



Bandarban, Bangladesh

Linking and Valuing Ecosystems

The vast and varied topography of the Hindu Kush Himalayas creates a wide variety of habitats and ecosystems that allow for rich biodiversity while providing resources and amenities for the livelihoods of mountain communities and urban centres downstream.

ICIMOD works with the people of the region to conserve and manage biodiversity as a natural heritage and a resource for mountain livelihoods. It aims to promote resilience to environmental changes through research and advocacy of the issues related to mountain ecosystems by promoting participatory management of transboundary landscapes, watersheds, rangeland resources, and forestry.

In 2011, ICIMOD continued work on transboundary landscapes and ecosystem services. The learning on watershed management, shifting cultivation, valuation of ecosystem goods and services, and payment for environmental services brought new contributions to the environmental knowledge base and regional policy perspectives. ICIMOD strove to enhance enabling policies and the capacities of stakeholders to manage natural resources sustainably. For example, the organization has been working with government, forest user groups, and civil society in Nepal to pilot a mechanism for distributing REDD+ payments fairly.

On-going conservation initiatives promote cultural heritage in the Kailash Sacred Landscape and biodiversity corridors in the Kangchenjunga Landscape. In addition, ICIMOD has begun work in two other landscapes – at the meeting point of three global biodiversity hotspots in the Brahmaputra-Salween Landscape and in the arid protected areas of the Karakoram. Regional meetings held in Myanmar for the Brahmaputra-Salween Landscape and in Kathmandu for the Karakoram-Pamir Landscape gave significant signs of growing interest in transboundary collaboration. To build capacity in these initiatives, ICIMOD has involved the partners in all phases from



Kailash, Tibet Autonomous Region, China

“The support from ICIMOD in the Karakoram transboundary initiative is the right step at the right time.”

– Syed Mahdi Shah, Chief Minister of Gilgit, Baltistan, Pakistan

conceptualization to research, training and exchange visits, and policy-level sharing.

ICIMOD continued work on adaptation strategies through the High Mountain Agribusiness and Livelihood Improvement (HIMALI) project. In 2011, the project conducted action research in two remote districts of Nepal on adaptive agribusiness technologies in selected value chains, especially apples and medicinal plants. It examined how land and water management can be adjusted for resilience to climate change and future challenges and developed innovative tools to measure the adaptive capacities of local institutions and assess community vulnerability to and perceptions of climate change. As a result, local communities and institutions have realized the importance of climate change adaptation and have begun to prioritize agribusiness solutions.

ICIMOD has been instrumental in using and promoting open access data on biodiversity through the Global Biodiversity Information Facility (GBIF) and the Global Mountain Biodiversity Assessment (GMBA) network. Through this work, information on HKH biodiversity has been made accessible through a conservation portal with global linkages. With ICIMOD facilitation, member countries are contributing to the Convention on Biological Diversity's Programme of Work on Mountain Biodiversity by participating in and supporting landscape initiatives that take an ecosystem approach to biodiversity conservation and management.

“Bilateral collaboration for transboundary biodiversity conservation initiatives is easily ignored due to geo-political issues or organizational difficulty. However, the governments of member countries are more supportive and positive towards such initiatives. There are many experiences and lessons that neighbour countries can learn from each other since they share similar problems and opportunities. ICIMOD helped me to find research partners from member countries and improve my capacity for international exchange and cooperation.”

– **Professor Yang Yongping**,
Institute of Tibetan Plateau Research,
Chinese Academy of Sciences (CAS), Beijing

Earlier work also showed fruits in 2011. From 2003 to 2009, ICIMOD carried out the Himalayan component of the multi-regional K:TGAL (Kyoto: Think Global Act Local) project, which explored possibilities for including community-based forest management (CBFM) of existing natural forest as an eligible carbon mitigation activity under international climate change agreements, and for using CBFM as a climate change adaptation strategy. In 2011, the project was cited in support of the Government of India's plans for large-scale afforestation and forest restoration.

“It gives me pleasure to share that the K:TGAL (Kyoto: Think Global Act Local) project – regionally coordinated by ICIMOD (2003–2009), in which CHEA was the partner for Indian Himalayas – has been cited in the Green India Mission, one of the eight missions under the National Action Plan on Climate Change (NAPCC), adopted by the Government of India in 2008. In the next 10 years it aims to afforest or eco-restore 20 million hectares. Once the Mission Draft is adopted as a Mission Policy, this work contributed by K:TGAL will lead a way for this ambitious mission across the country.”

