Darwin Initiative
Final Report
July 2008

Darwin project information

Project Reference	14-024
Project Title	Afro-Asian Elephant Community Conservation Network
Host country(ies)	Thailand and Kenya
UK Contract Institution	Zoological Society of London
UK Partner Institution(s)	None, but some collaboration with Friends of Conservation, FFI's HEC and Livelihoods Programmes, and DICE (University of Kent)
Host Country Partner Institution(s)	(1) Elephant Conservation Network (ECN) (2) Salakpra Wildlife Sanctuary & Chalerm Rattanakosin National Park (3) Wildlife Conservation Office, Department Nature Conservation (4) Jumbo Travel, Kanchanaburi, Thailand
Darwin Grant Value	£188,188
Start/End dates of Project	July 2005 / July 2008
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Project Website	www.ecn-thailand.org
Report Author(s) and date	Belinda Stewart-Cox with input from Jittin Ritthirat and Saipin Waihoo (also ECN), Metha Santikul, Prawut Prempri, Nui Maneenil (Salakpra), Wasant Sunjirat, Issara Maneeso, Yuppadee Kaewna (local leaders)

ACRONYMS

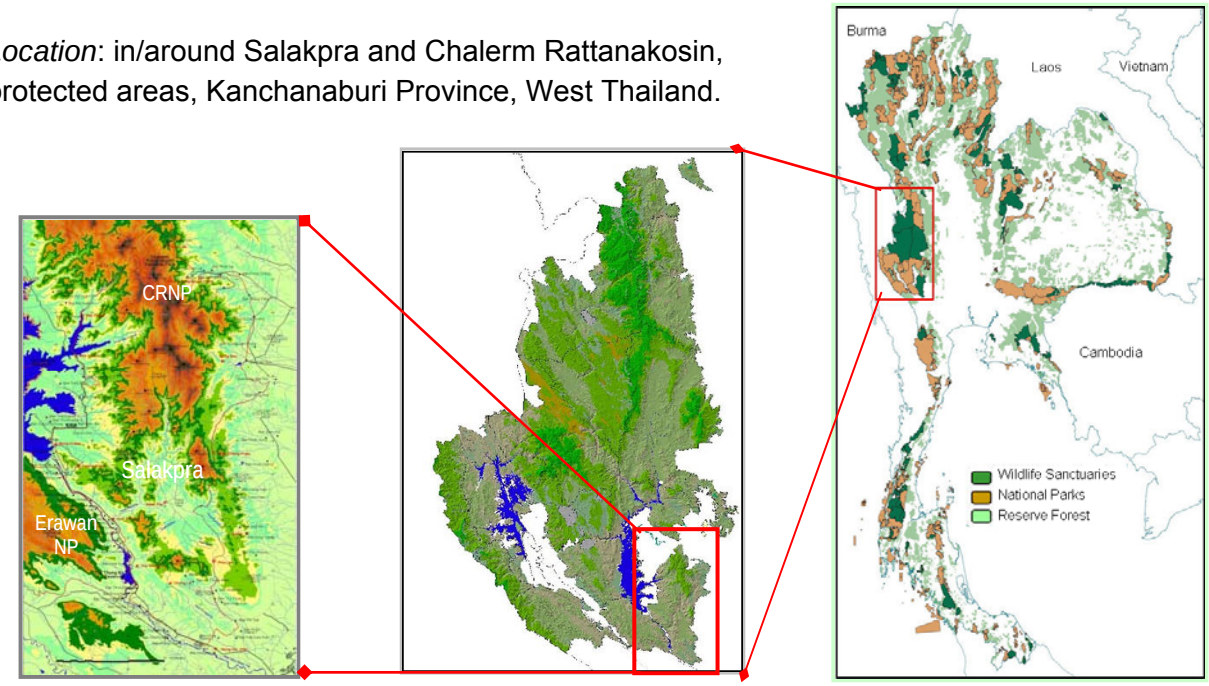
AsESG	Asian Elephant Specialist Group
CMU	Chiang Mai University
CRNP	Chalerm Rattanakosin National Park
DI	Darwin Initiative
DICE	Durrell Institute of Conservation & Ecology
DNC	Department of Nature Conservation
ECN	Elephant Conservation Network
FFI	Fauna & Flora International
FOC	Friends of Conservation
FORRU	Forest Research & Restoration Unit
GO	Government Organisation
HEC	Human-Elephant Conflict
KNCF	Keidanren Nature Conservation Fund
KWS	Kenya Wildlife Service
MIKE	Monitoring the Illegal Killing of Elephants
MONRE	Ministry of Environment and Natural Resources
NTFP	Non-Timber Forest Product
PA	Protected Area
SEECA	Salakpra Elephant Ecosystem Conservation Alliance
SWS	Salakpra Wildlife Sanctuary
TEATA	Thailand Eco & Adventure Tourism Association
US-FWS	US Fish and Wildlife Service
VM	Village Monitor
WCS	Wildlife Conservation Society
WEFCOM	Western Forest Conservation Complex
ZSL	Zoological Society of London

1 Project Background

Context: The Western Forest Complex is home to Thailand's largest population of wild elephants - around 1,000 individuals - 20% of which live in its south-eastern corner where they are at risk of being isolated by human expansion.

Problem: human-elephant conflict (HEC), mostly crop-raiding around the protected areas and ecosystem degradation inside them.

Location: in/around Salakpra and Chalerm Rattanakosin, protected areas, Kanchanaburi Province, West Thailand.



Purpose: through Afro-Asian exchange and technical co-operation, to establish a community-based elephant conservation and conflict resolution initiative that serves as a model for participatory conservation and sustainable development in the region.

Outputs: all five of the projects final outputs have been achieved.

Achievements: this project has raised awareness of issues underlying human-elephant conflict on both sides of the equation; changed attitudes towards elephants and the protected area; facilitated the formation of community conservation-development groups; created a collaborative alliance of local stakeholders; and built confidence, trust and goodwill. Moreover, the project's inclusive all-round approach to addressing HEC in Thailand's flagship wildlife sanctuary is now serving as a model for similar problem areas in the south-east and south-west of the country.

2 Project support to the Convention on Biological Diversity (CBD)

By changing attitudes to elephants, protected areas and conservation, this project has set the stage for reducing the rate of biodiversity loss in future while contributing to poverty alleviation. It has achieved this by establishing a participatory self-help system and structures within which Salakpra and local communities are already working towards:

- reducing elephant habitat degradation, fragmentation and loss
- extending protected area coverage and create conservation corridors
- reducing crop-raiding and the threat it poses to elephants and people alike
- limiting and regulate forest use and NTFP collection to become more sustainable
- reducing poverty by providing other income options for villagers who depend on forest

Contribution to CBD: this project has contributed to four of the convention's focal areas: promoting the conservation of habitats; reducing the threat to endangered species; facilitating the sustainable use of forest resources; and reducing the threat to biodiversity through habitat loss, land use change and degradation.

Building capacity to conserve biodiversity: this project has supported host country institutions in building capacity to help meet Thailand's CBD commitments by strengthening the Elephant Conservation Network and by facilitating the development of community-based conservation-development groups and a collaborative network of stakeholders.

Contact with CBD focal points: ECN is in touch with CBD focal points in the Department of Nature Conservation & Ministry of Environment, and invited them to its March 2008 workshop.

Contribution to CITES & CMS: this project has supported CITES by contributing to Thailand's MIKE programme, but it has not supported CMS. Salakpra's elephants do not migrate.

3 Project Partnerships & Collaborations

3.1 Partnerships

- *Between ZSL & ECN*: this project was planned by ECN, with help from its (then) DICE/FOC advisor, Dr Matt Walpole who later moved to FFI. The partnership with ZSL was formed after ECN won a Darwin grant because the original UK partner, Friends of Conservation, could no longer support the project and ECN needed another partner to comply with DI's requirements. ZSL wanted to support *in situ* Asian elephant conservation, so took over the project and contracted Belinda Stewart-Cox, co-founder of ECN, to manage it for ZSL. The other co-founder, Jittin Ritthirat, continues to work as community coordinator with a growing role in local management. She and BSC have worked together for ten years, making this is a strong and committed partnership. The partnership between ECN and ZSL is also supportive and rewarding. ZSL has invested time, money and expertise in the project while providing regular guidance and supervision through the project leader.

- *Between ECN & the PAs*: the relationship between ECN and the target protected areas was established nine years ago when ECN did its first elephant survey in the area. During this project, it has become increasingly supportive, with regular communication and collaboration at every level, from the chiefs (three in eight years) and assistant chiefs to head rangers and individual forest guards. ECN also raised funds from private sources to provide much needed and much valued equipment for guard stations and patrol units.

- *Between ECN & DNC*: as BSC has worked with the Department of Nature Conservation for 22 years, and Jittin for 10, ECN has long-established relationships with people in DNC and continues to consult them regularly. The current Director-General of DNC and the Director of Wildlife Conservation know ECN well and seem to value its collaborative approach; ECN's official counterpart and advisor is Dr. Mattana Srikrajang, DNC's senior elephant researcher and coordinator of its MIKE programme (largely inactive since the Asia programme folded). Other project advisors direct the WEFCOM World Heritage Project and the Office of Budgets and Planning. In the last year, relations between ECN and the Ministry of Environment (MONRE) have also been strengthened. ECN contacted senior MONRE officials to share the findings and recommendations of its Srisawat corridor survey which were incorporated into the government plan for 2008/10. ECN is now developing a relationship with DNC's regional office, including its new WEFCOM programme.

- *Between ECN & local communities*: ECN has increasingly good, cooperative relations with local communities, especially those affected by crop-raiding, and with individual farmers, community leaders, teachers, monks, and some forest-users. Local people appreciate ECN's competence and commitment in seeking sustainable solutions to HEC, its regular feedback meetings, its practical support (e.g. with crop protection and CBO project plans), and its open, consultative approach.

