



**ICIMOD**  
International Centre for  
Integrated Mountain Development

# Annual Report 2005



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*Yaks are an important means of transport in the tourist district of Syangboche,  
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# **2005 Annual Report**

**International Centre for Integrated Mountain Development**  
Kathmandu, Nepal

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# Report of the Director General



ICIMOD Director General J. G. Campbell in a meeting with some earthquake victims

The overwhelming loss of life and livelihoods in the western Himalayan regions of Pakistan and India from the huge earthquake of October 8, 2005 has shaken all of us. The suffering caused by this natural disaster is immeasurable and will last us for many years. The destruction of homes, infrastructure, livelihoods, and communities – so many decades in the building – has forcefully and tragically reminded us in the mountain community of the fragility of the young and vibrant Himalayan ranges and the vulnerability of the millions of people who live within or along these tectonically active giants.

I am proud to report that our mountain community has responded to the tragedy with urgency and compassion. ICIMOD immediately raised US\$30,729 from the staff and the institution and dispatched 185 tents to the devastated families of Hilkot, Mansehra District, North West Frontier Province (NWFP), Pakistan, where we have been working with the PARDYP Project for many

years. The global mountain community responded to our appeal on the MOUNTAIN FORUM, and with generous support from THE MOUNTAIN INSTITUTE, an additional US\$38,500 has been raised as of the beginning of March 2006, which has been converted into 130 tents and 1000 multi-purpose heaters for the suffering families in the earthquake affected areas.

On a more programmatic level, in December 2005, at the advice of our Board of Governors, ICIMOD fielded a team of experts to the earthquake-affected areas of Kashmir and the NWFP in Pakistan to assess how best ICIMOD could help rebuild the livelihoods of mountain families and scale up the results of our research. After assessing the losses and damages in the agriculture and livestock sectors, ICIMOD drew up a proposal entitled, 'REAL-B3: Rebuilding Earthquake Affected Livelihoods - Building Back Better' to assist Pakistan's MINISTRY OF FOOD, AGRICULTURE AND LIVESTOCK in rehabilitating these sectors. The proposal



focuses on the following primary interventions: livestock production, crop production, land rehabilitation, water management, income diversification, and institution building. Currently, ICIMOD is talking with several donors to secure funding for the project.

This special initiative authorised by the Board is a concrete illustration of ICIMOD's strategy for addressing the mountain peoples' unique vulnerability to the inter-twining physical, economic, and social risks associated with living in the mountain areas of the greater Himalayan region or the Hindu Kush-Himalaya. Along with earthquakes, flash floods, landslides, avalanches, and extreme weather conditions, mountain peoples face an unlevel playing field, with much more limited access to markets, education, health, and other government services, and unequal access to decision making. The result has been historically disproportionate levels of poverty, violent conflict, and outmigration. And as

these immediate manifestations of mountain vulnerability overwhelm the headlines, the longer term changes in soil nutrition, glacier and snow pack water storage, social norms and expectations, global markets and competition, to name just a few, continue to create new conditions of vulnerability that require longer term adjustments and compensatory measures.

ICIMOD's strategy is built on working with its partners in the regional member countries to identify, test, adapt, and share technologies and approaches that have proven ability to overcome these vulnerabilities – whether short or long term. ICIMOD works to try and increase physical, economic and social security through cooperation and building the capacity of organisations and countries within the region – as well as in the wider mountain world. Our focus is on identified solutions in selected sectors that have the potential of improving livelihoods and safeguarding



J. Gabriel Campbell and Roger White

Hilkot Mansehra District, NWFP Pakistan (where ICIMOD has worked for nine years), after the earthquake (*Inset top to bottom*) some of the tents and a sample multi-purpose heater with cooking and lighting features, donated from relief funds raised by ICIMOD, MOUNTAIN FORUM, and THE MOUNTAIN INSTITUTE.



Sanat Chakraborty

Water harvesting technology in North East India



Min Bahadur Gurung

Livelihoods from wild honeybees in Kaski, Nepal

environments both upstream and downstream; and when natural disasters such as earthquakes and floods cannot be avoided, to help to reduce the extent of the disaster through preparedness and regional forecasting. Mountain peoples have demonstrated innovations and continue to find adaptive mechanisms which provide, with appropriate scientific validation and improvement, the bases for more secure and productive livelihoods. And as their actions affect the people living downstream, the environmental services they help their mountain ecosystems and cultures provide are vital to the survival of the hundreds of millions living below.

ICIMOD is currently in the midst of its Medium-term Action Plan (MTAP) for 2003 - 2007. This plan, approved by the Board and financed through the ICIMOD Support Group of donors, is designed to make real contributions to six long-term strategic objectives or results. These are:

- Productive and sustainable community-based management of vulnerable mountain resources
- Increased regional and local conservation of mountain biological and cultural heritage
- Improved and diversified incomes for vulnerable and marginalised mountain people
- Decreased physical vulnerability within watersheds and regional river basins

- Greater voice and influence, dignity, social security, and equity for all mountain peoples

The MTAP established six Integrated Programmes, three of them primarily cross-cutting, with focused mandates to develop and carry out activities designed to help achieve these long term impacts, making use of ICIMOD's comparative advantages as an international, regionally focused mountain learning and knowledge centre. The integrated programmes include:

- Natural Resources Management (NRM)
- Agriculture and Rural Income Diversification (ARID)
- Water, Hazards and Environmental Management (WHEM)
- Culture, Equity, Gender and Governance (CEGG)
- Policy and Partnership Development (PPD)
- Information and Knowledge Management (IKM)

ICIMOD's responsibility is to move forward, broaden, and deepen the accomplishments being created through the initiatives of these ongoing programmes. The **2005 Annual Report** highlights only some of the achievements during the year, according to the five strategic outcomes identified, to which the Centre is contributing. Activities of the different programmes have converged to provide reinforcing and complementary inputs to the adoption of approaches, policies, skills,





ICIMOD also contributed to rangeland co-management workshops in Mongolia

and technologies that improve mountain livelihoods, decrease vulnerability, and increase long-term security. Specific examples are described, with actions taken in 2005, to illustrate how ICIMOD has moved its mission forward in collaboration with regional and global partners.

In accordance with guidance received from the Board of Governors, considerable emphasis has been placed this year on programmatic efforts that focus on applying research and knowledge on results that have proven potential for being adopted at a *large enough scale* to have significant impact. This emphasis on scaling up results has given greater meaning and purpose to our strategic focus on increased policy impact.

Through policy changes at national, provincial and/or state levels, the results of ICIMOD's and its partners' work in co-management of rangelands, promotion of indigenous honeybees, sharing of information on watershed management, or on flood forecasting, increased understanding of farmer rights, among others, are translated into changes in livelihoods. Policy reforms that support more innovative, productive, and sustainable use of natural resources, such as those currently being considered for shifting cultivation, or eco-tourism, will have impacts on tens of thousands, if not hundreds of thousands of poor mountain households.

