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Promoting Biodiversity Conservation in the Rural Farmland

By Rajendra N. Suwal, Director

Farmland is a key-determining factor of biodiversity conservation. Half of the Nepal's land surface is under cultivation. Agriculture practice influences the biodiversity far beyond farmland itself. Today's villages of Rupandehi have been shaped and maintained largely by farming. The '60s malaria eradication program attracted thousands of new settlers to the fertile lowland Terai. Most of the seasonal wetlands are the remnant of decades of use on the pristine Terai land. Changes in the traditional agricultural practices in Rupandehi have reduced the value to biodiversity from many farming areas, though many farmers and landowners are very conscientious about conservation. Now Rupandehi is one of the densely populated districts of Nepal and a home to multi castes, multi religions and multi linguistic communities. More than 80% people of the district depend on agriculture to sustain their livelihood. This scenario clearly reflects the importance of farmland biodiversity conservation in the district. Rupandehi is blessed with Lumbini Garden, the birthplace of Buddha, a world heritage site. This gifted land seeks for a harmony between human and nature.

One of the concerns of the Lumbini Crane Conservation Center (LCCC) is to uplift the quality of life of rural farmers of this district. LCCC's activities for protecting biodiversity and building up a sustainable rural farmland will provide new perspective for farmers and landowners/managers to sustain the beauty of farmland. It helps to create, improve and extend natural habitats; conserve the tranquil environment; and create new opportunities for recreation and income generation. Improving quality and quantity of biodiversity on agriculture land and enhancing positive effects of agriculture on the wider environment; and promoting environmentally friendly organic farming approaches to the conservation of biodiversity and habitats are some of the interests of the LCCC in Rupandehi.

Biodiversity survey sponsored by Eco-Japan in 2001 recorded forty-four species of fish from the rice paddies, ponds and rivers of the Rupandehi District. Similarly, twenty-one species of herpetofauna and mammals were recorded from the farmlands and adjacent forests. Large mammal found in the farmland includes Blue Bull, the largest antelope of the sub-continent. Some of the common farmland wild carnivore include golden jackal, jungle cat and bengal fox that contribute to the control of rodents. More than two hundred and ten species of birds were recorded from the district. It appears like a healthy representation for the area. Bird represents the top of the

food pyramid in a farmland ecosystem. A healthy bird population indicates a diverse agricultural landscape. The farmlands of Rupandehi provide good-nesting sites for several large and small birds. Critically endangered species like Slender-billed and White-rumped Vulture nests on the kapok and fig trees adjacent to villages. Globally threatened species such as Sarus Cranes and Lesser Adjutant Storks also live in the farmlands of this district. The near threatened species such as Painted Stork, Black-headed Ibis, Cinereous Vulture, Red-headed Vulture and Black-bellied Terns also occurs in small numbers. Similarly keystone species such as Barn Owls, Black Ibises, etc. also thrive on the farmlands of this district. Sarus regularly nests on the small wetlands and paddy fields. There are regular nesting records of Lesser Spotted Eagle and Eurasian Eagle Owl from the Lumbini Garden. These are some of the species that have adapted partly to the modified habitats. It signifies that island of protected area such as Lumbini Garden provide a safe nesting habitat for the birds living adjacent to the farmlands.

There are stark changes visible in the farmland biodiversity. There is a loss of weed seed, an important food for granivorous birds. Grasshoppers, crickets and termites form a major part of diet for insectivores. Fallow lands are the main habitat for insects but application of pesticides and nitrogen-based fertilizers will reduce insect populations. It may have been a major cause of declining of some common species such as the long tailed shrike and black drongo. They will soon become infrequent to be observed in intesively cultivated areas.

Some birds require scrub, hedges, and trees for breeding, others nest on ground requiring thick grassland or bare or sparsely vegetated or wetland. Removal of nesting habitats or management activities such as wetland drainage or too frequent cutting for fuel and fodder and grazing affects the nesting birds. The lakes, rainwater basin and the oxbow lakes scattered in the district provide a prime habitat for Sarus Cranes, Lesser Adjutant, Woodcock, Lesser-whistling Duck and Cotton Pygmy Goose. Drainage of wetland and seasonal farming in the wetland has affected the feeding habitat of some species.