- *Between ECN and Jumbo Travel*: ECN's private sector partnership is with Burapha (Jumbo) Chatupornpaisan, owner and manager of Jumbo Travel. Jumbo has 20-years experience facilitating community-based tourism in Kanchanaburi, is a founding member of the Thai Eco-Adventure Travel Association and the Tourism Society of Kanchanaburi, and is working with ECN to develop elephant ecotourism. Through Jumbo, ECN has developed good relations with other private sector leaders in Kanchanaburi. Together they are arranging an ecotourism study trip to the UK for the Governor of Kanchanaburi and provincial officials in Nov 2008, linked to Responsible Travel Day of the World Travel Market. The trip was Jumbo's idea but costs will be covered by the Thai government.

3.2 Collaborations

- *Between ECN & local government*: ECN works with two components of local government (the civil service and elected councillors) at district and provincial levels. With the civil service, it has good relations with the Governor of Kanchanaburi and district administrators in the project area. Within elected local government, ECN's closest collaboration is with sub-district councillors who must tackle crop-raiding. In the last year, these relationships have developed into real partnerships. More recently, ECN has started working with provincial councillors as well, advising HEC mitigation proposals and the sustainable tourism plan for Kanchanaburi.

- *Between ECN & universities*: ECN has long-established links with lecturers at Mahidol and Kasetsart Universities in Bangkok (the latter provided GIS training at cost). ECN is also developing a recruitment/training relationship with the Ecology Department of King Mongkut University of Science & Technology (a graduate now works with ECN), and has gone into partnership with the Forest Restoration and Research Unit of Chiang Mai University to develop FORRU-West Thailand and restore forest in and around Salakpra (funded by KNCF). ECN is forging collaborative links with biologists in the nearby campus of Mahidol University to research the impact of cattle in Salakpra, and with teachers at the Rajaphat College in Kanchanaburi to develop an elephant ecosystem education programme. Another ZSL project, the Bumblebee Bat survey of the EDGE programme, will use ECN's office as its Kanchanaburi base and ECN will provide local support. The project is run by Dr Sala Bumrungsri, Thailand's bat specialist and a former colleague of BSC who is now based at Prince of Songkhla University in south Thailand.

- *Between ECN & other NGOs*: in UK, ECN is still supported by Friends of Conservation with air-tickets, and it worked closely with Fauna & Flora International (UK & Kenya) to realise the project's Nairobi HEC workshop in 2006. It also worked with Dr Noah Sitati (DICE & WWF-Kenya) to organise the Kenya study rip and implement crop-protection trials. In Thailand, ECN has mutually supportive relations with WCS-Thailand, Wildlife Alliance (formerly WildAid) and WWF-Thailand. It also works with local NGOs, including the Association for the Development of Environmental Quality and the Park Volunteers Club.

4 Project Achievements

4.1 Impact: contributions towards the DI goal

This project has achieved biodiversity conservation impact it intended by raising local awareness of HEC issues, by altering attitudes towards elephants and the protected area, and by influencing behaviours enough to generate positive impacts on sustainable use and the equitable sharing of biodiversity benefits in future. Full project achievements are detailed in 4.2. Here, the impacts will be noted. They apply to ECN, local villagers, protected area personnel, community leaders, administrative officials - or all five.

(a) Positive impacts towards biodiversity conservation

- *Increased awareness*
  - of issues on both sides of the HEC equation
  - of the range and scale of human impacts on the forest
  - of the role of forest disturbance and degradation in crop-raiding
  - of the need to develop other income-earning options for forest users
- *Altered attitudes*
  - more tolerant of crop-raiding elephants
  - less resentful of protected area personnel
  - realising the benefit of cross-sector collaboration
  - recognising the value of Salakpra as a protected area
  - acknowledging the need for ecosystem restoration / conservation
- *Influenced behaviours*
  - elephant habitat enhancement in Salakpra
  - more cooperation between local partners to solve HEC
  - the creation of an HEC community support unit by Salakpra
  - farmers are beginning to plant crops that elephants do not eat
  - ten local communities form conservation-development organisations
  - local communities asked for help developing a forest restoration project
  - local communities and Salakpra support the creation of a conservation alliance
  - MONRE incorporates ECN's northern corridor recommendations into its work plan
- *Contributions towards Thailand's Biodiversity Strategy & Action Plan*

  As well as seeking sustainable solutions to human-elephant conflict - a major issue in Thailand - this project has contributed to all seven strategies in Thailand's Biodiversity Strategy and Action Plan by:

  (1) developing institutional capacity
  (2) enhancing biodiversity awareness and knowledge
  (3) strengthening capacity to conserve, restore, protect natural habitat in/outside PAs
  (4) increasing efficiency in conservation and sustainable use of natural areas
  (5) (towards) controlling, regulating and reducing threats to biodiversity
  (6) providing incentives and encouraging public participation
  (7) promoting international cooperation

  We have also contributed to Thailand's 2010 targets by monitoring elements of HEC, raising awareness, developing community networks and facilitating forest restoration.

(b) Towards a transition from unsustainable to sustainable use by:

- Identifying socio-economic factors that contribute to HEC / crop-raiding
- Highlighting the extent to which local and non-local people are using the forest
- Facilitating discussions managing the use of selected forest products sustainably
- Working with community organisations to develop other income-earning options
- Helping plan a collaborative project to develop cooperative PA conservation

(c) Working towards local benefits from HEC mitigation & biodiversity conservation by:

- Focusing government attention on the HEC problem in/around Salakpra
- Prompting the creation of Salakpra's HEC community support mobile unit
- Conducting an ecotourism feasibility study with local communities / partners
- Testing local and non-local crop-protection methods with HEC-affected farmers
- Facilitating the provision of community-managed electric fencing beside Salakpra
- Identifying the forest user groups in need of alternative income-earning opportunities
- Lobbying for local communities to have rights & responsibilities in regulating NTFP use
- Helping local communities develop projects that can tap into local government budgets
- Supporting the creation of a Salakpra Elephant Ecosystem Conservation Alliance
- Improving the project implementation capacity of community self-help groups
- Highlighting the unfair impact of non-local use of forest resources

4.2 Outcomes: achievement of the project purpose and outcomes

Outcomes are divided into headings that refer to each element of the project purpose.

- Afro-Asian exchange & technical co-operation realised

  - *HEC workshop with African and Asian case studies:* the ECN team, including its government counterpart, Dr Mattana Srikrajang, attended the two-day HEC workshop organised with FFI and WWF-Kenya (Walpole & Linkie 2007). The Thai team learned a great deal from the presentations and from meeting African colleagues. They, in turn, learned about HEC in Thailand from Dr Mattana and ECN's presentations.

  - *Kenya study trip skills & knowledge transfer*: the team was joined by its tourism partner and a documentary film-maker. They spent another 2.5 weeks visiting HEC mitigation projects and community-based ecotourism initiatives in Transmara, Naivasha, Laikipia and the south coast (ref. ECN trip report). It was an exceptionally instructive and inspiring trip that has informed much of ECN's work since. It also informed local communities around Salakpra and Kuiburi when ECN shared the lessons learned with them. A 9-part Thai TV series on the trip was broadcast twice a week.

  - *Dr Noah Sitati training visit to Thailand*: after the study trip, the Kenya counterpart came to Thailand to help plan the project's crop-protection trials (ref. Dr Sitati's trip report). At the end of his trip, ECN organised a media day for TV, newspaper and radio journalists. One TV crew returned a month later to make a 40-hour documentary about crop-raiding issue and the work of this project. Feedback received by ECN suggests that communities in east and south-east Thailand adopted two of the crop-protection methods tested as a result of seeing the film.

- Community-based elephant conservation & conflict resolution initiative underway
    - *Monitoring systems established:* as noted below, a participatory scheme for monitoring crop-raiding is well established; local and non-local crop-protection methods have been tested with farmers; land-use monitoring with community associates is underway; and seasonal forest surveys were implemented in three selected zones.
    - *New knowledge used to promote conservation and sustainable use*: by compiling and sharing information from every angle of the HEC issue, including socio-economic data, ECN has facilitated the following changes:
        - *raised awareness* of issues on both sides of 'The HEC Equation', showing that human impacts on elephants and their habitat are at least as serious as the elephant impacts on people, and are exacerbating crop-raiding. As a result of this project, local people realise that the real problem is not human-elephant conflict but human-human conflict. As a result, they are more aware of the complexity and challenges involved in finding a sustainable solution that benefits forest-users, farmers and other local people as well as elephants.
        - *changed attitudes* towards elephants (more tolerant), Salakpra staff (less resentful), Salakpra sanctuary (more appreciative), and NGOs (less sceptical). At ECN's first feedback meeting in June 2006, many farmers were openly hostile, cynical and uncompromising about elephants, crop-raiding and the protected area. Now the opposite is true. ECN has surprised local people by being as concerned about them as about elephants in seeking a viable solution. This is not what they expected.
        - *influenced behaviour*: since the start of this project, participation by villagers and Salakpra staff has increased significantly. As a result, collaboration between local people and the sanctuary has improved so much that:
            - *Salakpra response*: 18-months ago, Salakpra created an HEC Community Support Unit with its own budget. The unit is small and under-equipped but it makes a difference simply by doing what it can to help reduce crop-raiding.
            - *Community response*: nine villages are now adopting the crop-protection method that was found to be most cost-effective in the project trials. A fence will be erected along 30kms of the sanctuary boundary, section by section, starting on the west side (15kms). Funding will come from the Disaster Mitigation Fund of the sub-district councils, provided no actual disaster needs the money. The fence will cost £3,125/km (total £93,750). Villagers will help install it.

- A participatory conservation & sustainable development model in the making
    - *Cooperative alliance*: ECN has facilitated the formation of a Salakpra Elephant Ecosystem Conservation Alliance (SEECA) to provide a collaborative framework for it and Salakpra to work with communities and other NGOs or government agencies in tackling HEC issues. Eleven villages have already formed conservation-development organisations, local leaders have created two organisations at sub-district level to as an umbrella and ECN has been asked to serve as secretariat-cum-facilitator to help the alliance become operational, at least for the time being.

