



Summary profile of the

Elephant Conservation Network

Kanchanaburi, West Thailand

2006-2012

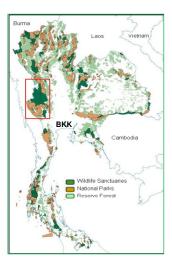


The Elephant Conservation Network Kanchanaburi Province, West Thailand

In partnership with ZSL's Conservation Programme

Context

Thailand now has barely 3,500 wild elephants split between ten conservation complexes and some isolated national parks. Every population is threatened by forest fragmentation, encroachment and other human impacts. Twenty years ago, human-elephant conflict (HEC) was not an issue. Now it is. Crop-raiding is increasing in areas of high human disturbance, posing a serious threat to wild elephants, especially when rural livelihoods are undermined and villagers feel as threatened as the elephants they live alongside. The largest population of $1,000^+$ wild elephants inhabits the Western Forest Conservation Complex (WEFCOM) which encompasses eleven national parks, six wildlife sanctuaries, a natural world heritage site, and over 18,000km2 of tropical monsoon forest (red rectangle).



Focal Area

Salakpra covers around 1,200km2 and includes Salakpra Wildlife Sanctuary, Chalerm Rattanakosin National Park and the Srisawat forest reserve (yellow triangle). Together these form the south-east arm of WEFCOM but they are linked to the larger conservation landscape by two vulnerable corridors due north and south (red arrows) which protect this sub-population of elephants from the genetic and social isolation that would be disastrous for them and for local farmers. Salakpra now supports around 200 elephants, almost 20% of WEFCOM's wild population. But they are threatened, directly from retaliatory killings and resource competition (logging, bamboo cutting, cattle grazing, forest fire, forest product collection) and indirectly from bush-meat hunting (which alters the ecosystem) and the dry season shortages of food and water that prompt crop-raiding.



Rationale

Created in 1965 by Dr Boonsong Lekagul, the father of nature conservation in Thailand, Salakpra was the country's first wildlife sanctuary, famous for its large mammals and birds so close to Bangkok, and the pride of its newly established protected area system. Over the years, however, it has been over-shadowed by larger, more eminent places so that now, the only large mammals surviving in significant numbers are elephants. But with our help, Salakpra is again becoming a conservation area of distinction and repute, famous not only for its elephants and other wildlife but also for the coalition of communities, NGOs, and government agencies that is steadily reversing the impacts of unsustainable forest use to safeguard the wild elephants, their forest ecosystem, local livelihoods and the quality of rural life.

Vision

People and wild elephants live amiably alongside one another, each enjoying the freedom and fruitfulness of their designated homelands in west Thailand without fear of hunger, injury, loss of life or livelihood.

Mission

Turn human-elephant conflict (HEC) in/around Salakpra and other conservation areas in southern WEFCOM into humanelephant co-existence (HECx) by raising awareness, changing attitudes and effecting collaborative conservation action at the local and provincial level whilst sharing lessons learned and best practice with other people tackling HEC.



Justification

The single most important conservation area for wild elephants in Thailand, and the area most likely to give elephants and other rare species a long-term future in the wild, is the Western Forest Conservation Complex, known. The southern half (below the red line) of this conservation landscape lies in Kanchanaburi, the third largest and most forested of Thailand's provinces. No other NGO focuses primarily on Kanchanaburi's elephants and their ecosystem even though the conservation integrity of this province's protected areas is increasingly threatened, not only by habitat degradation from local development (growing settlements, riverine resorts and a rising trend in weekend homes for Bangkokians) but also by the vast industrial development planned for the port of Tavoy (Dawei) barely 90kms south-west of Saiyok, in Burma.