This increased emphasis on scaling up results through policy support depends in large measure on effective sharing of knowledge, skills, and ownership of the research upon which it is founded. The last year has witnessed renewed vigour placed in developing a more strategic and necessarily flexible emphasis on partnership development, training and capacity building, joint programme planning, increased partner co-financing, and increased consultation with key focal agencies in our regional member countries. This has been accompanied by developments in information technology that support more active networks on various mountain development themes, and the use of alternative media and capacity building in advocacy that enable knowledge to be more widely shared in the region. This was further supported by more productive use of Internet capabilities for interactive geo-spatial databases, electronic consultations, and use of intranets - especially after the installation of our own v-sat capabilities at our new Headquarters.

In addition to emphasising the need for programmes that can be expanded to a scale that is meaningful within the context of 150 million people living in the Himalayan region, and that are uniquely suited to ICIMOD's comparative advantages as a regionally based international organisation, the Board of Governors and donors had also signaled their concern that the results obtained be better



Monitoring and evaluation meeting with partners in Pakistan

approaches in Bhutan and China, and re-evaluation of policies in Afghanistan; new willingness to share near real time flood warning and forecasting information in Bangladesh, Bhutan, China, Nepal, and Pakistan; adoption of new approaches to innovations in shifting cultivation in North East India; adoption of mountain specific policies in some states of India and China; and others noted in this Report. Further measuring and evaluating the extent and value of these results will continue to challenge us as we move ahead.

monitored and evaluated. With the direct assistance of two of ICIMOD's core programme donors, Germany and Norway, and with the appointment of a new Deputy Director General for Programmes, ICIMOD has continued to make progress in this chronically difficult area.

Perhaps one of the best indicators of progress in monitoring and evaluation can be found in the improved plans contained in ICIMOD's Detailed Annual Plan. Clearer identification of outcomes, and the logic by which programme initiatives link their activities and outputs to these outcomes, forms the basis for identifying meaningful indicators and provides the potential for monitoring and evaluating their achievement. While improvements will continue to be introduced, and difficulties in monitoring results achieved by intermediary partners remain, this improved planning and the action plan developed to establish a better monitoring and evaluation system is an encouraging sign.

As examples of immediate monitoring of scaled up results, governments in the region have adopted new programme and policy directions in interaction with ICIMOD Programmes. These include adoption of new rangeland co-management

Clearly, one of the most important indicators of institutional value is the degree of ownership and support provided by our regional member countries (RMCs). It was therefore gratifying to the Centre that on initiation of the Board of Governors, a Financial Strategy Working Group composed of five RMCs and the Board Executive Committee met in September 2005 at the ICIMOD Headquarters and, noting that ICIMOD contributes to the RMCs through the national, regional, and global dimensions of its programmes, recommended in principle for the RMCs to increase their annual contributions on the understanding that ICIMOD further enhance its effectiveness.



Narendra Bajracharya

A PARDYP workshop on system of rice intensification involving participants from regional member countries



Several countries have informed ICIMOD that they would be forming national committees to coordinate work and/or designating a lead agency to enhance cooperation and information flow.

The Centre is fortunate to have received the basic resources necessary to implement most of its planned programmes for 2005. Through the continuing commitment and generous support of the core programme donors, including the regional member countries of Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan, and the European countries of Austria, Denmark, Germany, Netherlands, Norway, and Switzerland, the critically required financial base has been assured. With the co-financing that these funds enable the Centre to leverage through projects from a number of supportive donors, ICIMOD has been able to recruit most of the remaining staff required to carry out the MTAP. The addition of some new major donors, including the COMMON FUND FOR COMMODITIES (CFC) and the Italian Government are ensuring that initiatives in medicinal and aromatic plants and protected

area decision support systems can be taken to scale. As reported in the financial section of this Report, the Centre received a clear audit from KPMG, its Board appointed auditors.

However, in some initiatives progress has been hampered by inability to secure the additional co-financing necessary to bring the programme to scale. In 2006, ICIMOD hopes that it will be able to bring in funding for important initiatives, including rebuilding livelihoods in earthquake affected areas, shifting cultivation and agro-biodiversity, payment for environmental services, flash floods, ecotourism and poverty mapping, gender mainstreaming, and capacity building in GIS and knowledge management.

The Centre continues to strive to achieve more equitable regional balance, but due to funding constraints, has been unable to extend as many programmes to Afghanistan, Bangladesh, and Myanmar as desired. However, with the recruitment of staff from Bangladesh and Myanmar, as well as new Pakistan staff with local language capabilities in Afghanistan, and continuing efforts with donors, ICIMOD hopes



Pema Gyamtsho

Mountain communities in Ladakh, India



Members of the ICIMOD Board of Governors and Support Group meet field partners

to redress this imbalance. Furthermore, as part of the rebuilding livelihoods proposal in the earthquake-hit areas, ICIMOD anticipates establishing a country office in Pakistan to implement this and other programmes in the country. Efforts to establish country offices in Afghanistan and Myanmar as part of extra project co-financing are ongoing, and have been approved in principle by the ICIMOD Board.

On the global level, ICIMOD has been following up its earlier initiatives and commitments through leadership roles in the MOUNTAIN FORUM, THE MOUNTAIN

PARTNERSHIP, the Atmospheric Brown Cloud (ABC), the Global Mountain Programme of the CGIAR, Sustainable Agriculture and Rural Development in Mountains (SARD-M) of FAO, the INTERNATIONAL UNION OF FORESTRY RESEARCH ORGANIZATION (IUFRO), technical committees of the COMMISSION ON SUSTAINABLE DEVELOPMENT (CSD) and the Convention on Biological Diversity (CBD), IUCN, the

INTERNATIONAL ASSOCIATION FOR THE STUDY OF COMMON PROPERTY RESOURCES (IASCP), and active participation in a number of regional initiatives. These include preparation of papers and position papers, development of joint programmes, membership in board and steering committees, and managing e-consultations.

From a management and administrative perspective, the most important change for ICIMOD in 2005 has been the completion of its new Headquarters in Khumaltar and its occupation from the beginning of January. For the first time, the ICIMOD staff is housed in



Inside ICIMOD, MENRIS Division  
(inset) During staff team building exercises in July







Narendra Bajracharya

During the Annual Board meeting in Shillong, India in November 2005

Specialist, CEGG; Water Resources Specialist, WHEM; Senior Editor and Editor; Monitoring and Evaluation Officer, along with a number of other programme positions. the Centre has obtained the human resources that it requires to fully implement the MTAP in 2005 and for the remaining two years.

one building with open glass doors and connecting corridors and public spaces. This has facilitated inter-programme dialogue and increased programme and administrative staff interaction and teamwork. The beautiful conference rooms, reception area, library, and meeting pavilions contributed through the generous extra support of Bangladesh, Bhutan, China, India, and Pakistan, provide functional workspaces and are a source of institutional pride in our region. The v-sat and wireless Internet facilities and other support services have improved our efficiency.

