

Landscape level conservation of the Bengal Florican *Houbaropsis bengalensis bengalensis* through research and advocacy in Uttar Pradesh

Final report



November 2017

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advocacy in Uttar Pradesh**

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BNHS Mission: Conservation of Nature, primarily Biological Diversity through action based on Research, Education and Public Awareness

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Disclaimer: Google Earth Maps provided in the report are based on observations carried out by the BNHS team. Actual size and structure of the size may vary on ground.

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Cover photo: Bengal Florican *Houbaropsis bengalensis bengalensis* by Balasaheb Lambture

Other photos – copyright provided to each photo

Maps prepared by – Sujit Narwade and Rohit Jha

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Abbreviations

BNHS – Bombay Natural History Society; Dudhwa TR- Dudhwa Tiger Reserve; PTT- Platform Transmitter Terminal or satellite transmitter;

Annex 2: PEP Project Reporting Format

REPORT AGAINST PROPOSED ACTIVITIES

Globally Threatened Species:	Bengal Florican <i>Houbaropsis bengalensis</i>
Species Guardian:	BNHS
Date of report:	24/11/2017
REPORT AGAINST PROPOSED ACTIVITIES	
Activity 1: Establish trial management plots in known Bengal Florican territories	Using Satellite transmitter data, we found that Florican prefer low height grass or crops. In Terai grasslands population of mega herbivores has been declined and resulted in to tall and thick grasses in onset of monsoon. In return habitat of Floricans becomes unsuitable, forcing them to spend maximum time in agriculture fields outside protected areas. To check whether birds will remain in breeding sites by restoring habitat, a pilot study was done in 2016. The restoration pilot trial appeared to have succeeded partially, that the territorial bird was regularly seen by the research team using the ‘restored’ short grassland patches for feeding. But the grass regained its height within two weeks’ time forcing birds to move away. Therefore, it was decided to replicate the similar experiment in year 2017 as replication of the experiment. As it was found that birds prefer manually trimmed grass, we decided to conduct the experiment excluding the machine use at following sites. 1. Chandan-chowki - 28°30'8.30"N 80°42'3.37"E 2. Sonaripur - 28°27'55.40"N 80°44'11.25"E 3. Nantal - 28°22'7.35"N 80°48'7.24"E Grass cutting was carried out on 4 and half Ha area in June 2017. Floricans were seen using restored habitat and till their departure. Issues related to grassland restoration work 1. Permission – According to Indian Wildlife Protection Act, 1972 agency other than forest department need permission to conduct habitat restoration work. Fortunately, we got the permission to conduct trial experiment during year 2016 as well as 2017. 2. Cost required in year 2016 a. Grass cutting by machines – amount required was around Rs. 4,000/- per ha area (including hiring grass cutter, tractor, human resources fuel, etc. b. Manual grass cutting – Considering around 30 labors required to cut grass of 4.5 Ha in four days, the total cost of grass-trimming by

	labour works was INR 8000/Ha. The economic cost of employing labour to trim vegetation was thus almost double the cost than vegetation trimming by machine and far more logistically challenging. Area trimmed by labors was found to be preferred by the birds because of mosaic pattern and more insect abundance. c. Considering above mentioned issues, we decided to cut the grass manually in year 2017.
Activity 2: Identify suitable sites as corridors and initiate appropriate management practices	Using satellite telemetry study done on four birds at Pilibhit (three birds) and Dudhwa (one) we got specific information about their movement in breeding as well as post-breeding seasons. The transmitter of one bird from Pilibhit stopped sending signals after three months, but remaining three are still providing valuable information (from year 2014). Using this satellite transmitter data, we have identified sites used by Bengal Florican, intensively during breeding as well as non-breeding seasons.
Activity 3: Establish a scientifically rigorous protocol for annual monitoring of Bengal Florican populations	In Cambodia, Wildlife Conservation Society (WCS) has been supporting the Royal Government of Cambodia to prevent the extinction of Bengal Floricans for more than ten years. It has developed a population and habitat monitoring program. It has helped the government to establish four protected areas within the breeding range of the Bengal Florican, and two in the non-breeding range. WCS-Cambodia arranged a study visit for a team of ten persons involved in conservation of Great Indian Bustard and Bengal Florican in India (BNHS, Aranyak, The Corbett Foundation) and Nepal (BCN, Nepal) to Cambodia. The purpose of this visit is for the visitors from India and Nepal to learn from the experiences of WCS Cambodia in Bengal Florican conservation. Participants took part in Bengal Florican population monitoring, and discussion about what monitoring methods are most appropriate for Bengal Florican. The team also met with key project stakeholders ranging from government to community, meet with the Community Management Committee. Sites visited in Cambodia and activities done 1. Bengal Florican Conservation Area (BFCA) within the Northern Tonle Sap Conservation Landscape – the only site in Cambodia with a stable population of Bengal Florican; BNHS team got opportunity to take part in monitoring