Historically, most of the farmlands in Rupandehi were a mix of grassland and different forest types. However, there has been a broad shift to intensive arable farming. Many animals cannot find all their needs (food and nesting sites) supplied in areas dominated by only a few types of land use. Moreover, now, the farming has become much more intensive with increased applications of fertilizer and pesticides. Herbicides and insecticides must have reduced numbers of wild plants and insects, thus reducing the food supply and habitat for insects, wildlife- birds and mammals. Highly fertilized land becomes less diverse in flora and, a faster growing and frequently cut grass provides fewer nesting sites for birds. Because most of the former pristine land use type changed, many plants and animals have declined, as they could not adapt to the intensively used farmland. There are incidence of climate change in Terai lands, for instance the occurrence of cold wave in every five year cycle for three consecutive times may have been due to the loss of forest cover. Strong western winds are also prevalent, this year a powerful 100kmph wind swept across the district.

Traditional mixed farming system of Terai has been replaced by intensive monoculture farming. The major change that affects farmland biodiversity is the nature of farming itself, rather than the area lost to development. The recent scenario is due to the development of access roads to all the nooks and corners of the district, which has helped in growing urban, suburban, rural settlements and industrialization. Habitat loss due to human pressure and encroachment in the remaining forest is dramatically heavy. The conflict between the elite and marginalized people in natural resource management is clearly shown by former depending upon it while the later commercially exploiting and destroying it. It is demonstrated from the ill treatment to the river system by piling up garbage and draining the untreated municipal and industrial waste. Pesticides poisoning is a serious concern for biodiversity conservation and human health issues. Stealing of eggs and chicks, hunting, and casualty by colliding of Sarus Cranes on powerlines is decimating their population.

Some mitigation measures to enhance farmland biodiversity includes maintaining varied landscape by retaining islands of semi-natural habitats such as wetlands, grasslands, meadows, shrubs and woodland having a wide mix of crops and livestock. It is wise to keep fertilizer, farmyard manure, herbicides and insecticides away from hedges and water sources. Continuing traditional farming system such as ploughing by bullocks and using composts would enhance insect population. Prescribed grazing is usually the preferred management for fallow land management. Periodic burning of fallow land will discourage colonizing by invasive species. Reducing inputs and grazing intensity can increase the wildlife value of fallow land. Some ground nesting birds and breeding hares use the fallow fields, but early and repeated cutting will leave them exposed to predators.

Wide grass and trees buffer alongside streams and rivers should be created to protect fresh water and its wildlife from any fertilizer, pesticides, or soil erosion and provide habitat for birds and mammals. Protecting banks from cattle trampling and overgrazing will improve the conditions for local mammals like smooth-coated otter, jungle cats, jackals and civets etc. Practicing agro-forest is beneficial to biodiversity conservation and economic returns.

It is productive to link existing farmland with a network of hedges and grassy margins. Weedy areas and long grass provide food and shelter for a wide variety of wildlife including insectivore, which control pests of the farms. Stubbles support rodents and also attract owls, black-shouldered kites and kestrels. Even small strips left unploughed can provide important feeding habitats for farmland birds. Leaving climbers, creepers and vines on the trees provides food and shelter during lean period. It is unlikely to harm healthy trees. They provide nectar and fruit for insects and birds late in the year when other food sources are scarce. Climbers provide roosting and nesting habitat for birds and insects. Retaining berries and nuts into late winter provides food for birds and small mammals. Some plants only flower and fruit on growth more than one year old, so cutting every other year will produce a thick hedge that provides food and safe nesting sites for birds, and habitat for rare mammals. The environment friendly organic farmlands will add beauty to the Lumbini, the birthplace of Buddha instead of foul smelling and polluting industries that have adverse effect on mankind.

Buddham Sharanam Gacchami

Plight of Tinau River

By: Prabin Kumar Joshi
Education Officer

Tributaries of Tinau River cascades down the watershed of Palpa. Butwal, an old trading town is the entry point of Tinau River into the Terai plains of Rupandehi district. Butwal is located at the foothills of Churia range, a youngest and fragile mountain. Water from the river is used to irrigate hundreds of acres of land in the flood plain. It also supplies the drinking water in most parts of the Butwal Municipality, one of the rapidly urbanizing cities of the country with population growth rate of 7% per annum. The malaria eradication program of the '60s has attracted thousands of new settlers from the mountains to the Terai. Grasslands and wetland are first to transform into farmlands later the forest disappeared. Butwal is one of the major commercial and industrial towns of the country. It is reported that Butwal is the 6th polluted city of the country. Waste management is still not a part of the culture of urbanization in Nepal, though guideline for the protection of water, soil and air have been finalized. No doubt the environmental pollution is increasing day by day in Butwal, which is directly responsible for degradation of Tinau River. According to the Nepal Environment Report-2001, Butwal annually produces about 1000 tones of solid waste, out of which, 80% comprises of domestic garbage. The banks of the Tinau River are littered with wastes like municipal waste, polyethylene bags, animal's bones, garbage from hospital, laundry, servicing vehicles, discharging industrial effluents directly into the river, and using riverside as an open toilet by the squatters. It is also found that plastic bags and other urban wastes that are transferred during floods, have littered downstream arable land and villages.

