



EIDPO040 revised

Submit by Monday 30 November 2009



DARWIN200

### DARWIN INITIATIVE: APPLICATION FOR GRANT FOR ROUND 17: POST PROJECT

Please read the Guidance Notes for both Main Round and Post Project applications before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required.

**Information to be extracted to the database is highlighted blue.**

#### 1. Name and address of organisation (NB: Notification of results will be by post)

<b>Name:</b> Alexandra Zimmermann	<b>Address:</b> Conservation & Science Division, North of England Zoological Society (Chester Zoo), Chester, CH2 1LH, UK
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#### 2. Post-Project details

<b>Project Title (max 10 words):</b> The Assam Haathi Project for human-elephant conflict mitigation				
<b>Proposed start and end dates:</b> 1 <sup>st</sup> October 2010 – 31 <sup>st</sup> September 2012 <b>Duration of project:</b> 2 years				
<b>Darwin funding requested</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>	<b>Total</b>
	£ 37,500	£ 75,000	£ 37,500	£ 150,000

#### 3. Original Project Title and Defra reference number (eg 14-065)

16-007 Building capacities for mitigating human-elephant conflicts in Assam
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#### 4. Principals in project. Please provide a one page CV for each of these named individuals. Letters of support must also be provided from the host country partner(s) endorsing the partnership and value of the Post Project funding. You may copy and paste this table if you need to provide more than one overseas project partner.

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner and co-ordinator in host country/ies
<b>Surname</b>	Zimmermann	Davies	Hazarika
<b>Forename (s)</b>	Alexandra	Tammy	Nandita
<b>Post held</b>	Conservation Manager	Researcher	Executive Director
<b>Institution</b>	Chester Zoo (NEZS)	Chester Zoo (NEZS)	EcoSystems-India (ESI)
<b>Department</b>	Conservation	Conservation	-
<b>Telephone</b>			
<b>Email</b>			

**5. Define the purpose of the Post Project (extracted from logframe) and explain how it is linked to the objectives of the original Darwin project? (Max 200 words)**

The project's purpose is to mitigate human-elephant conflict (HEC) across Assam, allowing communities to pursue sustainable livelihood schemes and support activities for elephant and habitat conservation. It builds on our original projects by expanding experiences and lessons learned to a much larger geographic area which will cover all main areas of the state of Assam where HEC occurs. The project will continue to work with villages to protect crops and houses, while increasing the extent and level of work for sustainable livelihoods – assisting especially those households below the poverty line with new income generation. Furthermore, we will add a new element of working with a small number of model villages to demonstrate the possibility of community-based re-forestation and reduced use of firewood. The project will also carry out further education activities in the new study regions and an Assam-wide survey to document the patterns of human-elephant conflict across the state. This up-scaling to work across all of Assam is possible only because of the experience, respect, and contacts gained during the course of the original project. The Assam Haathi Project is uniquely positioned to attempt such a large-scale approach and provide inspiration to other projects on HEC around the world.

**6. What have been the main outcomes (achievements) of the original project to date? (max 300 words)**

Our project has considerably increased the capacity of local people to defend their property and crops. We have 6 villages participating in crop-protection trials, with 6 field assistants trained in crop protection methods and >50 community members trained by field assistants. Two neighbouring communities have also been trained by trainees of the project.

In Sonitpur district we have observed a decrease in crop damage from 113ha to 26ha and reduced elephant deaths to zero within our project village areas. Villages neighbouring our project villages have started to adopt some of our crop protection methods and are adapting the methods to suit their needs. We are regularly approached for assistance by communities and also by organisations from across Assam; the production of the practical handbook 'Living with Elephants in Assam' has gone some way to meeting this need, but an increase of the geographic scope of the project is needed.

We have conducted 16 workshops on livelihoods, cash crop cultivation, and handicrafts. As a result, 31 community members are participating in livelihood initiatives. We have also increased the skills base of local communities by providing training in accounting and management for self-help groups and workshops on interactive teaching methods for teachers and children.

We are using an evidence-based approach to address HEC queries, such as modeling the occurrence of HEC to produce a predictive model to tailor interventions, assessing the effectiveness of the intervention methods and determining if there are any nutritional drivers for why elephants raid crops.

We are in the process of producing 5 papers for peer-reviewed journals; have published 6 articles in various magazines; been featured in local news articles more than 10 times and have completed a filming session for Discovery Channel in which our project is shown as an inspirational example to tackling human-elephant conflicts.

**7. What steps have been taken to ensure that project purpose and outputs of the original project will be achieved within the original project term? (max 200 words)**

Overall the implementation of activities is going well and we are on target with all outputs and currently working intensively with 6 project villages. In some cases we have exceeded our targets, e.g. number of community members trained (from 50 to >130), number of villagers participating in alternative livelihoods (from 20 to 31) and also expect to exceed the number of workshops held. This 'over-achievement' is a result of the demand for help and enthusiasm of communities area. To date we have delivered 60% of our outputs, 15% are nearly completed, and the remaining 7 outputs are underway for completion by the project's end date. The community response to HEC methods has been positive and increasingly communities are requesting project assistance. We are now working to incorporate the remaining suggestions of the MTR and most recent annual report review, to ensure achievement of all outputs and improve the legacy of the project. Thus we are confident of achieving the projects' purpose of facilitating conservation of elephants by mitigating human-elephant conflict in Assam.