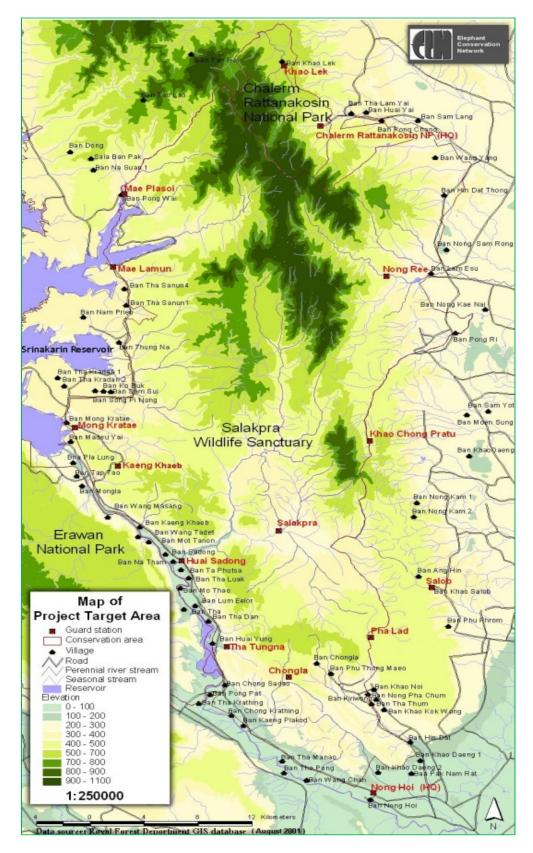
Aim

To understand the causes and effects of human-elephant conflict in/around Salakpra and other conservation areas in southern WEFCOM and to establish a collaborative and inclusive approach to seeking solutions, planning interventions, implementing projects and raising awareness of the value of wild elephants and their ecosystem.

Objectives

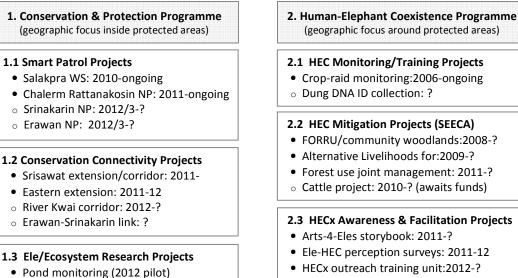
- 1. Understand HEC (past, present, future)
 - (a) around the conservation areas through monitoring and surveys
 - (b) inside the conservation areas through monitoring and surveys
- 2. Mitigate HEC (present, future)
 - (a) around the conservation areas by facilitating crop-protection and corridors
 - (b) inside the conservation areas by improving protection
- 3. Reduce HEC (future)
 - (a) facilitate HECx at local level through awareness and training
 - (b) facilitate HECx at provincial/national levels through law/policy improvements

ECN's primary focal area at present covers Salakpra wildlife sanctuary (approx. 900km²), the small Chalerm Rattanakosin national park (60km²) and Srisawat reserve forest (240 km²). However, we are gradually extending our involvement to other protected areas in southern WEFCOM, starting with the Srinakarin and Saiyok National Parks.



Implementation programme / project structure (includes proposed future projects^o)

Six projects are underway in the Conservation and Protection Programme, but there is overlap between projects in each group, enabling some doubling up of staff time. Likewise, in the Human-Elephant Coexistence (HECx) Programme, there is some overlap between projects in the HEC mitigation group, and with the HECx outreach training and perception surveys. However we do need more staff to ensure smooth implementation and effective outreach/PR (including keeping our website updated), but have been constrained by limited funding.



• Guide to ele-law & stakeholders:2012-13

Projects: past, present, and future

• Salakpra forest surveys (completed)

Corridor monitoring (2012?-

For one year from Dec 2005, ECN worked with rangers to do month-long surveys in three zones of Salakpra three times a year in order to plot elephant seasonal distribution, habitat use and human threats. Our most notable finding was the scale of human activity in the forest, especially near villages where bamboo (a year-round staple for elephants) is being harvested on an industrial scale. After sharing our data widely, awareness and attitudes among villagers and government officials began to change and so did the debate within communities, between villagers and officials, and within government agencies. Two projects came out of this and the associated socio-economic survey: a more effective smart patrol system inside Salakpra, and alternative livelihood support for forest users around Salakpra. Since then, we have clustered our projects into the above two programmes.



Left: ECN's project leader, working with forest rangers, uses a GPS to plot their position in dry dipterocarp forest during the cool season (Dec). Right: the survey team checks their location on the 1:50,000 map during the dry season (April).

