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# *Community Workshop Report on Ecosystem Services at Koshi Tappu Wildlife Reserve*

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**7 November 2011**



**Koshi Camp, Madhuban, Sunsari**

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**Submitted to:**

**Submitted by:**



## **Background**

In June 2011 BCN Ecosystem services project staff, Ravi Shanker Pandit based at Koshi did a scoping study on various ecosystem services provided by Koshi Tappu Wildlife Reserve IBA. This was done mostly by a one to one meeting with local leaders, buffer zone user committee members, CFUG members, reserve staff, etc. The analysis on the data was carried by BirdLife International.

To reach a consensus on the different ecosystem services available at Koshi Tappu Wildlife Reserve, including harvesting of wild goods from Southern buffer zone (Dachhin Duban) and Northern Buffer zone on the basis of their priority, BCN in partnership with Birdlife International organized a one day community workshop at Koshi Camp on 7 November 2011. Representative came from different organizations including Community Forest Users groups, Buffer Zone Management Committee, Reserve Staff, UNDP-GEF Wetlands project staff, representatives from different local NGOs working in the reserve area, staff from the irrigation project, staff from District agriculture office and participants from local user groups were invited to participate and discuss about the different ecosystem services of Koshi Tappu WR and prioritize the services on the basis of their importance and use. It was a stakeholder consultation to find out what the most important ecosystem services are provided by Koshi Tappu WR and to get an idea of how these services are supporting the local livelihoods of the people, through their use, marketing and social values.

## **Methodology**

The workshop was divided into two sessions. The first session was mainly focused on the delivery of the speech by the Chief Executive Officer of BCN, and Conservation Officer of Koshi Tappu Wildlife Reserve.

The second session was focused on gathering feedback from the participants on the results of the scoping study of different ecosystem services, which was conducted by Ravi Shanker Pandit a few months prior at Koshi buffer zone area and also to achieve a consensus on the results of the study through group exercise and presentation.

## **Session-I**

Dr. Hum Gurung, Chief Executive Officer of BCN, introduced the Ecosystem Services project that is being undertaken by BCN and the importance of

different ecosystem services provided by Koshi Tappu to the people. He also clarified the objective of the workshop.

He briefly mentioned on BCN's previous Darwin project with the Wildfowl and Wetlands Trust (WWT), which supported local communities in developing their own sustainable livelihood options to reduce pressure on the wetland at the same time also provided training to local wetland dependent communities to make bio-briquette and compost fertilizer from invasive species like *water hyacinth*, *Lantana*, and *Ipomea*. He also added that BCN always aims to demonstrate ways to improve the quality of the environment for both birds and people.

***"Natural ecosystems produce services upon which we are dependent. For example, they: provide us with clean water and air, pollinate our crops and disperse seeds, protect us from extreme weather and ultraviolet light, control pests and disease-carrying organisms"***, he said. These highly valuable ecosystem services can be grouped into four categories: provisioning services (including wild goods, cultivated goods, fish, raw materials, fresh water and energy from bio-mass); regulating services (such as carbon sequestration and climate regulation, nutrient dispersal and cycling); supporting services (such as habitat for species, and maintenance of genetic diversity), and cultural services (such as mental and physical health, nature based recreation/tourism).

He also emphasized that the workshop was organized mainly to identify the most important ecosystem services available at Koshi Tappu WR, and to assess and monitor these services so that people will know how they are benefiting from these services. This will support continued biodiversity conservation of Koshi Tappu Wildlife Reserve.

Thereafter, the Conservation Officer of the Koshi Tappu Wildlife Reserve, Mr Ashok Ram, delivered his welcome speech. He gave an explanation of how important Koshi's wetland is in terms of ecosystems services. He said that most of the wetland-dependent communities are direct beneficiaries of the ecosystem services. Local people's livelihoods are directly depending on the provisioning services, e.g. wild harvested goods like fish, timber, plant fibers, fire wood and surface water etc.

Koshi reserve office supports the livelihoods of the local people through issuing permits for drift wood and thatch grass collection once a year for different management committees of the buffer zone. For the communities like Jhagad,

the office also issues the permits for *typha* collection to weave mats and sell in the local and district market. Malaha people also get permits for nine months of the year for fishing in the Koshi River. Other people get benefits from managed collection of grass, wild edible fern, and firewood, he explained.

*"To ensure public participation in combining conservation goals with the needs of local people, DNPWC has gradually shifted its management paradigm to pro- people by introducing the Buffer Zone concept in protected areas and allowing up to 50% revenue sharing by Government of Nepal for integrated conservation and development programmes in the Buffer Zone",* he said.



