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News : Training and Workshops

XXVI Certificate Course in Wildlife Management concluded, November 1, 2010-January 31, 2011.

The Course commenced on November 1, 2010 and concluded on January 31, 2011. Nineteen officer trainees of the rank of Range Forest Officer & equivalent from different States within country and abroad participated in this course. During this period, two months were spent at the Institute for classroom teaching and one-month was spent undertaking field tours at various protected areas in Uttarakhand and Gujarat.

The Management Tour was conducted from January 3-21, 2011 at Corbett National Park in Uttarakhand and various parts of Gujarat. In Gujarat, the officer trainees visited the GEER Foundation, Nalsarovar Bird Sanctuary, Wild Ass Sanctuary, Gulf of Kutch Marine National Park, Sakkarbagh Zoo, Gir National Park & Sanctuary and Velavadar National Park. The objective of this tour was to provide first hand experience of various management practices related to habitat management, endangered species management, wildlife protection, captive management, eco-development, wildlife interface conflicts and tourism. The trainees were also taken to Asan Conservation Reserve and Jhimil Jheel Conservation Reserve in

Uttarakhand for better understanding of community participation in conservation.

During the course, the performance of officer trainees was assessed by theoretical examination and practical evaluation based on the field projects. The Viva-Voce examination and an open feedback session for all officer trainees were organized on January 28, 2011. The Valedictory Function was organized on January 31, 2011. Dr. S.S. Negi, Director, Forest Research Institute was the Chief Guest on the occasion. He presented the Certificates and various awards to the officer



trainees. The Honours Certificate is awarded to those, who secure an aggregate marks average of 75% or above. Twelve out of 19 officer trainees received the Honours Certificate in this course. In addition, the following awards were also given away to the following officer trainees for their outstanding performance:

Dr. Guru Dutt Sharma from Madhya Pradesh received the Wildlife Conservation Gold Medal for the Top Trainee. Shri Ramachandra from Andaman & Nicobar Island received the Institute's Silver Medal for the Best All Round Wildlifer. Shri Devender Singh Chauhan of Himachal Pradesh

bagged the Institute's Silver Medal for the "Best Performance in Wildlife Management Module". Shri Bal Krishna Koirala from Bhutan was awarded the Institute Silver Medal for the "Best Foreign Trainee". **Contact:** jaj@wii.gov.in

Attachment of Probationers of Indian Revenue Service (Customs & Central Excise) Group-A (61st Batch), Dehradun, January 17-28, 2011 and February 1-12, 2011. This special training course in Wildlife Protection, Law and Forensic Science was conducted for the probationers of the Indian Revenue Service (Customs & Central Excise) Group-A, 61st Batch. It was basically aimed at sensitizing the young officers towards wildlife trade in the country and their role in checking it. The course was conducted in two groups and a total of 158 probationers attended the course.

Inputs on importance of biodiversity and its conservation, status of endangered species including flagship species like tiger and its monitoring, illegal trade in wildlife articles including butterflies, shahtoosh, rhino horn, skins, and tiger bones, importance of plant taxonomy, trade in medicinal plants etc. were given. Special inputs were given on the role of Wildlife Forensic in dealing with wildlife cases. The probationers were



also given basic information on the implementation of Wildlife Protection Act 1972, provisions of CITES and role of TRAFFIC. The inputs were given by the senior faculty members of the institute as well as guest speakers from esteemed organizations like TRAFFIC India and wildlife managers from the field.

A field visit was also arranged to Corbett Tiger Reserve to sensitise the probationers to the needs and the difficulties of the field. The probationers had very fruitful interaction with the Field Director and Deputy Director of the Corbett Tiger Reserve. Dr. A.K. Singh, Additional Director, National Academy of Customs Excise & Narcotics, Faridabad also joined the probationers of the second group during their visit to Corbett and took a keen interest in understanding the issues involved. All the young probationers of Indian Revenue Service (C & CE) showed great enthusiasm and interest during the entire course. **Contact: gsb@wii.gov.in; or mukul@wii.gov.in**

Training module on Wildlife and Biodiversity Conservation, Dehradun, February 16-26, 2011. Wildlife Institute of India conducted this training module for the Indian Forest Service Officers as part of their Mid-Career Training (MCT) Programme at the Indira Gandhi National Forest Academy, Dehradun. Fifty eight officers having 2001, 2002, 2003 and 2004 as Year of Allotment in the IFS participated in the programme.

The module started with a visit to Corbett Tiger Reserve where some of the participants could witness a pair of Himalayan Yellow Throated Martens hunting a Chital fawn. The participants had a very fruitful interaction with the

officers and staff of the Tiger Reserve to get an insight into the problems and issues facing an area that is unarguably India's best Tiger Reserve.

Back in Dehradun, the participants had lively and interactive sessions with an array of names that included senior faculty members of the Institute and guest experts from Wildlife Crime Control Bureau, TRAFFIC- India and serving wildlife managers from the field. A lot of debate was generated on some of the contemporary topics like reintroduction of cheetah, human wildlife conflict mitigation, and participatory managements in Protected Areas. An exclusive opportunity was provided to the participants to share their experiences from the field with their colleagues.

