Workshop on development Indo-Nepal Bilateral agreement for formulation of a conservation action plan to mitigate human-elephant conflict in trans-boundary region (Nepal-West Bengal)

WWF-India, WBSO organized a two-day workshop during 12-13<sup>th</sup> April 2012 at Sukna with the object of developing Indo-Nepal bilateral agreement on a conservation action plan to minimize human-elephant conflict in transboundary region of Nepal-West Bengal. This workshop organized in collaboration with State Forest Directorate was attended by 75 participants from both the countries including personnel of West Bengal Forest Department and their counterparts in Nepal, Representative from Indian Army, tea planters association, local community and local people's representative in the state assembly.

Ms Saswati Sen, State Director WWF-India West Bengal State Office delivered the welcome address and appreciated participation by stakeholders of both the countries. Dr. Sangita Mitra, State coordinator of WWF-India and co-investigator of this project narrated in brief the progress made in this project during the course of one year.

The programme schedule as fixed earlier had to be altered a little because of the late arrival of some guest speakers. The revised schedule is annexed at annexure "A"



Introductory Session in progress



Some workshop participants in the field

To start with the delegates from Nepal were introduced to other participants and greeted with a memento symbolizing bilateral cooperation between the two countries.

The first session started with a presentation by Mr. Sandeep Sundriyal, Conservator of Forests, of cross Hill Orde. He dwelt on the intensity of man-elephant conflict on the West Bengal side of the border emphasizing the issue border movement of elephants and escalating

conflict in this zone. He also elaborated on actions taken by the concerned officers to tackle this problem and opined on action points that may alleviate this problem in future years. According to him to mitigate the problem of elephant depredation in crop seasons, some short term measures need be taken resort to from the next season commencing in June,2012. He however felt happy that a favourable climate of interaction and information transfer has developed at the level of DFO, Kurseong and DFO, Jhapa. This requires strengthening and formalization through insertion of appropriate provisions in bilateral agreement. Presence of a good number of tea gardens in the habitat zone and corridors of movement clearly point out that they need to be sensitized to avoid some practices like removal of tree cover and cultivation of crops within the areas leased out to them. The army authorities also need to consult the forest authorities before taking up fresh construction within the forest areas occupied by them in the elephant habitat in the transboundary region of Kurseong Forest Division.



Mr S. Sundriyal delivering in the first session

Mr. Mohan Koirala, Regional Director Eastern Region, Forest Directorate, Nepal expressed his satisfaction over this initiative by WWF and the level of participation by the officers of the Govt. Of West Bengal. He felt that based on deliberations in this workshop, the final action plan for short term, midterm and long term measures will emerge.

Mr. V. K Sood, Conservator of Forests (Wildlife), North explained the distribution of forest areas in Northern West Bengal, in distinctive tracts, specified zones of elephant habitat therein and the present status of population of elephants. There has been sizeable increase in the population over the last 20 years and the last census in 2010 puts the number at 530. He strongly felt that with the induction of large number of Juveniles into the category of breeding females will aggravate the problem of man animal conflict in this region unless some worthwhile measures for population control is taken up in the coming decade.

Lt. Col. Raveen Chhikara from 16 FAD of Indian Army reiterated their willingness to cooperate in this initiative. He showed his interest to introduce certain code of conduct for his fellow staff who regularly share their working area with elephant's habitat. He shared his experiences of certain encounters with elephant in their operational area and elaborated on the measures taken to safeguard their properties from elephant damage and lives of the elephants visiting FAD and its surrounds. He said that units located in the elephant habitat of Kurseong Division are aware of their responsibilities towards conservation of nature and wildlife.



