

## **Learning to live With Elephants: Human elephant co existence *HECx* Educators Skills Training Programme at Nepal BA Daniel and Marimuthu**

The second series of *HECx* workshops 'Getting Along With Elephants' funded by US Fish and wildlife Service, USA was organised at Nepal from 24 February to 6 March 2009 in two locations namely Chitwan National Park and Shuklaphanta Wildlife Reserve. For this series the people living in and around HEC areas of Chitwan, Bardia and Sukhlaphanta were targeted. The National Trust for Nature Conservation NTNC Nepal hosted the entire series.

The workshop series was inaugurated by Dr. Narendra Man Babu Pradhan, Chief Warden, Chitwan National Park by traditional way of lighting up the lamp, Mr. Juddha Bahadur Gurung, Member Secretary, NTNC, Mr. Shivraj Bhatta, Ecologist, Department of National Parks and Wildlife Conservation, Dr. Shant Raj Jnawali, Director, Terai Environment/NTNC, Mr. Kirti Nath Poudel, Project Coordinator, Biodiversity Conservation Centre/NTNC, Chitwan, Heidi Riddle, Elephant Sanctuary, USA and Sally Walker, Founder Director/Zoo Outreach Organisation graced the inaugural by delivering speech during inaugural. The entire event was coordinated by Mrs. Sarita Jnawali, Project Manager/NTNC and in-charge Central Zoo, and Mrs. Rachana Shah, Education coordinator.



### **First workshop at Chitwan: 24-26 February 2009**

The first workshop of the series was held at the Biodiversity Conservation Centre, NTNC, Chitwan National Park from 24-26 February 2009. Forty four persons including teachers, NGO's, buffer zone committee members, zoo, wildlife department attended this training. One participant from Thailand was also invited to attend this series.



### **Second workshop at Chitwan: 27 February to 1 March 2009**

The second workshop of the series was organized at Chitwan National Park from 27 February to 1 March for the people of Bardia National Park who live in and around HEC areas. Thirty five participants attended this training. The inaugural programme was attended by Dr. Narendra Man Babu Pradhan, Chief Warden, Chitwan National Park, Mr. Kirti Nath Poudel, Project Coordinator, Biodiversity Conservation Centre, NTNC, Chitwan, Mr. Buddhi Raj Pathak, Assistant Warden, Chitwan National Park, Heidi Riddle, Elephant Sanctuary, USA and Sally Walker, Founder Director, Zoo Outreach Organisation, Dr. B.A. Daniel, Scientist and Education coordinator of ZOO and R. Marimuthu, Education Officer, Zoo Outreach Organisation.



### Third workshop at Sukhlaphanta: 5-6 March 2009

The third workshop was held at Mahendra Nagar nearby to Shuklaphanta Wildlife Reserve, Far Western Nepal on 05-06 March 2009. Twenty seven participants of attended this training. Mahendranagar was experiencing some political destabilization however, the participants reached the venue out of their personal interest. The programme was inaugurated by Mr. Gopal Prasad Upadhyay, Chief Warden, Suklaphanta Wildlife Reserve, Mr. Keshab Raj Khanal, Conservation Officer & Office-in-charge, Suklaphanta Conservation Programme (SCP)/NTNC, Dr. B.A. Daniel and R. Marimuthu of Zoo Outreach Organisation.

In the all three workshops one hundred and six (106) participants were trained. Out of 106 participants 45 are teachers; 22 from Non-governmental organizations: 23 from buffer zone committee members; 13 Wildlife Department officials and 3 zoo personnel. The resource persons will include BA Daniel, R. Marimuthu, Rachana Shah, Heidi Riddle and Sally Walker.



### Programme details

Ms. Sally Walker introduced the objective and theme. The objectives are to empower teachers of all kinds to confront and teach about the vexed topic of Human-elephant Conflict and a partial 'solution' ie human-elephant coexistence HECx and to demonstrate innovative teaching and learning techniques designated to change human attitudes and behavior for the better. She explained the meaning of active learning methodology by conducting a mini-drama inviting participants to wear masks of different characters of humans, animals and plants.

After introduction by way of an activity called 'sound off', the participants were briefed about the manual chapters and other education materials such as Ele-kit packets, drama-kit and its guidelines.