- *Collaborative PA management*: In the wake of the new Community Forest Act (2007), and growing pressure from NGOs including ECN, the protected area laws are being revised to allow limited use of protected areas by local communities. Building on its achievements in this project, ECN will work with Salakpra and local communities to develop the SEECA cooperative by formulating a collaborative PA management and protection scheme that combines sustainable harvesting of some NTFPs with participatory monitoring. This was a priority recommendation from the working groups at the HEC workshop in 03/08 (see report). The plan is endorsed by DNC.

- *Elephant habitat enhancement*: to encourage elephants to stay in the forest, Salakpra is enhancing elephant habitat at the centre of the sanctuary where land was cleared years ago and fire has inhibited natural regeneration. ECN is helping to monitor the project and involve local villagers and schools. Funding is provided by the 'Plant a Tree for Elephants' programme of Bring Elephants Home, a Dutch NGO. This fund will also augment the Keidanren project with FORRU-CMU, increasing nursery capacity and allowing more villagers to be trained in forest restoration.

- *Forest restoration and protection*: by sharing the findings of project surveys, villagers and local leaders now acknowledge that human impacts on the forest are damaging elephant habitat and exacerbating HEC. Several villages want to redress the balance by undertaking forest restoration and protection on community land and adjacent areas of Salakpra. In partnership FORRU-CMU, ECN has won a grant from KNCF to develop this initiative with a group of villages on the west side of Salakpra.

- *Emulation elsewhere*: one outcome of the project's national HEC workshop held in Mar 08 may be that other HEC projects adopt its comprehensive approach to understanding the problem, in particular its detailed socio-economic and land use surveys. DNC, WCS-Thailand and WWF-Thailand project managers all asked for me detail of the survey methods with a view to doing similar work in their respective areas of Ang Rue Nai WS, Kaeng Krachan NP and Kuiburi NP.

- **Capacity of host-country partners increased**

  The capacity of ECN, Salakpra and local community partners has greatly increased as a result of this project. Details are provided in 4.6 below.

- **Better communication and lesson sharing between sites**

  Communication about HEC and related topics is much improved within and between local communities, Salakpra, other government agencies, and NGOs. Lessons have been shared between people at different sites in Thailand, at local, provincial and national levels, and between Thailand and East Africa.

4.3 Outputs (and activities)

The project achieved all the outputs proposed, although two of them (the ecotourism initiative and the HEC network) were modified in the first year, and the MSc budget was redirected to other forms of training when the person it was intended for left the project.

(a) Local capacity to monitor & mitigate human-elephant conflict improved

- *Data gathering*: after initial instruction by WCS-Thailand, ECN trained sixteen part-time village monitors, two full-time village-based coordinators, five full-time field staff, and over twenty community collaborators (mainly famers and their workers) in the skills and procedures necessary to map, measure and evaluate the impact of crop-raiding in 16 villages, and record other sightings of elephants, all using standard data sheets.

- *Data logging*: six of ECN's full-time staff are trained to log data into the ECN databank that was designed with help from Dr Tim Wacher of ZSL and Dr Susan Canney of Oxford University. The ECN staff work singly or, more often, in pairs to ensure greater accuracy, and backing-up the data on external hard-drives.
- *Mapping*: ECN recruited a local IT specialist to help with data management and asked Dr Yongyut Trisurat of Kasetsart University's Department of Conservation to provide two week-long GIS training courses for him and four other staff. Additional training in mapping and data management was provided by Dr Susan Canney.
- *Crop-protection*: this same team of full-time and part-time staff have also been trained by Dr Noah Sitati to implement a series of crop-protection trials with farmers affected by crop-raiding in order to evaluate local and non-local methods of crop protection.
- *Forest surveys*: In 08/05, Salakpra rangers were trained in survey and data collection techniques by WCS-Thailand for the MIKE programme. ECN's three survey leaders participated. Four months later, when ECN started its own forest surveys, it provided 20 rangers with supplementary training in specific field methods being used.

(b) Monitoring & mitigation programme implemented by communities and partners

- *Monitoring system*: crop-raiding has now been monitored for two years by ECN and its community collaborators. The village monitors and/or ECN coordinators are informed whenever elephants are seen, mostly by affected farmers but also by other villagers or community leaders, all of whom know about, and value, this monitoring programme. The programme will continue for as long as possible or necessary to provide baseline data against which to evaluate the efficacy of mitigation and conservation interventions.
- *Land-use mapping*: the ECN team that learned to use GIS has also mapped current land-use in all HEC-affected areas around Salakpra, covering fields within at least one kilometre of the sanctuary boundary. In future, ECN aims to map unaffected areas as well as land-use change over time, both past and future.
- *Mitigation system*: crop-protection trials were conducted for a year, from 03/07 to 03/08, and were implemented by ECN and community members. On the south side of Salakpra where sugar-cane fields are raided, they involved farmers, family members and workers as well as ECN's village-based staff and volunteers. On the west side, where the forest abuts the road and villagers grow mixed crops, ECN's local team worked with eight of the newly established community SEECA organisations.
- *Forest surveys*: forest surveys in Salakpra were conducted by ECN and forest rangers to monitor the seasonal movements and habitat use of elephants, and identify threats. Another survey, funded by KNCF and US-FWS with CRNP rangers and villagers covered the reserve forest connecting northern Salakpra to WEFCOM. The Salakpra surveys were disrupted when the co-ordinator left and ECN had trouble replacing her. BSC took over the role, but this was impractical so an intern was recruited to help out.

(c) Feasibility study for small scale elephant ecotourism venture completed

In the original proposal, we aimed to establish an ecotourism venture by the end of this project but soon realised that more preparation was needed so, with DI's approval, the aim was modified to a full feasibility study. This was undertaken by ECN working with Jumbo Travel, local community representatives, and government officials in the conservation, tourism and administrative sectors. The next step is to initiate a tourism product with one or more local communities and the Salakpra Wildlife Sanctuary.

(d) Network established for elephant conservation and conflict mitigation

In the original proposal, we aimed to establish an international web-based network for community-linked elephant conservation and conflict mitigation, but at the Nairobi HEC workshop in 09/06, this was vetoed as impractical on the advice of the African Elephant Specialist Group coordinator. However, it was clear to ECN that an in-country network was needed at local and national levels, so it focused first on developing a network for Kanchanaburi (e.g. farmers, forest-users, local leaders, PA personnel, government officials and other NGOs) and then, at its March 2008 workshop, expanded it into an HEC forum for Thailand. This will need strengthening in future, but it was a good start.

(e) Lessons learned and best practice disseminated

- *Analysis and presentation:* ECN has trained field staff in the basic analysis of data and in presentation it using power-point. Four staff members have also become adept at creating posters, in Thai and English, to illustrate ECN's work and findings at meetings, conferences, seminars, fairs and other public events. For DNC's 4-day annual wildlife fair in Bangkok (Dec 07), ECN created four new posters.
- *Dissemination*: at its own and other meetings, ECN has shared findings from all surveys and from its three study trips with local villagers, community leaders, protected area personnel, officials from different agencies and other HEC/elephant researchers. For this project, it organised ten local meetings and gave presentations at many provincial and national events. Initially, presentations were given by BSC or Jittin Ritthirat, but at feedback meetings in Nov 07, and again at its national HEC workshop in Mar 08, four other ECN staff gave power-point presentations. Jittin also gave a presentation at Kasetsart University's national wildlife seminar in Dec 07.
- *Web-site and newsletters:* ECN has recruited a volunteer web-designer to build its website - www.ecn-thailand.org - with help from BSC (writing/editing) and translation (JR). ECN has also begun producing an e-newsletter which is sent out to a growing number of people (currently >1,250) in English and Thai. A hard-copy of the newsletter is also distributed to local communities and schools for display on public notice-boards.

4.4 Project standard measures and publications

The project has achieved a higher total of measures than was proposed (290 versus 92), partly because BSC spent more time in Thailand than the UK, but also because ECN has greatly exceeded the planned training and dissemination measures. The only measure still to be achieved is the number of publications, but four papers (instead of the planned two) are being prepared for publication in coming months.

4.5 Technical and Scientific achievements and co-operation

(a) Social research

- *HEC/crop-raiding monitoring*: led by Jittin Ritthirat, two village-based coordinators and 16 village monitors (plus assistants) were trained to map, measure and evaluate crop damage using prepared data forms. At first, ECN staff called farmers to find out if crops had been raided, but farmers soon began calling them at the time of the raid or the next morning when damage was discovered. For many months, ECN office-based staff visited the raid site with village monitors, the day or day after discovery, to build confidence in recording data, but now village-based staff manage alone. Data sheets get to ECN weekly and data is logged every few days so that queries can be checked while memories are fresh and the evidence survives.

Key findings: 75% of raids occur within 750 metres of the sanctuary; 25 villages (191 households, 12% absentee landlords) are now affected but only 14 were raided 11 or more times, two on the boundary were targeted 100^{+} times; costs of crop-damage per household range from under £16 (45%) to over £780 (3%), with most (85%) losing £313 or less; sugarcane (38% of raids) and mango trees (30%) are raided most often, with papaya (12%) and banana (7%) coming second; 96% of raids are done by 1-3 elephants, all male judging from the size of footprints and dung.

- *Socio-economic survey*: led by Dr Napat Sirisamphand of Chulalongkorn Social Research Institute, ECN held structured and semi-structured interviews, community focus groups and meetings with local leaders. Findings include: 5% of households are affected by crop-raiding whereas 95% exploit the forest in some way and 40% are largely dependent on forest use; farmers affected by crop-raiding are richer (higher incomes, land ownership) than forest users; the first case of crop-raiding was 1982 a year after the Srinakarin hydro-dam was built, affecting villages moved from the valley to land excised from Salakpra; and the Royal Irrigation Department never installed the piped water system that was promised as part of the relocation deal. The report, in English and Thai, has been shared with project partners and other stakeholders.