Lt. Col. R. Chhikara addressing the audience

Mr. M. K Nandi, Ex-PCCF and Principal investigator of this project explained the objective of this workshop. This was to draw up an agreed final action plan after detailed discussion on the measures included in action plan circulated amongst the participants on the basis of a series of stakeholder consultations. He very sharply brought out the causes of elephant habitat shrinkage and degradation of the quality of habitat during the last two centuries of 19<sup>th</sup> and 20<sup>th</sup>. He said that it would be impossible to reverse the process of shrinkage and fragmentation of habitat. But it is of utmost importance slows down in the coming years to allow managers to develop a landscape plan for sustainable use of resources in the terai region of West Bengal and Nepal. The attention has to more on improvement of the habitat quality of the zone used by elephants through bringing in changes in the prescriptions of the Working Plans /Wildlife Management Plans. Agricultural practices in elephant depredation zones need to undergo changes to bring in crops less vulnerable to damages by elephant herds. His critical analysis stressed that more attention need be paid development of

a pragmatic action plan keeping in view implementation of suggested measures included in the plan in the backdrop of socio-economic development of the region in the years to come.

Mr. Bhupen Biswakarma, Forest Ranger Panighatta discussed the issue of HEC within his range and also during cross border dispersal of elephants. As a manager, he regularly faces hurdles in controlling man-elephant problem. He also suggested a set of measures to reduce the degree of human elephant conflict in the region as stated below:

- Forming voluntary squads and deputing additional staff from other ranges during peak depredation period.
- Construction of watch towers at vantage locations
- Installation and proper maintenance of energized fences preferably solar powered
- Payment of early compensation or relief as trust building measure
- Consideration of such damage to life and property as natural disaster
- Development of agro-forestry practices including crop species less vulnerable to damage by elephants through eco-development schemes with the participation of communities included in FPCs/EDCs and VDCs.



Mr. B. Biswakarma delivering his presentation

Last presentation in this session was on chemical capture/ elimination of problem elephants and long distance translocation of captured elephants across international boundaries. Mr. S Pal Chowdhury, Senior Technical Assistant of Wildlife Wing, West Bengal Forest Department made a captivating presentation. He shared his various field experiences during chemical capture, the science and art of it including finer aspects involved in some successful operations in the field. The story of tranquillization and translocation of two stray

elephants from Bangladesh to India was lucidly told and this was appreciated by all the participants. It was clearly brought in his presentation that trained Kunkees are a great help in such operations and all areas facing elephant depredation must have adequate number of Kunkees at convenient locations.



Mr. S. Palchowdhury in the technical session

Mr. Bishnu Prasad Bhandari, DFO, Jhapa in his audio visual presentation tried to bring out the real scenario in his region and feelings of the local people on transgression of marauding elephant herds from the Indian side. Mitigation of such conflict situations is a clear need to pacify people's perception. He stressed that people of this area still adores this magnificent pachyderm as Lord Ganesha, but continued depredation of life and properties in this tract may substantially alter their attitude and this may result in retaliatory action worsening the situation of conflict and the status of conservation of elephants in this tract.

Dr. Maheswar Dhakal from Department of National Parks and Wildlife Conservation, Nepal intervened with three vital points about the issue. In his opinion there is very scanty or poor research about the entire issue, hence extensive study is needed. Secondly, there should be institutional database on the records of this man-elephant conflict in this region. Lastly he felt that immediate relief or compensation measures are essential for trust building between the managers and local community.



Participants in Lamagumba beat

At the concluding session, discussions ensued on some specific points of the action plan circulated. Ms. Sumita Ghatak, DFO Wildlife Division II and some other participants did not agree with idea of putting in maize/paddy in proposed fodder plantations as these are agricultural crops and their cultivation in forest areas is banned under the provisions of the Forest (Conservation) Act. However there was consensus on other points of the action plan included under short, mid and long term measures.

On 13<sup>th</sup> April, the workshop started with a field visits in the morning. Around 15 participants and some forest personnel participated in this visit. This visit was led by the DFO and ADFO from Wildlife Division I. These visits in the Mahananda Wildlife Sanctuary and multiple use forests of Kurseong Forest Division were organized to give the participants a glimpse of the habitat conditions in the protected area and multiple use forest. Some areas planted with bamboos to add to the fodder resources were also shown to the participants.