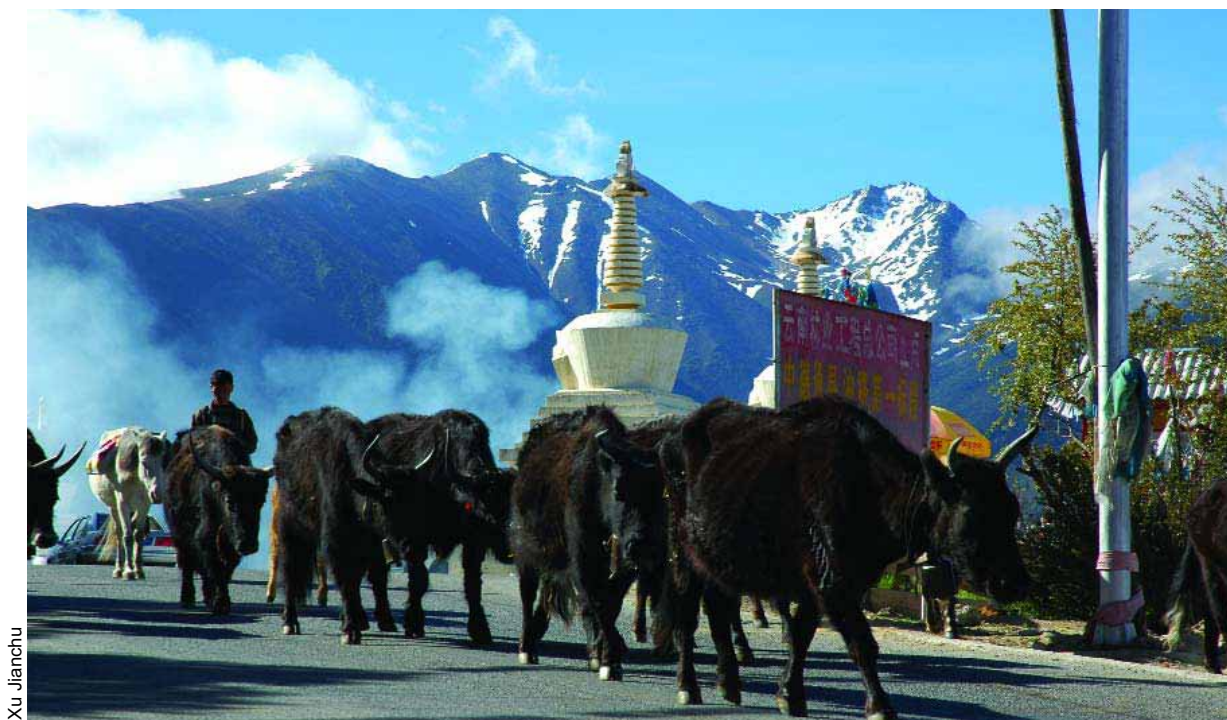
The Centre wishes once again to recognise the generous support of the GOVERNMENT OF NEPAL in providing the land to make this new building possible, as well as the strong support of Bangladesh, Bhutan, China, India, and Pakistan. We calculate that within five years of using the monies previously devoted to annual rent for repaying the outstanding loan, ICIMOD will have fully paid for the building and will be able to devote savings in rent to programme outcomes.

With the Board appointment of a new Deputy Director General - Programmes, the Centre has also been able to address programme and institutional management issues with a full complement of highly competent managerial staff. Along with the recruitment of new senior staff for the vacant positions of Programme Manager and Gender

Three major extended staff meetings for team building, management improvements, and planning provided forums to address many of the management issues raised in the last management review. This has resulted in some organisational changes, clarification of roles and responsibilities, improvements in communication, better planning and monitoring, increased skills in proposal development and communication software usage, and the development of an outline for a programme management operational manual. At a programme organisation level, this has resulted in better functional clarification of the Information and Knowledge Management Programme, resulting in reclassification into six action initiatives.

In view of the continuing civil strife and insecurities confronting Nepal, ICIMOD has also taken steps to increase its emergency preparedness and capacity to respond – whether to an earthquake, expected anytime in Nepal, or to an unexpected breakdown in civil order. A contract has been signed with SOS INTERNATIONAL to deal with emergencies, including possible evacuation contingency; earthquake and fire emergency planning and training, and close linkages have been established with the UNITED NATIONS security system.

The establishment of the Board Executive Committee in the December 2004 Board



Xu Jianchu

Yaks and cross breeds from the mountains provide milk and dairy products, and transport in Yunnan, northwest China

meeting has also made a major difference in the degree of support provided by the Board of Governors to management and staff. Meeting both by teleconference and for an extended week in September 2005 along with the Financial Strategy Working Group, the Executive Committee addressed a full agenda of programmatic and administrative issues.

ICIMOD continues to face challenges as it takes on the daunting task of making a difference in the lives of mountain peoples and their downstream neighbours in the face of natural disasters and widespread poverty. Some of these ongoing issues as they were faced in 2005 were identified. Most of these are the kind of ongoing challenges that are not solved overnight. However, ICIMOD believes that there are workable solutions for dealing with the challenges involved in increasing programme impact, building lasting strategic partnerships, increasing regional information sharing and technical cooperation, and building financial sustainability.

In May and June of 2006, the Board has commissioned the major five-year external evaluation, the Fourth Quinquennial Review

(QQR-IV). The review will provide a timely mechanism to assess the degree to which ICIMOD is meeting these challenges and evaluate its strategy, programmes, and implementation of the Medium-term Action Plan. QQR-IV will be instrumental in helping chart a future course for ICIMOD that can best address these challenges together with our partners in the region.

At the same time that we are beset by natural disasters, our region is witnessing unparalleled economic growth in China, India, and Pakistan. This growth will have a profound impact on the Himalayan region and, creatively and equitably channelled, can provide the engine and resources for the sustainable development of its poor and marginalised peoples. ICIMOD has a responsibility to its members, and to the mountain peoples it serves, to work better with its regional and global partners to facilitate and support this process of helping mountain communities build a more resilient and secure future.

**J. Gabriel Campbell, Ph.D.**  
Director General



## **Beyond Relief: ICIMOD's Response to the South Asian Earthquake in Pakistan**

### ***Rebuilding Earthquake Affected Livelihoods by Building Back Better***

In addition to earlier relief missions to earthquake-hit Pakistan which included donation of tents out of staff personal contributions, and a global call for earthquake relief assistance through the MOUNTAIN FORUM's networks around the globe, ICIMOD in December 2005 fielded a team to Pakistan, later joined by the Director General himself, to assist the government's MINISTRY OF FOOD, AGRICULTURE AND LIVESTOCK (MINFAL) to draw up a proposal to help rebuild the lives of the people in the earthquake-affected areas. ICIMOD is committed to contributing to the rebuilding process. The worst affected areas lie in the mountainous region – the areas of ICIMOD's work – and the Centre's experience in addressing mountain livelihoods and environmental issues could be useful.