- *Land-use mapping*: led by Jittin Ritthirat, ECN worked with project partners to map land-use around Salakpra in villages affected by crop-raiding. Mapping was done with PointAsia satellite maps (Thailand's higher resolution equivalent of Google Earth) and aerial photos, and ground-truthing using GPS. Historical data and land-user/ownership details were garnered from villagers (farmers, elders) and checked at community meetings. Villages will now be monitored for changes in land-use. The survey revealed huge land-use change in the 1990s, prompted by the development of river-side resorts and sugarcane farming, while sugarcane fields (on the south side of the sanctuary) expanded from 2003. Meanwhile, farms on the west side (with a longer history of crop-raiding) are switching to elephant-proof crops such as teak, tobacco, cotton and chilli.

(b) Biological research

- *Forest surveys*; initially led by Passanan Boontua, then by BSC, these surveys were implemented with Salakpra staff using methods devised by WCS for the MIKE Asia programme. WCS-Thailand (which does similar work in SW Thailand) was consulted. The aim was to monitor seasonal elephant movements / habitat use and to identify threats. Pilots were done in Dec 05, methods modified in Feb 06 with Dr Tim Wacher (ZSL), and surveys started in Mar 06. Personnel constraints meant focusing on three zones of 50 km2 (the centre of the sanctuary and two areas adjacent to raided areas in west and south Salakpra), each with 7-10 one kilometre transects two kilometres apart. Surveys were done in the dry, wet and cool seasons using teams of 4-5 people, GPS units and printed data sheets. Data was collected within 5m either side of the transect line following a path of least resistance along the compass bearing, and on routes to, from and between transects. The report awaits editing and translation.

  Key findings: the core area of Salakpra had the highest elephant density in the cool and dry seasons while the most disturbed area of the sanctuary (the south) has the lowest elephant density at any time of year. In the wet season, there was no significant difference between the three zones. Mong Kratae had similar densities year round and intermediate levels of human disturbance. The core area had the least sign of human while the southern area had by far the most (cattle, bamboo cutting, logging, hunting).

- *Elephant exit routes*: after surveying the northern corridor forest that links Salakpra to WEFCOM (funded by KNCF and USFWS), ECN staff visited every village to interview older community members and headmen/women to find out which routes on the west, south and east sides of Salakpra were used by elephants in the past to leave the forest, and which are used now, including to cross the River Kwai. Memories were jogged with the help of pre-dam and post-dam 1:50,000 maps of the area. This information was added to that acquired from monitoring crop-raiding and elephant sightings. These routes were mapped in GIS and are included in the land-use mapping report.

(c) Technical research

- *Crop-protection trials*: led by Jittin, with guidance from Dr Noah Sitati, two village-based coordinators, two field assistants, ten village monitors and sixteen farm labourers learned to carry out systematic trials of local and non-local crop protection methods. Each site was checked every morning for signs of elephant near the deterrent being tested, and workers on guard reported any activity to the farmer who contacted ECN. A high-tensile two-strand electric fence was found to be the most cost effective method. The trials lasted one year are not being continued because they are costly to maintain, labour intensive and the data acquired has given local farmers the answers they wanted to know. A report has been drafted and awaits editing and translation into Thai.

- *Ecotourism feasibility*: led by Charlotte Johnston, a specialist in responsible tourism from the University of Greenwich with experience facilitating community-based tourism in Thailand, this study entailed interviews with ECN staff, Jumbo Travel, other local operators (including hotel/guesthouse managers), ecotourism specialists (e.g. TEATA members), and community leaders as well as tourism data collection, mapping, market research, and a study trip-cum-workshop with members of target communities. The result is a comprehensive report, in English and Thai, with practical step-by-step recommendations for developing an effective ecotourism product.

4.6 Capacity building

(a) Host country partners

- *ECN*: as evidenced by the achievements of this project, ECN's capacity to implement activities and deliver results has been greatly enhanced through:
  - Hiring (it has four times more staff than it had at the start of the project, including an IT specialist, and a platoon of part-time volunteers)
  - Training (in monitoring/survey procedures, elephant ecology, GIS mapping, data management, basic analysis, crop protection, marketing)
  - Practice (in carrying out fieldwork, presenting results, preparing maps, reports & printed materials for dissemination, organising activities/events)
  - Study trips (to Kenya, SW & NE Thailand to learn about HEC mitigation; Kenya, Laos & Thailand for ecotourism, Chiang Mai for forest restoration)
  - Networking (the local, national and international links forged via the activities and events of this project are inspiring, educational & helpful
  - Collaboration (the trust & respect established with farmers, community leaders, PA personnel & senior government officials is hugely enabling)
  - Infrastructure (the provision of vehicle, office and field equipment has greatly improved the capacity of ECN to help implement projects)
  - Financial support (for salaries, equipment, and activity costs, all of which were boosted by other donors, NGOs, partners or sponsors)
  - Providing incentives (by facilitating professional development as needed or requested to improve job success and satisfaction)
  - Developing a reputation (by enabling it to deliver valued outputs, this project has boosted the reputation & efficacy of ECN

- *PAs*: the capacity of Salakpra & Chalerm Rattanakosin has also been helped through:
  - Practice (turning ranger training into experience doing forest surveys with ECN)
  - HEC unit (enabled by its work with ECN, Salakpra now has an HEC support unit
  - Study trips (staff joined two trips on HEC mitigation, one on forest restoration)
  - Valuable data (all data acquired by ECN is shared to help PA management)
  - Increased profile (highlighting issues has improved Government support)
  - Financial support (via ECN/other NGOs/private sector & extra from DNC)
  - Enabling framework (to work more cooperatively with local communities)

- *Local communities*: in time, capacity building among local communities may prove to be the most valuable outcome of this project & other ECN work
  - Training (to monitor HEC, assess crop-damage, test crop-protection methods)
  - Study trips (reps joined two trips on HEC mitigation, one on forest restoration)
  - Collaboration (within communities, between community leaders, with PA/GOs
  - Financial support (for crop-protection, tree nurseries, planting from NGOs/GOs)
  - Enabling framework (development of SEECA to work closely with PA/GOs)
  - Incentive opportunities (community groups can plan other income options)
  - Organisational development (setting up community conservation groups)

(b) UK lead institution

- *ZSL* built its own capacity to be an effective project partner by recruiting the founding director of ECN to manage the project on its behalf, thereby making best use of her commitment, experience, in-country links, and knowledge of Thailand and the Thai way. As ECN now has a spacious office in Kanchanaburi, it will also support other ZSL projects such as the EDGE programme's Bumblebee Bat Survey and cross-regional initiatives with ZSL's Indonesia and South Asia programmes to achieve improved collaboration and integration within the ZSL Conservation Programme.

4.7 Sustainability and Legacy

Project sustainability is assured by the commitment of the ECN team and its local partners (protected area officials, local leaders and farmers) to implement projects that will reduce HEC, and by the buy-in (time and money) of stakeholders in government. A legacy is assured because the project has changed the way people think, feel and go about solving HEC. Moreover, government agencies are now funding local HEC-mitigation efforts because they are persuaded by the findings and recommendations of this project. We have effected a move away from conflict towards collaboration.

(a) *awareness*: local people are now aware of causes and effects of human-elephant conflict (including human impacts on forest) and appreciate the value of gathering systematic data to understand the problem before launching costly solutions

(b) *attitudes* have changed towards elephants, protected area personnel, and the unsustainable use of forest by local and non-local people, and a growing number of communities are determined to tackle the underlying causes of the problem

(c) *action*: local communities have formed self-help organisations and with ECN, are developing a collaborative conservation network (SEECA) to work with Salakpra in implement consultative conservation and sustainable forest management.

The project has enabled local partners to develop the knowledge, relationships, approach, and framework needed to make a difference. This collaboration will not stop now, but there is much still to do to halt human-elephant conflict and secure a future for Salakpra's elephants and their habitat for the benefit of local people and wildlife.

- *Achievements that will endure*

  In addition to those noted above, several other achievements will also endure:
  - The capacity of ECN to continue to be an effective agent of change
  - Salakpra's HEC Support Unit and associated community HEC volunteers
  - Salakpra's elephant habitat enhancement work using own & other funds
  - Salakpra's new collaborative management planning process & the plan itself
  - Local people's knowledge of elephants, HEC issues, forest & ecosystem values
  - Capacity of farmers & communities to monitor and assess costs of crop-raiding
  - Technical knowledge of various crop-protection measures & cost-effectiveness
  - Collective village-based strategies for crop-protection (now fencing 2 x 15kms)
  - Forest restoration initiatives now being implemented by two local communities
  - Involvement and funding from sub-district councillors in HEC mitigation measures

- *Future of project staff and resources*

  ECN will continue with its mission for as long as it and its local partners think it has a useful role to play, provided it can generate the funds necessary to keep going. All project resources bought with project funding will continue to be used by ECN.

5 Lessons learned, dissemination and communication

- Key lessons:
  - *Recruit locally if possible*: small NGOs may achieve greater staff commitment by recruiting from the project area and providing training as needed. By adopting this policy in year two, ECN has reduced staff turnover, enhanced working relations internally and externally, and increased its effectiveness.
  - *Inclusive study trips*: study trips of common interest with community members, PA personnel, local leaders, NGO staff and other government officials is an effective way to forge good relations & break down preconceptions. ECN arranged four trips to HEC mitigation, ecotourism or forest restoration sites in Thailand with partners.
  - *Learning from peers*: people may not believe what they hear from 'others'. Arranging for one group of villagers/PA personnel to learn from another group of villagers/PA personnel with similar problems is an effective way of sharing lessons learned and knowledge, discussing ideas and issues, and developing a network.
  - *Community cohesion*: to implement effective projects, communities need cohesion and strong leadership. Partner communities now implementing their own HEC mitigation or conservation strategies as a result of this project are those with a shared will to improve their situation and the cohesion and leadership to do it.
  - *Community consensus*: projects designed for one group in a community must be supported by the community as a whole, especially by those who may be affected by the project and could scupper it, e.g. when farmers want to dig a trench or erect an electric fence to block elephants, they have the support of cattle-keepers.
  - *Being clear about governing principles*: to avoid suspicion and misunderstandings in areas where there is tension between PAs & local communities, it is important to be clear with both parties at the outset how and why you will support the PA and local people in the common quest for a solution to the problem being tackled.
  - *Make HEC mitigation a joint project*: even where communities affected by crop-raiding are outside a protected area and it is beyond the capacity or mandate of PA staff to tackle the problem, it should partner activities, especially those facilitated by an NGO, to promote collaboration and establish joint ownership of the initiative.