1. Conservation & Protection Programme (inside conservation areas)

1.1 Smart Patrol System (SPS) Projects

• In 2010, we began working with the Department of Nature Conservation, WCS-Thailand and the Border Patrol Police to train Salakpra rangers in the 'smart' patrol system of protection using monitoring information system technology (MIST) to collect data collected on patrol that can be used to inform and improve management. Smart patrolling is now Thai government policy. As well as organizing training courses and study visits, we provided the equipment needed (GPS units, cameras, patrol kits, boots, uniforms etc.) for Salakpra's 15 ranger teams and we equipped the SPS office at Salakpra HQ. We are now providing the same service for the Chalerm Rattanakosin National Park teams. Equipment and training (photos right) are only a first step. Thereafter, we help the SPS patrol units (below) ensure that data logging is both timely and accurate, and we provide supplementary analysis and reports for feedback to the management teams at local and national level so that the smart patrol systems can be regularly reviewed and improved.





Left: one patrol team apprehends four poachers, their motorcycles and kill Right: a ranger cuts up bamboo stems harvested for sale to city middlemen. This new system is changing the costbenefit of poaching



1.2 Conservation Connectivity Projects

• Northern corridor surveys (current)

In 2007, we worked with rangers and villagers to survey the reserve forest north of Salakpra that connects it to the core of WEFCOM, mapping signs of elephant, other wildlife and human activities. We recommended the government upgrade the protected area status of this reserve to secure a corridor that allows elephants and other large mammals to move freely between Salakpra and Huai Kha Khaeng. The Ministry of Environment added this recommendation to its 2009/10 work-plan, using our data and maps in its proposal to Cabinet. The Srisawat Corridor plan, approved on 22 January 2008, got underway in late 2010. ECN is a leading member of the official Corridor Working Group for west Thailand. In 2011-12 we carried out more comprehensive surveys of the corridor forest to map every route used by large mammals, to identify threat points, and to make sure that the small road through the area is protected from ribbon settlement. Our initial findings were presented to government in May 2012. Funds permitting, we now aim to monitor through-routes to find out which species use them, when and how, and to make sure illegal settlement does not occur in key areas.



Above: ECN director, Belinda Stewart-Cox with a telltale print, confirming in 2008 that elephants use this northern area. ECN then worked with rangers and villagers to map the routes used by elephants, using dung, prints and other signs as evidence.

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Knowing from our HEC data that elephants raid crops beyond the south-east boundary of Salakpra, we surveyed the army-controlled reserve forest in 2011, to map the distribution of habitat and elephant use and find out whether this area could be added to Salakpra before it is irrevocably lost to wildlife. The answer is yes. A full report is now drafted and will be submitted to government in the next few weeks. In the meantime we have presented initial findings to key local officials and they concurred with our recommendation that the area should be annexed to Salakpra. The next step is to make those recommendations higher-up in government. We undertook a similar survey beyond the south-west boundary of Salakpra on both sides of the River Kwae Yai (better known to non-Thais as the River Kwai), but as most of this area is privately owned agricultural land, it will require a longer, more comprehensive feasibility study to identify a viable corridor. Consequently, the south corridor project has been put on hold for the time-being, but we will do our best to ensure that the habitat extension goes ahead.

1.3 Pond monitoring (pilot study completed)

• Crop-raiding is most serious around Salakpra's southern boundary and often occurs along old elephant routes to the River Kwae Yai. In an effort to alleviate this problem, the Salakpra team turned 22 seasonal pools into large, permanent ponds. But what animals visit them, when and how? Mindful of the need to monitor the efficacy of these

ponds, and curious to know what their animal visitors can tell us about wild life inside southern Salakpra, ECN installed 16 camera-traps at five of the ponds and has already photographed scores of elephants, including calves, as well as other mammals. If we can raise adequate funds, we aim to monitor all 22 ponds to learn more about the dynamics of animal interactions in Salakpra.





A tuskless bull visits one pond during the day and a family herd visits another as the sun sets.