All the participants appreciated the value addition to their knowledge and felt that they were better equipped to deal with the challenges of wildlife conservation in the field after the module. **Contact: mukul@wii.gov.in**

South Asian Conference on "Contemporary Environmental Perspectives" (SACCEP-2011), Raipur, March 25-27, 2011. Dr. Pranab Pal, Field Technical Officer participated in the conference, which was jointly organized by Hidayatullah National Law University (HNLU), Confederation of Indian Industry, Bar Council of India, World Wild Life Fund for Nature at HNLU, Raipur, Chhattisgarh. The objective of the conference was to bring together academicians, scientists, foresters, environmentalists, policy makers, and university students on a common platform to initiate meaningful dialogue on environmental degradation.

A total of 92 papers were presented in 16 technical sessions. The participants from several parts of country and South Asian countries, such as Bhutan and Bangladesh also attended the conference. Dr. Pal presented a paper on "Climate Change and its Effects on Biodiversity Conservation". **Contact: ppal@wii.gov.in**

Ecological Goods and Services of 'Beel' ecosystems in Kaziranga National Park

- M. Geetanjali

The Kaziranga National Park (KNP) is an important Protected Area in Assam having approximately 6% of its geographical area under beels or wetlands. 'Beel' is a term for a pond (wetland) with static water in the Ganga-Brahmaputra flood plains of the Eastern Indian States of West Bengal and Assam and in the neighbouring country of Bangladesh. Typically, beels are formed by inundation of low lying lands during flooding, where some water gets trapped even after flood waters recede back from the flood plains. Beels being one of the important habitats in the Park, their degradation has become an issue of great concern.

Spread over an area of 429.93 sq.km in the flood plains of Brahmaputra, KNP harbours the World's largest population of One horned Rhino (*Rhinoceros unicornis*), Wild Buffalo (*Bubalus bubalis*) and the Swamp Deer (*Cervus duvauceli*). Its conservation values were much recognized, when it became one of the World Heritage Sites by UNESCO in 1985.

KNP is bestowed with the unique beel ecosystem. KNP lies between Latitudes

राजभाषा कार्यान्वयन पर कार्यशाला



फरवरी 4, 2011. संस्थान में राजभाषा कार्यान्वयन पर एक कार्यशाला का आयोजन किया गया। कार्यशाला का उद्देश्य संस्थान में राजभाषा का अधिक से अधिक प्रयोग एवं राजभाषा सम्बन्धी नीति नियमों पर चर्चा करना था। कार्यशाला में व्याख्यान हेतु डा० एम० आर० सकलानी, सहायक निदेशक, राजभाषा एवं सदस्य सचिव, नगर राजभाषा कार्यान्वयन समिति देहरादून को आमंत्रित किया गया था। कार्यशाला में कुल 55 अधिकारियों एवं कर्मचारियों ने भाग लिया। **सम्पर्क : adminsec@wii.gov.in**



26°34' N to 26°46' N and Longitudes 93°08' E to 93°36' E. It is spread over the civil jurisdictions of Nagaon and Golaghat districts of Assam.

Threats to beel ecosystems: The network of wetlands of the Park is now listed as one of the major wetland sites in India. However, this unique wetland eco-system is confronted with myriad of problems such as shrinkage in size and depth of the water bodies due to heavy siltation and choking of water bodies by water hyacinth. The floods bring with them huge deposits of silt, which choke up the existing water bodies. Siltation results in drying up of Beels and subsequently the animals move out to other areas, sometimes outside the Park in the dry season.

The Ecological Goods and Services (EG&S) offered by the beels inside KNP:

The beels inside the Park offer crucial habitat for wildlife and provides some life support system services to the staff living within the Park. They also offer some ecological services to the people outside the Park.

◆ **Habitat for wildlife:** The beels support a wide range of flora and fauna ranging from the minute planktons to the huge bodied mammals like the rhino and elephants. The beels are the most important habitat within the Park, especially for all large bodied animals. They are the sources of drinking water and food for all animals inside the Park. *Vallisneria*, water ferns and other water plants offer food for elephants, rhinos, bar headed geese and ruddy shell duck. The beels also provide fish to fish-eating birds like Pallas fishing eagle, kingfishers, pelicans, egrets, pond heron, cormorant, darter and animals like the otter and the water monitor lizard. There are 41 species of fish recorded in the beels of Kaziranga. The animals like wild buffaloes, elephants, rhinos, hog deer and swamp deer can be observed. The birds like Egrets, Pallas fishing eagle, Pied kingfisher, Pelicans, Lesser adjutant stork, Black necked stork, Black winged stilt, Bar headed geese, Spot billed duck, Grey heron, Ruddy shell duck, Lesser adjutants, Purple heron, and mallard are also sighted frequently in the area.

◆ **Provisioning services - food for staff:** The beels offer some source of protein to the staff in the form of fish. They also provide some mineral and vitamin supplement through some species of flora. Some of the plants found in beels are Brahmi, Vanpudina/ Vanmasala/Midimasala, Boali bukha, Sasoor, Dhekia, Bathua and Arbi.