- *Leveraging funding*: by providing technical or planning advice, NGOs can help farmers and communities protect their crops at little or no extra cost to either party. ECN had some funds for crop-protection trials, but farmers paid for much of the maintenance, and government funds will now pay for collective electric fencing.

- Dissemination methods & targets:

  Project findings have been disseminated in the host country at local, provincial and national levels using illustrated talks, posters, and articles via meetings, workshops, seminars, conferences, fairs, concerts, open days and the media. Target audiences included villagers, local leaders, government officials, monks, teachers, the private sector, and the public. In the UK, project activities and achievements have been disseminated in the same way but, so far, to a lesser degree via far fewer outlets.

- Dissemination hereafter

  ECN has gathered a lot of data, and four reports are in draft or preparation. Once edited and translated, they will be shared widely and will form the basis of at least three papers to be submitted to relevant journals.

5.1 Darwin identity

- *Publicising Darwin*: the DI logo is prominent on every project vehicle, on the cover of every report, at the foot of every poster, at the beginning and end of every powerpoint presentation, and it is printed on banners above every presentation booth, and on the wall behind presenters at every meeting and workshop organised by ECN, as well as on the back cover of FFI's HEC workshop publication. Funding by DI is also noted in the acknowledgements of every paper and report, it was mentioned in every media article or profile of any length, and in the Thai TV series about the Kenya trip.
- *Darwin recognition*: DI support was certainly recognised as a distinct project with a clear identity by ECN and some local partners as well as by people at national or international workshops/conferences who already know of DI. But even villagers and government officials who cannot remember Darwin's name know that the project is supported by the UK - 'Khun Belinda's home country' – and appreciate that fact.

6 Monitoring and evaluation

(a) *Changes to original logframe*

- The MSc was postponed a year when the project start was delayed, and then cancelled when the intended recipient left the project.
- The ecotourism component was changed from developing a fully-fledged product to undertaking a full feasibility study.
- An experienced researcher was recruited to lead the socio-economic survey to improve the value of the output.
- Using money from the MSc, GIS training was added so that ECN can produce better maps in-house.
- Forest surveys were done in representative zones instead of the whole sanctuary because of personnel constraints and the demands of the MIKE programme.
- Dr Sitati's trip to Thailand and therefore the start of the crop-protection trials were delayed because the Kenya Wildlife Service postponed the Nairobi HEC workshop.

(b) *M & E systems in place*

- Baseline data
  - crop-raiding has been monitored for two years and will continue to be monitored for as long as necessary / possible
  - a socio-economic survey identified economic components to HEC, including forest dependence, and attitudes to elephants and the PA
  - forest surveys provide an indication of elephant seasonal distribution and habitat use as well as human impacts on the forest
  - land-use maps can be used to monitor land-use change in HEC and non-HEC villages to enable comparison with crop-raiding data
  - crop-protection trials enabled cost-benefit analyses of the chosen methods, finding 2-3 strand electric fencing most cost-effective
  - a ecotourism feasibility study provided baseline data on the current tourism market and a SWOT analysis for the project area
- M & E outputs: Two major reports were written and translated into Thai
  - ecotourism feasibility study (80 pages)
  - socio-economic survey (45 pages)

  As well as several smaller ones (5-20 pages)
  - Study trip reports (Kenya, Kuiburi, Phu Luang)
  - Training reports (VM training, crop-protection, GIS x 2)
  - Meeting reports (3 x feedback meetings, 1 workshop)
  - Strategic planning meetings (with programme ZSL directors)

(b) *Value of M & E system*: useful but time-consuming, and some indicators (e.g. press releases) may not generate means of verification (i.e. media coverage). But the baseline data, reports and presentations have been invaluable in raising awareness off HEC issues among ECN, villagers, local leaders and government staff, and in changing attitudes towards elephants, the protected area and forest conservation.

(c) *Omission from the M & E system*: trust, respect and personal regard are critical to the success of collaborative projects such as this where resentment, mistrust and avoidance between local people and PA staff must be overcome, or diminished, for the project to make a lasting impact. DI's standard measures and indicators do not directly reflect this achievement. Our measure of success in winning local trust / respect is the fact that: attendance at ECN meetings has quadrupled in the last three years; feedback is more positive (before we were commended for trying, now we are commended for making a difference); every farmer affected by crop-raiding in our target area wants to work with ECN; farmers outside the target area have begun to ask for advice; and ECN is now invited to meetings organised by government officials, local communities, NGOs, teachers and the private sector, when HEC mitigation, rural development, ecotourism or cross-sector collaboration are on the agenda.

(d) *Project evaluation*: at each of its local workshops, ECN asked participants to evaluate its own performance as well as the meeting by completing a questionnaire. In April 2007, ECN was also evaluated by the ZSL directors responsible for this project, Drs. Glyn Davies and Richard Kock. They were impressed by ECN's relationship with villagers, local leaders and protected area personnel, and by its aims and achievements to date, but concluded that it needed more staff to make the most of this project, and broader support from higher levels of government. ECN has addressed the second weakness, and ZSL provided additional funds to recruit more staff. ECN also made plans with Dr Simon Hedges, WCS Asian elephant coordinator and co-chair of AsESG, to review its monitoring work in Year 3, but his schedule is so demanding that he could not, in the end, fit us in.

6.1 Actions taken in response to annual report reviews

- **First annual review**
  - *Review assumptions*: in response to revisions of the project plan caused by external impositions, the reviewer suggested looking again at the assumptions. We concluded that the assumptions were still valid as the impositions could not be foreseen and did not jeopardise the project outputs or outcome.
  - *Strengthen collaborations:* the reviewer noted that some of the proposed partnerships (FFI, WWF-Kenya, DICE, FOC, WCS and Thai Senate Wildlife Committee) were more like mutually supportive relations which should be meaningfully turned to the project's advantage. FFI, WWF-Kenya and DICE arranged the Kenya workshop for ECN, FOC has provided several flights, WCS has given advice and practical support, and ECN continues to collaborate with members of the Senate Committee.
  - *Modify the ecotourism component*: the reviewer agreed that the proposed ecotourism component was a project in itself and advised a re-think. Project partners opted to undertake a comprehensive feasibility study to strengthen this initiative in future.
  - *Buy-in and exit strategy*: the reviewer suggested seeking greater buy-in from other project partners in order to sustain the project's long-term outcomes, noting that this would be a necessary part of the exit-plan. Significant buy-in has been achieved.
- **Second annual review**

  The second review was less constructive and several inferences were incorrect. Thus its pessimistic prognosis was unjustified.
  - *Disseminating information:* The review emphasised that "the critical thing the project must address is to ensure that all useful information is properly written up and made available for others to use in future". The project produced two study trip reports, four training reports, three feedback meeting reports, one socio-economic report, and one feasibility report, all translated into Thai, all shared with local partners in print and presentation format, and all submitted with the annual report. They were well received by project partners and have been put to very good use in raising awareness.
  - *Partnerships*: The review worried that the project depended too much on personal connections rather than written MOUs while also noting that the project's potential for sustainability is dependent on good contacts at higher levels of government. Personal connections can help project implementation and the project managers use theirs when appropriate. ECN has recently developed an MOU with Salakpra and two community organisations for the forest restoration project, but as MOUs are not legally binding, effective implementation is still dependent on strong personal connections.
  - *Implementation of activities*: the review observed that "most activities seem to have been delivered fairly efficiently" but, overall, were "less effective than predicted". As noted in 4.3, this project has achieved all final activities and outputs proposed as well as many more measurable indicators.
  - *Progress towards outputs*: the review assumed that, once the project ends, there would not "be sufficient motivation or support for most people trained to continue collecting data" and that the socio-economic survey was too tardy for its findings to be useful. As noted already, crop-raiding and land-use data are still being collected by local partners, a full forest survey is planned by ECN and the protected areas, and the findings of the socio-economic survey, coupled with other survey data, have focused stakeholders attention on the need to develop livelihood options that do not depend on forest use.

- *Progress towards outcomes*: the review concluded that "in terms of securing reduced HEC, it is not apparent that the project has made a great deal of difference" whereas "it is readily apparent that the gulf [between progress and aims] will not be overcome by the end of the project" so its "biodiversity impact .. is likely to be small". We trust the reviewer would be happy to read this report and realise that these gloomy predictions were wrong. The project has made a significant difference.

- *Biodiversity impact*: the review deduced that the project's "failure to establish a functioning system that will continue after the project means that any gains other than in training and improved awareness and understanding will be quickly lost", hence "the indications for sustainability are not good". By improving attitudes to elephants and the protected area, by highlighting the need to reduce human impacts on the forest and develop alternative livelihoods, and by giving rise to collaborative forest restoration and protection projects, this project's prospects for sustainability are very good indeed.

- *Leaving a legacy*: the reviewer observed that "with the exception of the dissemination materials, the information base and reports generated, the only other legacy will be the new knowledge and experience transferred" and "it is hard to see how this will be retained and used without some other outside support mechanism". The information generated by this project has changed the way people think, feel and plan HEC mitigation projects without killing elephants or depriving them of more habitat. The knowledge and experience gained has enabled the local project partners to plan effective interventions, some of which are already underway with government and private sector funding. This is the legacy the project intended.

- *Project expenditure*: the expenditure recorded was in excess of the budget because it included money carried over from the previous year as noted in the report. All major changes to the log-frame and budget were cleared with Darwin.