The team visited the affected areas in both the North West Frontier Province (NWFP) and Kashmir to gain insight into the challenges these communities now face, as well as to assess ICIMOD's potential contribution. The visits included meetings with officials from the government, donor agencies, and nongovernment organisations in Islamabad, Peshawar, Muzaffarabad, and the affected communities in Mansehra (NWFP) and Bagh (Kashmir) districts. At the end of the visit the team formulated a proposal entitled '**REAL-B3: Rebuilding Earthquake Affected Livelihoods – Building Back Better**' which draws extensively on the assessment of losses and damage in agriculture and livestock carried out by FAO and MINFAL, and the strategic framework for rehabilitation ICIMOD had earlier outlined. In identifying interventions, the ICIMOD team analysed the fit between ICIMOD's competence with the priorities identified by the affected communities and the policy and strategic guidance provided by MINFAL and the governments of NWFP and Kashmir. Based on the analyses, ICIMOD proposes the following interventions.

- **Livestock production** (feed and fodder development, shelters and backyard farms)
- **Crop production** (improved seeds, agronomic practices, integrated pest and nutrient management)
- **Income diversification** (orchard management, beekeeping, medicinal plants)
- **Land rehabilitation** (bio-engineering, terrace repairs)
- **Forest management** (community forestry, agroforestry)
- **Water management** (water harvesting, efficient water use)
- **Renewable energy** (bio-briquette, biogas, and solar)
- **Farmer support services** (farm mechanisation, supply of inputs)
- **Institution building** (community-based organisations, cooperatives and groups, women's participation, capacity building of partners)

The proposal provides an opportunity for ICIMOD to scale up its almost 10 years action research work carried out under PARDYP in the earthquake-hit Hilkot Watershed, where many of the proposed interventions have been tried and tested and proven socially acceptable and more efficient than traditional practices.

The project proposes to establish four nodal sites adopting the Hilkot model, serving as testing, demonstration, and training centers, from where proven technologies and best practices could be taken to scale in the larger project area. At least 80,000 affected farm households in the districts of Mansehra and Battagram in NWFP and Bagh and Muzaffarabad in Kashmir are projected to benefit from the project at its full scale.

Rehabilitation of mountain livelihoods after the earthquake needs to look beyond returning to the status quo to address the root causes of mountain peoples' vulnerability, build their resilience to cope with future threats, and strengthen to seize on new opportunities. Adopting this approach requires understanding the diversity of the mountain people and communities, especially in relation to their livelihoods.



## STRATEGIC OUTCOME

### Promoting Productive and Sustainable Community-Based Management of Vulnerable Mountain Natural Resources



Pema Gyamtsho

Rich mountain natural resources

ICIMOD continues to play a significant role in global efforts, and in regional and national efforts of regional member countries, to promote the productive and sustainable community-based management of mountain natural resources. This is part of ICIMOD's strategy for improving livelihoods and the quality of mountain life in the extended Himalaya, and conserving the natural resources on which mountain people largely depend.

The Centre's approach is to work with partners, including community-based institutions, in developing promising technologies appropriate to the mountain setting, identifying and testing innovations and methodologies and strategic policy options that build the capacity of mountain communities in natural resources management. In 2005, we focused on scaling up community-based approaches for managing the region's forests, watersheds, and rangeland resources, and on continuing the policy discussions on shifting cultivation and land rights – in all these processes increasingly involving our mountain women, indigenous communities, and landless and marginalised mountain people.

#### **Scaling up watershed management across the region**

Since 1996, the Centre has been conducting research in five middle mountain watersheds across the Himalayan region in China, India, Nepal, and Pakistan through the People and Resource Dynamics in Mountain Watersheds of the Hindu Kush-Himalayas Project (PARDYP). ICIMOD builds on the findings of nearly a decade of this work – which focused on farming systems, agricultural productivity, water management, and access and equity issues in natural resource management – synthesising significant lessons for middle mountain watershed areas of the region and for the design of future interventions, and scaling up the successes thus far achieved. Some of its work in watersheds in the Mansehra District, NWFP, Pakistan has been set back by the South Asian earthquake in 2005. But building on its work with PARDYP and other





Elisabeth Kerkhoff

PARDYP Team

A watershed area in Meghalaya, North East India and (inset) PARDYP technologies at work in Pakistan

programme initiatives, ICIMOD is contributing to the rebuilding process (*related story on the previous page*).

### Instructive lessons from PARDYP

Some of the findings of the PARDYP research and solutions that have been tested and proven useful include the following.

- *Increasing demand for water and severe contamination of drinking water in the watershed areas*

The results of PARDYP research tend to show low flows as due primarily to increasing demand for water, both for irrigation and household needs, and overall poor water management, more than to reduced rainfall and precipitation within watersheds. Future interventions by ICIMOD and other development organisations must thus address issues of water quality and water governance.

PARDYP has tested and identified simple and inexpensive short-term water treatment measures that include clean or 'safa' filters, solar disinfection, and boiling to address the issue of water clarity. Over

the long term, the research proposes protecting catchment areas for sources of drinking water as the most efficient solution. To sustain this will require the active participation of communities and local institutions such as water user groups.

- *Erosion studies across all five ICIMOD research watershed sites show soil erosion from farmer-managed agricultural land to be much less than originally perceived, with most of the sedimentation originating from landslip areas, degraded slopes, roadsides, gullies, and stream banks. Nutrient leaching seems to be a far more important issue to the Himalayan farmer than soil erosion. This implies that the Himalayan farmers' practices, in general, effectively conserve the soil. The new focus in the Himalayan rainfed upland bench or sloping terraces should therefore be on understanding the nutrient losses through leaching and the circumstances that lead to them.*
- *Forest cover in all five PARDYP watersheds has either increased or remains stable.* However, the benefits of good forest cover are not going to local people.

## Addressing Water Shortage through Drip Irrigation

**W**ater shortage is a key constraint in the rain-fed mid-hills farming systems of Nepal. In the Jhikhu Khola Watershed, where easy access to Kathmandu market has provided the farmers enough incentive to grow high value cash crops, especially off-season vegetables, a water demand and supply survey conducted by PARDYP revealed shortage in irrigation water, particularly during the pre-monsoon season, to be a major problem identified by at least a third of the respondents.



To address the issue of water shortage in the watershed, PARDYP experimented with and demonstrated the effectiveness of low-cost drip irrigation equipment. The system consists of a water tank and a network of pipes with drippers at predetermined intervals that deliver water in a controlled way to the root zone of crops such as bitter melon, cucumber, and cauliflower – crops planted widely spaced apart. (For crops grown closer together – like garlic and onions – PARDYP applied more appropriate sprinkler irrigation systems.)

Drip irrigation has demonstrated savings of about 60% in water usage compared to bucket irrigation without reducing yield for all soil types. Evidence also points to drip irrigation helping in early maturity of crops, bringing the harvest forward by three weeks in the case of bitter melon. This helps farmers to catch the early market when prices are higher. A survey result showed that a drip irrigation set cuts labour required by half compared with the conventional bucket irrigation method.

The poor, and especially women, need to be involved more in managing the forests.

- *The challenge facing middle mountain watersheds is how to increase the income of small, resource-poor farmers who cultivate rain-fed land.* Low levels of production and small landholdings are pushing the young generation of farmers to migrate to urban areas or overseas for employment, abandoning their lands, leading to poor land management.

