

# INTERNATIONAL ELEPHANT FOUNDATION

ElefantAsia

*Domesticated Elephant Advanced Registration (DEAR)*

1<sup>st</sup> January 2010 – 1<sup>st</sup> January 2011



2010: Phieng District, Sayaboury. A logging elephant is microchipped as part of the DEAR project. Assisted by his mahout; ElefantAsia's Registration Officer Mr Thongsavath Doungdy and Department of Livestock & Fisheries Officer Mr Phouang Singngam (left).

## **TITLE OF THE PROJECT: *Domesticated Elephant Advanced Registration (DEAR)***

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### **Budget**

Total Project Budget: **USD \$27,629**

Total Received from the International Elephant Foundation: **USD \$8,000**

### **Timeframes**

Project Start Date: 1 January 2010

Project End Date: 1 January 2011

## Project summary

The Lao PDR is one of the Asian elephant's range countries afforded the least amount of conservation management, population assessment, veterinary care or governance. ElefantAsia remains the only organisation dedicated solely to the protection and conservation of Asian elephants in Laos. An estimated 1,000 - 1,200 elephants remain in Laos. Wild population surveys are rudimentary with population counts recognised as baseline assessments only. More is known of the domesticated elephant population, of which there are an approximate 460 elephants remaining in Laos. ElefantAsia works in collaboration with the Department of Livestock and Fisheries (DLF) to provide the best healthcare, registration and employment options for elephants and elephant owners.

ElefantAsia recognised a clear need for enhanced Asian elephant registration in Laos. Paper registration was proving to be duplicative and inefficient, with some elephants having multiple registration papers while other registration papers were lost in provincial offices. These meant proper elephant census was unattainable and elephants with ongoing health issues not followed through with appropriate attention. Given the Lao context, microchipping the entire domesticated elephant population of Laos was seen as the best management option. Many Asian elephant range countries have already seen the benefit of microchipping domesticated elephants, with five out of 13 nations microchipping captive populations (Dublin *et al* 2006).

The Domesticated Elephant Advanced Registration (DEAR) project timeframe was 1<sup>st</sup> January 2010 – 1<sup>st</sup> January 2011. During this period ElefantAsia has made significant improvements for the domesticated elephant population of Laos.

DEAR project highlights:

- The microchipping of 77% of Lao's domesticated elephant population.
- The creation of Lao's first comprehensive elephant database containing all field missions, consultations, images and stakeholders.
- The straightforward ability to follow-up elephant vet care and health via the database 'flagging' system.
- Capacity building and training of Lao nationals in registration, database usage and microchipping.
- The ongoing use of microchip and database information for the international community.

All activities have been completed by the anticipated dates with some activities ongoing. The DEAR project has occurred in five provinces of Laos, with a focus on elephants used in remote logging areas and tourism. ElefantAsia and DLF staff members have been trained in microchipping and database use and continue to create Lao's first accurate and functional domesticated elephant catalogue.

## Methodology & work plan

(From project application)

Activity	Methodology	Expected results	Status (Pending, Ongoing, Completed)
<u>Activity 1.</u> Acquire microchip equipment	<ul style="list-style-type: none"> <li>Telephone &amp; email microchip the company in the USA for best prices available for equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Receive a written quote for equipment.</li> <li>Microchips and scanners obtained.</li> <li>Database software obtained.</li> </ul>	Completed
<u>Activity 2.</u> Establish microchip database.	<ul style="list-style-type: none"> <li>Communications with Asian elephant experts regarding the most effective requirements for the database.</li> <li>Employ a local database consultant.</li> </ul>	<ul style="list-style-type: none"> <li>Software is relevant and compatible with microchip software used regionally.</li> <li>Software must be in both Lao and English.</li> </ul>	Completed
<u>Activity 3.</u> Train staff in microchip use and data input.	<ul style="list-style-type: none"> <li>Conduct training during a field visit by the Mobile Vet Unit.</li> <li>Training to be held at district DLF offices</li> <li>Provide interactive instructions and training methods in Lao language.</li> <li>Provide handouts in Lao language.</li> </ul>	<ul style="list-style-type: none"> <li>Training in microchip and database usage.</li> <li>Stationary.</li> <li>Photocopying of documents</li> <li>Human resources and travel costs</li> </ul>	Completed
<u>Activity 4.</u> Registration of all domesticated elephants in Lao PDR.	<ul style="list-style-type: none"> <li>Microchip elephants during field visits by the Mobile Vet Unit.</li> <li>Microchip elephants during the annual Elephant Festival.</li> <li>Visit provinces where the Mobile Vet Clinic does not currently operate to microchip elephants.</li> </ul>	<ul style="list-style-type: none"> <li>480 domesticated elephants are micro-chipped.</li> <li>Database compiled.</li> </ul>	Ongoing

