

Project Partners

The project is a component in a larger IDRC Program Initiative. It is coordinated by the International Centre for Integrated Mountain Development (ICIMOD), and funded by the International Development Research Centre (IDRC), Canada. Most of the field activities will be carried out by national organisations: the Tibetan Academy of Agricultural and Animal Husbandry Sciences (TAAAS); the Tibetan Medicine College (TMC), Tibet University; the Kunming Institute of Botany; the Chinese Academy of Sciences (KIB); Kunming Medical College (KMC); Local Initiatives for Biodiversity, Research and Development (LI-BIRD), and the Institute of Medicine, Tribhuvan University, Nepal. The International Plant Genetic Resource Institute (IPGRI) and the World Health Organization (WHO) will provide additional external support.

Expected long-term outcomes

- Mitigation of the potential negative impacts on human health from changes in land-use in the context of new challenges arising from globalisation and the shift to a market economy
- Improved human health in mountain areas through an ecosystem approach



Contact

Prof. Xu Jianchu, email: jxu@icimod.org

Dr. Rita Sharma, email: rsharma@icimod.org

Water, Hazards and Environmental Management (WHEM)

International Center for Integrated Mountain Development (ICIMOD)

P.O. Box 3226, Kathmandu, Nepal

Tel: + 977 1 5525313

Photos : Jianchu Xu

Prepared by ICIMOD Publications Unit, May 2006

Printed in Nepal



Land-use Transition and Human Health in the Eastern Himalayan Region: An EcoHealth Approach

(Preparatory Phase)



Vision

to reduce the vulnerability of communities to human health issues caused by land-use transition and changing ecosystem services in the Himalayan region.

Ecosystems and human health

Human health is intimately connected to the state of the ecosystem in which people live through a network of interacting environmental, economic, social, and other factors. Changes in the environment can have a marked impact on human health, both positive and negative. Health interventions that ignore these factors will rarely be as successful as desired.

Human health is now facing new challenges as a result of changing land use and livelihood patterns brought about by globalisation and environmental change. The ecosystems approach to human health, or ecohealth, approach promoted by IDRC has emerged to address these issues. This approach aims to identify the web of factors that influence human health and thus enable communities to manage ecosystems better and improve both human health and the health of the ecosystem.

Mountain areas have their own set of circumstances in terms of ecosystem effects on human health. Land use and livelihood changes such as sedentarisation of nomadic pastoralists and shifting cultivators, habitat modification, agricultural intensification, migration and population dynamics, biodiversity loss and dietary changes, and flash floods and disasters – which are further driven by policy, the market economy, and climate change – can have significant impacts on human health. The ICIMOD Project has been designed specifically to look at ecosystem related factors in human health in mountain regions.



The ICIMOD Ecohealth Project

The Project aims to address the threats posed by land use transitions to the development of secure, prosperous, and socioeconomically healthy livelihoods for mountain communities in the eastern Himalayan region. The Project has been developed under the framework of the IDRC EcoHealth Initiative.

During the one-year preparatory phase:

- the major research questions will be identified using a participatory action research process in partnership with communities at three pilot sites
- the EcoHealth methodology will be refined and adapted to suit the mountain context, and
- the capacities of the trans-disciplinary teams will be built or strengthened.

The goal of the preparatory phase is to improve understanding of the links between land-use transition and human health in mountain habitats, and to develop a conceptual framework to describe them. In the subsequent implementation phase, the impact of land use changes on human health will be investigated at three different altitudes – each representing a type of mountain ecosystem – and a strategy developed for improving human health in the mountain context.

Land use changes and impacts - examples

Mixed agriculture to intensive monoculture	Less dietary diversity - poorer nutrition
Agricultural intensification	Increased use of fertilisers and pesticides, reduced soil quality and water pollution
Settlement of nomadic pastoralists and shifting cultivators	Reduced options for livelihood strategies – poorer nutrition and exposure to infectious diseases
Increased migration and population dynamics	HIV/AIDS, hepatitis and other infectious diseases
Habitat modification (for example dam building, irrigation, aquaculture)	Increased water-associated vector-borne diseases such as malaria, schistosomiasis, and Japanese encephalitis