- *General assessment*: the review acknowledged that the project has been delivered "with a great deal of enthusiasm, huge dedication and very hard work" but added that "given these stalwart efforts, it is disappointing that the progress has been somewhat less than anticipated". Some activities were slow to start, partly because of early staffing difficulties, but once ECN had recruited and trained a strong local team, it made up for lost time and has achieved what it planned to achieve.

- *Project complexity*: the review thought the project design too complex, noting that it included rather different activities and was supported by a loose network of partners which may not have provided an effective structure for project delivery. It wondered whether this had been properly recognised by project proponents or DI and suggested providing Memoranda of Understanding with future applications. While we agree that MOUs can be helpful – and ECN is now employing them with local partners – it may be difficult to draft anything more detailed than the letters of support already required until project funding is assured. It might be better to include MOUs as an early project activity so that project partners can assess changes in circumstance in the intervening year and make revisions that will not compromise the project purpose. Modifications to this project improved its prospects and therefore its sustainability and legacy.

- *Future activities*: the review noted that better land use seems to offer the solution to HEC and suggests encouraging farmers to plant crops that are immune to elephants, introducing "livelihood-sensitive" interventions, and integrating effective rural development into a supportive political structure. This approach is already underway with community organisations, district councils and other relevant agencies.

7 Finance and administration

7.1 Project expenditure (2005-2008). All changes were cleared with Darwin

Item Category	Budget Oct 2005 version[1]	Expenditure	Balance	Note No
ZSL Overheads				
Office costs (Thai & UK)				1a
Travel/Subsistence				2
Printing				3
Meetings				4
Equipment				
Others				5
Salaries: ECN manager				
Community coordinator				6
Forest coordinator/asst				6a
Village Monitors				6a
Forest Rangers				2a
Kenya HEC advisor				7
Admin assistant				8
Salaries total				
Totals				

Notes: 1. Budget lines were revised when ZSL became the UK partner because it had to keep the project overhead budget. Other budget lines had to be adjusted to pay for office rent in Thailand (1a)

2. At the request of protected area chiefs, forest rangers were paid per diems rather than regular salaries (2a) so the amounts are included under Travel/Subsistence as part of survey costs.

3. To save budget, reports and other dissemination materials were produced more cheaply than planned with a subsidy from the printing house.

4. The project held more meetings than planned (2-3 times per year with 2-5 separate meetings overall) to keep them local and small (<30), thereby improving community participation.

5. MSc expenditure was postponed to Yr2 and later re-allocated when no longer needed. The budget funded the socio-economic and ecotourism studies, and GIS training for project staff.

6. ECN project manager & coordinators expected to spend only 50% of their time on this project but this proved unworkable, so all office-based staff went full-time from Yr2, budgets were adjusted accordingly and some staff costs are covered by other donors (6a). The ECN manager/project leader's salary is supplemented by ZSL to enable full-time involvement.

7. Dr Sitati's involvement was postponed to Yr2 by KWS, and his time was not needed in Yr3.

8. From Yr2, the salaries of admin/field assistants were largely covered by other donors.

Capital Items	Purchase Cost	Value Now* (75% depreciation
Vehicles (two 2nd hand 4WD pick-ups)		
Office equipment (5 computers, 3 desks, 1 projector, 1 camera, wifi)		
Field equipment (4 GPS, 5 temp/rain gauges)		
Total value of capital items		

* Using ZSL depreciation rate for current market value, though the book value is zero.

7.2 Additional funds or in-kind contributions secured

(a) During project

Source	For	Value (£)
ZSL	Salaries, consultancy/travel, admin, office costs	
ECN	Office and field survey equipment	
Cecil King Memorial Fund	For staff salaries	
Keidanren Nature Fund	Staff salaries & forest /corridor surveys	
US Fish & Wildlife	Staff salaries & forest / corridor surveys	
Jumbo Travel	Ecotourism study staff time/costs, 25% JR Yr1	
Salakpra / PAs	Time, equipment, surveys & workshop	
Local communities/councils	Crop protection, monitoring, meetings	
FFI	Advisory time, Nairobi HEC workshop	
DICE/WWF-Kenya/FZL	Nairobi HEC workshop Sep 06	
FOC - UK	BA flights	
Kenya Airways	Subsidised flights to Nairobi	
Hosts on Kenya study trip	Accommodation / time / guides / materials	
Thai Army	Equipment / driver to dig elephant trench	
WCS Thailand	Training / expertise	
Kasetsart University	Subsidised GIS training	
British Council (Thailand)	NGO marketing /fund-raising	
Pavilion Hotel / Salakpra	Subsidy for national HEC workshop Mar 08	
PointAsia	Satellite maps	
Maruay Printing	Subsidised printing/binding reports	
	Additional funds/in-kind contributions	**£150,633**

(b) Post-project (2008/9)

Source	For	Value (£)
ZSL	BSC salary, overheads, review trip, audit	
ECN	New office, equipment, salaries	
Keidanren Nature Fund	PA / community forest research & restoration	
Plant Trees 4 Eles / BEH	Ele-habitat enhancement / forest restoration	
Salakpra / DNC	HEC monitoring/protection & reforestation	
Local Councils (2)	Community electric fencing along 30 kms	
Provincial Council	Habitat enhancement in Salakpra	
Communities	Crop protection costs / forest restoration	
Farmers	Crop-protection costs	
Provincial Gov / private sector	Eco-adventure tourism study trip to UK / WTM	
	Post-project funding generated to date	**126,885**

7.3 Value of DI funding

The value of this funding is considerably greater than the grant alone, for it has not only enabled project partners to accomplish the activities, outputs and purpose proposed, it has also provided added value by:

- boosting the confidence of host-country partners
- leveraging matching funds from other donors and supporters
- establishing the reputation of ECN as a capable aide and project facilitator

The synergy of these achievements, coupled with the collaborative network created by this project, means that ECN and its partners can now be effective agents of change.

Annex 1 Report of Progress and Achievements against Final Project Logframe for the life of the project

Project Summary	Measurable Indicators	Progress & Achievements Aug 05 – Mar 08	Actions required or planned for next
Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve the: o Conservation of biological diversity, o Sustainable use of its components, and o Fair & equitable sharing of benefits arising from the use of genetic resources		By facilitating participatory data collection, extensive feedback , greater collaboration, and community engagement in planning initiatives to address the problems they now recognise, this project has: - raised awareness of the HEC equation & issues - reduced hostility towards elephants and the PA - developed community conservation organisations - formed a local HEC project mitigation network - established the need for collaborative conservation of the protected area & sustainable use of forest - facilitated local implementation of forest restoration and sustainable NTFP management / use	Not applicable
Purpose: Via Afro-Asian exchange and technical cooperation, enact a community-based elephant conservation and conflict resolution initiative in W. Thailand to serve as a model for participatory conservation/ sustainable development S.E.Asia	a) Monitoring/mitigation system functioning & new knowledge being used for conservation & sustainable use b) Increased capacity / cooperation, reduced conflict, improved local benefits, reduced threats to elephants c) Better communication & lesson-sharing between sites	Project purpose & measurable indicators achieved: - HEC monitoring and mitigation systems in place; - new knowledge of HEC equation and cost effective crop protection being shared and used; - increased capacity of ECN and its local partners; - HEC mitigation and conservation-development projects underway with local people, community leaders and the PA/GO agencies working together to plan and implement them; - new collaborative PA management plan being prepared with input from ECN, local leaders & ideas from ECN 03/08 workshop; - information exchanged between Thailand/Kenya and several HEC sites in Thailand.	◇ Continue HEC & land-use monitoring and undertake modified forest surveys ◇ Analyse & write-up all data for wider presentation ◇ Strengthen development of SEECA operation & implementation of conservation-development projects ◇ Assist preparation of Salakpra collaborative management plan ◇ Prepare detailed plan to implement ecotourism venture with communities ◇ Share information though local/national meetings, website & newsletters
Output 1 Local capacity to monitor and mitigate human-elephant conflict improved (via training, supervision, study trips/exchange, feedback)	➢ 25^{+} partners and community members trained as relevant, and one MSc studied in the UK	**Progress**: Capacity of 10 project staff & 50 community members to monitor / mitigate HEC, do forest surveys, plan appropriate interventions improved. MSc dropped (noted in 2nd interim report) when intended recipient left. Budget used, with DI permission, for GIS training and tourism feasibility study. **Appropriateness of Indicators**: distinguish between local people from project area and local people from host country, as recruitment from each group may have different outcomes vis-a-vis commitment, efficacy and leadership.	
Activity 1.1 Survey training		8 ECN staff, 16 village monitors & 8 assistants trained to record HEC data (5 still involved), 4 ECN staff and 15 forest rangers trained in forest surveys (17 still involved), 3 ECN staff , 5 VMs, 10 villagers trained to test crop-protection, 4 ECN staff trained in land-use mapping & monitoring.	

