

# Negotiating socio-economic opportunities from upper watershed environmental services - the case of the Bhoj wetlands, Madhya Pradesh, India

## 1. Problem statement

The Bhoj wetlands date to the 11<sup>th</sup> century rule of King Bhoj of Dhar when an earthen dam was built across the Kolans river. This RAMSAR wetlands site is located in a 361 km<sup>2</sup> catchment providing important ecological habitat, drinking water supply, irrigation, fishing, cultural and religious services to the 1.8 million residents of the neighbouring city of Bhopal. The wetlands face increasing threats from deteriorating water quality and falling storage capacity due to siltation from upland erosion. While downstream pollution mitigation measures have been implemented, water quality impacts linked to upland farming practices



remain a threat to the wetlands. Increasing use of chemical inputs by small-scale farmers in upland villages to meet urban food needs has resulted in negative impacts on the wetland ecology, fish catch and drinking water supplies. Switching to organic farm inputs with improved land management will reduce downstream pollution impacts but there is uncertainty if such measures would be adopted and sustained by poor upland farmers with few livelihood alternatives.

## 2. Research objective

Analyse upland farmer decision-making processes to provide an improved basis for negotiating compensation mechanisms between upland farmers and downstream water users.

## 3. Project outputs

- Analysis of historical and current drivers of upland farmers' land use decision-making processes;
- Institutional stakeholder map illustrating water service linkages and pathways;
- Choice Experiment to evaluate upland farmer responses to land use change scenarios;
- A technical report will illustrate which specific factors influence different farmer groups' land use decisions across a range of scenarios. This will contribute to a participatory process in identifying acceptable and realistic compensation mechanisms between upland farmers and downstream water users in a Negotiation Support System;
- A policy brief will detail key lessons and policy implications by January 2006.



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### For further information contact:

Chetan Agarwal, Winrock International India (chetan@winrockindia.org);

Rob Hope, University of Newcastle, UK (robert.hope@ncl.ac.uk).