

IEF Final Report 2007

Community based Elephant Conservation in Cambodia

By The Cambodian Elephant Conservation Group

Introduction and overview:

With thanks to contributions made by IEF, 2007 has seen the Cambodian Elephant Conservation Group (CECG) advance conservation efforts of the Asian elephant in Cambodia through an increasingly holistic range of activities. This year has seen the handover of CECG management from international staff to Khmers for the first time. Our research and science has reached new heights with the implementation of a large-scale DNA-based elephant survey across the whole of SW Cambodia, which will give us accurate population information for the first time. To complement this we continue to assist communities who are directly affected by elephants, providing them with comprehensive methods to resolve human-elephant conflict. Through our widespread community rangers and elephant-orientated social networks of farmers and elephant friendly land use planning we are able to deter poachers and reduce forest clearing. We are also piloting a small education program to remote forest communities as part of our drive to change local attitudes to conservation. When combined with our capacity building at both provincial and national level, we are working towards our goal of stabilizing and/or increasing the wild population of Asian elephants in Cambodia.

Report on IEF Activities:

A) Expand and consolidate guarding groups for all HEC sites in Cambodia, following successful pilot phase

- CECG now has extremely good relationships with government at local village and commune levels at our target sites. This has been brought about through extensive dialogue between community leaders and our national team and it is through this link that we can further institutionalize and consolidate our previous work. We now have now expanded our engagement upwards from the grassroots to both Village and Commune level with regard to all our activities at field sites. This has been met largely with enthusiasm from the side of local government.
- Before initiating interventions and activities in new areas, our team first carries preparatory study on current land use, soil quality and identifies all key local stakeholders. Farmers poorer and more severely affected by HEC are prioritized for assistance with crop change and HEC mitigation methods.
- This year we have expanded our reach to reach all known HEC sites nationally. The main focus on new areas has been in the Northern province of Preah Vihear, where there is evidence of a few small elephant herds regularly visiting agricultural areas. CECG visited these areas on 13-17 July 2007 and recruited two team leaders. During this week we provided training and materials on how to mitigate against HEC so that the villagers can effect methods independently.
- We have just established three new guarding groups at our new target site at Prey Proseth village and two more guarding groups at other key locations. Each group is strategically placed along the boundaries of farmland and forest and comprises of between 8 and 10 farmers per group. Each group is given training on how to work as a team and each

member given a clearly defined role in the group. CECG also provides all the necessary tools and elephant mitigation materials to fully equip each team to guard their homes and crops against elephant damage. 3 new watchtowers were also built at locations around this village as part of our delivery of an effective HEC mitigation system.

- For the first time this year we arranged a HEC field site visit for teams from Mondulkiri province in the northeast of the country to meet our teams operating in the southwest. It was a valuable experience for the teams to be able to meet and share experiences on the problems encountered when living with elephants; alternate cropping methods – which crops were successful and which were not; and also to give each team a feeling that they are not operating alone, but as part of a nationwide network. We plan to repeat this with other farmers and guarding groups in the future.
- Each guarding group now has a standard alarm signal of its own to use when elephants approach. We have not implemented the same signal nationwide, as different groups prefer different methods. E.g. some use a whistle, some a horn and some fireworks. Each is effective in its own locality, and we ensure locals are aware which signal is being used.
- At the end of the year, we awarded our most successful farmers with small prizes in recognition of their efforts to change their crops and way of life away from forest dependency. The purpose of this was to further encourage existing and new farming families to renew their commitment to elephant conservation.

Guarding Group Summary

Previous to CECG involvement at our target sites, it is understood that neighbouring farming families never knew each other, never spoke and never shared problems and experiences. Through the formation of guarding groups, a forum has been provided for building local inter-personal relationships and the discussion of alternate and improved farming practices. For example, we have now seen almost complete cessation of the growing of traditional staple crops such as rice, bananas and sugar cane and a move towards crops and vegetables which are non-palatable to elephants which command a higher market price and are much less labour and land intensive. We are able to give assistance where it is needed to provide materials such as crop seeds, irrigation and other farming equipment. In many cases the cost is small, for example \$50 to pay for a well or fuel for a water pump, but this can help farmers to make the first steps away from operating at a subsistence level, and towards making a profit at market.

At our target sites, encroachment onto the forest estate and elephant habitat has now all but stopped as local people move away from relying on the forest for an income and towards sustainable farming activities.