8. Please list all the institutions involved including the UK/collaborative (where there are partners in addition to the applicant organisation) and host country partners that will be involved in the Post Project, and explain their roles and responsibilities in the project and in the original project (if applicable). Describe the extent of their involvement at all stages, including Post Project development. This section should illustrate the capacity of host country partners to be involved in the project. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

<p><b>Lead UK institution and website where available:</b></p> <p>North of England Zoological Society (Chester Zoo) <a href="http://www.chesterzoo.org">www.chesterzoo.org</a></p>	<p><b>Details (including roles and responsibilities and capacity to engage with the project):</b></p> <p>The Conservation &amp; Science Division of NEZS, which runs Chester Zoo, works to integrate <i>in-situ</i> and <i>ex-situ</i> conservation activities and support conservation initiatives in developing countries through partnerships, transfer of skills, training, and the sharing of access to resources. NEZS uses its variety of staff skills to provide technical input into conservation projects in the UK and abroad, in areas such as: conservation breeding, endangered species management, wild animal rescue, veterinary care, re-introduction, conservation education and awareness, and particularly human-wildlife conflict work.</p> <p>In this project, NEZS provides expertise in human-wildlife conflict mitigation, GIS technical skills, and the design of research protocols, and is responsible for overall coordination, financial controlling, strategic planning and liaison with media or other external parties outside India.</p>
<p><b>Lead host country Partner and website where available:</b></p> <p>Ecosystems-India</p>	<p><b>Details (including roles and responsibilities and capacity to engage with the project):</b></p> <p>EcoSystems-India (ESI) was established in 2000 in response to the urgent and growing need to conserve the rich natural resource base of India in the face of the unsustainable development, particularly in the north-eastern India. The mission of the Trust is to promote conservation of natural biodiversity with special thrust on threatened and endangered wildlife and their habitats, and to encourage sustainable and efficient management of natural resources.</p> <p>In this project, ESI provides expertise in community-based conservation and participatory management, and is responsible for the recruitment and supervision of field staff, monitoring of workplans, management of local finances, purchase of local materials and equipment, assistance with the production of reports, and dissemination of outputs within India.</p>
<p><b>Partner Name and website where available:</b></p> <p>Pygmy Hog Conservation Programme</p>	<p><b>Details (including roles and responsibilities and capacity to engage with the project):</b></p> <p><i>The Pygmy Hog Conservation Programme</i> (Darwin Initiative grant partner in 15-017) provides our project with technical skills and advice for the construction and maintenance of fencing, solar-powering and construction. They also take part in many of our strategic meetings to provide feedback and input. The Pygmy Hog Conservation Programme was been a valued partner in our previous main project grant (16-007)</p>
<p>Centre for Environmental Education <a href="http://www.ceeindia.org">www.ceeindia.org</a></p>	<p><i>The Centre for Environmental Education</i> (CEE) (a past Darwin Initiative grant partner in 06-017) will advise this project on educational aspects and work with us to produce training materials and run workshops. Their regional experience and specialisation will help ensure quality control in the educational components of this project and wide dissemination across the region. CEE was a very helpful partner in the previous (main grant) phase of this project.</p>

<p>The Energy and Resources Institute (TERI) www.teriin.org</p>	<p><i>The Energy and Resources Institute (TERI)</i> is a national research institute formed to develop sustainable solutions to global problems in energy, environment and development. The central element of TERI's philosophy has been its reliance on entrepreneurial skills to create benefits for society through the development and dissemination of intellectual property. TERI began to advise our projects in the latter stages of the main grant, we now wish to formalize their input into our livelihood training programmes; they assist with training workshops on sustainable agriculture and cultivation of alternative cash crops, including chilli. A letter of TERI's support is enclosed.</p>
<p>Dharikai Anjon Swasthya Kendra (DASK)</p>	<p><i>Darikati Anjon Swasthya Kendra (DASK)</i> was initiated in 1999 with close association from the North East Network. DASK began its work as a health collective in the community and is registered under the Societies Registration Act XX1 of 1860. DASK has a team of trained young active volunteers and leaders who work with communities to promote sustainable resource use and create sustainable livelihoods. DASK will be involved in the planning and execution of our livelihood programme for self-help groups (SHGs). They will provide training on handicrafts and help in developing market linkages for the sale of the products. A letter of DASK's support is enclosed.</p>
<p>Mahila Shakti Kendra (MASK) www.mahilashaktikendra.com</p>	<p><i>Mahila Shakti Kendra (MASK)</i> is a federation of 93 self-help groups (SHGs) registered under Societies Registration Act XX1 of 186 in Sonitpur district. Most of the self-help groups are poor and underprivileged rural women's groups. MASK is a self-sufficient development support organization with an office in Balipara. MASK's understanding of the local livelihood issues will be valuable in assisting us in the further development of our capacity building programme. It will provide inputs for identification of self help groups, assessment of livelihood training needs as well as conducting of workshops on income generating schemes. A letter of MASK's support is enclosed.</p>
<p>Nature's Foster www.naturesfoster.org</p>	<p><i>Nature's Foster</i> is a member-based NGO promoting community based initiatives, as well as field research for biodiversity and natural resource conservation in lower Assam. Its main areas are alternative livelihood through self-help groups, watershed management, research on endangered primates, human-elephant conflict and avifauna of wetlands. Nature's Foster's engagement in the project's field activities will focus on assistance in the implementation of village-level outreach in Baksa and Chirang districts in lower Assam, where they have local knowledge. A letter of Nature's Foster's support is enclosed with this application.</p>
<p>Aaranyak www.aaranyak.org</p>	<p><i>Aaranyak</i> (Darwin Initiative grant partner in EIDPR101) is a premier environmental organization of northeast India working towards biodiversity conservation and sustainable resources management in the region. It is a cohesive group of highly qualified young conservation biologists and professionals from diverse disciplines who have successfully complete numerous projects and programmes on a variety of environmental issues concerning the northeastern Himalayan region of India. It works in close association of the state forests departments, local communities and local organizations and institutions. Aaranyak's will team up with this project on elephant crop raiding interventions in lower and upper Assam where they have staff on the ground and know the regions very well. The will collaborate with us in the identification of project villages, planning and implementation of interventions, and monitoring of elephant movements. A letter of Aaranyak's support is enclosed with this application.</p>