Project Summary	Measurable Indicators	Progress & Achievements Aug 05 – Mar 08
Activity 1.2 Feedback meetings		9 community feedback meetings (with PA staff); 3 feedback meetings for PA staff; 1 workshop with local leaders for socio-economic study; national 2-day workshop March 08 with 110 participants
Activity 1.3 Kenya HEC / ecotourism study trip		Trip postponed by KWS from Jun to Oct 2006, team comprised 3 ECN staff, Dr Mattana Srikrajang (government counterpart), Ms Buranakarn Chatupornpaisan (tourism partner) & Mr Joei Hutakom (documentary film-maker). 9 sites visited. Lessons learned and several ideas adopted.
Activity 1.4 Kuiburi study trip (not in original plan)		Nov 06, 17 people (HEC-affected farmers, community leaders & PA staff) taken on 4-day trip to royal HEC mitigation project at Kuiburi NP, SW Thailand to learn about HEC mitigation measures from more experienced counterparts. Lessons shared, ideas adopted, networking facilitated.
Activity 1.5 Visit by Kenyan counterpart to help set-up crop-trials		Mar 07, Dr Noah Sitati to Thailand for 2-weeks to help design, train and set-up crop-protection trials using local & African methods.
Activity 1.6 GIS training in lieu of MSc (change from original plan)		Two courses for ECN staff in GIS mapping by Dr Yongyut Trisurat, Kasetsart Uni, 10-day review with Dr Susan Canney, elephant GIS specialist, Oxford Uni, in data management & mapping.
Output 2 Monitoring & mitigation programme established / functioning, implemented by local communities and partner organisations	➢ Relevant data collected in 14 villages & sanctuary from Yr1, mitigation measures implemented Yr2, impact assessed Yr3	**Progress**: crop-raiding monitored for 2-years using reporting system that ensures capture of every incident. Good working relations with farmers, local leaders, other community members achieved. Crop-protection trials undertaken for one year. Report drafted, awaiting editing & translation. **Appropriateness of Indicators**: Adequate
Activity 2.1 Monitor HEC / crop-raiding		Protocols & forms developed, staff & VMs trained, monitoring started 03/06 is on-going so as to provide baseline data to evaluate the impact of future conservation-development interventions.
Activity 2.2 Undertake socio-economic survey		Planned as part of HEC/land-use monitoring with VMs, but revised to be a professionally led collaboration with Dr Napat Sirisamphand Dec 06- Jan 07, report completed Oct 07 & shared widely, in print and on powerpoint presentations.
Activity 2.3 Set up & monitor crop protection trials in 5 sites		Start delayed 6-months when Kenya trip & Dr Sitati visit postponed by KWS. Trials implemented from Mar 07 to Mar 08 at 7 sites with 2 village-based staff recruited to help monitor daily. Results being analysed and report in process.
Activity 2.4 Conduct seasonal forest surveys		Protocols / forms developed & piloted in Dec 05, reviewed with Dr Tim Wacher (ZSL) in Mar 06. Surveys implemented in three selected areas covering dry, wet and cool seasons. Approach reviewed with Dr Susan Canney Mar 07. UK intern recruited to help with these and future surveys.
Activity 2.5 Carry out land-use survey & mapping		Planned as part of HEC/socio-economic monitoring, start delayed for ECN capacity-building and GIS training. Mapping started 2006 with aerial maps, completed 2008 using satellite. Report in prep.

Project Summary	Measurable Indicators	Progress & Achievements Aug 05 – Mar 08
Output 3 Feasibility study completed for ecotourism development that will link local communities, the protected area and elephant conservation	➢ Feasibility study implemented with local partners & target communities	**Progress**: Comprehensive feasibility study completed as planned. **Appropriateness of indicators**: original output hard to do well in time-frame & the indicators would not reveal if the product was linking local communities, PA & elephant conservation
Actual activity 3.1 Conduct full feasibility study		Commissioned Nov 06, implemented Jan-Apr 07, report edited, translated and shared by Aug 07.
Output 4 Local and national networks for community-based ele-conservation and conflict mitigation established	➢ Study trips and meetings to introduce members in Yr2/3, network structure & plan place by Yr3	**Progress**: Original plan (an international network) vetoed by the Nairobi HEC workshop in Sept 06 but local and national networks developed instead **Appropriateness of indicators**: the formation of a network and the existence of a website facility do not mean it is actively used, but regular get-togethers and joint projects facilitate networking
Actual activity 4.1 Facilitate the creation of community conservation groups		Planned as an activity under 2.1 to help mitigate HEC, it was soon clear that an alliance was needed to tackle the underlying causes. ECN proposed SEECA (Salakpra Elephant Ecosystem Conservation Alliance) of CBOs, NGOs, the PA and other GOs. Ten villages and two district CBOs are now established and operational, joint projects are planned and two (electric fence and forest restoration) are underway with local government, NGO and donor funding
Output 5 Lessons learned and best practice disseminated	➢ 3 presentations, 6 press releases 4 radio/TV broadcasts, 1 final report, 3 articles out by Yr3	**Progress**: more outputs achieved than planned; excellent progress in sharing information and lessons at local levels (community, district & provincial), good progress at national level via Thai media and engagement with MONRE/DNC, researchers & academics. Progress as planned internationally via Nairobi HEC workshop, with some sharing of information in the UK **Appropriateness of Indicators**: press releases indicate effort but not outcome. It is often better to contact desks/journalists direct to invite them to events or offer stories. ECN has good contacts.
Activity 5.1 Presentations / illustrated powerpoint (PP) talks – 3^{+} per year		**Thailand** presentations to local villages (11), PA/provincial officials (6), community feedback meetings (9), workshops (11), seminars (3), study trips (2), MONRE/DNC officials (1); posters displays (5), plus 250^{+} b/w info pamphlets (in Thai) for local distribution. **UK** workshops (1), ele-vet events (2), ZSL donor event (1); ZSL London talk (1). **Kenya** workshop (1)
Activity 5.2 Press coverage / articles: 2 press releases / articles per year		Op-ed pieces in Thai national newspapers (3); news items in Thai press (12), illustrated features on project leader in Thai national newspaper (2) and UK magazine (1), press releases (3)
Activity 5.3 TV / radio coverage: 4 radio / TV broadcasts		Thai radio coverage (4); Thai national TV news items (3), Thai national TV documentaries (10), Kenya TV coverage (1)
Activity 5.4 Publications: 1 paper published / 2 submitted by end of Yr3		Papers published (2); papers in preparation (3)
Activity 5.5 Web-links: 1 website / e-newsletter established		ECN web-site (www.ecn-thailand.org) , Thai-English newsletters (2)
Activity 5.6 Final report: 1 final report printed (250 Thai, 250 English) Yr3		In preparation, along with proceedings of national HEC workshop

Annex 1 Project's final logframe, including criteria and indicators

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Goal: To draw on expertise relevant to biodiversity from within the UK to work with local partners in countries rich in biodiversity but constrained in resources to achieve: o The conservation of biological diversity, o The sustainable use of its components, and o The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources			
Purpose: Via Afro-Asian exchange and technical cooperation, enact a community-based elephant conservation and conflict resolution initiative in W. Thailand to serve as a model for participatory conservation/ sustainable development S.E.Asia	a) Monitoring/mitigation system functioning & new knowledge being used for conservation & sustainable use b) Increased capacity / cooperation, reduced conflict, improved local benefits, reduced threats to elephants c) Better communication and lesson-sharing between sites	a) Communications, reports, publications b) Training records/certificates c) Analyses of relevant monitoring / evaluation data (social, economic, ecological)	◇ Government policies continue to support conservation / collaboration ◇ partners & stakeholders remain enthusiastic & committed during / after the lifetime of the project ◇ Tourism remains a viable livelihood option
Output 1 Local capacity to monitor and mitigate human-elephant conflict improved (via training, supervision, study trips/exchange, feedback)	➢ ECN project staff and 25+ partners, inc. community members trained as relevant	◇ Training / study trip attendance ◇ Survey field experience / reports ◇ Partners / associates feedback	◇ Suitable candidates can be recruited, they complete the training & remain active and effective with the project
Activity 1.1 Survey training		Yr1 ECN staff & VMs in HEC work, forest rangers in forest surveys Yr2 New staff trained for HEC work and forest surveys Yr3 Ditto, as necessary	
Activity 1.2 Annual feedback meetings		Yr1 None, no data or information to share Yr2 Two community feedback meetings Yr3: Two community feedback meetings; dissemination workshop	
Activity 1.3 Kenya exchange		Yr 2 ECN study trip to Kenya, Dr Sitati to Thailand for crop-protection trials	
Activity 1.4 Study trips for community representatives (not in original plan)		Yr 2 Kuiburi NP Royal HEC mitigation project, and community-based conservation & ecotourism initiatives as part of tourism workshop Yr3 Study trips to other PAs to learn about healthy forest ecosystems and community-based conservation, mitigation, and ecotourism initiatives	
Activity 1.6 Basic GIS training (using MSc budget)		Yr2 Basic training for ECN local staff in GIS use Training in project data management and GIS application	

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Output 2 Monitoring & mitigation programme established / functioning, implemented by ECN with local communities & partner organisations	➢ Relevant data collected in 14+ villages & sanctuary from Yr1, mitigation measures implemented from Yr2, impact assessed Yr3	◇ Data collection protocols; data recording system; HEC, crop trial & forest survey data analysis & reports; meeting reports;	◇ As above, that suitable candidates can be recruited, they complete the training and remain active and effective with the project
Activity 2.1 monitor HEC / crop-raiding		Yr1 Protocols & forms developed, village monitors trained. Yr2 Data recorded by ECN staff with village monitors until the latter are practiced enough to record alone without compromising data quality. Yr3 Analysis of all data while continuing to monitor crop-raiding & land-use	
Activity 2.2 Carry out socio economic survey		Yr2 Conduct survey using structured and semi-structured interview techniques Yr3 Follow-up planning workshop with local leaders	
Activity 2.3 Carry out land-use mapping survey		Yr2 Land-use mapping of HEC-affected areas started Yr3 Mapping OF HEC areas completed, changes monitored, results analysed in relation to crop-raiding and forest survey data	
Activity 2.4 Set up & monitor crop protection trials		Yr 2 Dr Sitati visit from Kenya for crop protection trials Yr3 Crop-protection trials monitored and assessed after one year	
Activity 2.5 Conduct seasonal forest surveys		Yr 1 Protocols developed, piloted, and reviewed Yr2 Forest surveys conducted in dry, wet and cool seasons Yr3 Data analysed, report drafted, methods reviewed and modified as needed	
Output 3 Feasibility study completed for ecotourism development that would link local communities, the protected area and elephant conservation	➢ Feasibility study implemented with local partners & target communities	◇ Meeting & planning reports ◇ Feasibility study report & plan	◇ Communities keen to develop a tourism product, tourism partners participate
Activity 3.1 Conduct appropriately designed feasibility study		Yr 2 Feasibility study with study trips involving partners/target community reps. Yr 3 Findings & recommendations shared with partners to plan next phase	
Output 4 Local SEECA network for community-based ele / ecosystem conservation & conflict mitigation established	➢ Study trips / meetings that establish local groups & conservation initiatives, website & newsletter operational	Study trip reports, meeting reports, CBO agreements, conservation project plans, website and newsletters	◇ Community members remain keen to form & motivate CBOs ◇ CBO members keen to implement ICDP initiatives ◇ Government authority & PA keen and able to be an active supporting member
Activity 4.1 Form local SEECA groups		Yr3 Meetings with community members / local leaders to form CBO groups	
Activity 4.2 Identify/plan local SEECA group ICDP activities		Yr3 SEECA group activities planned & supported	
Activity 4.3 Implement local SEECA group ICDP activities		Yr3 SEECA groups begin ICDP activities	