Delegates from Nepal in the field trip to Mahannanda Wildlife Sanctuary

Mr. S. S. Bist, PCCF and MD, West Bengal Forest Development Corporation presented the entire perspective of cross border protection of elephants along with the need for a joint strategy

between Nepal and West Bengal (India). It was possible for him as he has the exposure to management of elephant habitats in the Northern West Bengal in different capacities including that of the Chief Wildlife Warden. He has very rich experience on this score as he also held the post of the Director, Bephant Project in the Ministry of Environment and Forests, Govt. of India. The following issues were highlighted in his deliberation:

- At the landscape level, the terai of West Bengal and the terai of Nepal is a continuous habitat of the roving Asiatic Bephant and this also has been recorded in District Gazetteer of Darjeeling in early years of Twentieth century.
- Causes of fragmentation and degradation of this habitat are many and varied leading from the establishment of tea gardens, infrastructure development of roads/ railways /embankments, proliferation of human settlements, raising of monocultures over vast tracts under the production forestry programme, rising population of livestock and free ranging animals etc.
- Prior to 1980s, population was controlled through mela shikar/anchored mela shikar
- During the decades of '80s, '90s and thereafter human-elephant conflict has been
  primarily been managed through a series of measures like putting in elephant squads,
  voluntary squads, elimination/translocation of problem animals, awareness
  development of affected communities and above all deciding on an appropriate framework for payment of compensation for depredation of life and property.
- To stop entry of elephants in Jhapa and adjoining region of Nepal, desperate attempt of shooting was practiced which killed and injured several elephants in recent time.
- A study undertaken by the West Bengal Forest Department with the help of Indian Institute of Ecological Sciences during 2005-06, reflected through radio-collaring of a few elephants on northern West Bengal that Jhapa comes in within the home range of Asiatic Elephant of this region.
- The elephant population in eastern part of Nepal is negligible and its long term viability will to a great extent depend upon the genetic exchange of elephants coming from Northern West Bengal

- Retaliatory action by people in uniform of Nepal on intruding elephant herds through killing and injuring animals have set in a determined attitude of redirected aggression amongst migratory herds and individuals.
- The present trends in population growth indicate that elephant population in North Bengal will grow further leading to more dispersal of elephants towards Nepal and causing more HEC.





Mr. S. S. Bist speaking in the technical session

Group discussion

Mr. Bist strongly felt that a sense of urgency is required to solve this issue without bringing in the unnecessary controversy of Indian or Nepal Bephant. These are Asiatic Bephants and both the countries in this part of Asia have to work together and fast before more dispersal of elephant herds into terai of Nepal make the issue more complicated.

Next speaker in this session was Mr. Shankar Malakar, Member of West Bengal Legislative Assembly who appreciated WWPs initiative in bringing the participation of two countries. As a representative of the people of the tract in the transboundary region expressed his commitment in all efforts directed towards protection of nature, forest and wildlife. He also expressed his happiness for being present on such occasion where two neighbouring countries joined hands to solve this man–animal conflict issue.



Mr. S. Malakar, local MLA attended the workshop

Dr. R. P. Saini, Field Director, Buxa Tiger Reserve and Special Chief Conservator of Forests made a presentation covering issues of elephant conservation and human-elephant conflict in Northern West Bengal in general and in the Tiger Reserve administered by him. Issues highlighted in his deliberation are:

- The elephant habitat in the Northern part of West Bengal presents the worst scenario of Man-elephant conflict in India
- Anti depredation squads properly equipped and trained with installation of barriers in the form of properly maintained energized fences may help in reducing the intensity of man animal conflict in the transboundary region
- Introduction of alternative agricultural practices in affected areas and practicing production forestry in tea gardens falling in the movement of corridors also need be taken up to alleviate the man-elephant conflict situation in this tract
- Restoration of critical corridors supported by habitat improvement works in the elephant habitat zone are surely to bring in beneficial impacts through reduction of human –elephant conflict

Dr. Saini shared some information related to infrastructure development in the form of roads and railways in SAARC countries connecting Bhutan, India, Nepal and Bangladesh. These mega-projects are likely to have direct impact on the transboundary region of West Bengal in India and Nepal. These projects may have far reaching impacts on the conservation scenario of forests and wildlife in this region. Therefore it is of utmost necessity for the planners to involve the managers of forests and protected areas in this to avoid actions that may lead to setting an irreversible trend in habitat fragmentation and degradation. Conservation of nature and wildlife at landscape level cutting across borders is therefore an emerging area of significance.