B) Develop team capacity in Participatory Land Use Planning (PLUP) to prevent habitat fragmentation and increasing HEC

Whilst our sensitive land-use planning works extremely well at the local level to improve livelihoods and reduce forest clearing, government support at the national level is still relatively low. Some government departments are even reluctant to sign formal land-tenure agreements with local people, as there is so much money which can potentially be made by selling off the rights for the land to international companies for mining prospects or hydropower schemes.

Between the 4th and 10th June 2007 CECG conducted a workshop in Sihanoukville on Participatory Land Use Planning (PLUP), using a hired PLUP specialist to deliver technical training. All our national and provincial staff attended the course, which included practical exercises on land zoning and prioritization at some of our HEC target sites. Members of the local farming community also took part in these exercises, and drew up a preliminary zoning map of their commune area which included farmland, land for development and a clear forest boundary, which it was agreed should not be any further encroached.

Discussions were also had and examples given of the current threats to elephants and the wider forest as they present themselves today and the legislation which is currently in place to protect it. For example – community members were presented with a scenario of widespread logging and the ensuing erosion this would bring. In fact the response was that the local people are aware of basic good farming practice and feel most threatened by outside intervention from big logging and plantation companies. This is now a prevalent threat to many farming communities across the country.

Indeed, in May this year Mr. Tuy Sereivathana, Manager of CECG engaged with some of the sugar cane plantation companies operating within the elephants' home range. Although sugar cane is an attractive crop to elephants and really not the best crop choice, advice was given on how to protect the crop from damage by raiding elephants. Liaisons such as this are difficult at best due to the commercial incentives involved, but we strive to keep engaging these companies as part of our remit to protect the elephant and its habitat.

During September the PLUP consultant who gave the previous training returned to give national and provincial training and information to locals on the second step of the planning and zoning process at Prey Proseth village, Koh Kong Province.

PLUP Summary:

Through our implementation of the initial 2 stages of PLUP, it has become apparent that this is an international model that may not necessarily fit the Cambodian context. As mentioned, the national government can often be reluctant to finalise the PLUP procedure officially, and so we have to come up with other innovative ways by which local land can be secured for local people through social strengthening and economic cooperation and consolidation between farmers. The work achieved so far is nonetheless highly valuable and has helped build a "united front" of farmers in the community for the first time. This will provide an extremely strong line of defence in the face of potential land-grabs by the countries' powerful elite. Due to this success, we will continue to use the early stages of PLUP as a model for what we can call "elephant friendly" land use planning at our other sites

C) Support national management of CECG to improve project sustainability

- 2007 has seen the handover of full time CECG management to Khmer staff for the first time, with part time assistance of international technical advisors only where it is needed. Mr. Tuy Sereivathana, CECG Project Manager, is now responsible for all budget management, personnel management and implementation of all project activities. The project manger also engages widely with other stakeholders and NGOs nationally on key elephant conservation issues such as planned development projects and broader conservation strategies.
- The use of both our MSC monitoring system and HEC database have now been fully consolidated nationally and are managed by a designated IT support person – Mr. Lo Kimheang.

Meetings on MSC are conducted monthly at the provincial level and every two months nationally. This ensures timely feedback of key issues that need to be addressed and contributes significantly to our proactive adaptive management style. In urgent cases, information can flow directly from the field teams to the CECG manager and an immediate response can be effected if necessary.

Our HEC database produces outputs monthly in the form of charts, graphs and reports detailing current HEC status (see chart 1 below). Details of each conflict event nationwide are stored in a computerized format, which is backed up. These data are being used as management tools to monitor trends in HEC incidence, frequency and severity and to predict conflict flashpoints, ensuring field team readiness on the ground.

