

Darwin Initiative Annual Report

Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders – it is expected that this report will be about 10 pages in length – Submission deadline 30 April 2007

Darwin Project Information

Project Ref Number	15/014
Project Title	Managing wetlands for sustainable livelihoods at Koshi Tappu, Nepal
Country(ies)	Nepal
UK Contract Holder Institution	Wildfowl & Wetlands Trust
UK Partner Institution(s)	Institute of Fisheries, University of Stirling CABI Bioscience
Host country Partner Institution(s)	Bird Conservation Nepal, Koshi Camp, Tribhuvan University, PCP-II, IUCN-Nepal,
Darwin Grant Value	£198,835.27
Start/End dates of Project	1/10/06-30/09/09
Reporting period	1 April 2006-31 Mar 2007, Annual report number 1
Project Leader Name	Seb Buckton
Project website	N/A
Author(s), date	Seb Buckton, Hem Sagar Baral, Bhagawan Raj Dahal, Ishana Thapa. 27 April 2007

1. Project Background

Koshi Tappu Wildlife Reserve (KTWR) lies in the lowlands of eastern Nepal (Figure 1). The reserve comprises 175 km², and was gazetted in 1976 to conserve the last remaining wild Nepalese population of the globally threatened Asiatic Water Buffalo. It was declared a Ramsar Site in 1987, and is the most important wetland for migratory waterbirds in Nepal, and one of the most important in Asia. The site is surrounded by a buffer zone of 173 km², in which over 80,000 people live, most of whom are dependent on the natural resource base for their livelihoods. As a consequence, there is unsustainable exploitation of the reserve, with significant and demonstrable negative impacts on wetland biodiversity. Several invasive non-native plant species are an additional major threat. This project aims to assist local communities around KTWR in managing buffer zone wetlands for sustainable livelihoods, whilst enhancing wetland biodiversity, thus reducing the pressure on resources within KTWR.

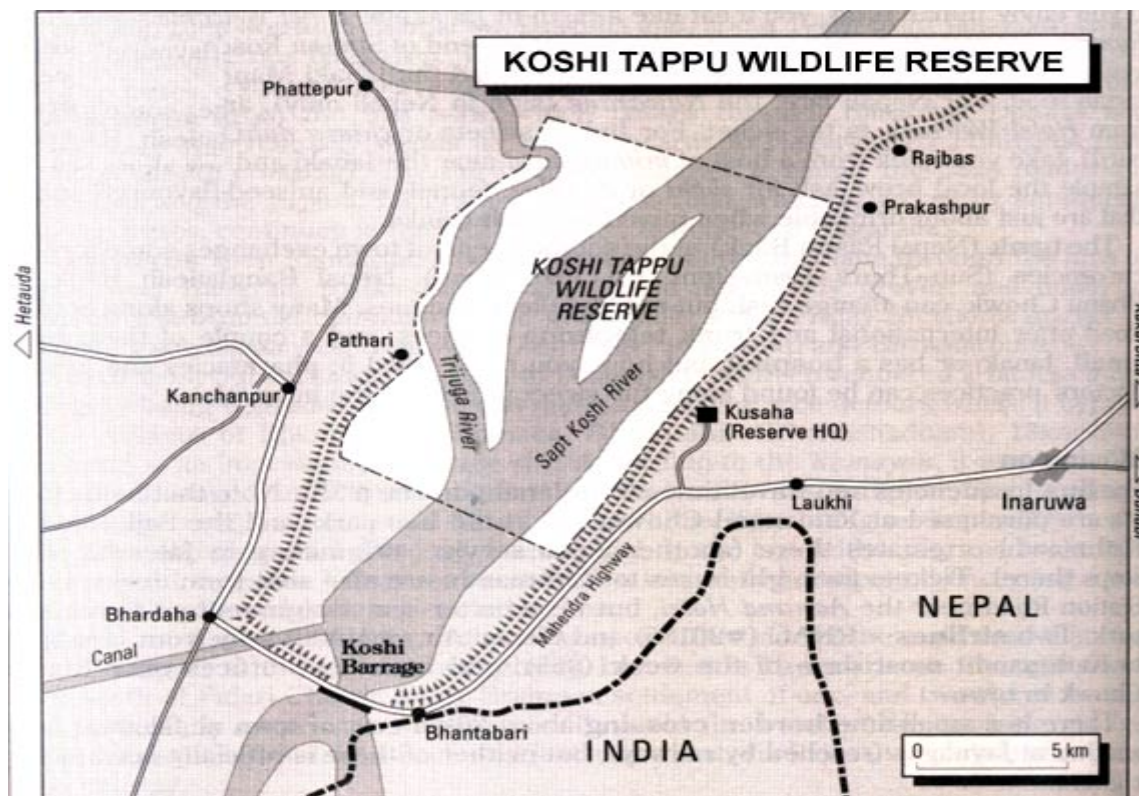


Figure 1. Map of Koshi Tappu Wildlife Reserve.