<p><b>Nature Conservation Foundation (NCF)</b> www.ncf-india.org</p>	<p>Nature Conservation Foundation (NCF) is a team of young dedicated wildlife biologists with expertise in planning, designing and running long-term research and conservation projects in India. Several NCF projects are community-based conservation initiatives involving close co-operation and partnership with local tribal communities especially in the Himalayas. NCF have a well established nursery of 20,000 saplings from 80 native rainforest tree and liana species. These saplings are used to restore areas of degraded forest fragments. We will draw on NCF's expertise and experience to plan and develop a strategy for the habitat restoration aspects of this project. They will provide technical inputs for the planning and execution of habitat improvement and restoration measures in the existing project sites. A letter of NCF's support is enclosed with this application.</p>
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<p><b>9a. Have you consulted stakeholders not already mentioned above?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>If yes, please give details:</b></p> <ul style="list-style-type: none"> <li>▪ Forest Department, Government of Assam – Chief Wildlife Warden</li> <li>▪ Forest Department, Government of Assam – Divisional Forest Officers, Forest Department, Government of Assam – Divisional Forest Officers, Teritorial Divisions in the project area</li> <li>▪ Agriculture Department, Government of Assam – District Agriculture Officer</li> <li>▪ College of Veterinary Sciences, Guwahati, Assam</li> <li>▪ Veterinary Department, Government of Assam – District Veterinary Officer</li> <li>▪ Revenue Department, Government of Assam - Circle Officers</li> <li>▪ Village Panchayats (village councils approved by Central Government) in project areas</li> <li>▪ District Commissioners, Government of Assam in project areas</li> <li>▪ Assam Remote Sensing Application Centre, Government of Assam</li> <li>▪ Williamson Magor and other tea companies having estates in project areas, particularly Rupajuli and Tarajuli Tea Estates</li> <li>▪ Other local NGOs working on elephant conservation in Assam: e.g. SERDO, WWF-AREAS Programme, Wild Areas Development and Welfare Trust, Dolphin Foundation.</li> </ul>
<p><b>9b. Do you intend to consult other stakeholders?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><b>yes, please give details:</b></p> <p>all consulted already</p>
<p><b>9c. Have you had any (other) contact with the government not already stated?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><b>If yes, please give details:</b></p>
<p><b>9d. Is any liaison proposed with the CBD/CMS/CITES focal point in the host country?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>If yes, please give details:</b></p> <p>Our project has linkages with the CBD National Focal Point, Ministry of Environment and Forests (MoEF), Government of India, through regular communication with the Assam Forest Department.</p>
<p><b>9e. Will your project support any work in the UK Overseas Territories?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><b>If yes, please give brief details stating which Territory/ies will be involved.</b></p>

## POST PROJECT DETAILS

**10. Please provide a Concept Note (max 1,000 words). Describe the problem to be addressed, explain why it is a priority for the host country and how its resolution will improve host country ability to meet its obligations under CBD/CMS/CITES. The proposed strategy and its intended outcomes should be described adequately, including justification for and brief details of the contribution of each UK and host country partner.**

North-east India has been highlighted by expert groups such as the IUCN Asian Elephant Specialist Group as a top priority for elephant conservation, with a particular need for the mitigation of human-elephant conflict (HEC). The forests of the Himalayan foothills contain one of last remaining large elephant populations but also one of the most acutely threatened. Unsustainable extraction of forest products and expansion of agriculture are fragmenting habitat, the most visible and immediate effect of which is direct conflict between elephants and people. This conflict has become an annual occurrence which results not only in loss of crops, but also destruction of houses and loss of human lives, and in turn, retaliation against elephants. An indicator of the severity of this conflict is the fact that in the past five years communities, who by religion and culture normally respect all wildlife and especially elephants, have taken to poisoning elephants in desperate attempts to protect lives and livelihoods. The conflict in Assam appears to be one of the worst in the world, and, relative to other parts of India, receives very little funding and international attention. Long-term strategies for elephant habitat restoration and conservation are needed, but meanwhile community tolerance levels are rapidly deteriorating. This needs to be redressed urgently so that rural communities re-gain their willingness to protect forests, biodiversity and contribute to regional conservation efforts.

Through the original Darwin project we have gained tremendous insight into the complexities of HEC in Assam and earned the respect of other organisations who now come to us for advice on matters concerning HEC. The original project targeted two sample regions of Assam, but HEC is a problem across most of the state, so we plan to scale-up activities to achieve a greater impact.

Human elephant conflict occurs in approximately 16 (out of 27) districts in Assam, we have identified six main regions where HEC is a considerable problem. We currently work in two of these regions, so we will be adding four more, and aiming to work with two new villages in each.

The work will be organised into five sub themes:

1) Crop-raiding and damage protection measures will be implemented in selected (worst-affected) villages, building capacity among villagers and new field staff and reducing the frequency of damage. We have found that neighbouring villages become influenced by the focus on these village and tend to copy methods and ideas. This way we indirectly reach out to 4-8 villages (depending on remoteness) per area.

2) We will expand and scale up our pilot work with sustainable livelihoods by working with existing self-help groups and helping communities start up small businesses with products such as cash crops, jute, handcrafts, incense, pickling, citronella and weaving. This is particularly important for villages severely affected by elephants and those with a high percentage of BPL (below poverty line) households.