2. Human-Elephant Coexistence Programme (around conservation areas)

• Socio-Economic Survey (completed)

In 2007, as well as doing forest surveys inside Salakpra and the northern corridor, ECN undertook a socio-economic survey of 1,044 HEC affected and unaffected households around the sanctuary using questionnaires, semi-structured interviews and workshops. Led by Dr Napat Sirisamphand of Chulalongkorn University's Social Research Institute, the findings provided valuable insights into the economic activities of households around Salakpra, improving our understanding of the context of HEC around the sanctuary. We then helped the Kanchanaburi provincial administration develop a Wild Elephant Master Plan to ensure a collaborative approach to elephant conservation and HEC mitigation, and we helped community leaders establish a Salakpra Elephant Ecosystem Conservation Alliance (SEECA) to facilitate community forest restoration and the development of alternative livelihoods for forest users.

Ecotourism Feasibility Study (completed)

In 2007 we did an ecotourism feasibility study of our main focal area to find out whether tourism could be a tool for elephant conservation in/around Salakpra and if so how. The study was led by Charlotte Johnston, a specialist in sustainable tourism who had recently helped establish a successful post-tsunami community tourism initiative in southern Thailand. After familiarizing herself with the impacts of elephants on people and vice versa, Charlotte identified the assets and attractions of the target area, surveyed community perceptions of/interest in tourism, assessed training needs, analysed the opportunities for product development and concluded that a series of conditions would need to be met for tourism to be an effective tool for HEC mitigation and elephant conservation. Every condition could be met given adequate resources (people, money and time), but with all three in short supply, the study has not yet become a project.

2.1 HEC Monitoring

• Monitoring crop-raiding (current)

In 2006, ECN began working with farmers in 23 communities affected by human-elephant conflict (HEC). We trained village monitors to record, map and measure all incidents of cropraiding on pre-prepared data sheets. We then held scores of formal and informal meetings to share findings and decide next steps. Through this incremental increase in awareness about elephants, crop-raiding and forest resource competition, we have achieved notable changes in attitude among farmers, community leaders, elected representatives, sanctuary staff and government

officials towards elephants, NGOs and conservation. HEC is too big a problem for any one protected area or government agency to solve alone when their mandate does not include working with villagers. It must be solved through collaboration with NGOs and local communities.

Above right: a village monitor measures a patch of raided sugarcane with the tell-tale pile of elephant dung in the foreground. Right: the distinctive trail left by an elephant that has stomped through a field of coriander.

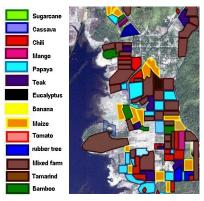




• Land-Use Mapping (completed, but not completely)

In 2008, we mapped land-use and land-ownership in HEC-affected areas around Salakpra, a hugely valuable but time-consuming exercise. Using Point Asia (Thailand's

equivalent of Google Earth but at higher resolution), we plotted target areas and then gathered information from farmers and other villagers at monthly community meetings. Unfortunately we did not have the resources to map non-HEC areas around Salakpra which is a pity as that would have yielded useful comparative data and may have given us greater insight into why HEC occurs in some areas and not in others. However, we did use this collaborative exercise to map traditional routes once used by elephants to get from Salakpra to Erawan National Park on the



opposite side of the River Kwae Yai. We asked elders in each community to identify the old elephant routes on the original 1:50,000 maps that were used before the Srikanarin Dam was built in 1980. They proved surprisingly adept at reading the map.

2.2 HEC Mitigation

• Crop-Protection Trials (completed)



In 2007-8, we carried out a year-long crop-protection trial with local farmers, testing a variety of deterrents from flashing CDs and chilli-oil fences (left) to different types of electric barricade. The most cost-effective method was the high-tensile electric fence (right), here 'illuminated' by the farmer with plastic bags so that elephants were more likely to see and hopefully avoid walking into the fence at night. Two years later, we



persuaded the provincial administration to fund 47 kms of electric fencing around Salakpra to deter elephants from entering the most vulnerable areas of human habitation near the sanctuary. This greatly enhanced our collaboration with local farmers and community leaders although the fence itself, managed by the Department of Conservation, was poorly constructed. As a result, monitoring and maintenance (facilitated by ECN with Salakpra and local communities) is critical.