2. Project Partnerships

Bird Conservation Nepal is the primary host country partner. There are long-term links between the project leader and BCN, originating in a previous Darwin project in Nepal in the mid-1990s (project ref 3162). This has greatly assisted the development of the partnership within this project. WWT support costs of the BCN office in Kathmandu associated with this project (via the Darwin Initiative award), including the salary of one full-time project officer. This project has helped BCN to be recognised as a major stakeholder in wetland conservation in Nepal. Gaining knowledge from this project, BCN have developed a similar project for Jagdishpur Reservoir (a newly designated Ramsar site), and, with recommendation from the Nepalese government, succeeded in applying for a Ramsar Small Grant for 2007.

Koshi Camp has hosted the project team whilst carrying out project activities at KTWR. Although not directly involved in project activities to date, the Camp staff will play a crucial role in assessing the potential for eco-tourism as an alternative livelihood for people living in the buffer zone

Tribhuvan University Institute of Agriculture and Animal Science is providing assistance on the aquaculture elements of the project. The partnership developed as a result of linkages between IAAS and Stirling University Institute of Aquaculture (a UK partner). The project supported the involvement of 1 TU faculty and 2 students in the PRAs. As a result of this involvement the TU project contact is developing a Masters studentship that the project may support. Stirling University and TU have (March 2007) also applied for a Darwin fellowship associated with this project to support the development of a faculty member at TU. The application is supported by WWT as project leader.

The partnership with **IUCN-Nepal** developed primarily as a result of the expected implementation of a UNDP-GEF funded project managed by IUCN-Nepal, that was intending to use KTWR as a demonstration site. Due to delays in implementing this project, it was agreed between WWT and IUCN-Nepal that it was not appropriate to have a formal partnership

regarding the Darwin project, as IUCN-Nepal were not carrying out any activities at KTWR. This had implications for the delivery of the project activities, as discussed further below.

PCP-II was a UNDP-funded programme of work under the auspices of the Nepal government's Department of National Parks and Wildlife Conservation. Unfortunately it ceased activities at the end of December 2006 due to the cessation of funding, but before this the National Programme Manager (Top Bahadur Khatri) had provided much useful comment on the project, and PCP staff based at Koshi Tappu were involved in the carrying out of Participatory Rural Appraisals in December 2006. Top Khatri continues to be a useful contact and there is potential for he and other previous PCP staff to continue their involvement in the project.

Anton Immink from the **Institute of Aquaculture**, Stirling University has provided input into the development of the fisheries elements of the project, drawing on their experience of developing sustainable aquaculture in the developing world.

Sean Murphy from **CABI Bioscience** has provided input into the invasive species elements of the project, drawing on their experience in Nepal and elsewhere of measures to control the main problem non-native plants at the site (primarily *Mikania micrantha* and Water hyacinth).

Due to the cancellation of the planned March 2007 visit (see Section 6 below) we have not yet been able to carry out fieldwork involving the UK partners, but we have communicated regularly. Furthermore, Anton and Sean attended a workshop at Slimbridge in February 2007 to discuss the project to date and plan the work programme over the next 6–9 months, particularly focussing on guiding work to be conducted in the absence of the UK team.

3. Project progress

3.1 Progress in carrying out project activities

A **project planning workshop** and other project implementation meetings were held with BCN staff and other project partners in Kathmandu and Koshi Tappu in October 2006. During this visit the project leader, newly-employed project officer and project co-ordinator met with key institutions in Kathmandu and at Koshi Tappu. The work programme for the first 3 months of the project was agreed.