Working closely with farmers, PARDYP has developed a package of on-farm technologies and approach-based options that address some of these issues including generating income for mountain farmers, improving soil fertility, harvesting water to serve the dry season months, improving seeds quality and thus, production, and linking farmers to markets. Drip irrigation systems, sprinklers, system of rice intensification (SRI), among others, have improved agricultural production in watersheds while promoting efficient water use. PARDYP's experiments with bio-fertilisers have also increased farm yields by as much as 20%, although strains specifically suited to hill conditions need to be further identified.

- *Agricultural production is intensifying in middle mountain watersheds as these areas begin to cater to markets.* This is especially true in areas where there are irrigation facilities and links to markets such as in Jhikhu Khola, Nepal. To sustain higher production levels and cope with market demand, farmers are, however, applying high doses of pesticides and chemical fertilisers, which have long-term impacts on the health of the region's ecosystem. Future work by ICIMOD and partners must look into these long-term impacts.
- *Issues of poor access, equity, and governance remain urgent concerns.*

An important component of PARDYP is sharing what has worked as well as what has not from village to village, and farmer to



farmer through exchange visits, on-site training, farmer field schools, workshops, and farmer day celebrations.

In April, PARDYP went through external review, with the following development insights gained on hindsight from the Project. One, participatory approaches induce quality implementation of on-farm research. The Centre is convinced of the value of continuing the action research in watershed management and disseminating its results. Two, PARDYP has also demonstrated the value of regional networks as mechanisms for sharing information, building consensus, and finding solutions. Experience gained from PARDYP can guide the establishment of a regional network linking major watershed management sites across the region. Three, training is a promising mechanism for disseminating best practices. ICIMOD is looking at developing regional training courses and workshops on watershed management, mountain agroforestry, and community-based natural resources management based on its PARDYP work.

## Promoting rangeland co-management

With a total combined area of 2,060,000 sq km, roughly 60% of the region consists of rangelands. Rangelands thus represent a valuable natural resource in the extended Himalaya – the main source of livelihood for many of its pastoral mountain communities. ICIMOD has been working with rangelands since 1995, and the programme has evolved into a regional programme. Through it, ICIMOD is raising awareness and knowledge among governments, policy makers, academia, development organisations, and communities in six of the eight regional member countries on rangeland co-management philosophy, principles, and approaches. This has led to interest at national and provincial levels in these countries on adopting rangeland co-management as a strategy for putting their rangeland resources to productive use while sustaining the resources.

In 2005, ICIMOD's training workshops on rangelands conducted in Afghanistan, Tibet Autonomous Region in China, and Balochistan in Pakistan focused on initiating co-



Nyima Tashi

Pastures provide grazeland and fodder to ruminants in the Tibet Autonomous Region of China



(L-R) A rangeland co-management workshop, and an action plan in meta cards



management using participatory methods. Training was tailored to different needs in different places. In Afghanistan, the focus was on conflict management over natural resources; in China it was on enhancing community participation in planning and management; and in Pakistan, on improving stakeholder communication and negotiation skills.

The training of trainers workshop on co-management organised in Kabul, Afghanistan in January, the first in the country in 25 years, oriented policy makers from the MINISTRY OF AGRICULTURE, ANIMAL HUSBANDRY, AND FOODSTUFF and representatives from the Forestry and Rangeland departments in 12 of its provinces on participatory methods of planning and implementing co-management systems. Those trained have quickly echoed the training they received to others, and additional workshops have been conducted in Kabul, Laghman, and Nangarhar provinces, with more being planned in other areas. The workshops have also raised the awareness of other government and nongovernment organisations working in Afghanistan on natural resources management and rural development.

In China, co-management systems have been tried in several counties of Sichuan Province and the Tibetan Autonomous Region, where recent policy to privatise rangelands is being monitored for its effectiveness in reducing

overgrazing, range degradation, and conflict among herders and other stakeholders. The experiences on the ground in China as well as land care and rangeland practices that have worked in Chitral, Pakistan, and sustainable farming systems through watershed management in India, China, Nepal, and Pakistan, and Sikkim's ecotourism policy were shared in a national rangeland management policy and strategies workshop in Bhutan, which ICIMOD supported in collaboration with the MINISTRY OF AGRICULTURE. The co-management approach is being incorporated in developing Bhutan's new rangeland and fodder development policy and strategy, and the recommendations of the workshop will provide inputs to this policy. In Balochistan, Pakistan, co-management has been recognised as a policy instrument for restoring the state's degraded rangeland resources. ICIMOD also contributed to the animal husbandry and rangeland management components of the LADAKH AUTONOMOUS HILL DEVELOPMENT COUNCIL's Vision and Strategy Document 2025. Co-management has been adopted under the Upper Mustang Biodiversity Conservation Programme in Nepal as a lead component of the programme in managing resources and resolving conflict.

Across the region in Nepal, India, Bhutan, Pakistan, and the Tibet Autonomous Region



## Progress in Implementing Co-Management of Rangelands in Tibet Autonomous Region of China



Nyima Tashi

**T**he rangeland co-management approach was successfully introduced in Dingri County, Tibet Autonomous Region (TAR), China. Local partners found the approach extremely useful in addressing rangeland management issues. Dingri County is in the heart of China's National Qomolangma Nature Preserve, in which the management of rangeland resources involves various stakeholders with differing perspectives. Rangelands in Dingri and adjacent counties have been allocated to villages and kept under tight collective management since 1997. Recently, under the newly adopted land policy, the TAR government acquired the rights to all rangelands in TAR for allocation to households or for leasing out on contract. During a training workshop, the director of the county's agriculture and animal husbandry bureau acknowledged the co-management approach as "helping promote their fair and equitable allocation in 2006, which should enhance their sustainable use by herders."

ICIMOD's **Regional Rangelands Programme** has also supported the formation and functioning of a rangeland co-management committee in Hongyuan County, Sichuan Province. The committee consists of representatives from the SICHUAN PROVINCIAL ANIMAL HUSBANDRY BUREAU, the GRASSLAND INSTITUTE of Sichuan Province, the HONGYUAN COUNTY GOVERNMENT, the HONGYUAN PEOPLE'S CONSULTATION CONGRESS, the Director of HONGYUAN ANIMAL HUSBANDRY BUREAU, and local communities. The committee will meet periodically to review progress, share information, identify common goals, and take collective action to achieve common goals. Forming and making the committee operational is a concrete way to initiate co-management by key stakeholders.

in China, rangeland improvement and management practices are being scaled up through rural development projects. In Nepal, the Western Upland Poverty Alleviation Project (WUPAP), supported by the INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (IFAD), has promoted rangeland development through plans to raise 70,000 seedlings of fodder species in their holding nursery. The Wang Watershed Management Programme in Bhutan is scaling up improved rangeland and fodder resource practices, while the GOVERNMENT OF INDIA is supporting projects in livestock development.