**Assessment tools:** To assess the participant's pre knowledge about the subject three assessment techniques were conducted. They were Brain map, content survey method (written) and attitude



assessment. In the brain map session, sample brain map activity was done with the subject school and the participants were asked to do brain map using 'elephants' as the subject. The brain maps were collected and kept since the same activity is carried out at the end of last day and the pre workshop and post workshop brain maps were compared. By comparing the brain map they convinced that their knowledge level on elephants, human-elephant conflict or coexistence increased considerably. In the attitude assessment, three facial expressions 'joy', 'neutral' and 'sad' were



drawn and pasted in were asked to listen to HEC and elephant teachers guide. The the statement express below the facial exercise was repeated workshop contents and attitudinal difference among the participants. In the content survey method, a set of multiple choice questions were given and asked them to tick their choices. It was repeated again at the end of the third day to measure the knowledge gained after the three day programme.



the wall. The participants specific statements related to conservation read out from the participants after listening to their reaction by standing expressions. The same after completing the entire the difference will show the

**Species information:** It is important that the participants understand the basic information about the species that we discuss ie the Asian and African elephants. They were informed about the two elephant species and their sub species, classification and the regional names. They also learned about the basic differences between the Asian and African elephant by looking at the head, ears, trunk, skin, tusk, foot and height. Apart from that some facts about



elephant habitats, food, drinking water, life span, pregnancy, litter size, maturity, calf size and inter-birth interval of Asian elephants were informed.

**Mini-drama:** Drama is of the active learning tool. By doing, they understand complicated issues such as human-elephant conflict. This brings in team spirit and active involvement in what they do. Four drama themes such as Human-elephant conflict, poaching and hunting for elephant body parts, why does a village attract elephants, certain do's and don'ts in the elephant area were made in to script



for the participants to practice and present. They were asked to do mime drama however, they were allowed to use animal sound and other natural sounds. They were given half-an-hour to prepare their props and to rehearse as well. At the end each group was called for the performance. All the groups did an excellent miming drama. The non players will act as the audience and after the performance they were asked to narrate the enacted story line and the theme they played. At the end all the participants received a drama kit and guidelines booklet in order to conduct dramas with their audience after the training. They were encouraged to write their own drama scripts related to wildlife issues. The drama session was very fun and memorable for the participants as well for resource persons.

**Country Chapter:** In this session, general overview about the existing forest cover in Nepal and important elephant habitats in Nepal was covered. The forest cover includes 16 Protected Areas that will include 9 National Parks, 3 Wildlife Reserves, 3 Conservation Areas and 1 Hunting Reserve. Information about existing elephant habitats of Bardia National Park, Chitwan National Park, Koshitappu Wildlife Reserve and Shuklaphanta Wildlife Reserve such as information of date of establishment, extent of park and buffer zone area, major habitat types, faunal and floral composition were explained. Elephant populations in Nepal in different zones-Eastern, Central, Western and Far-western region populations also explained. Domestication of elephants (*Hattisars*) and Acts related to elephants were covered.



**Former and Current elephant Ranges:** Present and historical distribution of Asian elephants were made to understand by map reading activity. Participants formed four groups and each group was given a set of present and past range maps in 4 parts and they were asked them to fix it up. Once they fixed up the maps, they were instructed to go through the maps and list the countries where the elephants were found 100 years ago. The second map was used to find out the present distribution of elephants in Asia. The participants listed out 17 countries as the historically distributed regions from Iran to China. Their current distribution was patchy and it was restricted to 13 countries. Through map activity they understood that the elephants were locally extinct in four countries such as Iran, Iraq, Pakistan and Brunei. Towards the end the participants understood that in the year 1900 there were 2,00,000 elephants and they were spread widely in 17 countries and at present there may be about 35,000 Asian elephants left. That means we lost 87% of elephants in

100 years. Further it lead to a discussion of present forest cover of Nepal, continuous forest decline, elephant population restricted to few PA's in Nepal, if it goes incessantly what would be happened to elephant population and would linking fragmented habitats help to save elephants.