• Forest Restoration Research Unit (current)



With training and supervision from Dr Stephen Elliott and his team at Chiang Mai University's Forest Restoration Research Unit (www.forru.org), we are doing a collaborative research project with Salakpra and Kaeng Plakod village to identify the indigenous tree species best able to accelerate natural forest regeneration on degraded land and to restore forest in the dry lowlands of west Thailand. We have two nurseries; one in the village that focuses on research (left) and has a 3.5km forest phenology trail with 350 trees from 85 species that are monitored monthly, and one in the sanctuary that produces saplings of indigenous tree species that are now quite rare.



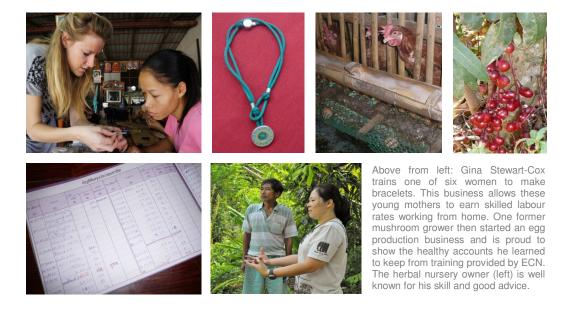
This project links to the SEECA alternative livelihoods project (below) as it helps villagers create or restore community forests. It is providing more and more training in indigenous forest restoration to community groups and NGOs and is helping villages monitor the impact of unregulated harvesting on their forest resources and diversity. We regularly host visitors from government agencies as well as NGOs from elsewhere in Thailand and abroad who marvel at the quality and cost-effectiveness of this local collaboration.

Alternative Livelihood Programme (current)

In 2009, a Salakpra Elephant Ecosystem Conservation Alliance (SEECA) was set up with community leaders and other villagers to begin the slow but necessary process of developing a collaborative partnership between communities and the protected area. The first project, intended to take pressure off elephants and their habitat, helped those who collect non-timber forest products (NTFPs) develop alternative livelihoods that do not depend on forest resources. After scores of meetings to identify interested groups, determine organizational structure, establish work plans and discuss project ideas, ECN facilitated workshops, study trips and training courses to develop SEECA members' skills and their ability to produce business plans, seek funds and launch enterprises. Within a year, 12 groups of 5-8 forest users in five villages had started ventures with modest start-up funds from ECN (with help from donors). Enterprises included mushroom growing, fruit drying, contract sewing, bamboo plantations and a medicinal plant nursery.



Within two years problems arose. Two mushroom groups faced management tensions which they resolved in a Thai way by splitting up, and the fruit-drying group lost the drying equipment they ordered with a government grant to corrupt local officials. Thus we learned how difficult and costly it is for a small NGO to provide the political clout as well as the sales, marketing, and product development expertise necessary to ensure that enterprises like these grow to their full potential. Hence we are now focusing more on conservation initiatives that are linked to livelihoods such as community forest restoration, joint forest management, and alternative cattle-keeping methods. However, the training we arranged for SEECA groups still yields results as former group members are using their business development skills to launch other enterprises in, for example, chicken, pig, and rabbit rearing as well as egg production. Besides the sewing circle and two mushroom enterprises run by women, six young mothers are also making jewellery for www.ginastewartcox.com – an excellent arrangement, as they do not need to worry about sales and marketing, or product development. Gina does that.



• Community Forest Restoration & Sustainable Forest-Use initiative (current)

This project evolved from the SEECA alternative livelihoods initiative. Its aim is to facilitate the creation or restoration of community forests and to improve the conservation and sustainable use of forest resources in those community forests and in affected areas of Salakpra. This scheme allows registered community members to harvest an agreed quantity of named non-timber forest products (NTFPs) in mapped forest-use zones while also engaging them in a system of policing and protection that benefits forest, wildlife and local villagers while deterring non-local forest users. Because it is technically illegal to take anything from a conservation area (though it happens all the time), this is being done as a low-profile pilot project with Salakpra near the sanctuary boundary to find out whether a joint management scheme of this kind can work. Activities to date include: training villagers to map customary forest use zones and do simple assessments of forest resources; overseeing forest assessment surveys in each community zone; holding workshops to agree areas for conservation or harvesting, as well as the rights, responsibilities and regulations needed to implement this sustainable forest use system.



