; 31 buildings reported damaged by elephants, worth Rs105,590 (£1320). Three people were reported injured by elephants and no elephants were reported injured.

*c) MSc Project:* Laura Chartier, Oxford MSc student, under the co-supervision of the Project Leader, carried out an excellent project entitled *Patterns of Conflict: Is there a critical habitat threshold for human-elephant coexistence in Assam, India?* Laura spent time at Chester Zoo learning the GIS techniques and collected her data in Sonitpur with the help of our field staff. Abstract from her dissertation:

*"The apparent expansion of human-elephant conflict (HEC) in India, in response to rapid habitat loss and human population growth, is a complex challenge for biodiversity conservation. Determining if, how, and why this conflict has changed over time will be an important step in managing a landscape that enables human-elephant coexistence. Using a multi-method approach, this study analyzed historical changes in land use and HEC in Assam, India, and proposes a critical habitat threshold for HEC at 37% intact forest cover. When forest cover fell below this level in 1988, HEC increased dramatically, with the majority of respondents reporting the onset of conflict after this time. A spatial expansion of conflict since the early 1970s was also evident and followed a southward pattern. Though polarization of attitudes, and spatial reshuffling of conflict, present management challenges, evidence of enduring empathy for elephants in the study group is a promising sign for conservation."*

**5) Cross-NGO exchange visits:** Project Manager Nandita Hazarika gave a presentation about the project at a conference in Sabah in May 2008. Discussions were held with HUTAN, working on HEC in Borneo, about collaboration ideas (exchange of field staff for capacity building). Seven of our field staff went on a week-long training/cross-NGO visit to South India in July 2008, involving discussions, talks and field visits with Nature Conservation Foundation (NCF), Valparai and Ajay Desai (WWF consultant) on HEC, elephant ecology and behaviour, and our team demonstrated trip wires and chilli deterrents.

**6) Education:** The final draft of HEC manual in English is ready and sent to the press. The Assamese translation is in process and is expected to be ready for press by November. An assistance centre being set up in Sonitpur and Goalpara to provide help on interventions to farmers and other interested persons.

**7) Other:** Our project helped The Energy and Research Institute (TERI) to conduct surveys and mobilize the community in Jhawani village, in a World Bank funded project on village electrification based on biomass gasifier technology. Besides providing power to homes, the installation of the gasifier will help the villagers to charge the spotlights and power electric fencing in future. We received a private donation of £265 for the project.

**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) in the project areas from July to September hampered the community extension activities (crop training, SHG training). Many monitoring areas became inaccessible owing to floods, and data collection was delayed. June to August also being the season for agricultural operations, the target community members were 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**