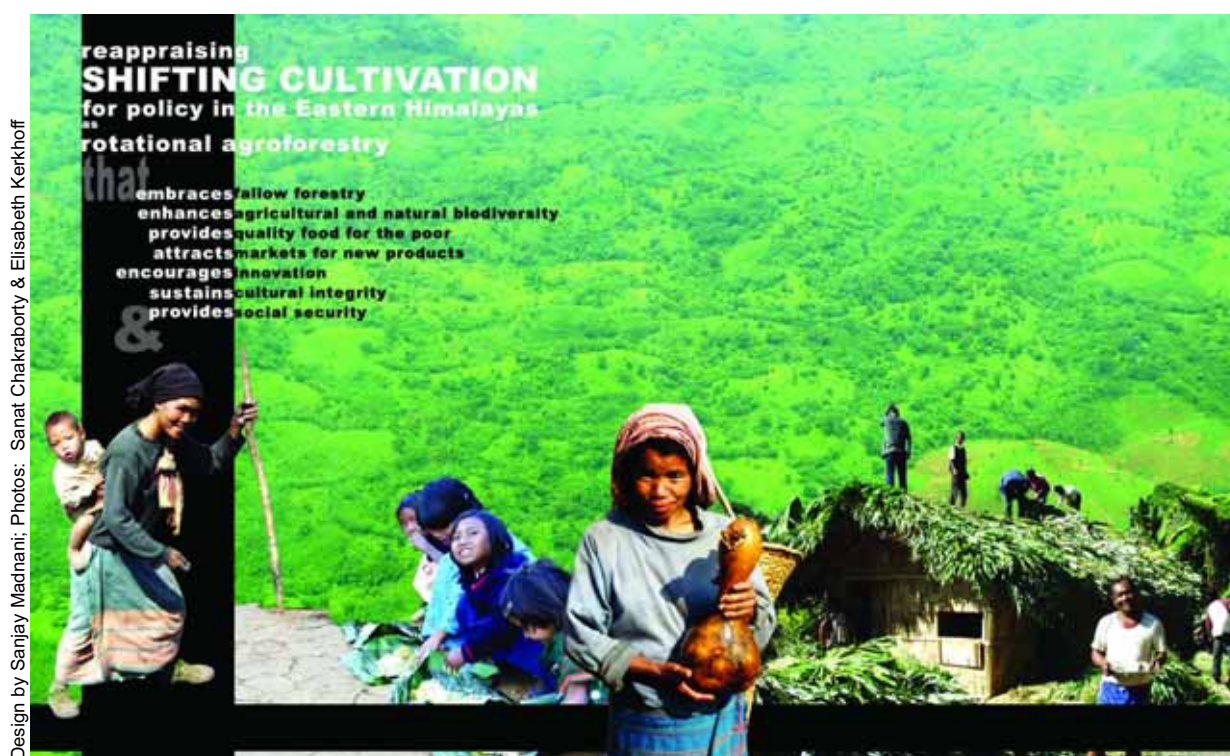
### Initiating reforms in shifting cultivation policy

ICIMOD has contributed to enlightened understanding on shifting cultivation and to informing and influencing policy in the region and among member countries on the subject. Perceptions continued to shift in 2005 towards greater acceptance of its positive innovations and the roles played by this form of community agriculture in managing local agro-forestry resources while providing marginal farmers – those with little or no landholdings – with land use coping and

survival mechanisms. The 'Shillong Declaration on Shifting Cultivation' (2004), which ICIMOD supported, has prompted action from both governments and partners in the region. ICIMOD's expertise on the subject is increasingly recognised, and partners and other stakeholders are finding ways to apply our joint learning to follow up on the Declaration's recommendations.

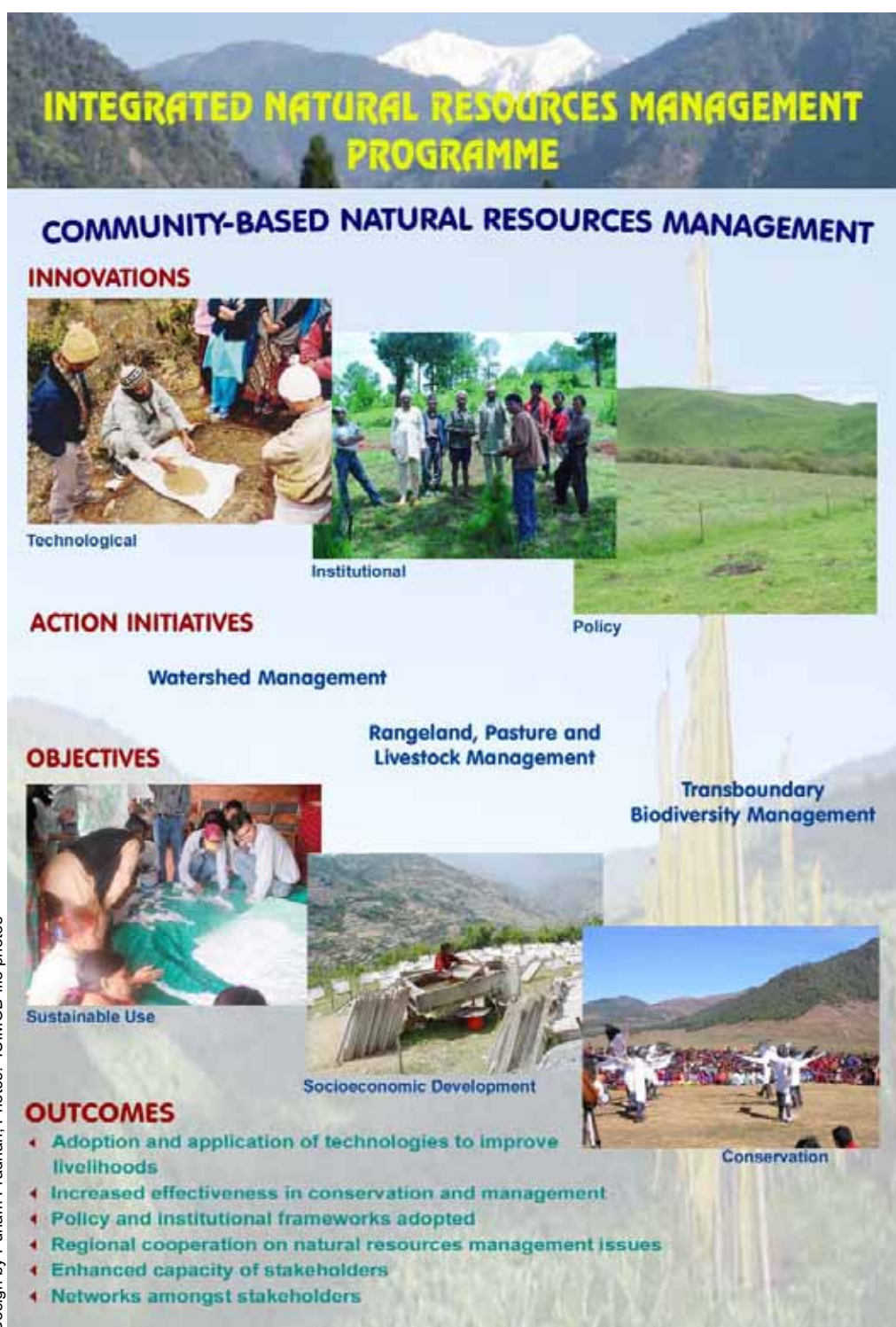
The state governments of both Tripura and Nagaland in India have taken lead initiatives in this direction. In Tripura, ICIMOD provided technical support to a proposal to implement a 'Re-development of Jhum in Tripura' Project. The STATE GOVERNMENT OF NAGALAND has invested in participatory three-dimensional modelling, a participatory land use planning approach, in all its villages to enhance community-based land use planning. ICIMOD and LEAD INDIA provided technical support.

