

# Mahesh Poudyal

*Postdoctoral Research Fellow, Forest in Rural Studies*

Department of Forest Resource Management

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## OTHER AFFILIATIONS

*Research Associate*

Centre for Ecology Law & Policy (CELP)

Environment Department, University of York

York YO10 5DD, United Kingdom

<http://celp.org.uk/>

*Research Fellow*

ForestAction-Nepal

Satdobato, Lalitpur District

Nepal

<http://forestaction.org/>

## KEY INTERESTS

Natural resource economics; community-based natural resource management; institutions in natural resource management; equity, distribution and gendered nature of natural resource management and use; climate change impacts at the community and household level; protected areas management and park-people conflicts; poverty, livelihoods and resource degradation.

## KEY QUALIFICATION

Over 8 years of policy-oriented research experience in developing countries in South Asia and sub-Saharan Africa in socio-economic and institutional aspects of biodiversity conservation, natural resource management and utilisation, customary land and tree tenure systems, and gender, poverty and rural livelihoods.

## EDUCATION

2010 **PhD in Environment and Politics**, University of York, UK

2005 **Master of Resource Management (CGPA 3.885)**, Simon Fraser University, Canada

2002 **B.Sc. in Environment, Economics and Ecology (First Class Honours)**, University of York, UK

## RESEARCH EXPERIENCE

**Sep 2011 – present** **Postdoctoral Research Fellow, Department of Forest Resource Management, SLU**

Within the expertise area of *Forest in Rural Studies*, I am involved in research and studies of the forest commons in Sweden, and in co-/community/joint forest management regimes elsewhere in the world, particularly in the South.

**Apr 2011 – Aug 2011** **Researcher, ForestAction, Nepal**

Working with the Department of Forest Resource Management at the Swedish University of Agricultural Sciences (SLU) in Umeå, Sweden, my responsibilities include:

- analysing survey data on Swedish Forest Commons and preparing a journal paper based on this work
- development of research proposals in collaboration with ForestAction

**May 2010 – Mar 2011** **Research Associate, Environment Department, University of York**

*Study of Shea (Vitellaria paradoxa) in Sudano-Sahelian zone (INNOVKAR - EC 6th Framework Project)*

As the Leader of Work Package 1 “Shea tree dynamics and fruit production in the parklands”, my role was to coordinate the field-data collection on shea trees in collaboration with INNOVKAR partners in Africa (Burkina Faso, Ghana, Mali, Senegal, Uganda), and to take a lead in using the field data to: (i) assess the impact of climate change and farmer practices on the natural regeneration of shea trees; (ii) assess the impact of climate change and farmer practices on fruit production; and (iii) predict shea tree parkland dynamics in the long term using a predictive model of Shea regeneration and production under different management scenarios.

As the Deputy Leader of Work Package 2 “Adaptation and resilience of shea tree facing climate change and drought using ecophysiological and modelling approaches”, my primary role was to coordinate the shea distribution modelling efforts in the department; assist in sourcing, compiling and ground-toothed shea distribution data; and communicating and presenting the findings with other project partners.

**May 2007 – Feb 2010 Post-graduate Researcher (part-time), Environment Department, University of York***Study of Shea (Vitellaria paradoxa) in Sudano-Sahelian zone (INNOVKAR - EC 6th Framework Project)*

Leader of the Work Package 1 “Shea tree dynamics and fruit production in the parklands”. Responsibilities included:

- Preparing protocol for gathering field data on ecological, biophysical, and socio-economic aspects of shea
- Coordinating data collection, database management, and analysis in countries involved in the project (i.e., Burkina Faso, Ghana, Mali, Senegal and Uganda)
- Producing scientific, technical and project management reports

Deputy leader of the Work Package 2 “Adaptation and resilience of shea tree facing climate change and drought using ecophysiological and modelling approaches”. Responsibilities included:

- Sourcing and compiling shea distribution data for modelling
- Communicating and presenting the findings from the modelling of shea distribution under climate change with other project partners
- Working with colleagues in the department involved in modelling to improve the shea distribution modelling based on the feedback from other project partners and experts

**Oct 2003 – Dec 2004 Research Assistant, Simon Fraser University***Study of Rhino Poaching in Chitwan and Nawalparasi Districts, Nepal*

- Involved in conceptualisation of the research, and proposal preparation for a successful grant application
- Played a leading role in designing household survey questionnaire, and discrete choice experiment
- Coordinated the administration of questionnaire survey, including discrete choice cards to 444 households in 6 villages in the buffer-zone areas of Chitwan National Park
- Played a leading role in data analysis and report write-up; co-authored two peer-reviewed journal articles
- Presented the research results at various workshops, seminars and conferences

**2001 – 2002 Principal Investigator***Study of Impacts of Leasehold Forestry, Kavre District, Nepal*

Involved in conceptualisation of the research, preparation and administration of household survey, and data entry, analysis and report write-up.

**TEACHING EXPERIENCE**

- 2007/2008 Teaching Assistant, Environment Department, University of York, UK - Occasional teaching duties in *Environment, Law and Policy*, and *Forest Management*
- Fall 2004 Teaching Assistant (*Global Change*), Simon Fraser University, Burnaby, BC, Canada

**PUBLICATIONS AND PAPERS****Book Chapter**

**Poudyal, M.** and J.C. Lovett (2010) “Biodiesel as the potential alternative vehicle fuel: European policy and global environmental concern”, in J.C. Lovett and D.G. Ockwell (eds) *A Handbook of Environmental Management*, pp. 408-430. Cheltenham, UK: Edward Elgar.