*Conservation Officer of KTWR, Mr Ashok Ram delivering his speech*

## **Session -II**

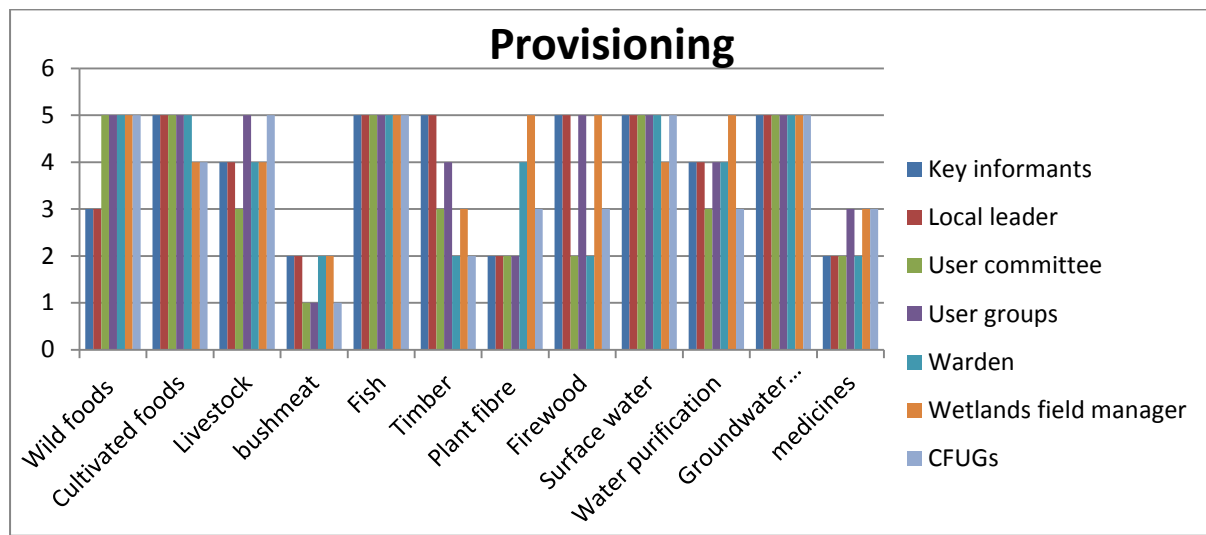
The second session was started with presenting the results from the scoping study of the ecosystem services, which was carried out by the Koshi project staff five months before. The project staff presented the results for all identified ecosystem services of Koshi to get the feedback of participants. After the discussion with all the stakeholders, all participants decided to go for group discussion on each category of the ecosystem services to make the discussion more specific and fruitful.

## Group division for each Ecosystem Services discussion and presentation

Participants were divided into three groups for dynamic discussion. Each group was facilitated by a Nepali project staff member. The scoping study results sheets were distributed to each group for discussion. The groups were:

- Provisioning services
- Regulating services, and
- Supporting, and Cultural services

## Provisioning Services Group discussion and presentation



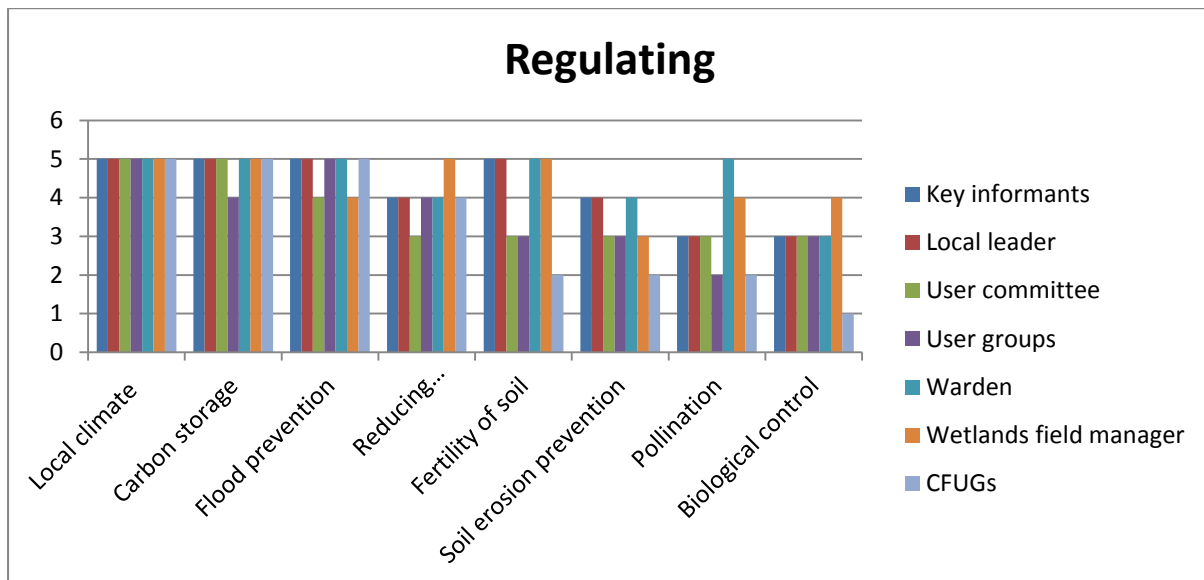
- Cultivated foods, fish and groundwater recorded as the most important services is fine but the surface water should be a bit lower (2) since the irrigation canal is not functioning well. Agriculture is dependent on rain and seepage water.
- Ground water is very important because it is the main source of drinking water and other household work and also enables extensive rice plantations. All the local communities were identified as benefitting from the groundwater.