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Output 5 Lessons learned and best practice disseminated	➢ 3 presentations, 6 press releases 4 radio/TV broadcasts, 1 final report, 3 articles/papers out by Yr3.	◇ Powerpoint presentations ◇ Press packs, media coverage ◇ Reports, papers, articles	◇ ECN will retain current team members and recruit new ones as planned
Activity 5.1 Presentations / illustrated powerpoint talks (PPT) 3+ per year		Yr1 presentations to HEC villages, PA & provincial authorities, and b/w info pamphlets (in Thai) about project distributed locally Yr2 2 local feedback meetings; 2 ranger meetings; Nairobi HEC workshop; Yr3 2 local feedback meetings; 2 SEECA planning meetings; PPT to KU Annual Wildlife Seminar; 2^{+} PPT at national HEC workshop	
Activity 5.2 Press coverage / articles: 2 press releases / articles per year		Yr2 Coverage @ project; HEC issues, crop-trials, meetings Yr3 Coverage @ activities, findings, recommendations for HEC mitigation	
Activity 5.3 TV / radio coverage: 4 radio / TV broadcasts		Yr2 Coverage @ project, feedback meetings, Kenya study trip, crop-trials Yr3 Coverage @ project activities, findings, recommendations	
Activity 5.3 Publications: 1 paper published / 2 submitted by end of Yr3		Yr2 1 x paper on Nairobi HEC workshop Yr3 3 papers at HEC workshop / prepared for submission to relevant journal/s	
Activity 5.4 Web-site / tri-annual newsletters / CBO network meetings		Yr3 ECN web site built, newsletter designed distribution system established; regular meetings of SEECA CBO groups	
Activity 5.5 Final report: 1 final report printed (250 Thai, 250 English) Yr3		Yr3 Final report used to generate support for local communities / PA to implement recommended HEC mitigations	

Annex 2 Project contribution to Articles under the CBD

Project Contribution to Articles under the Convention on Biological Diversity

Article No./Title	Project %	Article Description
6. General Measures for Conservation & Sustainable Use	20%	Develop national strategies that integrate conservation/sustainable use.
7. Identification and Monitoring	30%	Identify and monitor components of biological diversity, particularly those requiring urgent conservation; identify processes & activities that have adverse effects; maintain and organise relevant data.
8. In-situ Conservation	10%	Establish systems of protected areas with guidelines for selection and management; regulate biological resources, promote protection of habitats; manage areas adjacent to protected areas; restore degraded ecosystems & recovery of threatened species; control risks associated with organisms modified by biotechnology; control the spread of alien species; ensure compatibility between sustainable use of resources and their conservation; protect traditional lifestyles and knowledge on biological resources.
9. Ex-situ Conservation	0	Adopt ex-situ measures to conserve & research components of biological diversity, preferably in country of origin; facilitate recovery of threatened species; regulate/manage collection of bio- resources.
10. Sustainable Use of Components of Biological Diversity	30%	Integrate conservation and sustainable use in national decisions; protect sustainable customary uses; support local populations to implement remedial actions; encourage co-operation between governments and the private sector.
11. Incentive Measures	0	Establish economically and socially sound incentives to conserve and promote sustainable use of biological diversity.
12. Research and Training	0	Establish programmes for scientific and technical education in identification, conservation and sustainable use of biodiversity components; promote research contributing to conservation and sustainable use of biological diversity, particularly in developing countries (in accordance with SBSTTA recommendations).
13. Public Education and Awareness	10%	Promote understanding of importance of measures to conserve biodiversity & propagate these measures through media; cooperate with other states/organisations in developing awareness programmes
14. Impact Assessment and Minimizing Adverse Impacts	0	Introduce EIAs of appropriate projects & allow public participation; take into account environmental consequences of policies; exchange information on impacts beyond State boundaries and work to reduce hazards; promote emergency responses to hazards; examine mechanisms for redress of international damage.
15. Access to Genetic Resources	0	Whilst governments control access to genetic resources they should also facilitate access of environmentally sound uses on mutually agreed terms; scientific research based genetic resources should ensure sharing in a fair and equitable way of results and benefits.
16. Access to and Transfer of Technology	0	Countries shall ensure access to technologies relevant to conservation and sustainable use of biodiversity under fair and most favourable terms to the source countries (subject to patents and intellectual property rights) and ensure the private sector facilitates such assess and joint development of technologies.
17. Exchange of Information	0	Countries shall facilitate information exchange and repatriation including technical scientific & socio-economic research, information on training and surveying programmes and local knowledge
19. Bio-safety Protocol	0	Countries shall take legislative, administrative or policy measures to provide for the effective participation in biotechnological research activities and to ensure all practicable measures to promote and advance priority access on a fair and equitable basis, especially where they provide the genetic resources for such research.
Other Contribution	0	Smaller contributions, eg 5%) or less should be summed here.
Total %	100%	Check % total = 100

Annex 3 **Standard Measures** (planned vs achieved)

Code	Description	Total Planned	Total Achieved
Training Measures			
2	No. Masters qualifications obtained	1	0
4c	No. postgraduate students receiving training (not in 1-3 above): ECN staff in HEC/forest surveys & GIS	2	9
4d	No. training weeks for postgraduate students	4	18
5	No. people receiving other long-term (>1yr) training not leading to formal qualification (ie not categories 1-4 above): ECN Village Monitors/villagers	14	35
6a	No. people receiving short-term education/training not in 1-5 above: Rangers	10	18
6b	No. training weeks not leading to formal qualification	5	36
7	No. types training materials produced for use by host country: forest survey protocol (2), HEC monitoring (1), land-use mapping (1) crop trials (1), local awareness leaflet (1)	5	6
Research Measures			
8	No. weeks spent by UK project staff on project work in host country(s)	24	80
11a	No. papers published or accepted for publication in peer reviewed journals	1	1
11b	Number of papers published or accepted for publication elsewhere	2	1
Dissemination Measures			
14a	No. conferences/seminars/workshops organised to present/disseminate from Darwin project; PA/community briefings at project outset (14) PA/community feedback meetings (9), focused workshops (ecotourism & socio-economic studies), national HEC meeting (1)	5	26
14b	No. conference/seminar/ workshops attended at which findings from Darwin project work were presented/ disseminated: Yr1 (pro-poor tourism, Senate Ele-Group) Yr2 (NBI-HEC, ADEQ-HEC, MU) Yr3 (KUx3, FAO/IUCN, ZSL)	3	10
15a	No. national press releases or publicity articles in Thailand: by JR (2) crop protection trials (6), BSC/JR interviews (3), Kwai concert (3), HEC workshop (1)	2	15
15b	No. local press releases/publicity pieces in Thailand (on crop trials, concert, HEC workshop)	2	5
15c	No. national press releases or publicity articles in UK: from ZSL	1	1
15d	No. local press releases / publicity articles in UK: Wiltshire View Magazine	1	1
16a	No. issues newsletters in the host country: info pamphlet (500), newsletters (50 hard copies in Thai, 1,250 e-copies in Thai (300) and English (950)	2	4
16b	Estimated circulation of each newsletter in host country	-	900
16c	Estimated circulation of each newsletter in the UK & elsewhere	-	350
17a	No. dissemination networks established: local (SEECA)	1	2
17b	No. dissemination networks enhanced/extended: national, regional, Afro-Asian	0	3
18a	No. national TV programmes/features in host country: @ crop-trials, @ HEC work, @ Kenya trip (9), @ concert, @ Minister's visit to ECN wildlife fair booth	5	13
19a	No. national radio interviews/features in Thailand: trials, concert, workshop	1	3
19c	No/ local radio interviews/features in Thailand: crop-trials, concert, workshop	1	3
Physical Measures			
20	Estimated value (£s) of physical assets handed over to host country(s)	8,500	5,000
23	Value of additional resources raised for project		150,283
Other Measures used by the project and not currently included in DI standard measures			
	Increased willingness of villagers/GOs to attend ECN meetings: start vs finish	40	150
	Increased willingness of farmers & local leaders to participate in project: ditto	30	115
	Number farmers/local leaders/villagers openly antagonistic towards elephants	11	4

Annex 4 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
***Pachyderm* 41** (Jul-Dec) 95-99	Walpole M, Sitati N, Stewart-Cox B, Niskanen L. & Stephenson P.J. (2006) Mitigating human-elephant conflict in Africa and Asia: a lesson-learning and network development meeting	IUCN SSC African Elephant Specialist Group, Gland & Nairobi	www.IUCN.org	$20
Conservation Report of FFI	Stewart-Cox, B. and Ritthirat J (2008) Mitigating human-elephant conflict in Thailand: a new initiative in Thailand. In Walpole M. & Linkie, M. (2007 eds) Mitigating Human-Elephant Conflict: Case Studies from Africa & Asia	Fauna & Flora International, Cambridge, UK	www.fauna-flora.org Jupiter House, Station Road, Cambridge CB1 2JD (e) publications@ fauna-flora.org	
DVD (in Thai)	Songloke 9-part series. 'People and Elephants in Kenya: from conflict to compromise'	Songloke Ltd. Independent TV, Bangkok	www.songloke.com	£40

Annex 5 Darwin Contacts

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Host Countries	Thailand & Kenya
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