Activity	Methodology	Expected results	Status
<p><u>Activity 5.</u> Monitor DEAR success, microchip &amp; database usage.</p>	<ul style="list-style-type: none"> <li>• Compare field notes with database information.</li> <li>• Feedback from district and provincial staff, mahouts.</li> </ul>	<ul style="list-style-type: none"> <li>• Database is effective</li> <li>• Ongoing data collection.</li> </ul>	<p>Completed, Ongoing</p>
<p><u>Activity 6.</u> Identify any gaps in knowledge or technical skills (ongoing).</p>	<ul style="list-style-type: none"> <li>• Compare field notes with database information</li> <li>• Communications with staff and mahouts during field visits</li> </ul>	<ul style="list-style-type: none"> <li>• Quality review of database.</li> <li>• Feedback from district and provincial staff</li> </ul>	<p>Completed Ongoing</p>
<p><u>Activity 7.</u> Provide database information/access to national and international stakeholders.</p>	<ul style="list-style-type: none"> <li>• Publication of findings in academic literature.</li> <li>• Via database software sharing.</li> <li>• Presentation of findings at Regional Asian elephant meetings</li> <li>• Broadcast on relevant internet websites</li> </ul>	<ul style="list-style-type: none"> <li>• National and international stakeholders will have accurate figure of domesticated elephant populations in Lao PDR</li> </ul>	<p>Completed Ongoing</p>

## Activity outcomes, monitoring & evaluation

### **Activity 1.**                    **Acquire microchip equipment.**

Outcome:                    All microchips and scanners have been received.

Monitoring & evaluation:    The type of microchipped used has proved to be very effective. The decision was made to purchase pre-loaded, individually wrapped microchip implanters. This leaves fewer margins for registration error and affords the safest form of hygiene as microchips remain sealed and untouched until moments before injection. Only a handful of elephants have been considered too aggressive to be microchipped. The decision to not microchip these elephants for personal safety reasons was noted and recorded in the database.

### **Activity 2.**                    **Establish microchip database.**

Outcome:                    The database is a fully functioning and is now an integral part of ElefantAsia's elephant management system. All elephant details are entered into the database, including each individual elephant microchip number, sex, location, age, body mass index, health issues, medications given, advice given to owners, required follow-up reports, pregnancies, births, deaths, owner contact details and other unique features. All Mobile Veterinary Unit field missions and consultations are entered into the database and can be cross-referenced using the elephant's name, owner's name or microchip number.

Monitoring & evaluation.    The ability to cross-reference data greatly reduces the room for error or elephant duplication. The database is routinely assessed for quality control (see Activity 5).

### **Activity 3.**                    **Train staff in microchip use and data input.**

Outcome:                    Relevant ElefantAsia and DLF staff have been trained and are competent in database use. ElefantAsia's registration officer and vet technicians enter all data into the software after each field mission. Relevant information is entered in the Lao language, making the database comprehensible for Lao nationals. "How to" database instructions have been created, allowing new staff members or DLF staff to interact with the software. Staff names are in the database so it is possible to see which person has added, changed or deleted information.

ElefantAsia and the DLF's veterinarians and vet technicians have been trained by international veterinarians in microchip implantation. Implantation is not difficult however some specific measures must be undertaken to ensure implantation is successful and people are not placed in danger. To date there has been no problems with microchipping elephants. Dangerous elephants are identified early and microchipping is not attempted.

Monitoring & evaluation: Database training is an ongoing process as new ElefantAsia and DLF staff require the database. ElefantAsia staff capacity has been built so most staff members can train others in database usage. After each microchip has been implanted vet technicians scan the area with the reader to ensure the chip is read and the microchip number is unique. This also applies before each microchip implantation to ensure the elephant has not been microchipped previously. Elephants are always double-checked for microchips as several microchips have been found in single elephants in other range countries such as Thailand.