Due to delays in the implementation of the UNDP-GEF funded IUCN-Nepal project, the **participatory wetland socio-economic valuation** had to be redesigned to work within the constraints of the budget – the IUCN-Nepal project had originally been intended to provide some matched funding to support this element. As a result, instead of a single centralised workshop, six participatory rural appraisal workshops were held in different locations within the KTWR buffer zone, and 60 household surveys carried out. These were followed up by two workshops which the project leader attended in January 2007, that developed a community action plan to overcome the main barriers to local communities obtaining sustainable livelihoods from buffer zone wetlands.

A series of surveys had been planned for March 2007, to provide further information to support the development of the community action plans. Due to the cancellation of this visit (see section 6), limited progress was possible on **participatory biodiversity surveys, establishment of field sites, wetland tenure surveys, learning needs assessment, invasive species, fisheries management, fish-wildlife conflict, water quality and quantity surveys**. However, a workshop was held in the UK in February 2007, for the UK partners, to develop a work programme which could be delivered by the BCN project officer and his team, that has resulted in some progress being made on most of these activities: field sites have been established, an inventory of buffer zone wetlands was carried out and tenure ascertained, and water quality samples have been collected from the field sites and sent for analysis.

The resulting underspend due to the cancellation of the March visit was lessened by bringing forward one of the outputs identified for 2nd year of the project, the **development of a demonstration facility**. The existing infrastructure has been improved by constructing a

concrete floor and carrying out works to repair damage caused over the last 2 years by monsoon flooding.

3.2 Progress towards Project Outputs

Progress has been made towards all 4 major project outputs. The information gathered during the PRAs and subsequent field surveys will inform training and capacity building, as well as the development of sustainable wetland management guidelines and the development of a fisheries management plan. Similarly, information currently being gathered will help inform the most appropriate way of developing an on-site training and education facility. The output measures in the original submission are still valid, but additional measures are being developed in direct consultation with local communities. Community Action Plans will include indicators of success that can be assessed as the Plan is implemented. These will be reported on in future reports.

3.3 Standard Output Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	TOTAL
5	project officer to receive on-the-job training	1 Nepali staff	1
8	Project planning visit	1 UK staff week	1
15A	Press release in Nepal	1 in Kantipur National Daily	1
15B	Local press release in Nepal	None	0
15C	Press release in UK; article in Waterlife	1 UK press release; 1 article in WWT member's magazine	2
19A	National radio item in Nepal	2- episodes aired on BCN regular programme	2
19C	Local radio item in Nepal	Project activities (including other projects in Koshi) aired by local FM as their own news. BCN's radio programme covers Darwin project area.	1
8	Participatory wetland valuation, establish field sites	1 staff week	1
18A	National TV item	It has not been possible to organise an event of sufficient size to attract TV coverage	0
22	Permanent field plots established	18 study sites being established currently that will be used for long-term monitoring	1
6A, 6B	2 local officers and 10 local people trained in participatory biodiversity surveys	Postponed due to trip cancellation	0
8	Surveys	Postponed due to trip cancellation	0
New -			

Project specific measures			
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Table 2 Publications

Type *	Detail	Publishers	Available from	Cost £
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	(if applicable)
None				

3.4 Progress towards the project purpose and outcomes

Progress has been made towards the project purpose against all three measurable indicators: 1) the community action plan has identified measures that can be undertaken to increase wetland-related income for buffer zone communities; 2) the commencement of fieldwork to gather information on biodiversity of buffer zone wetlands will inform management recommendations that will enhance habitats for wetland biodiversity; and 3) the PRAs and other project activities have improved understanding of current encroachment and illegal use of KTWR and will inform actions to be undertaken to reduce it.

3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

As this phase of the project has largely involved information gathering and establishing links with local communities, no direct impact on biodiversity, sustainable use or equitable sharing of benefits can yet be demonstrated. However, as described above, the information gathered so far will inform actions to be taken that will have direct impacts on all these factors.

4. Monitoring, evaluation and lessons

As part of the Community Action Plan development following the PRAs (see Section 3.1), indicators have been identified to assess the success of actions outlined in the plan. An Action Plan Committee was also formed, consisting of community members, that will also act as a monitoring and evaluation committee. The PRAs, particularly the household surveys, have provided baseline information against which progress can be evaluated as the project progresses. It is intended that the household surveys will be repeated in year 3 of the project to enable project outcome to be assessed.