3) Education events such as workshops, field trips, demonstrations and teacher training proved popular in the original project and will be continued in the new project regions. An education evaluation expert is joining the team to carry out professional assessments. We will print another 500 copies of our "Living with Elephants" handbook, and will soon have the results of our current evaluation of this handbook.

4) Habitat loss is a very difficult thing to tackle in Assam, as in many areas the reasons involve politically motivated rebel movements, illegal logging, and large-scale developments. In many other areas however, habitat loss is due to small-scale firewood collection. It is this latter threat with which we will begin. We will work with three villages which will become models as communities that protect habitat and pursue sustainable fuel sources. In these three villages we will: a) set up community-based re-forestation areas with native flora at habitat margins, b) establish plantations for firewood, and c) source and donate more fuel-efficient stoves for households; either ones that use half as much wood (a family uses about 15kg of wood per day) or ones that use other fuels. We will give these in particular to BPL (below poverty line) families. Finally, we will run a competition, rewarding the village that has planted the most seedlings and reduced their wood harvest the most while not harming a single elephant, with some form of development aid of their choice (e.g. a new water well, or whatever they need).

5) Finally, we will continue with research, expanding this time to an Assam-wide survey of HEC patterns; the data from which will be made available and will be helpful for long-term strategic planning. We will also carry out evaluation research on each of the above 4 components, measuring key indicators at the start and at project end, so that lessons for best practice can be documented and shared.

The contributions of each of the partners are described in Question 8.

**11. Are you aware of any other individuals/organisations/Darwin Initiative projects carrying out similar work?**  Yes  No

**If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have/will be made to co-operate with and learn lessons from such work for mutual benefits:**

Human-elephant conflict (HEC) is common and widespread in Asia and Africa and many organisations work on this issue. Within Assam, a number of small grassroots NGOs try to assist with HEC as they occur but have very limited capacity to do so. They regularly approach our project for advice and assistance. We have discussed ideas with them and they welcome our proposal to expand efforts to all of Assam; several pledging their support to this project and two joining as formal partners.

The Forest Department, Government of Assam, is under tremendous pressure from the public and the media to resolve HEC, but has limited human resources to devote to the matter in a focused way, therefore welcoming the assistance of NGOs. We have built excellent relations with the Forest Department over the past years.

Further afield, we also communicate with HEC projects in South India, Borneo and Sumatra, exchanging ideas and advice by email and at conferences on technical aspects as they arise, and sending each other copies of our reports and papers. Our field team visited the Nature Conservation Foundation's (NCF, now a partner of this project) projects in Valparai, South India twice and our two projects have been exchanging ideas and information regularly since. Team members have also visited Darwin Projects 14-024 (Thailand) and 14-014 (Borneo) and we've exchanged ideas with 15-040 (Kenya).

The Project Leader also leads the project "Securing Human-Elephant Coexistence in Sumatra" (17-024), with which information and capacity building exchanges are in preparation.

**12. Please indicate which of the following biodiversity conventions your project will contribute to:**

At least one must be selected.

- Only indicate the conventions that your project is directly contributing to.

- No additional significance will be ascribed for projects that report contributions to more than one convention

Convention on Biological Diversity (CBD)  Yes  No

CITES  Yes  No

Convention on Migratory Species (CMS)  Yes  No

**What problem is this project addressing and how was it identified? (150 words)**

India's National Biodiversity Strategy, through its state-level Biodiversity Strategy and Action Plans and the Ministry of Environment and Forest's *Project Elephant* programme, mitigation of conflict and conservation of habitat have been accorded highest priority for the survival of the Asian elephant in India. Our project directly addresses the urgent need for human-elephant conflict mitigation called for by Assam's Minister of Environment, Chief Conservator of Forests and Chief Wildlife Warden, District Forest Officers, Tea estate managers and the rural communities affected.

**What will change as a result of this project? (150 words)**

This project will save lives and reduce the threat of human-elephant conflict by managing and off-setting losses of income due to elephant damage. The sustainable livelihood project component will diversify income sources and improve livelihood security. The forestry component will provide a practical example of a sustainable approach to forest use and conservation, as an inspiration for others to copy, and/or to be replicated in future elsewhere. Local capacity and awareness will increase dramatically on a large geographic scale. In sum, this project will demonstrate how to tackle human-elephant conflict effectively, working at the community level but operating at a state-wide level to turn this under-resourced and HEC burdened region into a model for other projects in the world working to mitigate human-wildlife conflicts.

**Why is the project important for the conservation of biodiversity? (150 words)**

Human-elephant conflict (HEC) is a complex problem that occurs wherever elephants and people share a landscape and compete for resources. Assam has a growing human population with increasing demands for land. As a result of increasing agriculture and settlements within the elephant range more people are coming into conflict with elephants. Elephants raid crops and occasionally damage buildings and injure people. This threatens farmers' livelihoods and personal safety, and in turn creates anger towards elephants from the communities which live with them. In extreme cases this leads to farmers killing elephants. Ultimately HEC undermines support for elephant conservation and threatens the survival of elephants outside protected areas; tackling this conflict is therefore a conservation priority.

**How does this relate to one or more of the biodiversity conventions? (150 words)**

The work of this project aligns with the three main objectives of the CBD (and particularly Article 8): to conserve biological diversity (elephants and their habitat), to use biodiversity in a sustainable way (component on firewood plantations and alternative fuel sources), and to share the benefits of biodiversity equitably (reducing the costs and risks of living with elephants and reducing poverty). Our project has linkages with the CBD National Focal Point, Ministry of Environment and Forests (MoEF), Government of India, through regular communication with the Assam Forest Department. The MoEF's *Project Elephant* was established in 1991 to develop strategies to conserve the elephant and its habitat, with particular emphasis on mitigation of human-elephant conflicts. The Forest Department's efforts to reduce conflict are governed by MoEF Project Elephant guidelines. Our project will complement the local FD's efforts to reduce HEC.