With help from ECN, elected members of Thungna and Thakradan villages learn now to map their community forests and assess their status and quality before working out how to manage those forests more sustainably in future.

• Improved Cattle management (stalled, in need of funding)

Having learned from our 2007 socio-economic survey that at least 2,700 cattle live near Salakpra and many are taken to graze inside the sanctuary, we followed up in 2010 with a focused survey of cattle-keepers in all 32 local villages. We found that, in fact, there are over 7,000 head of cattle within 2kms of Salakpra's boundary and half of them graze inside the sanctuary; 33% of cattlekeepers depend on cattle as a primary income, 50% as a secondary income; most are smallherders and 20% are landless. Problems include shortage of grazing, a market system that penalizes small-herders, limited access to vets, and competition from the non-local cattle of richer people in nearby towns. We prepared an improved cattle management plan that was approved by cattle-keepers and senior officials in the provincial livestock and conservation departments, both of which would provide a fair percentage of matching costs. But despite our concerted efforts with two relevant donors, we do not yet have the funds to implement this important project.



The free-ranging cattle inside Salakpra compete with elephants and other herbivores for food and water, especially during the hot dry season, and pose a serious risk of disease transmission.





The central basin of Salakpra is the sanctuary's core area for elephants and other large mammals.

2.3 Human-Elephant Co-existence (HECx) Awareness & Facilitation

In 2010 we launched this multi-pronged initiative to facilitate human-elephant coexistence that enables local people to live more easily and safely alongside elephants while also helping to conserve them effectively.

• Arts-For-Elephants storybooks (current)

Working with teachers and students from schools around Kanchanaburi province, we have held two story-writing and painting competitions as part of a Thai Elephant Day (March 13)

educational event, thus generating the material we need to create a Thai-English storybook that is illustrated by young Kanchanaburi artists. The first storybook, a story about human-elephant conflict entitled *The Tale of Tusker Peemai*, will be published in December 2012. Its aim, and the aim of all future storybooks, is to raise awareness among Thai youngsters about wild elephants, their ecosystem and their interactions with people so that the



next generation knows more about elephants, their habits and their needs and is therefore better able to live alongside wild elephants and be more understanding and compassionate.



From left: Kanchanaburi students joined our Thai Elephant Day event to illustrate our storybook. The acting British Ambassador (right assessing paintings with the judges) and the Governor of Kanchanaburi (centre) gave away prizes.

• HEC-Elephant Perception survey (completed)

As a founding member of the Asian Elephant Conservation Group (AECG) established by the Smithsonian Institute's Dr Peter Leimgruber, ECN carried out perception surveys in three HEC areas near Salakpra using a questionnaire that AECG members designed together in March 2011 at a workshop in Sri Lanka. Parallel surveys were done in Nepal, India, Sri Lanka, Cambodia, Malaysia and south-west Thailand by other AECG group members, revealing interesting similarities and differences between project sites. The combined results will be presented at the 2012 Society of Conservation Biology Asia conference in India and published as a joint paper in Gajah, the journal of the Asian Elephant Specialist Group.





ECN's Jittin Ritthirat interviewing Karen villagers in the northern corridor area of the Srisawat forest reserve.

• HECx Outreach Training (current)

In 2011, we worked with the Zoological Outreach Organisation of India (ZOO-India) to pilot the HECx training workshops for environmental educators that they have pioneered and developed in south Asia. Because the response was so favourable, we are launching our own HECx Training Unit in 2012 to adapt ZOO-India's 'Learning to Live with Elephants' training manual and materials for Thailand. This will entail holding a series of training workshops for educators (teachers, GO and NGO outreach staff) in areas with wild elephants, especially in areas where there is human-elephant conflict. Our aim is to train trainers and make the manual/materials available for them to use in their own workplace.