– **Dr Pushkin Phartiyal**,
Executive Director, Central Himalayan
Environment Association (CHEA),
Uttarakhand, India

Red panda, Darjeeling, India



On-The-Ground Methods to Implement the Global REDD+ Concept



“Now, our capacity and awareness is raised and we cut grass and fuelwood in a more systematic way in particular plots of our community forest. We feel like we are helping the world, //

– Ms Chhami Kumari,
Chairperson of Chelibeti CFUG, in
Chitwan district of Nepal.

An ICIMOD action research project, carried out in partnership with the Federation of Community Forestry Users Nepal (FECOFUN) and the Asia Network for Sustainable Agriculture and Bioresources (ANSAB), is demonstrating ways to implement the REDD+ (Reducing Emissions from Deforestation and Forest Degradation) concept and build capacity at the ground level in Nepal. The project has developed the first-ever Forest Carbon Trust Fund in Nepal and piloted a mechanism for governing the distribution of carbon payments to communities for their forest conservation and enhancement efforts; under this scheme performance-based incentives totalling US\$ 95,000 were distributed to representatives from community forest user groups (CFUGs) in three watersheds in Dolakha, Gorkha, and Chitwan districts in June 2011.

The project covered over 10,000 hectares of community-managed forest and reached over 16,000 households. It is one of the world’s first pilot REDD+ projects involving local communities in monitoring the carbon in their forests and providing the necessary training for them to do so. A seed grant of US\$ 100,000 annually provided by the project donor has initiated the fund for three years.

The funds are allocated to CFUGs based not only on the quantity of forest carbon saved above the baseline, but also on socioeconomic criteria such as the relative numbers of households of indigenous peoples, Dalits, and poor people, and the population of women in the CFUG. The CFUGs use the funds for forest conservation, capacity building activities, and livelihood improvement activities for poor women and disadvantaged groups.



REDD+ project, Dolakha, Nepal

The project has attracted visiting forestry and government officials from India, Pakistan, Bhutan, and Tanzania, and researchers and scholars from Asia, Europe, North America, and Australia. By implementing REDD+ at the local level, this pilot project aims to offer its experiences and learning as inputs to the global REDD+ discourse and to the on-going process of developing national REDD strategies in developing countries. The system works in Nepal because community forestry has operated relatively successfully there for over three decades. The same approach may take longer in countries that do not have community-based forest management policies and institutions in place.

FECOFUN, as a member of the REDD Working Group under the REDD Cell of the Ministry of Forests

Handover of REDD+ payment, Chitwan, Nepal



and Soil Conservation, Nepal, feeds knowledge generated by this project to the national level discourse for policy making on REDD+ in Nepal. At the global level, the project is working with research institutions and firms specializing in the carbon market to link REDD+ activities to financing sources.

Having actually worked on the ground and offered payments, the REDD+ project is raising questions and opening discussion. For instance, what should be the criteria and basis for making REDD+ payments? Are the social criteria for sharing benefits from carbon payment feasible? With the REDD+ mechanism compensating the incremental growth of forests, how can the carbon stored in existing forests be valued? Other questions relate to replication of

the mechanism in differing situations and enabling feedback of the findings into national policy, regional initiatives, and global forums.

While the REDD+ mechanism demonstrated here can help development assistance money for conservation and poverty reduction flow into watersheds and communities, it does not have the economy of scale to compete in the carbon market for REDD+ finance. The carbon offsets from these small and varied forests may appeal only to limited market actors, as they will cost more because of the level of effort required to measure the carbon and work in a consultative manner with a large population. ICIMOD is now carrying these messages to regional and global forums while promoting community REDD+.

Voices from the communities

“The advantage of REDD is that now people realize that they can earn income from conserving the forest as well as from selling wood. They are planting more trees in bare areas of the community forest. More CFUGs are asking to participate in measuring carbon.”