**Illustrated history of Asian elephants:** The relationship between human beings and elephants is time immemorial. To trace the history of Asian elephants a drawing activity was conducted using elephant history cards starting from 2000 B.C to 2025 AD. Each participant was provided with a history card, bearing a year and some historical information, A3 paper and colouring materials. The participants were asked to illustrate or visualize the information in the paper and then colour it to make more colourful. On completion they were asked to explain their illustration for others to understand and exhibited on the wall in a chronological order.



**Learning to Live with Giants-HECx:** Ms. Sally Walker gave a Power Point presentation to introduce certain do's and don'ts in the presence of wild elephants. In her presentation she told about the elephants have been used or abused by human beings extensively for various purposes, and human elephant conflict is a old problem and it has been existing for long time

but not severe as now. HEC is very complex, no ultimate solution is available. One cannot understand the seriousness of the problem unless we experience it personally and the problem will continue to remain. Even though the governments and NGO's have been trying many things to cope with the problem and protect both human and elephants sometimes it is unmanageable by them. Some of their protection measures may collapse on occasions when help is most needed. Therefore, she advised the participants to take the responsibility either as an individual or as a community and learn how to live with the situation as it is, not as how they wish. In order to this, one must develop flexible attitude and learn to think in new ways and establish priorities. What is more important?



Individual's life or crops such as sugar cane, or a house or any other property? An individual's life is more precious than anything and the priority is to try and save individual's life first. If you live then the crops can be planted again and the houses can be constructed. A list of do's and don'ts collected from various south Asian country partners and recently from the tribal people at West Bengal training workshop were told. She also shared some true incidences happened in Sri Lanka. Heidi Riddle and BA Daniel gave the presentations for the other two workshops.

**Elephant Characteristics:** To understand some of the adaptive characteristics of Asian elephant, a few activities were done with participant's involvement. Comparison human body weight and height with elephants, Comparison of human walking and running speed with that of elephants, Communication in elephants, and the use of trunk and the strength of the elephant trunk that could lift objects like small needle to big wooden logs and chemoreception in elephants are some of the activities tried.

**Asian elephants in Asian Culture:** Elephant has been used as a powerful symbol in most cultures around the world. To promote conservation people should understand the influence of elephants in development of human culture. A specific activity was designed to understand how this happened in human cultural evolution. The participants formed four small groups and they were asked to find out examples of elephant that has been used in human culture and to classify them in the following



categories such as advertising, sports, stories, movies, songs, literature, proverbs, plants or animal or place names and other miscellaneous. The target of the group is to score highest point and it was made into a competition. Half-an-hour time was given to look for examples and at the end each group was invited to present their list. The group understood how human culture has been influenced by these elephants. After that elephant in Asian ideology, origin of elephant related Hindu mythology and some stories existing in Asian culture were explained in detail.

**Asian Elephants and Asian Perspectives:** People have different views about elephants and it vary from individual to individual. To explain this, an activity was conducted by splitting participants into different groups. Each group took the role of different characters of the society and expressed their perceptions and views pertaining to the elephant conservation. They took the roles such as farmers, weightlifters, advertising executive, temple priests and devotees, film story writers, artists, politicians, song writers and elephant researchers. All the groups performed their role with props and costumes to make their role lively.

**Understanding peoples tolerance level towards problem elephants: Elephant vs Rodents:** To understand the people's tolerance or intolerance level towards problem elephants, social and economic problems caused by the elephant and smaller pests like rodents were compared. The rodents cause damage to the food crops which is enormous and this damage is many folds compared to the damage caused by elephants. Even though the rodents do more damage to the food crops than elephants it does not attract much criticism because of its size and other socio-economic and ecological factors. These factors determine the tolerance level of the people towards the crop pests. It was explained to the participants by using different factors to see their increasing tolerance and intolerance levels. Under socio-economic factors, land availability, labour availability, capital and labour investment, alternative income sources, coping strategies, size of pest group, type of crop damaged, social unit absorbing loss and potential danger of pest were compared. Under ecological factors the tolerance level was measures by using the factors pest size, raid timing relative to harvest, pest group size, damage pattern, pest's crop preference, timing of raids, crop damage per raid, frequency of raid and crop parts

damaged. Some statistics about crop damage of rodents and its value were given to the participants to know them how rodents are more menace than elephants.