Dr. R. P. Saini addressing

The next part was formation of three working groups who primarily contributed their view points on habitat improvement, construction of effective barrier, formation of voluntary squads and better level of communication. The participants of the three working groups and the results of their deliberation are furnished in annexure "B"

There were three presentations by all group representatives after discussions and brain storming. Final points will be included in preparation of the draft action plan.





Presentation of the working groups

Mr. M.K. Nandi, summed up the discussion and said a copy of the draft action plan based on the deliberations in this workshop will be circulated to all the concerned stakeholders and both the governments for their final feedback. A review meeting thereafter involving the representatives of both the Governments will finally shape up the action plan that will be sent for bilateral agreement between India and Nepal.

In conclusion Mrs. Sen delivered her vote of thanks to all the participants, specially the delegates from Nepal, Forest authorities in West Bengal and their ground level staff, all others who attended this workshop. She expressed her deep gratitude to the authorities of Forest

Directorate for their collaboration and making available the workshop venue and other associated facilities.



Mr. M.K. Nandi tying a "rakhi" on Mr. M. Koirala to strengthen bilateral agreement

List of participants on both the workshop days is provided at annexure "C"

#### ANNEXURE "A" - Revised Schedule

# 12<sup>th</sup> April 2012

- \*Registration
- \*Welcome address by Mrs. S. Sen
- \*Overview on progress of last one year by Dr. S. Mitra
- \* Address by Mr. M. K. Nandi, Principal investigator
- \*Presentation

Mr. Sandeep Sundriyal, Conservator of Forests, Hill Circle, West Bengal Forest Deptt.

- \* Address by
- 1) Mr. Mohan Koirala, Regional Director Eastern Region, Forest Directorate, Nepal
- 2) Mr. V. K. Sod, Conservator of Forests (Wildlife), North, West Bengal Forest Dep't
- 3) Lt. Col. Raven Chhikara from 16 FAD of Indian Army
- 4) Mr. M. K. Nandi, Ex-PCCF and Principal investigator
- \* Presentation by
  - Mr. Bhupen Biswakarma, Forest Ranger Panighatta, West Bengal Forest Deptt
  - Mr. Bishnu Prasad Bhandari, DFO, Jhapa, Nepal

# 13<sup>th</sup> April 2012

- \*Field Trip to Mahananda Wildlife Sanctuary
- \*Presentations by
  - Mr. S. S. Bist, PCCF and MD, West Bengal Forest Development Corporation
  - Dr. R.P. Saini, Field Director, Buxa Tiger Reserve and Special CCF, West Bengal Forest Deptt
- \* Working session

Presentation of working groups

- \* Concluding session
- \* Vote of Thanks

# ANNEXURE " B"

Subjects	Actions	Compilers	
Habitat Improvement	<ol> <li>Survey in protected areas and reserve forests</li> <li>Mapping of Natural resources</li> <li>Developing water bodies and grassland</li> <li>Emphasis on mixed plantation instead of monoculture</li> <li>Restoration of degraded forest patches</li> <li>Control of grazing and fire</li> <li>Study, research, monitoring, evaluation and publication</li> </ol>	Mr.U. K. Nag; Dr. R. P. Saini; Dr. Narendra Pradhan; Mr. Bhaskar J.V.; Dr. M. Dhakal; Mr. N. Roy; Mr. Sunil Rai	
Development of effective barriers	<ol> <li>Effective energized fencing and maintenance</li> <li>Use of biological barriers and some non-palatable varieties like chilly, areca nuts along with intercropping varieties like turmeric, black pepper etc.</li> <li>Restoration and regular maintenance of watch towers.</li> <li>Suggestion of introducing closely planted bamboo clumps behind the perimeter fence</li> <li>Bordering of chilly fence around the maize fields.</li> </ol>	Mr. M. Koirala; Mr. B. P. Bhandari; Dr. M. Dhakal; Mr. S. Pal Chowhury; Mr. K. Chamling; Mr. N. Biswakarma	
Formation of Voluntary squads and development of community awareness	<ol> <li>Involvement of young, energetic field team from the village community to protect the crop and properties. Service of voluntary group members on rotational basis.</li> <li>Voluntary groups must be trained and equipped with advanced gadgets and accessories.</li> <li>Awareness generation in effected area at village and school level through training and workshops.</li> <li>Use of multiple communication medium (hoarding, pamphlets, posters, slide show etc.</li> </ol>	Mr. Debapratim Saha; Mr. Ashok Ram; Mr. Prakash Thapa; Mr. Joyprakash Roy	