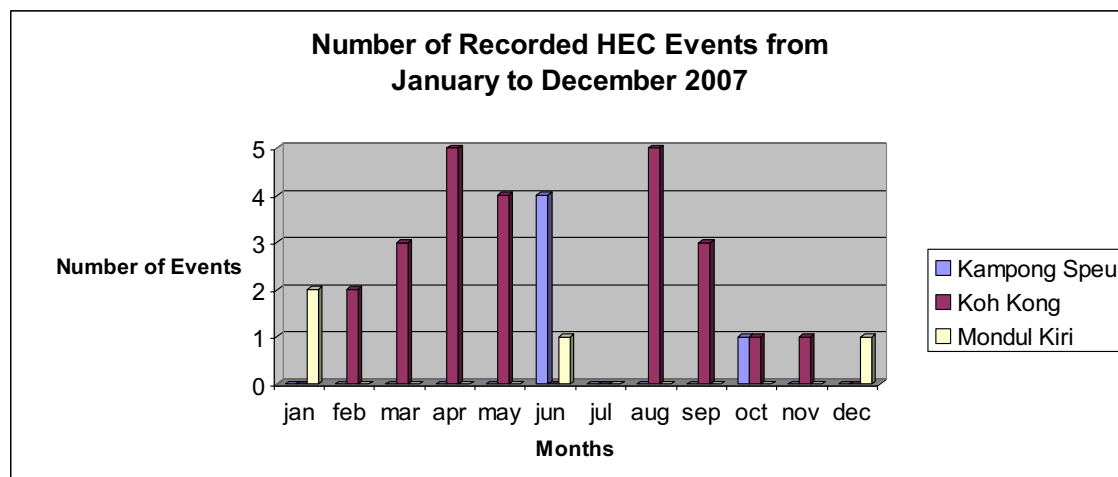


Chart 1.

- The use of DNA technology will also assist greatly in the future to monitor elephant population numbers and sex ratios. A census was conducted in 2007 using fecal DNA by means of identifying individual elephants across the greater Cardamom Mountain landscape over the whole of SW Cambodia. This will provide the baseline for all future DNA monitoring work, by which population fluctuations can be measured against.

D) Begin business planning with farmers growing alternative “elephant-friendly” crops

- Business planning is key to the ultimate success of our crop-change livelihood improvement strategies. As we have learnt from early on in our pilot phase, it is no use successfully harvesting crops if there are no links to market where a fair price can be had. We now therefore encourage farmers to liaise with market traders either provincially or in Phnom Penh *before* crops are planted so that the logistics are in place to achieve the highest profit margin when harvesting and subsequent sale.

We have recently piloted growing of Habanero chili’s – the second hottest variety of chili in the world – using imported seed. The local varieties of chili are relatively mild, so we wanted to test a hotter variety and see if they are more effective as a deterrent. There is also a higher price at market for hotter chilies, adding benefit to the farmers in cash terms. However 2007 has had an extremely wet summer, with localized flooding leading to the failure of many crops, including the habanero chilies. Hence this year this strategy failed as a direct mechanism for livelihood improvement. However, we plan to continue using chili as an elephant deterrent and to continue to trial growing different varieties of chili as a mechanism for both elephant deterrent and livelihood improvement strategies.

At O’barkrotes Commune, Kompong Seila District, Koh Kong Province - one of our HEC target sites – we have provided livelihood assistance and our expertise in resolving elephant conflict issues over the past few years. As a direct result of our past interventions at the local level, the commune leadership has come to see value in preserving their surrounding natural environment - which happens to include some pristine forest and a substantial waterfall. Hence we are now acting at the behest of the commune council to investigate the potential for developing the site for small-scale ecotourism and the promotion of “elephant-friendly” crops such as Taro to a wider market, including tourists.

- We have also consulted with CEDAC, a local agricultural specialist group and we carried out a rapid assessment of our work in two provinces in the southwest – Kompong Speu and Koh Kong. The main objectives being to observe the status of all crops and plants currently grown in villages affected by HEC and close to elephant habitat in three districts over the two provinces. Around 1500 families were observed and interviewed by random.

Below are the results of the rapid assessment:

N	Crop Occupancy of Land	Level	Percentage (%)
1	Mixed crop (chili, papaya, taro...)	1	90
2	Fruit crop (mango, potato, coconut,...)	2	70-80
3	Small scale chicken keeping	3	80-90 Only for food and small sale.
4	Other Vegetables	4	30-40
5	Rice	5	50 in small land

From looking at the general occupancy of crops grown, they are not so different and we can see that due to our intervention and advice, elephant friendly crops are the most prevalent.. Differences occur between variance of crops and soil quality.

Around 40% of the people surveyed do not have enough food for 4-5 months per year to feed their families. In order to meet this deficit, those farmers look for jobs either in the construction or garment making sector, or turn to the forest for logging, NTFP collection, making thatch and/or borrowing money from other villagers or banks.

Based on this research, next year we are aiming to address these issues by:

- Consolidating capacity of community to diverge crops (parallel to natural and organic principles)
- Create money saving program to provide microfinance.
- Create rice bank to help alleviate hunger.
- Create joint sale and purchase teams to ensure fixed tariffs for crops bought and sold.
- Educate the villagers on the negative impacts of using chemicals on land and crops.
- Mainstreaming and encouraging villagers to use natural fertilizers.
- Look at new alternatives such as chicken farms, goat keeping which are less land intensive.

We plan to integrate these ideas into our future work and we are looking forward to an interesting and successful 2008. We would like to thank IEF for its generous support to our project to date.