Tinau River is one of the major sources of drinking water for the inhabitants living downstream. According to the medical practitioners, 80% of the visiting patients have suffered from water borne diseases such as jaundice, typhoid, gastro-enteritis, dysentery and enteric fever. Such diseases is on the rise due to the use of contaminated water. The fish and other aquatic fauna are diminishing from this river due to the pollution and degradation. The Majhis whose main profession is fishing seems to have adopted alternate occupations.

Apart from the pollution, Tinau River is also facing acute soil erosion. The erosion of bank during rainy season is a matter of serious concern for the municipality areas and farmlands adjoining Tinau River. Rapid deforestation in the Churia hills has increased the risk of landslides in several areas. Deforestation in the watershed of the river has led to an acute shortage of water and the level of water is declining each year. Moreover, the level of riverbed is rising due to the deposition of soil and debris on the riverbanks as a result of landslides in the Churia hills. The numerous forest-fires that destroy large envelopes of forests ground cover in the Churia hills each year further deteriorated the situation. Sand and stone quarrying on the river bed has adversely affected the retention wall of the bridges. The average discharge rate of Tinau River is decreasing every year. The cause behind this is mainly contributed to the increasing use of the river water for irrigation, deforestation in the watershed and haphazard quarrying.

Local people and the aquatic biodiversity are the major victims of the degrading river condition. Families remain awake every night as the dark clouds hover over their sky in monsoon. These people, who live as temporary squatters on the islets of the Tinau River, keep vigil throughout the rainy night for signs of flood. They fear rain will trigger flash floods and sweep away their huts. Municipal authorities concede that if these people are not shifted from this location, one day a severe flood might sweep them away.

The troubled water of Tinau River

Tinau River fans out forming two major streams below Butwal Municipality. The branch of the Tinau is known as Dano. Later they merge at Marchawar confluence. Since ancient time native Tharus profusely used Tinau River for irrigation. Now the traditional management system have been adopted by the new settlers and its potentiality have been enhanced. It is a life supporting system for the downstream dwellers, but was unfortunately affected by sorry state of river. Agricultural runoff along with fertilizers and pesticide residue merges into the river system. The fertilizers and pesticides affect the aquatic life and end users such as human beings.

The Bhairahawa - Lumbini Road crosses over these two rivers, giving access to the industrialist and developers. The factories such as Reliance Paper Mill and Triveni Distillery established few years ago discharges effluents directly into the river, further deteriorating the state of water. After reaching the confluence Marchawar lift water irrigation have been constructed to irrigate the agriculture fields. As the propeller of the turbine sucks the water, the blades virtually kill all the macro vertebrates. The polluted water is siphoned off for irrigation.

The scenic value of river is deteriorated, the water quality is poor and the aquatic life and end users are adversely affected. Sarus Cranes uses the Tinau riverbanks as a congregation for clan gathering during summer season, prior to nesting time. Other globally threatened species such as Lesser Adjutant is also affected by the degradation of the river quality. The aquatic fauna, Sarus Cranes and the human dwellings adjacent to this river are the most affected victims due to the pollution. There is still time to implement conservation measures to uplift the quality of Tinau River. Many rivers of Nepal have experienced the similar story of Tinau. The major challenges we would face in the 21st century would be how to safe guard fresh water? We must spearhead to save our watershed and water resources for the biodiversity conservation as well as for the well being of human.