**13. Explain how gains from the Post-project work will be distinct and additional to those of the existing project. Show, where possible, how these gains require limited resources and could not be achieved without the funding. (max 200 words)**

This project builds on the previous work but scales-up its efforts to tackle HEC across all of Assam and introduces new components that will enhance its impact and legacy. Having now become a respected authority on HEC mitigation in Assam and carried out extensive applied research with 5 scientific publications in preparation, our project will:

- 1) Expand to 8 new villages in 4 new regions across 14 new districts using the protocols developed in the original project.
- 2) Follow Recommendation 8 of the MTR and substantially increase efforts on sustainable livelihoods work
- 3) Bring in more education experts to provide more creative approaches and professional evaluations
- 4) Start to address habitat degradation pro-actively by assisting three model villages to reforest habitat margins, establish firewood plantations and use sustainable cooking stoves
- 5) Expand our survey methodologies to build a picture of HEC patterns across all of Assam.

The expansion of the project and the addressing of habitat degradation require intensive training and manpower, which would not be possible without additional funding. Building on our original approach will ensure the project provides lasting benefits through increased capacity at the community level.

**14. What will be the long term benefits of the project in the host country or region and how will these help to strengthen the impact and legacy of your original Darwin project? Have you identified any potential problems to achieving these benefits? (max 250 words)**

The work will leave a lasting legacy by leaving in place a long-term framework and model for:

1. Reduced levels of human-elephant conflict, leading to fewer human and elephant injuries and deaths, and loss of income and property.
2. The uptake of sustainable livelihood schemes by communities threatened by elephants, offsetting risks of elephant damage and improving quality of life.
3. Education materials and events to help villagers, teachers and children become more aware of conservation issues and options for co-existing with elephants.
4. Modelled integrated approaches for habitat protection and sustainable fuel sources
5. Comprehensive datasets from state-wide surveys of HEC patterns, providing information for long-term strategic conservation planning.

In doing this, the project will help the Indian government meet a small part of its obligations to the CBD

**15. State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave? (Max 200 words)**

This project's central theme is conflict mitigation through safety and sustainable livelihoods. It can realistically aim to reach a point at which conflict is reduced to a tolerable level (no deaths, and income losses that communities can offset with other incomes) and in which the sustainability of micro-enterprises and habitat protection is very likely to persist in the long-term.

Human-wildlife conflicts have always existed and can never be completely eliminated, it would therefore be unrealistic to aim to resolve all issues 100%. Within the short time frame of this project we are confident that we can bring HEC under control and establish solid livelihoods activities for the long-term.

With the substantial amount of capacity building in this project NEZS foresees a point where it can withdraw and hand over any future work to EcoSystems-India (ESI). ESI in turn foresees a point where it withdraws from working intensively on the ground with communities and step into an advisory role.

However, NEZS has a strong commitment to supporting ESI, so if future challenges or new opportunities should arise and ESI so wishes, we would find ways to continue to strengthen the legacy of the Assam Haathi Project even beyond this Darwin grant.

**16. How will the results of the project be disseminated? How will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used? (max 200 words)**

The work will be promoted as a Darwin project to Chester Zoo's 1.2 million annual visitors and its membership of 34,000 via interpretation, talks, magazine articles, reports, scientific publications, the zoo's website and the project's website: [www.assamhaathiproject.com](http://www.assamhaathiproject.com). Where possible, all written project outputs will bear the Darwin logo; NEZS' PR staff will ensure quality control on press releases and the use of the Darwin logo in any media. Local newspaper articles/features and articles in nature magazines in the UK and India are expected. Project staff will identify the Darwin project in presentations at conferences and workshops, and on educational and training materials, maps, posters, news items, and websites. Ecosystems-India will also promote the work as a Darwin project in Assam, and globally, through a combination of interpretative materials at ESI offices and the project's help centres and through talks, media and publications. In Nov 2009 the project was filmed for a documentary on Discovery Channel; meanwhile the BBC and an independent filmmaker have contacted us with ideas of producing two more documentaries and a feature film.

**17. If your project includes training and development, please indicate how you will assess the training needs in relation to the overall purpose of the project. Who are the target groups? How will the training be delivered? What skills and knowledge to you expect the beneficiaries to obtain? How will you measure training effectiveness? (max 300 words)** You should address each of these points.

Training and capacity building will target three groups: project staff, community members, and teachers.

A geographic expansion of workload requires an increase in staff, which means that four new site coordinators and several field assistants will need to receive training. This training is informal and on-the job and will be given by the original project's former trainees. The skills learnt will include the crop protection measures, the recording and monitoring processes, use of GPS and general data collection and entry, administration of questionnaire surveys, and GIS training will be offered to those interested. The site coordinators will also have opportunities to travel to HEC projects outside Assam and a chance to come to the UK.

Communities from a further 8 villages throughout Assam will be trained in crop protection measures by the field assistants who learned these techniques during the original project. The learning, however, is reciprocal; project staff and villagers quite often come up with improvements to methods together. People in those villages wishing to try out livelihoods schemes will receive workshop-based training, which will be provided by our self-help group partners. Similarly, there will be some demonstration-type training for the villages participating in tree planting and trials of sustainable stoves.

We will continue to offer teacher training workshops, as these proved very popular in the original project.