◆ **Fish seed source:** Kaziranga is the breeding ground for fishes and it serves as a fish seed source for almost whole of Assam. The fish breeds in the beels of Kaziranga and the fingerlings are carried out during the floods to the other beels outside the KNP.

◆ **Water and silt supply:** During flood, the water and the silt from the beels of Kaziranga is washed out into the beels of the surrounding areas, which may be helpful in agriculture in the surrounding areas.

Other salient features:

◆ **Silt holding capacity:** The Brahmaputra River has the highest sediment load in the world. Flooding of this river causes silt deposition in the beels of Kaziranga. Basically, it is the silt load, which contributes to the beel ecosystem.

◆ **Ground Water recharge:** The beels contribute to the ground water recharge in and around the National Park. The ground water level is generally found at a depth of 12 to 15 feet within the Park.

◆ **Flood control:** The beels of Kaziranga play a major role in flood control. They are depressions, which help in reducing the speed of flash floods. Because of the beels inside, the KNP acts as a water-body and hence gives sponging effect by absorbing the effects of floods, thereby protecting the adjoining agricultural fields.

◆ **Use in protection:** The beels also serve as good points to keep watch against poaching and other activities, which helps in the protection of the Park.

◆ **Wild genes of cultivated plants:** The genes in wild relatives of the cultivated plants, which are found growing near the beels may be a source of some genes of resistance to disease. Some such wild relatives of cultivated crops available near the beels are wild sugarcane (*Saccharum spontaneum*),

Wild strawberry, Wild ginger/cardamom (*Alpinia alughas*, *Alpinia nigra*) and wild mustard/radish.

The Ecological Goods and Services offered by the beels outside KNP:

◆ **Provisioning services for people:** The beels provide fishes for the people. Some beels provide livelihood to people by the catch and sale of fish. They also provide some culinary herbs and medicines to the rural folk. The reeds from the beels are used for construction of huts e.g. Naal grass (*Phragmites carca*). The beels also act as the grazing ground for the village cattle and they also provide water source for them.

◆ **Soil fertility and source of irrigation:** Some beels have the water fern Azolla. It has a symbiotic relationship with the Blue Green Algae *Anabaena*. This symbiotic association helps in nitrogen fixation. Hence, azolla becomes a source of nitrogen to the crop fields, especially the paddy fields. When water from beels containing azolla is used to irrigate the fields, it serves as a source of nitrogen to the soil. The farmers apply comparatively less chemical fertilizers in modern variety paddy production under the rice-prawn gher farming system compared to modern variety paddy production. This clearly suggests that the cost of cultivation is reduced due to the presence of beels. The beels help in ground water recharge in the surrounding areas.

Recommendations: There were 180 beels inside KNP in 2004 thereby having an area of 47.46 sq. km. The following suggestions are recommended to improve the conditions of the beels: (i) Regular monitoring of beels through Remote Sensing to know the change in number and area over a period of time; (ii) Planned and phased de-siltation of beels inside the NP; (iii) Regular removal of water hyacinth; (iv) Monitoring of pollution of beels, if any; (v) Monitoring the ecological linkages and integrity of the beels with the river Brahmaputra and keeping them sustained; (vi) KNP also needs recognition as a Ramsar site; (vii) Documenting of the EG & S of beels inside and outside the PA; (viii) Listing of the beels outside the NP (in the Tiger Reserve) also; and (ix) Conservation of beels outside the Park through people's participation.

Welcome Guests

- ◆ B.Sc. (Forestry) III year students accompanied by their faculty and staff personnel from Govt. Degree College (under Osmnia University), Kamareddy, Andhra Pradesh on January 28, 2011.
- ◆ 30 cadets accompanied by two masters from RIMC, Garhi Cantt, Dehra Dun on February 1, 2011.
- ◆ 60 final year B.V.Sc. & AH students accompanied by their faculty and staff from Kamataka State, Kamataka Animal Fishers & Science University (KAFSU), BIDAR on February 7, 2011.
- ◆ A group of participants of the 3-Week Orientation Course for ACFs of Uttarakhand Forest Department from Central Academy for State Forest Service, Dehra Dun on February 18, 2011.
- ◆ 47 B.Sc. (Forestry) students accompanied by three teachers from Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad on March 3, 2011.
- ◆ 25 B.Sc. (Forestry) students of VIII Semester accompanied by their two teachers and staff personnel from ASPEE College of Horticulture & Forestry, Navsari Agricultural University, Navsari on March 4, 2011.
- ◆ 18 M.Sc. (Geoinformatics) students accompanied by their faculty from TERI University, New Delhi on March 11, 2011.
- ◆ 33 Women Trainee accompanied by one officer and five staff from Uttarakhand Forestry Training Academy, Haldwani on March 28, 2011. **Contact: acell@wii.gov.in**

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The views expressed in this newsletter are not necessarily those of the editor or of the Wildlife Institute of India.

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