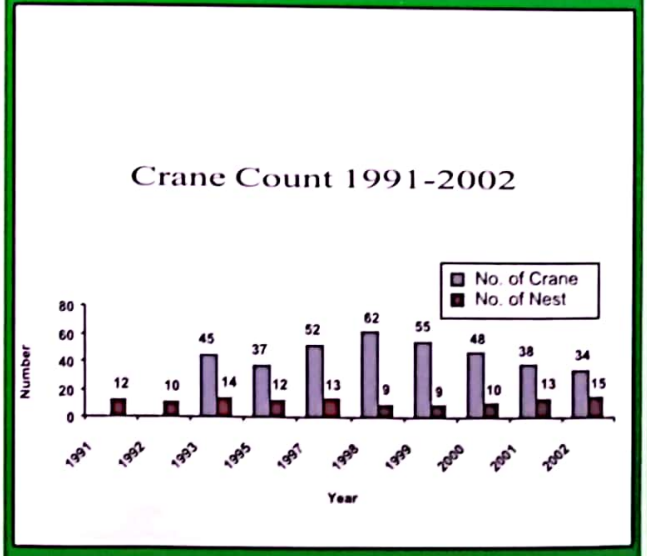
saving wetlands
for cranes and people

Monitoring of Nesting Cranes 2002

Nesting survey of Sarus Crane (*Grus antigone*) was carried out in Lumbini during October 2002. Total 15 pairs of Cranes were found nesting during the survey. Out of which, only 9 pairs were observed incubating. Among nine pairs, only 2 pairs had hatched their chicks, while rest of the 7 pairs were still incubating their eggs. Rest of the 6 pairs had already lost their eggs. Ten pairs were found nesting in the farmland, and the remaining five pairs on the wetland. Three pairs of cranes were nesting inside Lumbini Crane Sanctuary (LCS). The area of LCS is 265 acre, which is composed of grassland, forest and constructed wetlands. There is a heavy loss of eggs by stealing. Many pairs laid eggs for the second or third time. There were evidences of shifting of nest sites after depredation of eggs.

There are four pairs of Cranes nesting in Semari area. All of them were recorded from the farmland. Jignihawa Lake is a privately owned seasonal lake, where three pair found nesting. The egg near the Vietnamese Monastery was eaten by Indian Python *(Python molurus)*. It is an endangered and a protected reptile of Nepal.

Nesting record of Sarus Crane in Rupandehi district (including Lumbini Crane Sanctuary) has been regularly monitored since 1991.



मानिस र प्रकृति विचको सह-अस्तित्व: सन्दर्भ रूपन्देही जिल्ला

गोष्ठिको सम्बोधन भाषण
द्वारा तीर्थ बहादुर श्रेष्ठ
आजीवन सदस्य,
नेपाल राजकिय पत्रा प्रतिष्ठान

आज हामी नेपालीको मात्र हैन सारा विश्वकै पूण्य भूमि रुपन्देहीमा आइ यहाँहरुसंग भेट्न पाउँदा, केही बोल्न पाउँदा, केही सुन्न पाउँदा मलाई ज्यादै हर्ष लागेको छ। यो अवसर प्रदान गरिदिनु भएकोमा लुम्बिनी सारस सरंक्षण संस्था प्रति विशेष गरेर श्री राजेन्द्र सुवाल प्रति ज्यादै आभारी छु।

मानिस र प्रकृतिको कुरा कोट्याउँदा हामी देख्दछौ की मानिस नभए पनि प्रकृतिको अस्तित्वमा फरक पर्दैन। साँचै प्रकृति देवीसंग सोध्यो भने मलाई मानिस चाहिदैन भन्छ होला Nature without man is a perfect balance तर प्रकृति विना मानिसको अस्तित्व सम्भव छैन। प्रकृति भन्नाले हामी हाम्रो परिवेशको जल, स्थल, वायु, आकाश र तेज यी पाँच तत्व र यिनवाट संचालित सवै जीव प्रणालीको सम्पूर्णतालाई बुझ्नु पर्दछ। हाम्रो यो पृथ्वीमा ५० लाख भन्दा वढी जाती प्रजातीका जीवात्मा छन्। मानिस ति मध्ये एक मात्र हो।

मानिसले दुइवटा खुट्टामा उभिएर हिड्न थालेको दुइ लाख वर्ष पछि पृथ्वीमा एक अरव जनसंख्या पुग्यो। त्यस पछी एक अरव थपेर दुइ अरव बन्नलाई १०० वर्ष पनि लागेन्। अहीले १० वर्ष भित्रै एक अरव जनसंख्या थपिन्छ। गिरिजा वावु पृथ्वी सम्मेलनमा भाग लिन जाँदा (सन् १९९२) यो पृथ्वीमा पाँच अर्व जनसंख्या थियो। पृथ्वीको उमेर पनि पाँच अर्व वर्षको थियो। त्यो जनसंख्या अहिले ५ अरव पुगेको छ। भोलीका दिनहरुमा यो क्रम अझ छिटो छिटो चल्ने छ। वैज्ञानिकहरु भन्दछन्की प्रत्येक वर्ष ५० हजार देखि एक लाख सम्मका विभिन्न जीवात्मा प्राणी र वनस्पति लोप हुदैछ। के माछा, के भ्यागुता, के गोही जुन प्राणी मरे पनि पुनर्जन्ममा मान्छै भएर जन्मने पो भयो की। यसो हुँदा पृथ्वीको सम्पूर्ण भागमा मान्छे मान्छे मात्र भयो भने यो पृथ्वी कस्तो होला। त्यो सह-अस्तित्व कस्तो होला ? विचार गरौं।