5. Actions taken in response to previous reviews (if applicable)

N/A

6. Other comments on progress not covered elsewhere

Various eventualities have had an impact on the project during this first 6 months.

Firstly, a fatal helicopter crash in eastern Nepal in September 2006 robbed Nepal of several senior figures in conservation. These included the Director General of the Department of National Parks and Wildlife Conservation, and his predecessor, both of whom had been involved in the development of the project and would have provided advice on the implementation of the project particularly as it affected DNPWC staff based at Koshi. This input has now unfortunately been lost, at least until the DG's replacement has been able to fully acquaint himself with the project.

The second eventuality was a delay in implementation of the IUCN-Nepal led UNDP-GEF funded project "Conservation and Sustainable Use of Wetlands in Nepal", which is to use Koshi Tappu as a demonstration site. This had implications for the execution of the wetland socio-economic valuation and the establishment of the project partnership. As and when this project begins, links will be established again with relevant staff at IUCN-Nepal.

Lastly, and most importantly, the political situation in Nepal deteriorated shortly after the implementation meetings held in January by the Project Leader, and there was subsequently significant agitation by local people in the Terai, demanding greater representation in the upcoming Constituent Assembly, for which elections are timetabled for June. Frequent and sustained transport strikes including areas around the site severely disrupted travel around the site by the project officer, and resulted in the March visit of UK staff, during which fieldwork was to commence, being cancelled. The situation has eased somewhat in recent weeks, and it is envisaged that near-normalcy will resume once elections have been held.

7. Sustainability

The profile of the project within Nepal has been enhanced by involvement of key DNPWC personnel, but this has been hampered due to upheaval in the key government department following the fatal helicopter crash discussed above (see section 6). Sustainability has been taken into account throughout the planning and implementation of the project, and the enthusiasm with which local people have participated in the project suggests that outputs should be sustainable, provided the benefits to local people are realised and maintained.

8. Dissemination

Project dissemination has been carried out as follows: Bird Conservation Nepal manages a radio programme with a national FM station Image FM. This station has coverage in 44 districts of Nepal including the project site. This programme is aired twice a month on Thursday from 8.30 to 8.45 am. Through this radio programme, we have been able to conduct two episodes with a focus on the Koshi project.

A news item has appeared in the WWT member's magazine and a feature article is planned for autumn 2007. A news item has been submitted to BCN's quarterly English newsletter for 2006 December issue. A news article covering major project activities by Bhagawan Raj Dahal, Project Officer has appeared in Munal in Nepali language. A total of 1500 copies are printed and this newsletter has a large circulation in east Nepal. Two hoarding boards with a sign to stop bird hunting and to promote wetland conservation have been renovated in Koshi barrage area. One article on the conservation of Koshi wetlands through Darwin funded project was contributed to BirdLife Asia's quarterly newsletter by Dr Hem Sagar Baral. Project leader Seb Buckton has submitted one article on the project for a special issue of Danphe (BCN's quarterly English newsletter). Bhagwan Raj Dahal disseminated information on the project in a workshop to celebrate World Wetlands Day (2nd February 2007) in Kathmandu. In a meeting of National Coordinators for Wetlands International's International Waterfowl Census, held in the Philippines, the aims and activities of the Darwin funded project were disseminated to other participants. The meeting was attended by participants from more than 15 Asian countries. The main objectives of the Darwin project was shared among the stakeholders in a workshop on Integrated Water Resources Management at Koshi River Basin organised by Water and Energy Commission Secretariat (WECS), a Government Apex body for water resources and WWF Nepal.

9. .

10. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

[I agree for ECTF and the Darwin Secretariat to publish the content of this section](#)

Over 150 local residents participated in six Participatory Rural Appraisals carried out in the Koshi Tappu Wildlife Reserve buffer zone in 2006. In addition, 60 household surveys were carried out. These enabled a better understanding of the reality of the values of wetland resources for local people and the problems associated with their use. Subsequently, there was active initiation and participation by local people in the development of a community action plan for the sustainable management of local wetland resources. At the same time, an action plan committee was formed by local people to monitor and evaluate the activities of the action plan. An inventory and categorization of buffer zone ponds has been carried out. Water samples have been collected from 30 different pond sites and analysed for chemical and biological parameters, and field sites established for long term monitoring of the water quality and quantity. These data will provide the basis for identifying the root causes of success and failure in existing fisheries management in the buffer zone, and enable recommendations for future, sustainable, management to be made.