**Human-elephant conflict mitigation with community participation:** This is a mock role-playing exercise to unravel conflict issues. Implementing a project by the government is very difficult unless it make the people understand the benefits of the project and the outcome. In most of the cases the governments listen to the views of the public to find some solutions to the problem such as HEC. For a mock exercise, the participants were divided into groups to represent different sectors of a community and a proposal was read out for the participants. The proposal is — A village is experiencing Human Elephant Conflict (HEC) for over 20 years and their traditional methods to mitigate the issue are futile and short term. In order to find out long-term solution for this issue, the village committee invites suggestions from the villagers, forest personnel, tourism officials, Non-Governmental Organisations and elephant researcher/educator to resolve the problem. The government after hearing the suggestions, come forward with a solution that can be implemented with the support of the local people. Sufficient time was given for the group to discuss about the points that they have to present and to make props. After the allotted time, each group presented their views to the village committee members. The village committee member hears their views and put together at the end and introduces a scheme as a solution to solve HEC.



**Conference on protection and management of HEC affected areas in Nepal:** The participants were divided into groups. Each group represents one of Human Elephant Conflict areas of Nepal. The group supplied with workshop recommendations suggests measures to improve management and protection of HEC affected areas. This workshop recommendation has nine actions. Each group has 100 points and they must assign points between these actions.

Once they assigned all points and each group invited to present their ranking of points. Each groups point for each action is pooled in a board and then calculates which actions got more points and prioritize the actions one by one with the point they got. At last, the actions were prioritized and made a action plan for protection and management of HEC affected areas. This kind of model exercises help participants to understand how an action is prioritized in a conference.



**Energizers and games:** Hawk and Pigeon game was played in all the three workshops. The participants actively involved in the game as it teaches them the team spirit. How important is the team spirit when they conduct education programmes also explained.



**Energizers:** Whenever there is a need for to boost energy level of the participants, especially between sessions, after lunch break some energizers were tried. We played "write your name on the air" using different body organs write their name on the air. Another energizer we played Elephant grazing, foraging and browsing. In this activity participants will do browsing in the ground and foraging up in the tree like elephants do. These energizers also liked by all.

**Presentation by Guests:** Dr. Narendra Man Babu Pradhan gave a PPT presentation from his doctoral degree on Asian Elephants in Bardia National Park, Nepal in the first training in Chitwan. In his presentation he talked about Asian elephant over times, Protected Areas of Nepal in which four areas have isolated elephant populations. He further talked about the Bardia elephants numbers, age and structure and seasonal diet composition. In the second training workshop Ms. Heidi Riddle gave a presentation on Riddle Elephant and Wildlife Sanctuary. She shared the establishment of the sanctuary, its objective and no of animals. She gave overall captive elephant population in USA both Asian and African. She also shared their research studies on elephants related to pheromones, musth and ultrasound. Also education activities such

as using her centre for International school for elephant management training and field conservation activities such as Seblat Elephant Camp in Pengkulu Province of Sumatra, Indonesia which runs conservation response unit, protecting the forest using elephants and also the Sumatra Mahout Workshop.

**Tips for planning an education programme:** One of the objectives of this three day programme was to make sure that the participants go back to with all these education materials and conduct some

A pledge card titled "PLEDGE CARD" with the subtitle "GETTING ALONG WITH ELEPHANTS NEGS". It features two elephant illustrations. The card has a section for "I, \_\_\_\_\_ (pledge to practice that I)" and a section for "I commit to the training by committing myself to do the following activities:" followed by several blank lines. At the bottom, there are fields for "Date:", "My Signature:", "Name of witness:", and "Signature of witness:".

education programmes for their audience and practice what they learned. It is necessary that they learn how to plan an education programme since this methodology is new to most of the people. All the participants now has a manual that gives all the teaching methodology, 100 ele-kit education packets, two sets of drama kit and two sets of elephant puppet kit. During this session they were taught how to use these materials effectively and make best use of this. A full demonstration was given explaining the ways to use these materials for various activities such as rakhi-tying, marching demonstration with placards, quiz programme with elephant etiquette booklet combining some activities from the manual such as drama, role-play or other games. The participants were told about the South Asian Network of International Educators (SAN-IZE) activities, membership details of SANIZE, eligibility to become a member and given contact details of the organizer and the host to send their education reports. The proposed refresher course information, that will be held after six month and the eligibility to attend was also informed.