The training will be evaluated through baseline and follow-up interviews, to measure knowledge, perception of capacity, and attitudes. Various indicators of training success will be articulated, for example, whether a trainee has taken an idea or technique to a further level of improvement on his/her own initiative.

## LOGICAL FRAMEWORK

18. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note for Main applications.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Goal:</b> Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity, the Convention on Trade in Endangered Species, and the Convention on the Conservation of Migratory Species, as well as related targets set by countries rich in biodiversity but constrained in resources.			
<b>Sub-Goal:</b> Asian elephants in Assam are protected from the threats of human-elephant conflict (HEC), and people living near elephant habitat are safe and able to engage in sustainable livelihoods and conservation activities in line with the CBD.	Project outcomes and evaluations show reduction in HEC and improved prospects for elephant conservation across Assam, as well as improved livelihood security for local communities, with model community reforestation projects established.	Monitoring data and evaluation studies from each of the Outputs: spatio-temporal monitoring of HEC incidences, measurement of livelihood activities and income generation, evaluation of education efforts, feasibility outcome of pilot re-forestation model villages.	
<b>Purpose</b> To mitigate human-elephant conflict across Assam, allowing communities to pursue sustainable livelihood schemes and support activities for elephant and habitat conservation.	Project villages report significant reduction in of damage; no elephants harmed. Diversification of income sources in participating villages leads reduced dependency on crops Education materials used by teachers/students Reduction in the dependency on firewood Patterns and hotspots of HEC examined	Detailed records of protection methods and monitoring of elephant damage. Participatory questionnaires for households on livelihood strategies. Reports on workshops and follow-up surveys and meetings held. Transect surveys of forest areas and re-forested plots, household surveys. Data from Assam-wide HEC study	
<b>Outputs</b> 1. Reduced levels of human-elephant conflict lead to fewer (human and elephant) injuries, deaths and loss of income and property.	12 (8 new) villages in 6 'HEC regions' gain capacity to protect from elephants Neighbouring villages copy and adopt methods observed in focal project villages (avg 5 villages per region). Average 50% reduction of crop/property loss in these villages by project end. No people and no elephants injured or killed in project villages	HEC monitoring protocols provide spatial and temporal data on all HEC events in project villages Surveys with villagers to assess capacity and attitudes before and after outreach	Communities willing to learn and apply crop protection methods using materials provided and methods demonstrated. Crop protection techniques implemented correctly as demonstrated.
2. Uptake of sustainable livelihood schemes by communities threatened by elephants offsets risks of elephant damage and improves quality of life.	20 villages participate in schemes for additional livelihoods 50% of participating households increase incomes above poverty line Livelihoods schemes established and set to continue beyond the project	Assessment of income generated (whether profitable/sustainable) Quantity and quality of products brought to markets Survey data on household income sources	Communities are willing able and free to try out new livelihood schemes Products produced are marketable and will sell in local shops/markets

<p>3. Education materials and events help villagers, teachers and children become more aware of conservation issues and options for co-existing with elephants.</p>	<p>30 education events across the 6 regions by end of project Re-print of HEC handbook and distribution of 500 more copies Production and distribution of further education materials</p>	<p>Extent to which handbook is used across project regions Reports and data on evaluation of education methods and events</p>	<p>Handbook found to be effective in evaluation study in original project (in prep)</p>
<p>4. Integrated approaches for habitat protection and sustainable fuel sources trialled and demonstrated in model villages.</p>	<p>3 selected villages participate in model village competition, involving: Planting of native seedlings for local habitat reforestation Establishment of firewood plantations Trials of cooking stoves which use 50% less wood, or no wood at all Competition winner receives developmental aid at end of project All BPL (Below Poverty Line) households (average 30% of villages) use improved fuel stoves by end of project</p>	<p>Number of seedlings raised and planted (for both reforestation and firewood plantations) Data from socio-economic surveys on poverty levels and response to alternative stoves trialled.</p>	<p>Villagers able and willing to participate in the activities of this Output, and agree to abide by condition of the competition (= not to harm any elephants for the duration of the project)</p>
<p>5. A state-wide survey of human-elephant conflict hotspots provides data for long-term conservation planning.</p>	<p>GIS data and socio-economic surveys gathered and processed for rapid state-wide survey of HEC patterns Detailed monitoring and evaluation studies for Outputs 1-4 provide measurable results of this project's work</p>	<p>Data and survey reports, academic papers, presentations at conferences, popular media reports. Data made available for strategic and management planning.</p>	<p>Staff and/or students are available to collect data for the survey.</p>

- Activities**
- 1.1. Implementation of crop protection methods in 8 new project villages
  - 1.2. Hands-on training and workshops to be held in the project villages
  - 2.1. Development of supplementary livelihood ideas and business planning
  - 2.2. Training for production of products
  - 2.3. Marketing and sales
  - 3.1. Disseminate further copies of 'living with elephants' handbook
  - 3.2. Produce and distribute further educational materials
  - 3.3. Workshops and training activities held with teachers and students
  - 4.1. Background research and demarcation of potential replanting areas
  - 4.2. Establish nursery and plant out (both for reforestation and firewood)
  - 4.3. Trials of alternative stoves, distribution and demonstrations
  - 5.1. Assam-wide HEC survey
  - 5.2. Evaluation of effects of interventions and self-help capacity of villagers
  - 5.3. Evaluation of livelihood schemes
  - 5.4. Evaluation of knowledge and attitudes as a result of education tools and events
  - 5.5. Evaluation of model reforestation, firewood plantation and fuel stove trials

**Monitoring activities:**

Indicator 1. Recording of HEC using standardised protocol methods developed in the previous main project

Indicator 2. Participatory household surveys assessing livelihood strategies and dependency

Indicator 3. Evaluation forms and focus groups held for workshop participants

Indicator 4. Forest transects to monitor growth of re-forested areas; household surveys of firewood and efficient stove use

Indicator 5. Compilation and analysis of survey data on HEC across all of Assam. Systematic evaluation studies of outputs 1-4

19. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your Post Project.