5.	Involvement of electronic and print	
	media	

- 6. Sensitisation of armed forces, political leaders in Nepal and India
- 7. Use of rubber bullets during drives
- 8. Indo-Nepal joint team visit to the effected area.

#### ANNEXURE "C"

Participants	Designation / Organisation		
Arjun Karki	Nature Conservation Society		
Ashis Paul	WB FD (Tukriajhar)		
Ashok Ram	DNPWC/ KTWR		
Badal Debnath	WL Div I		
Bhaskar J V.	Dy. FD/BTR, Alipurduar		
Bhupen Biswakarma	Ranger, Panighatta		
Bikash Dorjee	WBFD (Panighatta)		
Biman Kr. Biswas	Astt, DFO, Jalpaiguri		
Bishnu P Bhandari	DFO-Jhapa		
Debapratim Saha	Baghajatin Vidyapith, Siliguri, Baghajatin colony		
Dharamdev Rai	DFO Baikunthapur		
Dr. Maheshwar Dhakal	Ecologist/DNPWC Kathmandu		
Harsh Subba	Forest (Bagdogra Range)		
Hav Balbeer Singh	"		
Hav R N Singh	16FAD, Army		
Hav SK Chauhan	,,,		
Joyprakash Roy	DR/FR Jalpaiguri		
K. K. Banerjee	BKP- Division, Siliguri		
Kalyan Das	DFO Jalpaiguri		
Kamalesh Singh	5 FOD Army		
Kanchan Bannerji	Forest Ranger, Squad		
Krishna Chamling	Dr/ FR( Panighatta Range )		
L.G. Lepcha	GM (N), WBFDC, Siliguri		
Lt. Col Gopendra	Army		
Lt Col. Raven Chicora	16 FAD, Army		
Major Jameel	FOD Army		
Manas Ranjan Roy	Forest Guard, Baikunthapur		
MC Biswas	Conservator of Forest (Northern Circle)		
Mohan Kerala	RD / Regional Directorate, Biratnagar		
Mr. S. Pal Chowdhury	Senior Technical Assistant, WBFD		
Narendra Pradhan	Coordinator/ WWF-Nepal		
Naresh Biswakarma	Dr. / Fr., Panighatta Range, Lohagarh		
Naseri Ram	,,		

Nb Sub Sajjan Singh	80 Coy ASC Sup		
Nb/Sub Sg Ashok	,,		
Nibaran Ch. Basak	Forest Deptt, Baikunthapur div		
Nitai Ray	Dr. Fr., Sukna Range, Chamta Beat		
Prakash Pradhan	WBFD (Tukriajhar Range)		
Prakash Thapa	Rehti beat/ Banarhat Range		
Rambhadur Thapa	Sukna, Darjeeling, Wildlife I		
S. Gajamer	DM/ Kalimpong		
S. Roy	DFO/ wildlife Div I		
S. S. Bist	PCCF & MD,		
S. Sundriyal	CF Hill Circle,WBFD		
Sanjay Bagchi	DBITA, Binnaguri		
Sanjay Chakraborty	Anandabazar Patrika		
Sankar Malakar	MLA		
Siddharta Roy	DFO / Wildlife I		
Sitangsu kr. Gupta	Banarhat Range, Jalpaiguri division		
Subedar Fz Laskar	,,		
Sumita Ghatak	DFO/ wildlife Div II		
Sunil Rai	Dr. Fr.		
Tapan Kr. Das	Bagdogra Range		
	Deputy Ranger, Kurseong forest div,		
Thamptu Bhutia	Bamanpokhri		
U. K. Nag	ADFO/ WL-I, Sukna		
V. K. Sood	CF/WL (N)		
Y. T. Aden	DFO/ Kurseong		

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