	of Bengal Florican 2. Ibis rice demonstration fields and meeting with farmers to understand the model of promotion of Florican friendly rice farming 3. Visit to the non-breeding areas of the Bengal Florican, 4. Morning visiting the Ibis Rice demonstration fields at Tmatbaury 5. Bakan, a florican site in Pursat – to learn different challenges and opportunities 6. A one day workshop at Phnom Penh - on lessons learned and ways forward We are getting benefitted by this sharing of experiences and will come up with a site specific monitoring protocol at end of this project.
Activity 4: Communicating research findings to guide policy	Conservation action plan for conservation of Bengal Florican in Uttar Pradesh state has been finalized. Due to elections and subsequent changes in Government of Uttar Pradesh, consultation meetings got postponed
Activity 5: Advocacy and outreach activities	Ongoing

REPORT AGAINST EXPECTED RESULTS

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Expected results 1: Filling some of the existing knowledge/research gaps with respect to grassland management in line with Bengal Florican conservation requirements	We found Florican in low height grasses in restored habitat but the grass regained its height within two week period. Engaging local people in such activities was helpful in creating awareness well as providing employment to the villagers. Using manual grass cutting we could provide some financial assistance to the villagers involved in the work.
Expected results 2: An increase in the extent of total available 'suitable' breeding habitat for Bengal Florican by way of managing grasslands in reserved forests	Management of Dudhwa National Park has agreed on managing known patches of the small grasslands for conservation of Bengal Florican
Expected results 3: An easy, replicable and adaptable scientific protocol for monitoring Bengal Florican population throughout its range	Monitoring protocol is under review of group of BNHS scientists and concerned people from BirdLife (We had a Skype meeting with Nigel Collar, Paul Dolman, Paul Donald and Ian Barber)
Expected results 4: Increased understanding among the Uttar Pradesh forest administration on certain specific and urgent measures towards grassland restoration and	When we approached Forest Department for conducting grassland restoration work to be carried out in year 2017, concerned officers extended all possible help. They were fully aware about the status of Bengal Florican. Shri Ashok Kashyap, RFO,

action to be taken on ground for the same in Uttar Pradesh so as to prevent the local extinction of Bengal Florican from the state	Dudhwa NP was very keen on monitoring this bird and installed two proper watch towers in Nantal site. He instructed his staff to monitor the area in absence of BNHS team and shared his field experience of managing habitat for Floricans. Mr. Brijalal, driver, Dudhwa NP is now a skilled birdwatchers used to give us sighting records of Floricans and very supportive to our team during field surveys.
Expected results 5: Increased sensitivity in village communities towards threats facing grassland and migratory birds' as well as their conservation needs	1. We distributed posters of Bengal Florican among farmers while conducting field surveys. 2. We usually talked with local people while taking tea and food 3. In market place of field base (Palia), people knows us as Florican people 4. Before initiating habitat restoration work we conducted sensitization programme at each forest range 5. Whenever we used to engage local people like drivers, labours we always explained them importance of Bengal Florican as a grassland obligatory species
Expected results 6: Reduction and perhaps even total containment of poaching activities targeted at birds using pesticide-laden food as bait	During study period, we did not come across poaching cases.
Expected results 7: Livelihood benefit, even if relatively insignificant, in the form of a stipend/honorarium to volunteer 'Florican Friends' in Uttar Pradesh	Our field assistant Mr. Bridesesh Kumar and Driver, Mr. Vinod Tiwari have been recruited from nearby places. We hired locals in grassland restoration work carried out in June 2017 and found them very helpful.
Expected results 8: Papers/reports and articles on effects of various grassland managerial regimes on Bengal Florican occurrence as well as the effects of such interventions on the vegetation species composition	Some of the existing and former staff of BNHS is developing manuscripts on the subject.
Expected results 9: Presentation of the project results at the Uttar Pradesh Bird Festival.	Done