Activity	Months	FY 2010/11				FY 2011/12				FY 2012/13			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.1 Implementation of crop protection methods in 8 new project villages	24			X	X	X	X	X	X	X	X		
1.2 Hands-on training and workshops to be held in the project villages	12			X	X	X	X	X	X	X	X		
2.1 Development of livelihood ideas and business planning	9			X	X	X							
2.2 Training for production of products	6						X	X	X				
2.3 Marketing and sales	6									X	X		
3.1 Disseminate further copies of 'living with elephants' handbook	2			X	X								
3.2 Produce and distribute further educational materials	8			X			X	X			X		
3.3 Workshops and training activities held with teachers and students	8					X	X			X	X		
4.1 Background research and demarcation of potential replanting areas	4			X	X								
4.2 Establish nursery and plant out (both for reforestation and firewood)	12					X	X	X	X				
4.3 Trials of alternative stoves, distribution and demonstrations	9					X	X	X					
5.1 Assam-wide HEC survey	24			X	X	X	X	X	X	X	X		
5.2 Evaluation of interventions and self-help capacity of villagers	8			X	X					X	X		
5.3 Evaluation of livelihood schemes	8			X	X					X	X		
5.4 Evaluation knowledge & attitudes as a result of education and events	8			X	X					X	X		
5.5 Evaluation of reforestation, firewood plantation and fuel stove trials	8			X	X					X	X		

**20. Please indicate which of the following Standard Measures you are likely to report against. You will not necessarily plan to cover all these Standard Measures in your project.** Separate guidance on Standard Measures can be found at [http://darwin.defra.gov.uk/resources/reporting/standard measures/](http://darwin.defra.gov.uk/resources/reporting/standard%20measures/)

Standard Measure	Description	Tick if Relevant
1A	Number of people to submit thesis for PhD qualification (in host country)	
1B	Number of people to attain PhD qualification (in host country)	
2	Number of people to attain Masters qualification (MSc, MPhil etc)	
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above)	
4A	Number of undergraduate students to receive training	
4B	Number of training weeks to be provided	
4C	Number of postgraduate students to receive training	
4D	Number of training weeks to be provided	
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	✓
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	✓
6B	Number of training weeks to be provided	✓
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country	✓
8	Number of weeks to be spent by UK project staff on project work in the host country	✓
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	✓
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	
11A	Number of papers to be published in peer reviewed journals	
11B	Number of papers to be submitted to peer reviewed journals	✓
12A	Number of computer based databases to be <b>established</b> and handed over to host country	
12B	Number of computer based databases to be <b>enhanced</b> and handed over to host country	✓
13A	Number of species reference collections to be <b>established</b> and handed over to host country(ies)	
13B	Number of species reference collections to be <b>enhanced</b> and handed over to host country(ies)	
14A	Number of conferences/seminars/ workshops to be <b>organised</b> to present/disseminate findings	✓
14B	Number of conferences/seminars/ workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.	✓
15A	Number of national press releases in host country(ies)	
15B	Number of local press releases in host country(ies)	✓
15C	Number of national press releases in UK	✓
15D	Number of local press releases in UK	
16A	Number of newsletters to be produced	
16B	Estimated circulation of each newsletter in the host country(ies)	
16C	Estimated circulation of each newsletter in the UK	
17A	Number of dissemination networks to be <b>established</b>	
17B	Number of dissemination networks to be <b>enhanced/ extended</b>	✓
18A	Number of national TV programmes/features in host country(ies)	
18B	Number of national TV programmes/features in UK	✓
18C	Number of local TV programmes/features in host country(ies)	
18D	Number of local TV programmes/features in UK	
19A	Number of national radio interviews/features in host county(ies)	✓
19B	Number of national radio interviews/features in UK	✓
19C	Number of local radio interviews/features in host country(ies)	✓
19D	Number of local radio interviews/features in UK	✓
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	✓
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased	
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	

23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	✓
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## PROJECT BASED MONITORING AND EVALUATION

**21. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in the monitoring and evaluation.**

Our monitoring and evaluation (M&E) plan will assess the first four of our Outputs (and is itself a part of the fifth component). Each of the four Outputs (as listed in the logframe) will be coordinated by one UK and one Assam team member, who will be jointly responsible for ensuring good implementation and M&E. The four Outputs will be evaluated as follows:

- 1) Monitoring of the frequencies and severities of conflict events (crop raiding, property damage, injuries and deaths of people and elephants, extent of retaliation) and effects of the interventions (crop protection measures etc). For this we already have a well-established method and protocol from our main project phase.
- 2) Communities will be surveyed before and after the livelihoods activities begin/end, using participatory research approaches to determine any change in livelihood dependence and diversity. The uptake of alternative livelihoods will also be monitored, and income generation from sale and attendance at workshops counted.
- 3) Educational materials developed for teachers and children will be evaluated via follow-up meetings, questionnaires, focus groups and/or other methods that have been developed by NEZS' education advisor (who is an expert in evaluating effects of education activities).
- 4) Household surveys before and after project activities will assess communities' use of firewood and type of stove. Transect surveys assessing tree growth and cover will be conducted in reforested and neighbouring forest areas.

All evaluation work will be designed and carried out jointly by NEZS and EcoSystems-India staff, and monitoring will take place throughout the course of the project duration, with evaluation studies towards the end of the project. We hold staff meetings to review progress and challenges regularly (both in UK and in India) and will have an all-staff exit meeting at the end of the project to review achievements with regard to impact and legacy.