**Personal commitment:** Learning is different from practicing. This workshop make sure that they make some commitments to practice what they learned in these three days and the commitment help them to do it. The participants were given printed pledge cards and asked to write two commitments they could do within six months time using the training. All of them committed what they could do in next six months and they were asked to read aloud so that others could hear.

**Post assessment:** Assessment will be complete only if the post workshop assessment activity is conducted. The participants were asked to do brain map using elephant as the subject. Then the pre assessment brain map was given back



to them so that they can compare the pre and post brain map. The participants came to know that their knowledge level has been increased in the three days training by knowing lot of things about elephants, problems and how to coexist with them.

**Course evaluation:** To get the participants opinion about the overall training methodology an evaluation was conducted. This helped us to know our merits and demerits of the training. Please see appendix for the comments.

**Presentation of certificates and education packets:** The participants received a certificate at the end of each workshop. Along with this they also received 100 Ele-kit education packets. Appendix I

## COMMENTS FROM NEPAL PARTICIPANTS

### **Participants of Chitwan: 24 February – 26 February 2009**

**Ms. Jittin Ritthirat**, Project Manager, Elephant Conservation Network, Thailand  
Teaching methods/techniques/teaching guide. Excellent.

**Mr. Laxman Prasad Poudyal**, Assistant Conservation Officer, Chitwan National Park  
This type of workshop is very much valuable for teachers, researchers, and other persons who work in a society. Extend one day more, allow them to go to field and observe how they conduct programs in real situation.

**Mr. Shankar Chettri Luitel**, President, Biodiversity Conservation Society, Bahundangi -1, Jhapa.  
The most valuable about this workshop was, how we can manage conflict between human & wild animals. We are very thankful to the organizers. In future, we hope this kind of conservation programme will be held in other conflict areas. The workshop organizers are very nice because we Shankar and Manoj from Jhapa V.D.C Bahundangi-1, 450 Kms away from Chitwan National Park could attend this workshop. We are very happy to learn from R. Marimuthu and B.A. Daniel.

**Mr. Kul Prasad Bhusal**, Chairman, Budi Rapti B. Zone Users Group, Kumroj, Chitwan.  
Such type of workshop needed more. If you add more assessment event & giving some rewards, it will improve more learning capacity.

**Madhuker Regmi**, Teacher, Shree Ra. Pa. V. Tarauli, Bachhauli, Chitwan.  
Timeline, package should be both English and Nepali and filed visit.

**Mr. Bhim Lal Acharya**, Teacher, Malpur Secondary School, Bachhauli, Chitwan.  
Biological development of elephant should be kept on the contents. Slide presentation should be kept on the subject of the contents. Refresher course should be kept and manual should be on both English and Nepali.

**Mr. Hem Subedi**, President, Bird Conservation Society, Chitwan  
The knowledge and resource materials. The workshop is good but too short and when conducting similar programmes please use PowerPoint.

**Mr. Bishwa Ram Sedhai**, Teacher, Buddha Shanti H. Sec. School, Pipley 7, Chitwan  
The trainers training were very well and he is valuable person.

**Mr. Buddhi Thapa**, Secretary, BCS, Bahundangi-1, Jhapa, Eastern Nepal.  
This workshop is too much valuable for elephant's conservation, So that this workshop is very important. I Buddhi Thapa came from Jhapa. Three days workshop was so much nice. I request Sir, we need this like conservation workshop in Bahundangi, Jhapa.

**Mr. Som Prasad Bhatta**, Teacher, Shree Bairiya Sec. School, Ratnanagar-8  
& Mr. Balakrishna, Teacher, Shree Lower Sec. School, Kaparphory 7, Ratnanagar, Chitwan.  
Such type of workshop needed more from you and more assessment event of going in my filed.

**Mr. Indira Subedi (Neupane)**, Teacher, Nijanand Ra. Pra. Bi., Ratnagar Municipality 10, Jirauma, Chitwan.

The activities of this workshop is most valuable. Three days workshop-we very happy.