FUTURE PLAN OF WORK

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1. Breeding bird surveys to be carried out in Dudhwa NP, Pilibhit TR where Floricans have been tagged in year 2014. Other potential areas such as Kishanpur WLS and Katarniaghat WLS also need to be surveyed.
2. Prioritization of the sites of breeding and non-breeding ranges for long term conservation of Bengal Florican needs to be done using satellite transmitter study. Preferred areas by tagged birds can be identified as sites for further conservation research
3. Logistically Pilibhit and Dudhwa TR sites are difficult to cover from one field station and therefore, there is need for separate field stations for these two sites
4. In non-breeding areas which are mainly floodplains become inaccessible by vehicles and therefore needs special budget allocation for hiring tractors and boats

CHANGES IN STATUS/DISTRIBUTION/THREATS

Please provide your views on whether the status of the species and/or its habitat has changed since the last report and the reasons for this. If this is backed-up by monitoring activities, please provide details. - NO

OTHER INFORMATION

Please use this section to provide other information or comments relating to this project.

SPECIES FACTSHEET (to be submitted with annual reports)

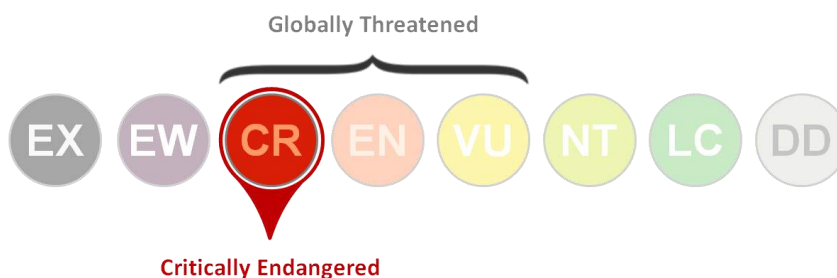
Please download the species factsheet for this species from

<http://www.birdlife.org/datazone/species/index.html>, paste it into word, and add any updates, additions and corrections using track changes. These will then be incorporated into the updated factsheet for the BirdLife website.

Family: Otidae (Bustards)

Authority: (Gmelin, 1789)

Red List Category



Criteria: A3bcd+4abcd

Click [here](#) for more information about the Red List categories and criteria

Justification of Red List category

This bustard has a very small, declining population; a trend that has recently become extremely rapid and is predicted to continue in the near future, largely as a result of the widespread and on-going conversion of its grassland habitat for agriculture. There is rampant use of pesticides, herbicides which is affecting food availability of the Floricans. It therefore qualifies as Critically Endangered.

BirdLife Species Champion: [Birdfair](#)

BirdLife Species Guardian: [Seng Kim Hout; BNHS \(India\), BCN \(Nepal\)](#)

Population size: 250-999 (as the work has been carried out in small area of Western Uttar Pradesh, India we could count only four birds in this region)

Population trend: Decreasing

Distribution size (breeding/resident): 1,550,000 km²

Country endemic: No

Attributes

Land-mass type - continent

Realm - Indomalayan

IUCN Ecosystem -- Terrestrial biome

AEMPLAP

In addition to the above, as appropriate, please provide digital photos of project activities, copies of any awareness materials, and copies of other reports or papers which have been produced. These will help us promote the project.