**Refereed Journal Papers**

**Poudyal, M.** (2011) “Chiefs and trees: tenures and incentives in the management and use of two multipurpose tree species in agroforestry parklands in Northern Ghana”, *Society and Natural Resources* 24(10): 1063-1077.

**Poudyal, M.**, K. Rothley, and D. Knowler (2009) “Ecological and economic analysis of poaching of the greater one horned rhinoceros (*Rhinoceros unicornis*) in Nepal”, *Ecological Applications* 19(7): 1693-1707.

Lovett, J.C., and **M. Poudyal** (2006) “Terraforming Africa”, *African Journal of Ecology* 44: 302- 304.

Rothley, K.D., D.J. Knowler, and **M. Poudyal** (2004) “Population model for the greater one- horned rhinoceros (*Rhinoceros unicornis*) in Royal Chitwan National Park, Nepal”, *Pachyderm* 37: 19-27.

## Working Papers

**Poudyal, M.**, and D. Knowler (2005) “Economic Incentives and Poaching of the One-Horned Indian Rhinoceros in Nepal: Poaching of the One-Horned Indian Rhinoceros in the Chitwan Valley, Nepal - A Retrospective Econometric Analysis”, PREM Working Paper No. 05 07. Poverty Reduction and Environmental Management (PREM) Program, Institute of Environmental Studies, Vrije Universiteit, Amsterdam, the Netherlands.

Knowler, D., and **M. Poudyal** (2005) “Economic Incentives and Poaching of the One-Horned Indian Rhinoceros in Nepal: Simulation Modelling of Policies to Combat the Poaching of Rhino in Royal Chitwan National Park, Nepal”, PREM Working Paper No. 05 11. Poverty Reduction and Environmental Management (PREM) Program, Institute of Environmental Studies, Vrije Universiteit, Amsterdam, the Netherlands.

Adhikari, B.P., W. Haider, O. Gurung, **M. Poudyal**, B. Beardmore, D. Knowler, and P. van Beukering (2005) “Economic Incentives and Poaching of the One-Horned Indian Rhinoceros in Nepal: Stakeholder Perspectives in Biodiversity Conservation - Analysis of Local, National and Global Stakes in Rhino Conservation in Royal Chitwan National Park, Nepal”, PREM Working Paper 05 12. Poverty Reduction and Environmental Management (PREM) Program, Institute of Environmental Studies, Vrije Universiteit, Amsterdam, the Netherlands.

## CONFERENCE PAPERS / ABSTRACTS

**Poudyal, M.** (2010) “Utilisation, management and ecology of indigenous economic trees in agroforestry parklands: the role of tree tenure”. Paper presented at the *International Society for Ecological Economics, 11th Biennial Conference ISEE 2010 – Advancing Sustainability in a Time of Crisis*, 22-25 August 2010, Oldenburg and Bremen, Germany.

**Poudyal, M.**, and D. Knowler (2006) “The Economics of Rhinoceros Poaching in Nepal: An Empirical Analysis and Theoretical Extension”. Paper presented at the *International Conference on Economics of Poverty, Environment and Natural Resource Use*, 17 – 19 May 2006, Wageningen, The Netherlands.

Adhikari, B., and **M. Poudyal** (2004) “Economic Incentives and Poaching of the One-Horned Indian Rhinoceros in Nepal”. *International Society for Ecological Economics, 8th Biennial Scientific Conference, ISEE 2004*, 11 – 14 July 2004, Montréal, Canada.

## SKILLS AND EXPERIENCE

### Computing

*Operating Systems:* Microsoft Windows (All Versions), Apple Mac OS X, Ubuntu Linux

*Document processing:* Microsoft Office, OpenOffice, Apple iWork

*Maths, Stats and Econometrics:* SPSS, R, STATA, LIMDEP, EViews

*Simulation modelling:* STELLA, Vensim (basic working knowledge)

*Graphics and Web Design and Databases:* Gimp (Image manipulation), HTML & CSS (web design), PHP & MySQL (basic working knowledge), Website management

### Language

**Nepali** - native language

**English** - speak fluently and read/write with high proficiency

**Hindi** - speak, read, and write with basic competence

**French** - Beginner (Completed basic Level 1 course)

### Field Research

Extensive field research skills (and experience) across disciplines and using multiple methods, including permanent plot sampling, PRA, RRA, questionnaire surveys, field observations and recording (text, audio and visual).

I have been involved in the creation of study protocols, and in establishment and regular assessment of permanent sample plots in agroforestry parklands in sub-Saharan Africa (covering countries such as Senegal, Mali, Burkina Faso, Ghana and Uganda).

I have successfully administered, and coordinated the administration of household surveys and other field data collection procedures for a large sample of respondents over multiple sites and communities, in South Asia (Nepal) and in West Africa (Ghana).

## **AWARDS**

- 2005-2008 Overseas Student Research Award (ORSAS Award), for the PhD degree at the University of York, UK
- 2005-2008 Research Studentship, Environment Department, University of York, for the PhD degree at the University of York, UK
- 2002/2003 Graduate Fellowships, for Master of Resources Management at Simon Fraser University, Canada
- 1999-2002 Overseas Students' Trust Fund (OSTF) Scholarship, for BSc in Environment, Economics, and Ecology at the University of York, UK

## **MEMBERSHIPS**

- International Society for Ecological Economics (ISEE)
- European Society for Ecological Economics (ESEE)
- South Asian Network for Development and Environmental Economics (SANDEE)