In North-East India, the NORTH-EASTERN REGIONAL INSTITUTE FOR WATER AND LAND MANAGEMENT has been mandated by the NORTH-EAST COUNCIL to follow up on implementation of the Declaration's recommendations. ICIMOD's Indian partners have advocated some of the Declaration's



Design by Sanjay Madnani; Photos: Sanat Chakraborty & Elisabeth Kerkhoff





recommendations during important policy meetings and events and in reports, including the FARMERS' COMMISSION Report on North-East India, an initiative on participatory forestry. It has also contributed to amendments to the 'Tribal Rights Bill'. The GOVERNMENT OF INDIA has constituted a high-level committee to set future directions on watershed development in shifting cultivation areas.

Reference has been made to the Shillong Declaration in the notice for inclusion in the Committee's work. In Nepal, awareness on shifting cultivation issues has increased among stakeholders, and in Bhutan the FOREST DEPARTMENT has expressed keen interest in research on crop species that perform well after controlled burning, a shifting cultivation practice.

## STRATEGIC OUTCOME

### Promoting Increased Regional and Local Conservation of Mountain Biological and Cultural Heritage



Xu Jianchu



Xu Jianchu



Nyima Tashi

Baima Snow Mountain Natural Park, northwest Yunnan, China; a mountain flower and a Tibetan woman

These are ecologically important areas for maintaining biodiversity and sustaining ecosystem processes, often located in border regions the management and conservation of which necessitates the cooperation of two or more countries.

ICIMOD continues to contribute to national, regional, and global conservation efforts, particularly to conserving mountain biological and cultural heritage in this part of the world. The Centre continued in 2005 to manage biodiversity in two of the five identified transboundary complexes in the Himalayan region: Everest and Kangchenjunga.

ICIMOD's strength as a non-political platform for fostering cooperation was useful in promoting the conservation of protected areas among member countries sharing these landscapes. The Centre increased its networking efforts, strengthening regional strategic partnerships, and using decision support systems and tools to promote conservation. ICIMOD also initiated programmes in innovative sectors such as 'Payment for Environmental Services', by which downstream populations may begin to render payment to upstream communities of the Himalayan region for the environmental services they provide.





Nyima Tashi

Mountain animals also provide portorage or carry heavy loads in the mountain areas

## Expanding the boundaries of biodiversity conservation in the eastern Himalaya

Starting with a regional inception meeting in 1997, building on to assessing the feasibility of re-establishing conservation corridors connecting nine identified protected areas in the Kangchenjunga Landscape of the Eastern Himalaya, ICIMOD has created the strategic momentum for transboundary conservation among member countries sharing five of the identified major landscapes. The initiative has moved beyond isolated protected area boundaries to capture the range of biological and ecological phenomena and processes going on in these landscapes. ICIMOD has forged strategic partnerships through cooperation among member countries to achieve the landscapes' long-term conservation goals. Building on its experience, ICIMOD is playing the role of steering and strengthening partnership with stakeholders, facilitating member countries to address conservation challenges at their own local levels, contributing thus to national and global conservation efforts.

## Transboundary Landscapes for Potential Cooperation and Management in the Himalayan region

**Kangchenjunga Landscape** covering parts of Bhutan, China, India, and Nepal

**Everest Landscape** covering parts of the Tibet Autonomous Region of China, and Nepal

**Kawagebo-Namdapha-Hkakaborazi Landscape** covering parts of China, India, and Myanmar

**Kailash Landscape** covering parts of India, Nepal, and China

**Pamir Landscape** covering parts of Afghanistan, China, Pakistan, and Tajikistan

In 2005, ICIMOD and its partners in Nepal - the MINISTRY OF FORESTS AND SOIL CONSERVATION, HIS MAJESTY'S GOVERNMENT/NEPAL (HMG/NEPAL), THE MOUNTAIN INSTITUTE (TMI), and the WORLD WILDLIFE FUND (WWF) Nepal Program - launched the 'Sacred Himalayan Landscape Initiative' as the first of several transboundary landscape cooperation initiatives. The initiative in Nepal begins to reconcile human

## ICIMOD Plays a Steering Role in the Global Mountain Partnership's E-conference on Biodiversity Conservation in the extended Himalaya



Sacred Mt. Khawa, Karpo, eastern Himalaya looms large behind a mountain community in China

**T**he **Global Partnership for Sustainable Development in Mountain Regions** was launched in September 2002 at the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa. The Partnership is structured to ensure multiple stakeholder, long-term approaches and was conceived as an evolving alliance, with flexibility to address the complexity, diversity, and magnitude of mountain issues. ICIMOD has registered as the lead member for several initiatives – the Sustainable Agriculture and Rural Development in Mountains (SARD-M) Initiative, the Gender Initiative, the Sustainable Livelihoods Initiative, and the Hindu Kush-Himalayan Initiative, and as a member of the Policy and Law, Research, and Watershed Management initiatives of the Mountain Partnership.

As part of the Hindu Kush-Himalayan Initiative, ICIMOD together with the WORLD CONSERVATION UNION (IUCN) and with technical assistance from the MOUNTAIN FORUM (MF) Secretariat and the ASIA PACIFIC MOUNTAIN NETWORK (APMN), co-steered a six-week e-conference in 2005 on biodiversity conservation. This gathered in virtual conference experts from the region and around the world to bring before the global audience pertinent issues and questions. Mountain issues covered by the e-discussions included: i) income generation and biodiversity, ii) access and rights, iii) transboundary landscapes for protected areas (PA) and corridors, and iv) regional cooperation and learning from mountain conventions. The key points that surfaced in the e-discussions will be shared with the members of the Mountain Partnership and disseminated in a regional workshop on **'Priority Issues in the Himalayan Region in the Next 15-20 Years'** being planned in the near future. The discussions hope to result in important decisions and ultimately, actions contributing to mountain development in the greater Himalaya and other mountain regions.



needs and traditional practices and cultures within the landscape with the needs of conservation. HMG/NEPAL has endorsed the 'Sacred Himalayan Landscape' concept and has included ICIMOD as part of a core team constituted to design and facilitate implementing the landscape approach to conservation in Nepal.

