# **Darwin Fellowship - Final Report**

Darwin Project Ref No.	Fellowship EIDPS014
Darwin Project Title	MSc in Sustainable Development in support of project work at Koshi Tappu Wetland Reserve, Nepal
Name of Darwin Fellow	Chudamani Pandey
UK Organisation	University of Stirling
Your Organisation	Institute of Agriculture and Animal Science (IAAS), Tribhuvan University, Nepal
Your role in your Organisation	Lecturer
Start/end date of Fellowship	01/09/2007 — 31/10/2008
Location	Stirling
Darwin Fellowship funding (£)	26,780
Type of work (e.g. research, training, other, please specify)	MSc training in UK and project work in Nepal
Main contact in UK Organisation	Anton Immink
Author(s), date	30/11/2008

## 1. Background

My first contact with Darwin project was helping in a training visit for community members from Koshi Tappu to a women-led aquaculture project in central Nepal (Chitwan). I have kept in contact with Koshi Tappu staff to help them in aquaculture development.

I came to Stirling to develop a better understanding of community aquaculture development within the wider context of sustainable development. This study will allow me to improve my teaching back in my university position in Nepal. My MSc was in Sustainable Development taken over one year. Core modules in environmental science and international development were followed with advanced modules in international development, biodiversity, conservation and communication. My transcript is shown below. My project was back in Koshi Tappu working with fisher communities.

Session	Semester	Module Code	Module Name	Grade	Credit Awarded	SCQF Level	SCQF Credit
2007/8	Autumn	ENMP21	Environmental Systems and Assessment				
2007/8	Autumn	SDSP01	Principles and Challenges of Sustainable Development				
2007/8	Autumn	ENMP05	Environmental Economics				
2007/8	Autumn	ENMP03	Information Technology				
2007/8	Spring	SDSP02	Communities and Processes: Measures and Methodologies				
2007/8	Spring	SDSP03	International Development: Sustainability and Livelihoods				

2007/8	Spring	ENMP07	Biodiversity
2007/8	Spring	ENMP12	Advanced Sustainable Development
2008/9	Autumn	AQUPF2	Aquatic Animals in the Environment
2008/9	Autumn	AQUPF1	Aquatic Animal Biology and Health

I failed one unit on a minor technicality, but was given the opportunity to sit two smaller modules in the second autumn semester, which I completed successfully.

I attended guest lectures given in academic departments and university wide. These included the political constraints to the Russia-European relationship as well as lectures on aquaculture opportunities in New Zealand.

I took English language courses offered by the University of Stirling.

I have observed the teaching techniques of my lecturers, but had no specific tuition in this area.

Both UK and Nepal institutions are universities contributing to the main Darwin project at Koshi Tappu.

#### 2. Achievements

I studied for MSc in Sustainable Development and conducted project work in Koshi Tappu. The project work looked at the issues around encouraging fisher communities to start aquaculture in the buffer zone around Koshi Tappu in order to reduce fishing pressure within the reserve. One element of the main project is looking at how aquaculture can be used as a tool to reduce pressure within a reserve. I have been assessing the success of aquaculture as a livelihood diversification for fishers who otherwise fish in the reserve.

Because of continuing strikes in Nepal eastern terai my work was a little hampered, but eventually completed. However, delays mean that I am still writing my final thesis which should be finished in February.

I was lucky enough to visit the Wildfowl and Wetlands Trust headquarters in Slimbridge. There were no formal outcomes of my visit, but I was able to see the projects they are managing around the world that include practical conservation, policy advice and public information. I was able to work with keepers to maintain some exhibits. The use of volunteers to help maintain the centre is interesting as a comparison for community involvement in wetland conservation in Nepal, but with obvious differences in wealth.

## 3. Outcomes, lessons and Impact

I am a lecturer in my home university and will be using my knowledge of sustainable development to improve the lecture I give to students. The main thing is the consideration of aquaculture as part of the wider production system. In Nepal we are always working with nature and people and we need to get the balance right. Aquaculture is an option around reserve areas. I have also learnt more about teaching techniques and thesis writing and this will help me to improve my teaching generally. At present I have not improved my lectures, but I know that I will have to do this on my return to Nepal because we also have another project with Stirling that is improving our courses at IAAS.

I will return to my university upon final completion of my thesis work. I will remain involved in the future planning of fishery management in Koshi Tappu in relation to biodiversity conservation and livelihood improvements.

I grew up around Chitwan National Park in Nepal and have been aware of conservation for much of my life, but my time in Stirling has allowed me to formalise much of the knowledge and provided me with a framework to take back with me to Nepal for my teaching.

My main contacts have been in University of Stirling, but I have also linked with Wildfowl and Wetlands Trust, who lead the main project in Koshi Tappu. I will keep informal links with them. I will probably keep more regular links with Bird Life Nepal following my field work time in Koshi Tappu.

I have enjoyed my time as a Darwin Fellow and thank you kindly for this opportunity. I know that another Nepali student was here during my visit and I would have liked to see him more, but timing never worked out. Overall the time has been very useful for my future and for future of Nepal.

### Chudamani Pandey

Additional comments from Anton Immink in relation to the connection of the fellowship to the wider project:

Understanding the early drivers or concerns of the fishers in relation to aquaculture will enable the project to identify if aquaculture is an appropriate technology. Evaluation of the social status of households who are considered to be homogenous clusters is already indicating that there are differences even within apparently similar communities, although the group approach is currently limiting expression of these differences. Aquaculture remains a livelihood option of notable interest for the fisher communities around Koshi and the main Darwin project will identify why this has not been successful in the past and is developing an approach for future success.

I visited Koshi again during Chudamani's thesis work to supervise his research with regard to both the completion of his MSc and the success of the wider Darwin project. During that visit I worked closely with the BCN team to look at other issues in relation to fisheries development and control within and around the reserve – as per my remit within the main project. We assessed potential for small-scale hatchery development and visited existing facilities.

As mentioned by the fellow, IAAS has an on-going linkage with Stirling for curriculum development/improvement. At present the fellow has not revised lecture material, however, his experience has strengthened the linkage between the two institutions and will contribute further to improving lecture materials in the future. He has also expressed strengthened connections incountry with Bird Conservation Nepal, which may serve to support the inclusion of effective wider conservation issues in future teaching of students at IAAS and hopefully future projects (although nothing formal has developed to date, this linkage is also evident in the main Koshi Tappu project between Chudamani's boss and BCN).