## FUNDING AND BUDGET

**Please complete the separate Excel spreadsheet which will provide the Budget information for this application. Some of the questions below refer to the information in this spreadsheet.**

**NB: Please state all costs by financial year (April to March). Use current prices – and include anticipated inflation, as appropriate up to 3% per annum. The Darwin Initiative will not be able to agree increases in grants to cover inflation on UK costs once grants are awarded.**

**22. How is your organisation currently funded? (max 100 words)**

The North of England Zoological Society is a registered charity (306077) that runs Chester Zoo. The Society receives no direct government funding to fulfil its charitable objectives. Approximately 84% of the Society's income is from zoo admissions, catering and retail. Fundraising (legacies, trusts, donations and corporations) and membership bring in another 11%, and the remaining 5% comes from investments.

**23. Provide details of all confirmed funding sources identified in the Budget that will be put towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity. Please include any additional unconfirmed funding the project will attract to carry out additional work during or beyond the project lifetime. Indicate those funding sources which are confirmed.**

**Confirmed:**

£ 57,000 from Chester Zoo as financial contribution to project costs  
 £ 78,000 from Chester Zoo as in-kind contributions (salaries and overheads of UK staff)  
 £ 13,000 from EcoSystems-India as in-kind contributions  
 £ 6,000 from villages in India (labour) and partner organisations as in-kind contributions

**Unconfirmed:**

£ 42,000 from Chester Zoo to pay for Researcher position for the duration of the project  
 Also, Chester Zoo occasionally receives donations from visitors and members specifically for this project, and other unforeseen donations can occur, e.g. in 2009 the project was filmed for a documentary and the company donated £1000 to the project.

**24. Please give details of any further funding resources (confirmed or unconfirmed) sought from the host country partner (s) or others for this project that are not already detailed in the Budget or Question 22. This will include donations in kind or un-costed support eg accommodation. (max 50 words per box)**

**Financial resources:**

This project will create leverage for further funding for livelihoods by facilitating the flow of micro-credit from the financial institutions (government and private) to the SHG members, and by developing market linkages for the products created from our initiatives (handicrafts, food preservation, agriculture produce, etc.).

**Funding in kind:**

The host country partner, EcoSystems-India will be providing office space, computer use, and the use of a field vehicle. The advisory partners, PHCP, Nature's Foster, MASK,DASK, CEE will be providing their time and expertise partially free of charge in the training courses and workshops. The communities with which we work provide their time and labour to constructing, maintaining and adapting interventions, and also contribute materials (e.g. bamboo poles for fencing) from their own resources or savings. Further to this, each household will pay a small sum into a maintenance fund, which the community itself will administer.

**25. What was the amount of funding for the original Darwin Project?**

	<b>Total Project Costs £</b>
<b>Amount of original Darwin Initiative project funding</b>	179,750
<b>+ Funding/Income from other sources</b>	57,000
<b>= Total original project cost</b>	£236,750

**FCO NOTIFICATION**

**Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise details of the Darwin Post-project and the resultant work in the UK or in the host country.**

**CERTIFICATION 2010/11**

On behalf of the trustees\* of  
(\*delete as appropriate)

**North of England Zoological Society**

I apply for a grant of **£37,500** in respect of expenditure to be incurred in the financial year ending 31 March 2011 on the activities specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful. (This form should be signed by an individual authorised by the lead UK institution to submit applications and sign contracts on their behalf.)

**I enclose a copy of the organisation's most recent audited accounts and annual report, CVs for project principals and letters of support.**

NEZS' most recent annual report and accounts are available at:

<http://www.chesterzoo.org/Home/About/Annual%20Reports/~media/Elanor%20docs%20for%20linking/CZ%20Annual%20Report.ashx>

<b>Name (block capitals)</b>	ALAN SYKES		
<b>Position in the organisation</b>	COMPANY SECRETARY		
<b>Signed</b>	(signed on hardcopy posted)	<b>Date:</b>	1 December 2009

## Post Project Application - Checklist for submission

	Check
Have you provided actual start and end dates for your project?	✓
Have you provided your budget based on UK government financial years ie 1 April – 31 March?	✓
Have you checked that your budget is complete, correctly adds up and that you have included the correct final total on the top page of the application?	✓
Is the concept note within 1,000 words?	✓
Is the logframe no longer than 2 pages?	✓
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable in the email, but a wet signature should be provided in the hard copy version)	✓
Have you included a 1 page CV for the Project Leader, any other UK staff working >50% on this project, and for a main individual in each overseas partner organisation?	✓
Have you included a letter of support from the main overseas partner organisations?	✓
Have you checked with the FCO in the project country/ies and have you included any evidence of this?	✓
Have you included a copy of the UK organisations most recent annual report and accounts? An electronic link to a website is acceptable.	✓
Have you read the Guidance Notes for both Main projects and Post Projects ?	✓

Once you have answered Yes to the questions above, please submit the application, not later than midnight GMT on **Monday 30 November 2009** to [Darwin-Applications@ltsi.co.uk](mailto:Darwin-Applications@ltsi.co.uk) using the first few words of the project title as the subject of your email. However, if you are e-mailing supporting documentation separately **please include in the subject line** an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). In addition, a hard copy of the application and any supporting documents not available electronically should be submitted to the Darwin Applications, c/o LTS International, Pentlands Science Park, Bush Loan, Penicuik EH26 0PL postmarked **not later than Tuesday 1 December 2009**.

**DATA PROTECTION ACT 1998:** Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites (details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.