करोड नेपालीको ढुकढुकी यो नेपाल भन्ने राष्ट्रिय गीत सुनेको २५ वर्ष नवित्दै दुइ करोड भूँडी धौ धौ भइसक्यो। अर्को २५ वर्ष पछि चार करोड मुखको च्याँ च्याँ हुन्छ। त्यसलाई छेक्न सकिने अवस्था देखिदैन।

जनसंख्याको कुरामा रुपन्देही जिल्लालाई डोऱ्याउँदा हाम्रो मधेश तराईका २० वटा जिल्लाहरु मध्ये सवभन्दा वढी जनसंख्या भएको जिल्ला मोरंग हो (८,४३,२२२)। त्यस पछी दोश्रो नम्वरमा रुपन्देही पर्दछ (७,०८,४१९)। प्रतिवर्ग किलोमिटरको जन घनत्ववाट हेर्दा यो तेश्रो नम्वरमा आउछ। पहिलो महोत्तरी र दोश्रो सर्लाही। नेपालको औसत जनघनत्व १६० मात्र हो भने रुपन्देहीको ४२१ पुग्छ। भारतको औसत जनघनत्व पनि ३३० मात्र छ। तसर्थ आज मानिस र प्रकृतिको सह-अस्तिवको कुरा गर्दा जनसंख्या व्यवस्थापनको कुरा सर्वोपरी राख्नु पर्ने हुन्छ। वढ्दो जनघनत्व र सिमित साधनको तालमेल हुनुपर्छ। उद्योग, व्यापार, यातायातको विकासले मानिसलाई काम दिन्छ, मामदेला, तर स्वच्छ प्रकृति दिदैन्। व्यवस्था समयमानै मिलाउन सकेन भने अन्य प्राणी र वनस्पति लोप हुन्छ। तसर्थ हाम्रो विकासको ढाँचामा वातावरणको स्वच्छता, जैविक विविधताको संरक्षण, र सांस्कृतिक सम्पदाको जगेर्नालाई छुटाउन मिल्दैन।

आज यो रुपन्देही जिल्लाको वातावरण संरक्षणलाई विचार गर्दा मलाई लाग्छ यहाँका तिनवटा "च" मा हामी चनाखो हुनु पर्छ।

१) चुरे २) चारकोसेझाडी र ३) चरा

चुरे, चारकोसेझाडी र चराको संरक्षण भएन भने यहाँको प्राकृतिक सन्तुलन गोलमाल हुन सक्छ।

चराका प्रमुख जीवन आधार यहाँका सिमसारहरु जस्तै:

१) वकुल्ला घाट
२) मटियारा ताल
३) गजेडी ताल
४) लाउसा ताल
५) डण्डा खोला
६) तिनाउ खोला
७) दानो खोला
८) करवलह ताल
९) अम्लहवा ताल
१०) सिक्टीहवा ताल
११) पाडरहवा ताल
१२) गुलरिया ताल
१३) सगरहवा ताल
१४) गैंडाहवा ताल
१५) हरहवा खोला
१६) तेलार खोला

चरा, माछा र अरु प्राणीका लागि मात्र हैन यस जिल्लाको भूमिगत जललाई निरन्तर राख्न पनि ज्यादै महत्वपूर्ण हुन्छ। भैरहवा र भूमिगत जल एक अर्काको प्रतिध्वनी जस्तै सुनिन्छ। चुरे र चारकोसेझाडी नष्ट भयो भने त्यो भूमिगत जलमा ठुलो असर पर्न जान्छ। यहाँका सबै नदी नाला, चुरे र महाभारत पर्वतमा निहित छ। यहाँको जल सम्पदा हिमाली जल हैन। चुरे भत्कन थाल्यो र भावर अर्थात चारकोसेझाडी लोप भयो भने यो उर्वर भूमि वालुवाको भण्डार बन्न सजिलो हुन्छ। मोरंग र झापाका कतिपय उर्वर क्षेत्र चुरेको वालुवाले भरिन थालेको छ। नदी माथि थापेको पुल वालुवामा सुतेको छ।