Maps

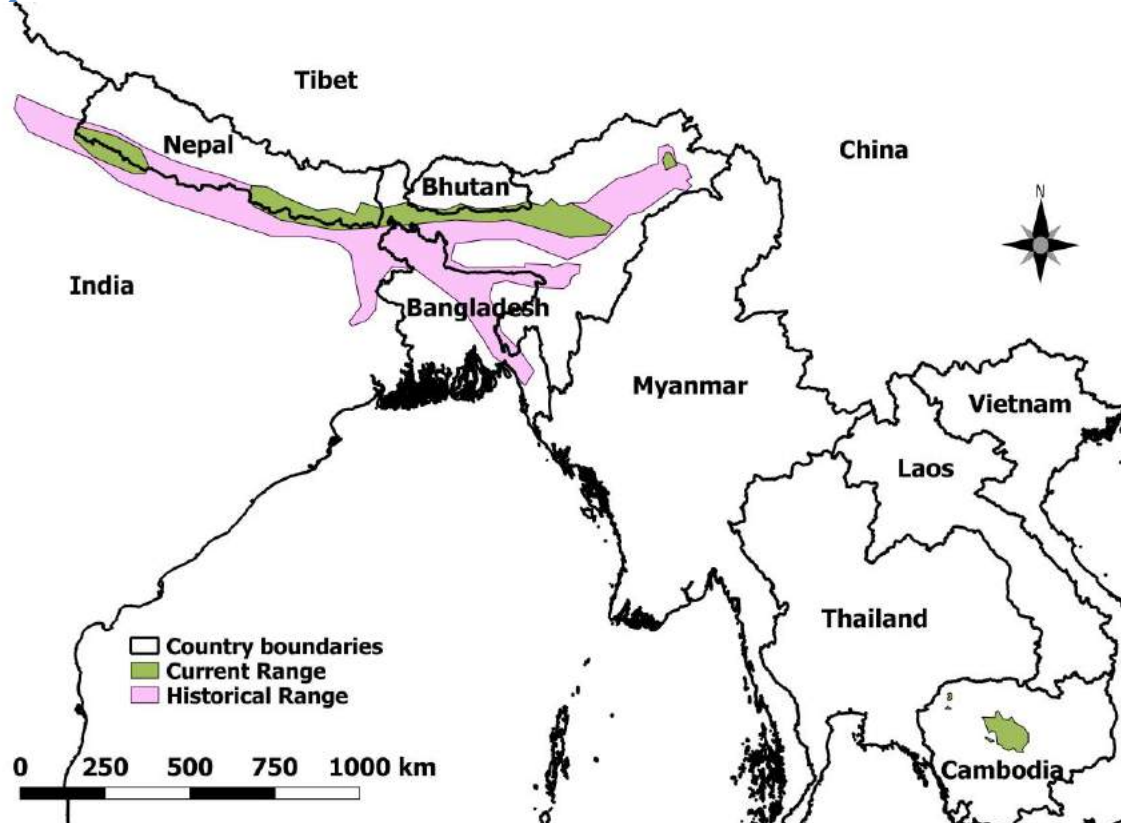


Figure 1 - Current and historical distribution range of Bengal Florican in world

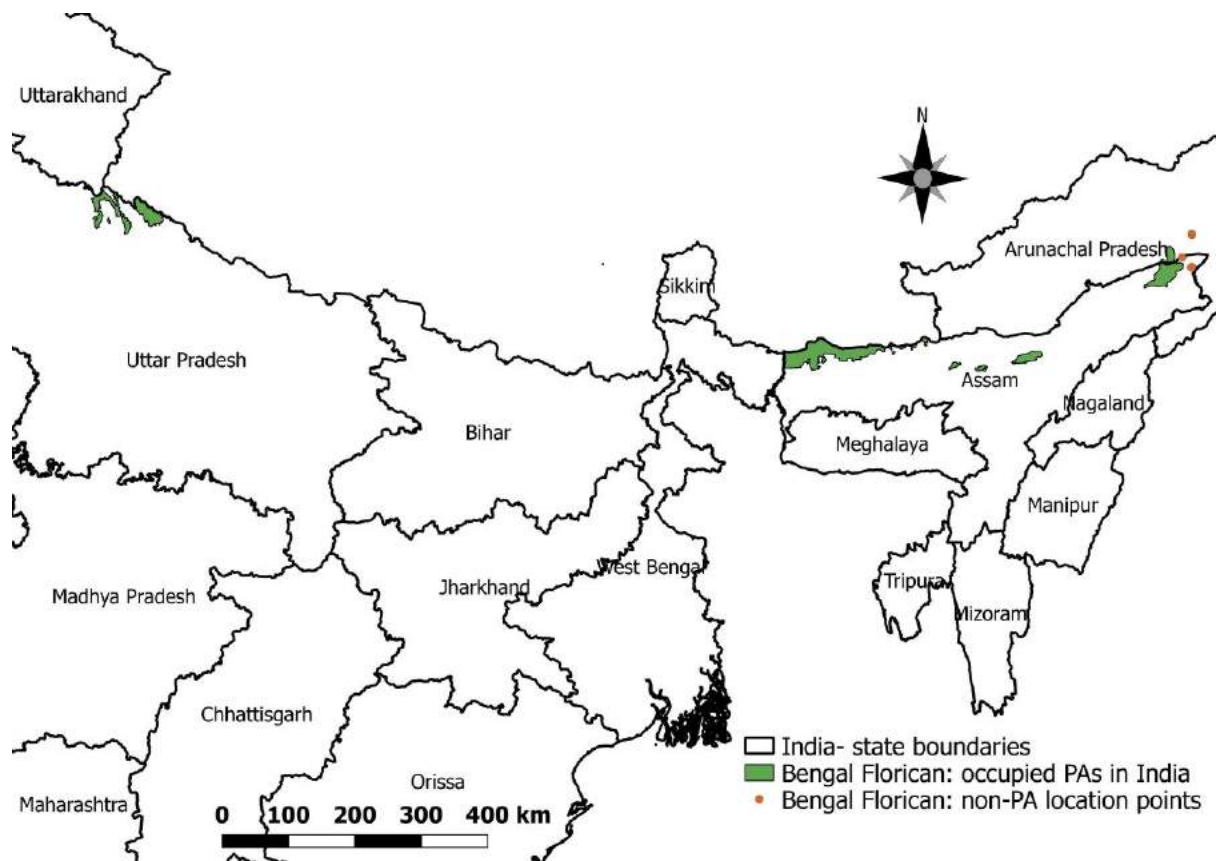


Figure 2 - Current distribution range of Bengal Florican in India

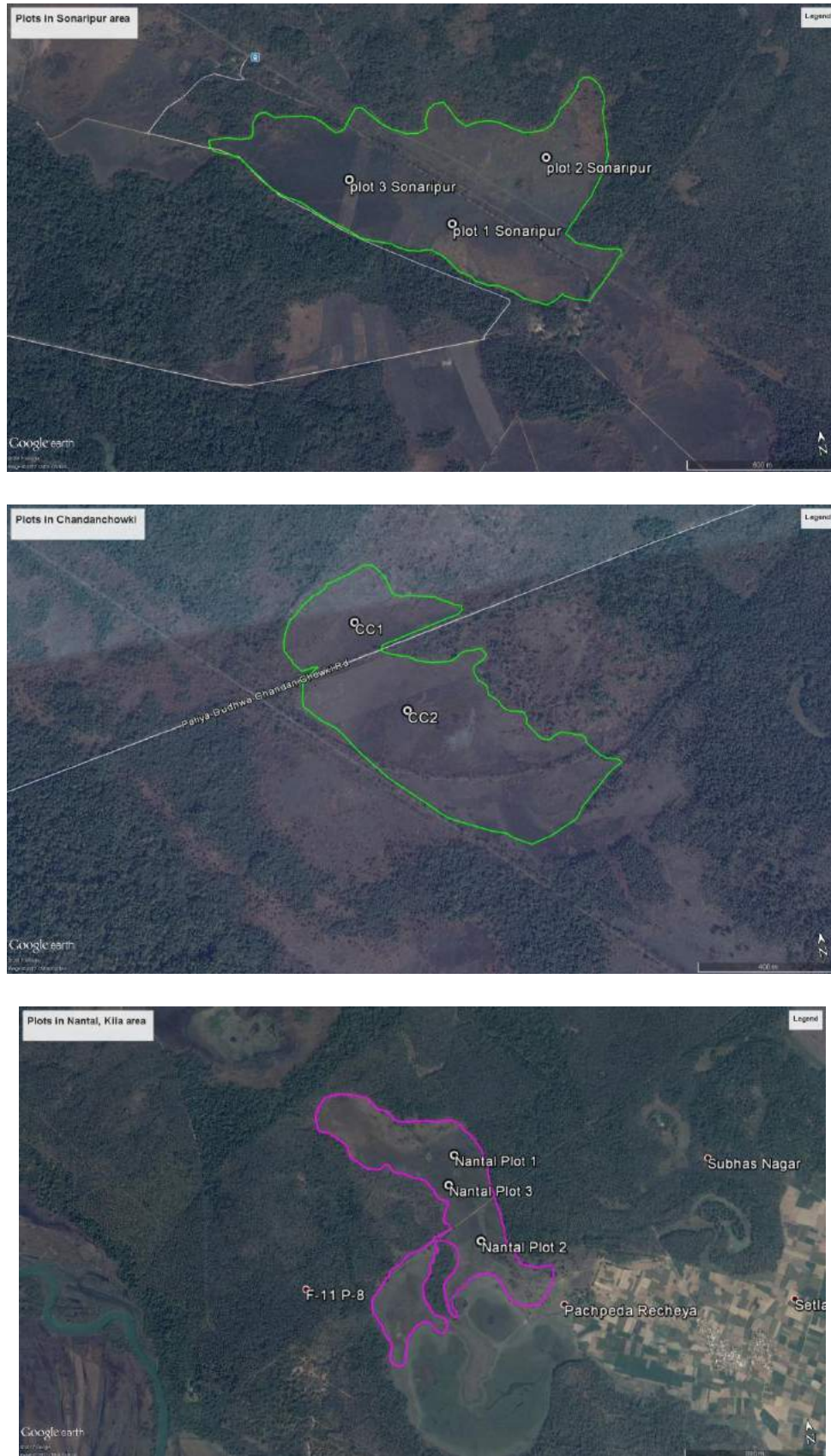


Figure 3 - From top to bottom – Map showing habitat plots proposed to be restored in June 2017 in
a) Sonaripur, b) Chandan Chowki and c) Nantal sites at Dudhwa National Park
(Note – Habitat restoration work was carried out in Sonaripur and Chandan Chowki sites in year 2016 while Nantal plot has been proposed in year 2017. Yes! The plots were demarcated in year 2016. Size of plots for year 2017 are Sonaripur – 1.5 Ha, Chandan Chowki – 2 Ha, Nantal, Kila – 1.5 Ha)

Photographs taken during study period



Image 1 Sugar cane and mustard is the major crop found in non-breeding areas of the Bengal Florican



