Understanding, assessing and monitoring ecosystem services for better biodiversity conservation



Shivapuri-Nagarjun National Park , the first field site where rapid methods for assessing ecosystem services are being piloted

Project Update 1

Summary

The first year of the UK Government's Darwin Initiative supported project on ecosystem services in Nepal began with consultative meetings and a national workshop to bring all concerned stakeholders together to share their common interest in biodiversity conservation through sustainable management of ecosystem services. The project will be implemented in the plain Terai of Koshi Tappu Wildlife Reserve to the mid hills in Shivapuri-Nagarjun National Park, Phulchowki and in the pristine mountain environment of Rara National Park. These sites, in diverse ecological zones, have been recognised as Important Bird Areas and also provide a wide range of ecosystem or environmental services for human well being. Fieldwork at Shivapuri-Nagarjun National Park undertaken in this first year provides a wealth of information for understanding the value of ecosystem services delivered by this site and for developing a practical 'toolkit' to implement the methods at other sites. The work is being carried out in close partnership with conservation agencies including the Department of National Parks and Wildlife Conservation which plans to use the 'toolkit' in Nepal's protected areas, and is also being shared with BirdLife partners in Asia.

Ecosystem Services

The natural environment provides people with many benefits such as food, clean water, control of climate and other services that are fundamental to human wellbeing. Biodiversity loss, leading to ecosystem degradation is leading to serious degradation of these services with severe economic, social and environmental impacts on people.

BirdLife's Darwin Initiative Project (2010–2013) on ecosystem services

Bird Conservation Nepal (BCN) with funding from the UK Government's Darwin Initiative programme and with support from other institutions: BirdLife International, the Cambridge Conservation Initiative and Kings College London, is implementing a project to develop a rapid approach to measuring ecosystem services at the site-scale.

Nepal is among the richest in its birdlife in Asia, with 867 species recorded to date, 33 of which are globally threatened.

There are 27 Important Bird Areas (IBAs) – sites of international importance for bird conservation. Many of these areas are under threat from agricultural expansion, pollution, overharvesting and climate change. Nepal's rich biodiversity and its ecosystems provide vital services and livelihoods for most poor people. This project will demonstrate the importance of these varied areas for biodiversity and people and will build capacity nationally to assess and value ecosystem services.





BirdLife Asia Regional Partnership Meeting in Taipei, Taiwan and stakeholders consultation meeting in Kathmandu, Nepal

Dr Hum Gurung, CEO of Bird Conservation Nepal (BCN), introduced the Darwin project at a Birdlife Asia Regional Partnership meeting in Taipei on 13–14 May 2010 (with over 80 participants). The BirdLife Asia Secretariat is playing a vital role in bringing the BirdLife Partners together to share the Nepali experience and a training workshop is planned for 2012. BCN also organized a stakeholders' consultation meeting in June 2010 to discuss the project with several organisations working in Nepal.

National Workshop in Kathmandu, Nepal

A National Workshop in Kathmandu took place on 18 November 2010 at which over 40 participants from government, NGOs, INGOs, experts,



and academics were present. The project was introduced by staff from BirdLife International, Cambridge University and

BCN, and feedback requested on the draft 'toolkit' of methods for assessing ecosystem services. In addition, presentations were heard from Nepali projects that have had an ecosystem services component. Good networking and collaborative opportunities were identified as a result.

International Conference on Biodiversity, Livelihood and Climate Change in Kathmandu, Nepal

On 14 December 2010, BCN staff presented progress on the project at the International Conference on Biodiversity, Livelihood and Climate Change at Kamaladi, Kathmandu. A conference paper has been submitted and will be published in the conference proceedings.

Community Workshop in Phulchowki, Nepal

A Community Workshop was held in the Phulchowki Mountain Forests (an Important Bird Area) to assess



the importance of harvested wild goods from the community forests, and this was followed by household surveys to get detailed data on quantity and value of these products.

Data collection and analysis in Shivapuri, Nepal

Field work was conducted at Shivapuri–Nagarjun National Park (SNNP; an Important Bird Area) from November 2010–March 2011. Surveys were conducted focusing on carbon storage, water provision, tourism/recreation and cultivated goods using a quick



and efficient assessment approach. The data are currently being analysed, but preliminary results illustrate that the longterm value of SNNP in its intact state is much greater than the value of conversion.

Wardens Seminar in Nepalgunj, Nepal

Dr Hum Gurung participated in the 27th Warden Seminar organised by the Department of National Parks and Wildlife Conservation, Government of Nepal. He presented a slide talk on 'Ecosystem Services for Better Biodiversity Conservation' which was in line with DNPWC's vision for Protected Area System Beyond 2010, where the importance of ecosystem services will be incorporated in the planning process of parks management.

Presentation at Conferences in Cambridge, UK

"Most poor people in Nepal live in rural areas. For these people, there is a high dependence on the services which are delivered to them by nature."

-Dr Annapurna Das, Joint Secretary, Ministry of Forest and Soil Conservation, Nepal

Menuka Basnyat, Membership and Education Officer, BCN, was awarded a travel bursary to present the project findings at the Student Conference on Conservation Sciences in Cambridge, UK on 23 March 2011. There was great international representation at this conference with over 400 scientists and young conservationists attending. Jenny Birch (BirdLife International) and Menuka Basnyat also presented a poster at the British Ecological Society 'Forest and Climate Change' conference on 28 March 2011. There were more than 200 participants and many showed great interest in the work on ecosystem services in Nepal.

Forthcoming work

In 2011, we will conduct field work at Koshi Tappu Wildlife Reserve which is the most important IBA for wetland birds. Many natural resources are utilized through traditional skills for livelihoods. This site will therefore be excellent for testing our methods in measuring ecosystem services and understanding their importance for both people and biodiversity.

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