**Mr. Rishi Khanal**, Teacher, Bachhauli Sec. School, Chitwan  
We are successes to know HEC and method of minimize HEC which is very important for us.

**Dr. Kamal Pd. Gairhe**, Senior Veterinary Officer, Chitwan National Park.  
Precise contents. Please select participant of equal band in language of instructions and knowledge.

**Mr. Padam Prasad Timilsina**, Teacher, Shree Kapiya Sec. School, Kumroj, Chitwan  
The activities of the workshop are most valuable.

**Mr. Puspa Raj Marahattha**, Teacher, Lower Secondary School, Ratnanagar-5, Chitwan

We are able to know what is HEC and how can we minimize HEC by positive way. This is the most valuable thing in this workshop.

**Participants of Bardia: 27 February-01 March 09.**

**Mr. Nagendra Bahadur Khadka**, Eco Teacher, Shree Janata Ma.Vi. School, Rammapur, Bardiya

This workshop lived my expectations.

**Kumar Prasad Sapkota**, Teacher, Shivpur-6, Bardia.

This workshop is very useful for myself but time is very short so I suggest to increase days of workshop.

**Bhim Bahadur Chaudhari**, Khata, Bardia.

We obtained more & more knowledge about elephant's behavior.

**Alok Kumar Tharu**, Pata bhar-3, Bardia & Nil Kantha Kandel, Takurdwara, Bardia.

Increased positive thinking about wild elephants. Short time.

**Basu Dev Neupane**, NTNC Ranger, Chitwan.

Rakhi makes a good/best commitment.

**Basu Dev Bhattarai**, Jagadamba Hr. Sec. School, Bardia

Short time.

**Purushotam Pandey**, Veterinarian, Bardia.

All training methodology topics are very suitable & very nice but this training duration I think not sufficient.

**Shree Ram Ghimire**, NTNC- Bardia.

Good at one word. This was our fault we couldn't give enough time & patience last day because of Bandh (strike).

**Pradeshu Chaudhari**, NTNC, Bardia

More content in a short days workshop.

**K.P. Bhattarai**, Nepal Rastriya L.S. School, Thakurdwara, Bardia.

This workshop is very valuable and very good.

**Participants of Shukla Phanta: 04-06 March 09.**

**Rita Yadav**, Ranger, Shukla Phanta Wildlife Reserve.

I would like to give my thanks to all of you for this helpful and cooperative teaching through this workshop. This workshop is very helpful to my PA activities in conservation aspect of wild animals.

**Shani Chaudhary**, Ranger, Shukla Phanta WLR.

Presentation of Dr. Daniel was impressive.

**Eshwar Rajpant**, Nature Guide Association, Shukla Phanta.

I am very happy that the first program you run in Nepal. I give you many thanks for organizing programs. All staff are cooperative. Some language problem faced to our participants.

**Santosh Kr. Sahoo**, Chairman, Conservation Himalayas, Chandigarh.

I liked the overall activities of the workshop. However, I suggest ZOO should come up with Educational kits/instruction materials in the local language (Nepali).

**Hira K.C.** NTNC, Shukla Phanta.

Participatory learning method is very important. Training package and trainers were good. It will be better to specify the target group. Training should be conducted in a same level of understanding that will be more efficient.

**Laxmi Datt Joshi**, Teacher

Any how we have to protect elephants habitation and save them from hunters. Workshop was good. If increase the time of workshop it would be better.

**Lav Dev Bhatt**, Headmaster, Sri Tribhuwan Secondary School, Ratanpur, Kanchenpur.

Activities done by the trainees (participants).

**Rajendra Ayer**, Koshadhayakehya, Mahendra Nagar.

Shorten the time for the workshop.

**Milan Sapkota**, Ranger, Shukla Phanta WLR.

Teaching period (presentation) of Daniel sir was valuable.

**Arun Narsinghrana**, Conservation Education Assistant.

As I spend three days, instructors have given their valuable knowledge to the trainees and I assure I can implement this knowledge to the students.

**Santa Bahadur Magar**, Ranger, Shukla Phanta WLR.

More days needed for better workshop. Documentaries about elephant along with human beings will play vital role for better workshop.