– Mr Bharat Dhungana, the REDD coordinator in Chitwan, a FECOFUN district representative, and member of his local CFUGs

“The project trained two women from our CFUG in the technical skills to support the forest carbon measurements and monitoring. There is also greater awareness of the rights of women, poor, and disadvantaged people so we devoted almost all of our seed money to the activities to try to improve their livelihoods. If we can start to help the Chepang villages upstream on the high ridges to grow income-generating crops and protect the forests, it will save us from landslides and floods. In a similar way, our community forest saves the villages below us from flooding and should be of value to them.”

– Mr T. Adhikari, the Treasurer of Kankali CFUG in Chitwan

“We have been managing our forests for many years, but now with the REDD+ project we have learned new skills to improve our capacity to manage our forests. We also have activities for women and smokeless stoves (financed through seed money) so we use less fuelwood and have less smoke. From the seed money, we started income generating activities for the poor and disadvantaged people like raising pigs, goats, chickens, or vegetables.”

– Ms Laxmi Karki, a member of the district FECOFUN

“In 2009, we had five days of basic training on how to measure carbon and how to mobilize our communities to make them aware of carbon and REDD+. The carbon work is very technical and we need more training for the skills and knowledge to continue the work and learn to do the calculations. We also need the equipment to do the measurements.

“My community appreciates the REDD+ programme because it has funds for income generating activities and helps us to preserve our forests. This is a good system with levels of committees so there is transparency and so each level shares the information. With this training and capacity, I realize that I am responsible to continue this work and to offer my support as the government prepares a plan for REDD+ so that the future programme reaches the villages and helps us to improve our livelihoods, protect the forest, and reduce climate change.”

– Mr Uttam Praja, trained to work for the project as a REDD facilitator for FECOFUN



Women's group, REDD+ project,
Chitwan, Nepal

Knowledge and Policies for Rangelands

Occupying over 60 per cent of the HKH land area, rangelands are one of the most fragile and critical ecosystems in the context of the changing climate. Despite their importance and vulnerability, these vast areas have been underacknowledged in government planning and development spending. For over a decade, ICIMOD has been promoting research and development for rangelands in six countries of the HKH.

In 2011, ICIMOD made significant progress in developing knowledge and policies for rangelands. In addition to preparing base maps of the region's rangelands, with its partners ICIMOD compiled reliable baseline data on the socioeconomic conditions of 667 households in sample pastoral communities in Afghanistan, Bhutan, China, India, Nepal, and Pakistan. For the first time, livestock valuation was done in Bhutan, China, India, Nepal, and Pakistan to support government planning with particular reference to climate change mitigation and adaptation measures for pastoral communities. The study aimed to determine the vulnerability of pastoral communities in the HKH to climate and other changes and to assess their resilience in terms of livelihood diversification under various socio-ecological systems; it included a gender needs assessment in Bhutan, China, Nepal, and Pakistan. Overall, respondents reported an increasing frequency of droughts and floods and perceived increasing shortages of food, water, fuel, and fodder.

In 2011, ICIMOD concluded its work with a project promoting decentralized clean energy services for enhanced adaptive capacity in rangeland sites of Bhutan, China, Nepal, and Pakistan. The introduction of these energy alternatives such as solar



Northwest Yunnan, China

“I appreciate ICIMOD's efforts to initiate the development of rangeland policy for Pakistan. The scientists of PARC are still working with the rangeland stakeholders in the provinces to finalize this precious document.”

– **Dr Muhammad Islam**, Director,
Range Research Institute, National Agriculture
Research Centre, Islamabad, Pakistan

energy, biogas, and bio-briquettes has helped local communities to cope with their domestic energy needs and to reduce their household contributions to black carbon in the atmosphere. The project now continues in the hands of partners.

Results are emerging from ICIMOD's cumulative efforts to promote an enabling environment for developing rangeland policy in HKH countries. With ICIMOD's support, partners in Nepal and Pakistan have formulated draft rangeland policies and submitted them to the respective governments. In Afghanistan, ICIMOD contributed to the review of rangeland policy, bringing to bear its expertise and knowledge from the other regional countries. ICIMOD provided the partners with continuous technical support for concrete improvements in the policy, based on case studies of other countries' policies. ICIMOD launched a study in 2011 to review the policies and institutions governing rangelands in the HKH member countries.

Solar cooker. Upper Mustang, Nepal