Government Policy at Provincial Level (intermittent)

In 2010, the governor of Kanchanaburi set up an elephant management committee with a wild elephant working group that included ECN. That same year, we were instrumental in producing a draft Wild Elephant Strategy and Action Plan for Kanchanaburi which was approved for implementation in 2012, but in the political upheavals that followed, the governor was transferred and his successor favoured commerce over conservation. Now he too has gone and the elephant-loving deputy has been given the top job, so Kanchanaburi's elephants, including valuable, therefore vulnerable calves like this one, may once again be helped by the provincial administration, at least for a while.



Guide to Thai Elephant Law and Stakeholders (current)

Thailand is a hub for illegally traded elephants (Asian) and ivory (Asian and African), infractions that are facilitated by loopholes in Thai law. Proposed changes to the laws in recent years were rejected because they were poorly informed and inadequately supported. Any proposed new law, or changes to existing laws, must be drafted by fully informed, appropriately qualified people with input from all stakeholder groups, for only if revisions are widely accepted, however grudgingly, will they get parliamentary approval. Working with Richard Lair (Thai Elephant Conservation Centre) and Dr Sumolya Kanchanapangka (Chulalongkorn University and a member of the Thai Senate Elephant Working Group), both recognised authorities on elephants in Thailand, we are preparing a comprehensive guide to the history, administration, and problems inherent in Thailand's elephant laws to serve as an authoritative information tool, in English and Thai. This guide will be distributed electronically and via the web well ahead of the next CITES Conference of the Parties which will be held in Thailand in March 2013.





Left: a wild elephant in west Thailand, electrocuted or poisoned for raiding an illegal orchard that is inside the conservation area. Elephants are also threatened by the lucrative trade in ivory and live animals.

3. The Future

The ECN team is committed to doing what it can to help conserve Thailand's wild elephants in perpetuity. Our collaboration with the Zoological Society of London (ZSL) and with other organisations – government, non-government and community-based – here and abroad are very important to us because they provide the monetary, practical or advisory support we need to make a significant conservation impact. To that end, we are also exploring ways to make ECN administratively and financially sustainable in the long-term so that it does not suffer from founder's syndrome, the fate of so many small NGOs the world over which collapse as soon as the person that founded and 'drives' them retires. Our partnership with ZSL is especially important to us for that reason, for although ZSL cannot provide the funding we need to secure ECN financially, it can provide the platform and guidance necessary for strategic and professional development.

4. Donors to Date

After a few years of modest start-up funding, ECN was boosted by a 3-year grant in 2005 from the British Government's Darwin Initiative which also prompted our partnership with ZSL. Since then most of our funds have come from a series of 1-year grants (e.g. Keidanren Foundation, Whitley Fund for Nature, BBC Wildlife Fund, Elephant Family) tied to specific projects, plus the occasional donation. The Asian Elephant Fund of the US Fish & Wildlife Service has been our most enduring donor to date, providing funds for our Smart Patrol, SEECA and HECx projects as well as regular site visits. ZSL is also a key supporter but cannot provide much in the way of funding. However, it does provide institutional support, strategic development, practical guidance and accounting (conservation impacts and financial), all of which ensure that we deliver our objectives quite well and maintain a reputation for honesty, integrity and hard work.

Our one weakness is that we have not yet found a way to generate an independent income e.g. by harnessing the lucrative 'voluntourism' market in which people will pay handsomely to help a cause they believe to be good. It is relatively easy for wildlife centres to generate money this way – and many in Thailand do with enviable success - because the animals in need of care are captive. The elephants we help are wild and wary, making them hard to see. Moreover the villagers and rangers we work with (as well as most ECN staff) do not speak English, so it is hard for us to manage volunteers unless they speak Thai which few do. As well as providing matching funds for the valuable work that we do, an endowment would enable us to hire Thai staff with English language skills for a number of key roles, including a PR/communications and income-generating team that could help raise funds along with ECN's profile, thus helping to make the organisation more self-sufficient and sustainable in the longer-term. To date we have not been good at promoting our achievements as widely as they deserve to be promoted.

Prepared by Belinda Stewart-Cox, OBE ECN Founding-Director 20 July 2012