Local people at Koshi for the first time now have an action plan for sustainable and wise use of wetlands in their area. Similarly, wider coverage of project activities in the local and national media has raised the awareness of sustainable and wise use of wetland resources. This has built a strong sense of community ownership of the local resources. A good network among key stakeholders and local communities has been the foundation for an effective project.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2006/07

Project summary	Measurable Indicators	Progress and Achievements April 2006 - March 2007	Actions required/planned for next period
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</p> <p>The conservation of biological diversity,</p> <p>The sustainable use of its components, and</p> <p>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</p>		<p>Consultation with c. 150 people from local communities to determine steps required to achieve sustainable use of biodiversity</p>	<p>(do not fill not applicable)</p>
<p>Purpose To assist local communities around Koshi Tappu Wildlife Reserve (KTWR) in managing buffer zone wetlands for sustainable livelihoods, whilst enhancing wetland biodiversity</p>	<p>Increased wetland-related income and employment opportunities in the buffer zone</p> <p>Enhanced biodiversity of buffer zone wetlands</p> <p>Reduced encroachment and illegal use of KTWR</p>	<p>Development of community action plan including activities to improve wetland-related income for local communities</p> <p>Commencement of fieldwork to gather biodiversity information on buffer zone wetlands</p> <p>Improved understanding of current uses of KTWR through PRAs and discussion with KTWR staff.</p>	<p>Finalise and implement Community Action Plan</p> <p>Complete fieldwork and collate information</p> <p>Increase awareness of value of KTWR through participatory biodiversity assessment and surveys.</p>
<p>Output 1. Output 1. Personnel trained and capacity built</p>	<p>A minimum of 25 people (5 from 2 partner institutions, 20 from local communities) trained by end Yr2 in participatory biodiversity surveys, sustainable wetland management, and community learning and education</p>	<p>Training of Project Officer in PRA techniques, participatory biodiversity surveys, and sustainable wetland management.</p>	
<p>Activity 1.1 Workshops</p>		<p>Wetland valuation completed using PRA methods, forming of community action plan and monitoring and evaluation committee. Began preparing material for participatory biodiversity survey and sustainable wetland management workshops.</p>	

Activity 1.2 Field surveys		Field sites established. Inventory of buffer zone ponds completed and tenure established. Water quality and quantity survey completed.
Output 2. Sustainable wetland management promoted using wetland management guidelines	Through local NGOs and VDCs 2000 families informed	Gathering of information required to develop wetland management guidelines commenced.
Activity 2.1. Workshops		Wetland valuation completed using PRA methods, forming of community action plans and monitoring and evaluation committee. Preparation of material for participatory biodiversity survey workshop.
Activity 2.2 Field surveys		Planning and commencement of field surveys to collect environmental data from field sites to inform guidelines.
Activity 2.3 Wetland management guidelines development		Collation of data from field surveys has begun.
Output 3. Sustainable fisheries management plan developed and promoted	Management plan peer reviewed, published, disseminated and interpreted for local use; 1000 copies produced and distributed by Yr 3; fish hatchery opened Yr 3.	Gathering of information required to develop fisheries management guidelines commenced.
Activity 3.1 Fisheries management plan development		Completion of PRAs providing information on current state of fishery. Planning and commencement of field surveys to collect data to inform management plan.
Output 4. Darwin Centre for Wetland Management for Sustainable Livelihoods established	On-site training and education facility providing information and advice on wetland management designed with local people and UK partner advice, opened yr 3.	Gathering of information required to assess the most appropriate facility has begun.
Activity 4.1. Community learning assessment and plan development		A questionnaire survey on learning need assessment of local communities has been initiated. An eco-tourism questionnaire for tourists in various Koshi resorts has been initiated
Activity 4.2 Development of demonstration facility		The physical structure of the education building at Koshi Camp has been improved.

Annex 2 Project's full current logframe

Annex 3 onwards – supplementary material (optional)

See Attached PRA report

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ectf-ed.org.uk putting the project number in the Subject line.	✓
Is your report more than 5MB? If so, please advise Darwin-Projects@ectf-ed.org.uk that the report will be send by post on CD, putting the project number in the Subject line.	x
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	x
Have you completed the Project Expenditure table?	✓
Do not include claim forms or communications for Defra with this report.	x