**Activity 4. Registration of all domesticated elephants in Lao PDR.**

Outcome: It was always understood that not all domesticated elephants in Laos would be microchipped within the 12-month project period. To date 355 elephants have been microchipped, **totalling 77% of the entire domesticated population**. 36 elephants were microchipped at the 2010 Elephant Festival and 45 microchipped at the 2011 Elephant Festival. Elephants from five provinces have been microchipped: Sayaboury, Champassak, Vientiane, Luang Prabang & Bolikhamxay. Two p provinces have been added to ElefantAsia's Memorandum of Understanding with the Lao Government; Luang Prabang and Bolikhamxay. This is a significant achievement as more elephants are being sold to Luang Prabang tourist camps and veterinary care to these elephants is vital. Most elephants microchipped work in either the tourism or logging industries.

Monitoring & evaluation: Microchipping the entire domesticated elephant population of Laos is occurring as efficiently as possible. ElefantAsia has two Mobile Veterinary Units, allowing microchipping to occur at a faster rate than previously. Given the poor state of roads and six-month wet season, field missions (and subsequent microchipping) can only occur under ideal conditions. Often roads are unexpectedly inaccessible by 4WDs because of flooding or erosion. It is anticipated that 90% of the population will be microchipped with a year, with the remaining 10% taking another year to complete.

**Activity 5. Monitor DEAR success, microchip & database usage.**

Outcome: While the designated Registration Officer enters all information into the database, this can be checked and verified by all ElefantAsia staff. The database is designed so that local and international database users can access the most recent and updated version without having to be in the ElefantAsia office. This makes the database extremely effective for instantaneous review and querying. Feedback from all stakeholders including elephant owners and DLF staff has been positive. One of the best design features of the database is the ability to 'flag' an elephant. This may be a sick or injured elephant that need follow-up attention, or a suspected pregnant elephant. Flagging an elephant means an automatic alert will occur, ensuring vets or DLF staff remember to ring an elephant's owner for follow-up observations. Given the remoteness of domesticated elephants in Laos, this system is the most effective way to ensure all elephants are treated post veterinary unit visitation.

Monitoring & evaluation: It is still too early to gauge the success of the DEAR program. Once at least 85% of the population has been microchipped, population viability analysis will be undertaken, with results published in academic journals and presented at conferences. Database usage is a big success with ElefantAsia and the Lao DLF. Elephant owners can be identified and contacted promptly if necessary. This is required for follow-up health checks for an elephant and can be done from anywhere in the world.

**Activity 6. Identify any gaps in knowledge or technical skills (ongoing).**

Outcome: The database went through a review process during the design phase. Negative feedback about its use and features were reviewed with changes made as necessary. Database design took longer than expected but has since proven to be extremely effective in containing all data required.

Monitoring & evaluation: Quality review of ElefantAsia's Registration Officer is regularly undertaken to ensure all data is entered into the database accurately. This is achieved by veterinarians or other staff members reviewing field mission reports, microchip numbers and elephant records against the information entered in the database. Any oversights are shown to the Registration Officer with changes made accordingly.

**Activity 7. Provide database information/access to national and international stakeholders.**

Outcome: ElefantAsia's microchipping has been documented in media including environmental magazines and websites. Academic publications are currently being written for publication in scientific journals. Findings will be presented at conferences, including the *Environmental Research Event*, Stradbroke Island, Australia June 2011.

Monitoring & evaluation: Academic peer review takes time to occur and is an ongoing process. ElefantAsia staff members notify all interested parties at all opportune moments. Without international assistance, elephants in Laos will continue to be overlooked.

## Conclusion

The DEAR project will continue until all domesticated Asian elephants in Laos have been microchipped. This will be an ongoing project, given births will occur and calves will need to be microchipped at appropriate ages. ElefantAsia is pleased to update Laos' registration system to that of internationally recognised criteria. This includes the database, now a comprehensive tool for all domesticated elephant information in Laos. Already staff members of IUCN Laos have requested domesticated elephant database from the DEAR database. Ongoing funding will be necessary for the purchase of additional microchips and field missions.

It is anticipated that the flow-on benefits of the DEAR program will be felt for many years. Potential breeding partners have been identified, and are participating in ElefantAsia's "Baby Bonus" programme. Cows of breeding age are paired with bulls in the region. A comprehensive database showing each veterinary visit is vital to follow an elephant's development, including flagging sick or pregnant elephants for further observation. None of this would have been possible without the DEAR program and the International Elephant Foundation's assistance.