*Group discussion on provisioning services*

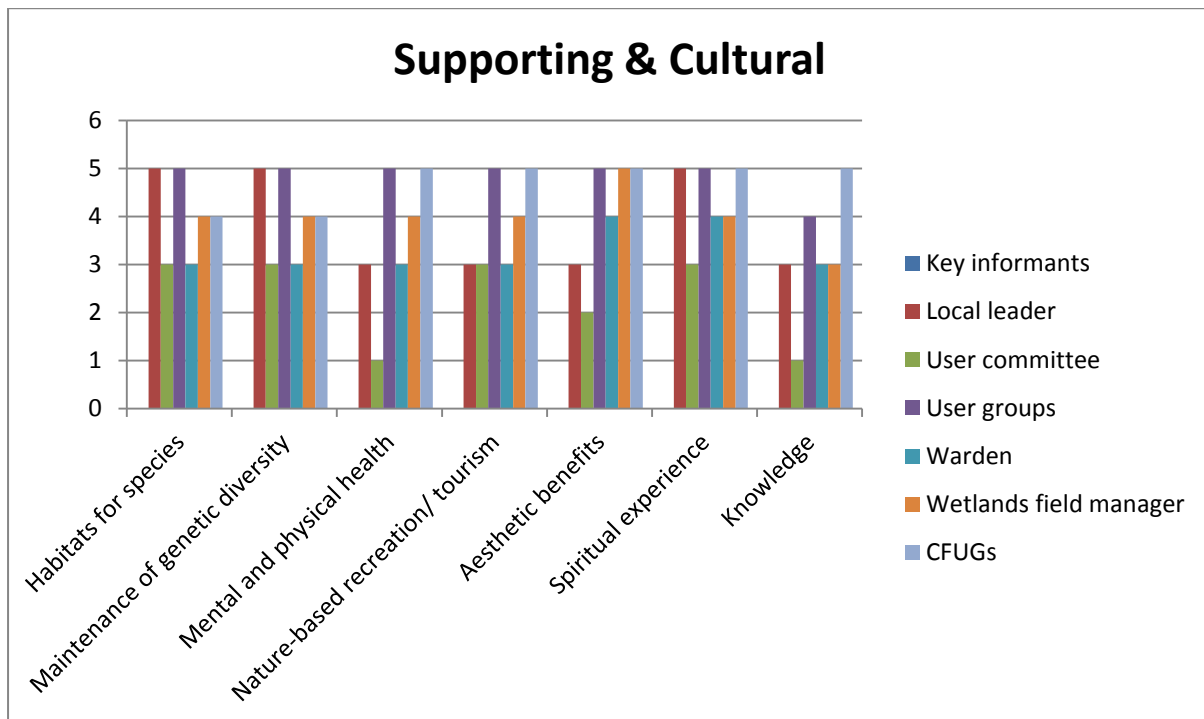
- Plant fibre should be scored higher than it is (3 to 4) as it is widely harvested and utilized (*Typha*, fodder and thatch).
- The score for the firewood should be high (4) as most of the people are dependent on firewood but it was noted that much of this collection is illegal which may explain why some groups allocated a low value.
- The score for timber should be 1 or 2 for the same reason, that collection is illegal.

## Regulating Services Group discussion and presentation



- Local climate regulation, carbon storage and biological control should score the highest (5) followed by reducing the effect of extreme weather events with score 4. Wetlands regulate the climate by controlling the drought and they provide seepage water for agriculture. The western area is facing drought due to sandy areas formed after flooding.
- Carbon is stored in plants mostly trees and also soil. Local community as well as national and international people benefit from carbon storage.
- Flood prevention should be scored 3. The buffer zone VDC communities benefit the most from the flood prevention services. If this service was not provided their land area would be under water.
- Soil fertility, pollination and soil erosion prevention should be scored 3. Soil fertility is an important service and mainly the community living in the floodplain areas benefit as the rivers when flow across the surface of the land, they transport nutrient material that deposits and make the soil fertile.