Image 2 Based on recent locations received by tagged birds' we come to know that Florican is found along flood plain areas with less intensive cropping pattern



Image 3 Typical Sal forest can be found in Dudhwa NP, Pilibhit TR, Kishanpur WLS and Katarniaghat WLS



Image 4 Burning by Forest Department in late winter (February) is a regular activity practiced to check the growth of herbs and woody species (Source - <http://datazone.birdlife.org/site/factsheet/dudhwa-national-park-iba-india/text>)



Image 5 Construction of Indo-Nepal border roadway was found under progress everywhere



Image 6 - Staff of BNHS demarcating areas for habitat restoration



Image 7 - Grass cutting done for restoration of Bengal Florican habitat



Image 8 - View of restored grassland habitat



Image 9 - Height of the grass was taken every alternate day and found that it regained its height in two week time



Image 10 - We used to cross Sharda river many times to monitor the non-breeding sites in floodplains



Image 11 - Local transport such as Bullock cart was found suitable to survey the cropland areas



Image 12 - Due to tall grasses staff of BNHS used to climb the tree for bird watching and scanning of the habitat



Image 13- In monsoon the internal roads of Tiger Reserves become inaccessible and there were difficulties to conduct the field surveys



Image 14 - Among chemicals we found weedcides were being used intensively



Image 15 - Chemical spraying on sugarcane



Image 16 - Original grassland habitat



Image 17 - Anthropological pressure on grassland areas



Image 18 - Large area is being converted into agriculture field, especially sugar cane crop



Image 19 - PTT study revealed that birds are using edges of the rivers during non-breeding season



Image 20 Staff of BNHS explaining Bengal Florican to a family of farmer from Tattarganj area where Bengal Florican spends considerable time during non-breeding season