वन, जंगल, सिमसार र जलाशयको कपिल होला अव हाम्रो तराइ शितलहरको कुहिरो भित्र लुक्न थालेको छ। गत पुष १२ देखि माघ ४ सम्म काश्मिर देखि वंगलादेश सम्म कुहिरोको एउटै चादर भित्र जाडो वितायौं। हामीले देख्यौकी प्रकृतिले राजनैतिक सिमालाई टेर्दैन। त्यसैले हाम्रो अस्तित्व क्षेत्रिय सिमा अस्तित्वमा पनि आधारित छ। नेपाल, भारत, वंगलादेश र चिनले पनि यो सह-अस्तित्वलाई बुझ्नु पर्दछ। सह-अस्तित्वका कुरा गर्दा छ रछिमेकसंग जनस्तरको सद्भाव, सहयोग र समझदारीले ठुलो भूमिका खेलेको हुन्छ। खुर्दलोटनमा प्रहार भएको खुर्पालाई रुपन्देहीका जनताले जति प्रभावकारीसंग छेक्न सक्छ शायद अरुले सक्दैन होला। वातावरणविदहरुको सन्देश Think Globally Act Locally भन्ने यहाँ पनि चरितार्थ हुन्छ।

रुपन्देही जिल्लाको नाम सम्झदा चण्डी प्रार्थना गर्दा रुपंदेही, जयंदेही, यशोदेही, द्विषोजही भन्ने वाक्यांश स्मरण हुन्छ। तर मेची देखि महाकाली भन्ने पुस्तक पल्टाउँदा भने कुरा अर्कै छ। त्यहाँ भनिएको छ "स्थानिय वासिन्दाहरुले मायादेवीको मूर्तिलाई रुम्वीनी देवी र रुमिनदेवीवाट रुपन्देही भयो" भन्ने उल्लेख छ। तर जेहोस वुद्धको जन्म स्थल यो जिल्लाका सम्पूर्ण दिदीवहिनी दाजुभाईलाई रुपंदेही रुपदेउ, जयंदेही जयदेउ, यशोदेही यश देउ र द्विषोजही शत्रु पनि नाशहोस भन्ने प्रार्थनाका साथ विश्राम माग्दछु।

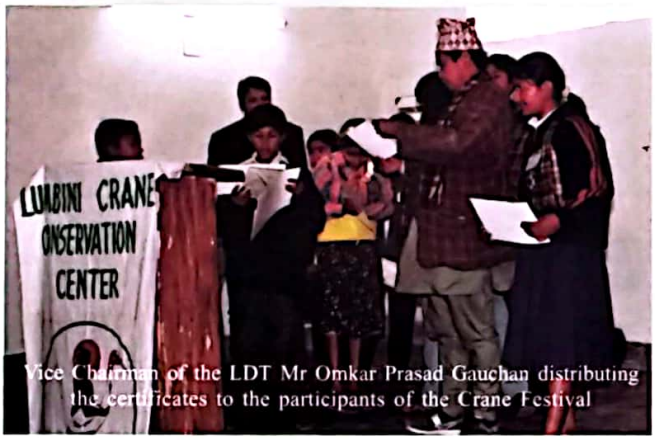
धन्यवाद !

Lumbini Crane Festival 2002

Since 1995, Lumbini Crane Conservation Center has organized Crane Conservation Education Camp, Art Competition and Crane Festival for the school children in Lumbini. The aim of the program is to generate awareness among the school children regarding the importance of bird and its role in nature conservation, environmental pollution and its effects to human health.

Fifth Crane Conservation Education Camp was conducted on 27-31 Dec 2002 at Buddha Vihara, Mahabodhi Society-Kolkata, Lumbini. One day Mid Winter Water Bird Count and bird survey was also conducted in Rupandehi on January 2, 2003. Altogether 20 campers from five schools participated in this camp. Names of the participated schools are:

1. Shree Buddha Adarsha Secondary School,
2. Shree Haraiya Higher Secondary School,
3. Shree Haji Anay Tullah Secondary School,
4. Shree Khudabagar Lower Secondary School, and
5. Shree Karmahawa Secondary School.