## Supporting and Cultural Services Group Discussion and Presentation



- Habitat for species, spiritual experience and knowledge should be the most important services with score 5. Spiritual experience is given high value because the terai communities worship in the river and death rituals are also done in the river. If this service was damaged then people would have to go far where the service is available. Major cultural attractions at Koshi Tappu are fairs/festivals at Ramdhuni on Ram Nawami (Birth day of Lord Ram), at Barah Chhetra on Kartik Purnima (October full moon).
- Habitats for species is scored high because of the presence of many species which is a benefit for people as well.
- Knowledge is scored high because more research and study also bringing support to local people.
- Genetic diversity should be scored 3.
- Mental and physical health should be scored 3. Noted that health impacts could be negative because of fear of wildlife attack and flood.
- Tourism should be scored 2.5 because very few tourists visit and there is currently little benefit to local people.



After the completion of the group discussion and presentation, Senior Conservation Officer of Bird Conservation Nepal, Ishana Thapa gave the participants an overview of the ES project work planned for Koshi during the project team's visit. She also clarified that no duplication of field data collection will be done and that further discussions would be held with a number of people who were present.

### **Vote of thanks**

After the end of the group discussion and presentation, the president of the Buffer Zone Management Council, Mr Birendra Yadav was requested to deliver the vote of thanks. He thanked BCN and BirdLife International for organizing such type of workshop at community level. He also requested BCN to organize a similar type of workshop and training event at the community level so that people could learn about the ecosystem services, and its value, which will support in Koshi wetland biodiversity conservation.

## List of Participants

SN	Name	Organization	Designation
1	Ashok Kumar Ram	Koshi Tappu Wildlife Reserve	Conservation officer
2	Bibekanand Jha	Wetlands project/KTWR	Field manager
3	Amar Kumar Gurung	Prakashpur Users Committee	President
4	Pankaj Kumar Mahato	Madhuban Users Committee	President
5	Yogendra Yadav	Bairawa, Barmajhiya Users Committee	President
6	Hari Prasad Yadav	Badgama, Jagatpur Users Committee	President
7	Birendra Yadav	Odaraha, Kamalpur	Buffer Zone Council President
8	Ramanand Sardar	Purwa Pipara, Ghoghanpur, Dharampur Users Committee	President
9	Jung Bahadur Khadaka	Tapeshwori Users Committee	President
10	Hari Bhattra	Dharhara Bufferzone Community forest User group, Prakashpur	Chairperson
11	Durga bista	Saptakoshi Buffer zone community forest User group, Prakashpur	Chairperson
12	Devi chaulagain	Janjagran Buffer zone community forest User group, Madhuban	Chairperson
13	Bholeman shrestha	Samaj sewa Buffer zone community forest User group, Madhuban, Sunsari	Chairperson
14	Rabindra Singh	Simsar Buffer zone community forest User group, Paschim kusaha, Sunsari	Chairperson
15	Parwati Urao	Shib shakti Buffer zone community forest User group, Paschim kusaha, Sunsari	Chairperson
16	Bal Ram Majhi	Ramsar Fishries Cooperatives	Manager
17	Bhisma Adhikari	Fish-farming users committee	Chairperson
18	Gulabi Mukhiya	Kamla Fish-farming wetlands users group	Chairperson
19	Robin Ghimire	Local NGO(UCHEP-NEPAL)	President

20	Raj Kumar Singh	PEDES	President/Local Bird watcher
21	Chandra Chaudhary	KTWR	Assistant Warden
22	Renu Sah	Buffer Zone Management Council	Former President
23	Amrit Bhadgaonle	Nagarik Daily	Reporter
24	Bhim Ghimire	Kantipur Daily	Reporter
25	Yatra Thulung	ikimanepal.com	
26	Kul Prasad Limbu	Biratnagar Science Campus	Lecturer
27	Sanjiv Khanal	RSS	Reporter
28	Bhim Lal Sahu	Kushaha user group	
29	Bechan Yadav	Kushaha user group	
	Sailendra Kumar Jha	Koshi Pump, Saptari	S.D.E
30	Dr Bharat Raj Subba	Biratnagar Science Campus	Assistant Professor
31	Hum Gurung	BCN	CEO
32	Ratna Raj Niraula	T.U.	Professor
33	Jay Krishna Yadav	Popular	Reporter
34	Ram Charitra Yadav	S.M.I.P	Engineer
35	Dinesh Mandal		
36	Bhim Man Udas		
37	Durga Bhujel		
38	Ambar Rana		
39	Rafit Sad		

## Revised ranking of ecosystem services from Koshi Tappu WR