Vice Chairman of the LDT Mr Omkar Prasad Gauchan distributing the certificates to the participants of the Crane Festival

Camp's introduction, its importance and objectives were discussed on the first day of the camp. Participants played environmental games and worked in team. Classes on the issues of nature conservation, bird watching techniques and Sarus Crane conservation in Lumbini were taken. Tourism expert shed lights on the possibilities of village tourism in Lumbini. Children learnt to make paper cranes and other birds (Origami).

Participants went for nature walk to collect and identify leaf, flower, seeds, etc; to watch and identify birds; to learn ethics of nature conservation; as well as to play an environmental game called O' Crane. Finally, the entire campers displayed collected plants, leaves and seeds and presented to the audience. We observed that their performance of presenting and working as teamwork was recommendable.

The title of art competition was: CRANE: THE BIRD OF PEACE. There were 78 participants from five schools of Rupandehi district. Our facilitator (Artist) gave guidance to the students on how to draw and paint Sarus Crane. Total time duration allowed for art competition was two and half hour. The winners were awarded with prizes on the final day of the camp. On that day, parents of all the campers and art competition participants were invited along with other local and distinguished guests. The students performed cultural dances and songs. They displayed all the works done during the camp and art works. There were stalls to teach origami, displayed books, and art works done by our participants as well as American school children.

The Chief Guest of the program was Mr. Omkar Prasad Gauchan, Vice Chairman of Lumbini Development Trust. Chief Guest distributed the prizes and certificates to the winners, participants and camp volunteers. Participating schools also received sports items as gifts.

A one day Winter Bird Count was conducted in Rupandehi district. The team visited important wetland areas, that include: Jignihawa, Sonbarsa, Ahirauli, Dhamauli, Gaidahawa, etc. The team counted 30 Sarus Cranes in a single day survey. They also recorded some important birds like Painted Stork, Wooly-necked Storks, Black Ibis, Red-headed Pochard, Ruddy Shelduck, Darter, etc. Similarly, the team recorded several important birds of prey e.g. Eurasian Griffon, Slender-billed Vulture, White-rumped Vulture, Lesser Spotted Eagle, Osprey, etc.

The program was graciously sponsored by Vanderbilt Family Foundation-USA, organized by Lumbini Crane Conservation Center, supported by International Crane Foundation, Ecosystem Conservation Society-Japan and promoted by Nepal Tourism Board.

मन चिन्ते चरी

श्री लक्ष्मी नाथ अधिकारी
प्रधानाध्यापक, श्री हरैया उच्च मा. वि.

हे भाइ बहिनी हाम्रा यौटा गाठी कुरा सुन
सुनेर मात्र पुग्दैन् त्यो आफ्नो मनमा गुन
सधै त्यो काम लाग्नेछ नविर्सेर गुन्यौ भने
दाम नाम सबै दिन्छ यो कुरा मनमा गुने
त्यो हो एक चरी जस्ले सुनका फुल पार्दछ
उसैको जीत नै हुन्छ त्यो चरी जुन पाल्दछ
भरिपूर्ण सबै पार्ने त्यो चरी पाल्दछौ भने
तिमी नै भन त्यो नाउँ चरीको जान्दछौ भने
नजाने सुन लौ माया दयाका पङ्ख छन् दुबै
इमान्दारी र विश्वास खुट्टा छन् त्यसको दुबै
त्यागी छ उसको चुच्चो टाउको छ विचारको
पेट ठूलो छ सन्तोषी, घाटी लामो छ न्यायको
अल्लमल्ल पऱ्यो क्यारे नचिनी त्यो महान चरी
पाल्न सक्छौं भने पाल काम ठूलो दिने चरी
भन सारस भै रुप गुणको छ चरी कुन ?
मनचिन्ते अति प्यारो चरी हो त्यो परिश्रम
चारो समयको खाने चरी हो त्यो परिश्रम

Buddha Jayanti: Exhibition

2547th birthday of Lord Buddha was celebrated in Lumbini as Lumbini Day on May 16, 2003. On this occasion, the rebuilt Mayadevi Temple was graciously inaugurated by His Majesty King Gyanendra Bir Bikram Shahdev.

On the occasion of Buddha Jayanti, LCCC had an exhibition stall combining with TRPAP, in which educational booklets, bird folders, reports and posters were displayed. Many people visited the exhibition stall and disseminated the crane conservation information. His Excellency, Henning Karcher, the Resident representative of UNDP also visited the stall.

Weekly Bird Walks

LCCC has conducted weekly bird-watching activity for school children every Saturday in Lumbini. Usually, ten students participate in each birdwatching program, however sometimes it would be more. A bird identification folder of "Birds of Lumbini" and a booklet "Educational booklet for the Conservation of Birds in Rupandehi District" is distributed to the students. It will assist them to identify the birds observed in the field. More than 500 students will be benefited in a year from this program.

Consultative meeting on Coexistence of Human and Nature in Rupadehi District

The meeting was held on February 14, 2003 in Bhairahawa, Rupandehi District. The meeting was organized by Lumbini Crane Conservation Center and sponsored by ECO-Japan. There were thirty-eight participants in the meeting representing from DDC, VDCs, line agencies, local representatives and journalists etc. Altogether three papers and a keynote speech were presented.

Dr. Tirtha Bahadur Shrestha, life member of RNA (Royal Nepal Academy), gave the keynote speech to the participants. He explained Rupandehi district as a holy land not only for the Nepalese people but also for the entire world. And also emphasized on the conservation of Churia hill range, Charkoshe Jhadi Forest and the Chara (birds) for the coexistence of human and nature in Rupanedhi District. Mr. Sunil Khadka, Regional Development Advisor, RUPP (Rural-Urban Partnership Program) presented the paper on "Deteriorating Condition of Tinau River" addressing the major problems as: high rate of migration from the hilly areas, rapid population growth, haphazard dumping activities, hyper mining and quarrying, lack of waste management, deforestation, haphazard utilization of natural resources and the development of unplanned settlements.

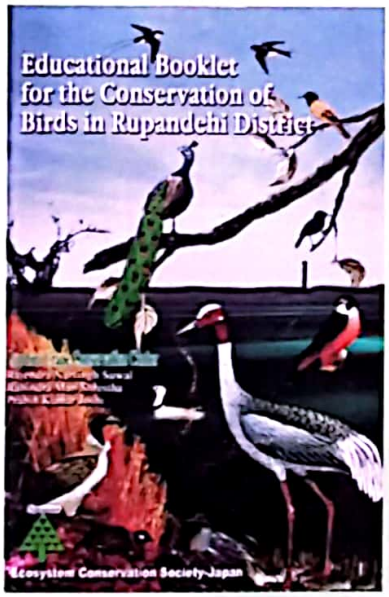
Mr. Uday Paudel, Program Officer, Livelihood and Forestry Project (LFP) presented a paper on the "Role of Natural Resources for the Sustainable Livelihood". He also emphasized on the wise-use of wetland resources in the district. Mr. Rajendra N. Suwal, President of LCCC presented a paper on "Importance and Biology of Sarus Crane". He mentioned about the intrinsic relationships between Sarus Crane, farmland ecology and human beings. Finally, Prabin K. Joshi, Education Officer, LCCC wrapped up and closed the program after giving vote of thanks to the contributors.

International Crane Working Group meeting in India

The Indian Crane Working Group (ICWG) meeting was held at the Keoladeo National Park, Bharatpur, Rajasthan on November 29, 2002. George Archibald from International Crane Foundation chaired the meeting. Rajendra Narsingh Suwal, president of Lumbini Crane Conservation Center also attended the meeting. The meeting agreed to cooperate to promote crane conservation in the Indian Sub-continent.

Ashoka Fellowship

Mr. Rajendra N. Suwal, the president of Lumbini Crane Conservation Center, has been awarded Ashoka Fellowship for three years (from August 1, 2002 to July 31, 2005). Mr. Suwal was elected because of his new idea to changing the way people view wetlands and enabling them to see the correlation between their own health, livelihood and that of the wetlands. Ashoka appreciates Mr. Suwal for his effort to encourage farmers living along the periphery of wetlands to see these areas as an additional means beyond their current resource base and the key to allowing them to move to the next level of economic independence.



How can you support LCCC?

LCCC demonstrates that endangered species like Sarus Crane can be protected or saved by constructing and managing the wetlands. It needs great support from the individuals, GOs, NGOs and INGOs. There is an urgent need of conducting scientific studies on Sarus Cranes. We need to study in detail on relationship between Cranes and People. We would be thankful to any individual or organizations interested to help us to promote crane conservation initiatives:

- By becoming a benefactor of LCCC.
- By volunteering your services to LCCC.
- By just talking to others about our work.
- Or just by getting some information about our works in Lumbini.
- By providing some financial grants to continue our program.
- By conducting educational program to the local people
- By providing educational materials for the local people
- By visiting the Lumbini Crane Sanctuary and rural farmlands of Lumbini

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