Cooperation on landscape conservation approaches incorporating poverty alleviation and sustainable use of resources are recent developments in international conventions such as the Convention on Biological Diversity, and the Millennium Development Goals. There is as yet no framework in place for such cooperation, especially for transboundary areas. ICIMOD is working towards developing a framework that will include mainstreaming sustainable livelihoods into the effort and influencing national and regional policy.

### **Applying the Kyoto Protocol's 'Think Global, Act Local'**

At the heart of ICIMOD's 'Kyoto: Think Global, Act Local - Action Research' Project is the idea that the market value systems devised for crediting sequestered carbon – carbon stored in forests and other ecosystems that reduce greenhouse gas concentration in the atmosphere – may provide mountain people the needed incentive to manage their forests. The hypothesis is that if part of the carbon value for forest maintenance were paid to the communities themselves, they will have greater motivation to manage their forests in a sustainable way, and thereby reduce the pressure on forests while encouraging forest management practices that meet the multiple goals of creating economic returns from natural resources.

“I may inform you with pleasure that the research you have carried out with CENTRAL HIMALAYAN ENVIRONMENT ASSOCIATION (CHEA), your partner in India under the Kyoto Think Global Act Local Project, has helped us in framing policy related issues for our State. In fact, I have used some of the findings and concepts profusely in sending necessary directives to the concerned state officials...”

**Dr. R.S Tolia, STATE OF UTTARANCHAL SECRETARIAT**

Under the Project, efforts are thus being made which will enable communities to measure and monitor carbon sequestration in community forests and claim payment for 'carbon service' the forest communities provide. The project brings community-based managed forests projects in many countries of the region under the UN Framework Convention on Climate Change and the Kyoto Protocol. At present, community-based natural resources management is not eligible for credit under the 'Clean Development Mechanism' (CDM), which credits only afforestation and reforestation in reducing atmospheric carbon.

Encouraged by the initial results under the project, the Chief Secretary of the GOVERNMENT OF UTTARANCHAL, INDIA has



Community forest user group in Nepal

Xu Jianchu

issued directives to agencies working in forestry to give due attention to carbon sequestration and other environmental services as important contributions of the forest, urging these agencies to allocate additional resources for the purpose. ICIMOD has received a letter of appreciation from the OFFICE OF THE CHIEF SECRETARY of the GOVERNMENT OF UTTARANCHAL, for the work it has initiated through its partner, the CENTRAL HIMALAYA ENVIRONMENT ASSOCIATION (CHEA), on carbon sequestration. A memorandum on compensation for environmental services prepared by CHEA under the Kyoto Project was submitted by the state government to the FINANCE COMMISSION of the GOVERNMENT OF INDIA, making Uttaranchal the first state in India to advocate for the reflection of ecosystem services in the country's national accounting system.

### **Developing decision support system tools for conservation planning and policy**

Decision support system (DSS) tools make use of geo-information systems and remote sensing to help decision makers make decisions based on science, and is an area where ICIMOD has recognised capabilities.

The Decision Support System-Hindu-Kush-Karakoram Himalaya (DSS-HKKH) initiative was launched in 2004 and is working to develop a DSS for the conservation and sustainable management of protected areas. The Sagarmatha National Park in Nepal has been selected for the project's pilot phase. The project covers Sagarmatha in Nepal and the Central Karakoram National Park in Pakistan and provides opportunities for building the capacities of national institutions for exchanging information and learning, and for networking among staff and experts at national, regional, and global levels. Through the project, a platform and tools are being developed that will assist park managements holistically incorporate environmental, socioeconomic, and scientific information in parks planning and management. Under the framework of partnerships, the Initiative continued in 2005 to provide for reciprocal exchange of experiences, approaches, and management processes in conserving natural resources. In April, ICIMOD organised a high-level meeting of partners in Namche Bazar, Nepal to learn from the experiences of Sagarmatha National Park. The WORLD CONSERVATION UNION (IUCN) hosted a similar study tour in the



Birendra Bajracharya

Reciprocal exchange of experiences in parks management in Nepal and Pakistan under the DSS-Hindu Kush-Karakoram Himalaya Initiative



Central Karakoram National Park to learn from the way the park is being managed there. The initiative is a regional and international partnership among ICIMOD, IUCN, Ev-K2-CNR (an Italian scientific organization), and CESVI (an Italian NGO), funded by the ITALIAN GOVERNMENT DEVELOPMENT COOPERATION.

## Initiating research in payment for environmental services

Mountains provide essential environmental services such as biodiversity, modulation of climate, supply of water to downstream populations, and carbon storage. The concept of payment for environmental services (PES) is a means by which downstream users of these mountain services pay, in cash or in kind, the upstream guardians of these resources. Schemes by which upstream land managers are recompensed for measures aimed at improving downstream water supply are a form of PES. The main objectives for ICIMOD's research in PES, which builds on its wealth of data in watershed management include:

- securing the environmental services of critical mountain ecosystems such as forests, wetlands, and river or riparian zones;
- promoting policy options and market instruments that reward the mountain poor; and
- fostering regional collaboration in good governance on environmental issues.

The conceptual framework for PES developed by ICIMOD has been endorsed by the MINISTRY OF AGRICULTURE, Bhutan and presented by the key Bhutanese partner during the 7th RENEWABLE NATURAL RESOURCES (RNR) Conference in Sarpang, Bhutan in February.

"Recognising that the Payment for Environmental Services (PES) is a potentially significant tool to achieve and uphold the national conservation policy,



Integrating GIS and people's intimate knowledge of their environment

PARDYP team

the conference resolved that the concept should be further discussed and developed to facilitate the Ministry of Agriculture to pursue the matter with the Royal Government of Bhutan".

In China, the large-scale, state-directed subsidised PES through implementing 'Sloping Land Conversion Program' policy, which has been in place since 1999, has been carefully assessed in the PARDYP watershed. The role of ecosystems as water supplier has been challenged and water-related services have been measured at the local watershed level.



A herder in Bumthang, Bhutan

Dipti Thapa

## STRATEGIC OUTCOME

### Promoting Improved and Diversified Incomes for Vulnerable Rural and Marginalised Mountain Peoples



Centre for Rural Technology

A women-only group under Women, the Water and Energy Project engages in livelihood activities

By supporting and scaling up the application of promising technologies and innovations, ICIMOD has contributed to creating opportunities for income and livelihoods in the mountain areas of the extended Himalaya. Technologies and innovations appropriate to mountain areas are helping mountain women and men diversify their income sources, and are leading to the development of high value mountain products and services that are finding niche markets in world trade.

Simple technologies are also providing alternative energy options that are making a difference in the quality of mountain life. Through strategic partnerships with governments of the RMCs and with partners working with mountain communities, and through networking at the regional level, and with support from the private sector, ICIMOD is scaling up and replicating these efforts in as many mountain communities as it can reach.

#### **Hosting the Medicinal and Aromatic Plants Programme for Asia**

Non-timber forest products (NTFPs), in particular medicinal and aromatic plants, are the source of medicine, natural dyes, food, and cosmetics for mountain households. With the world going back to organics and natural





Some medicinal plants of the Himalayan mountain region including yarcha gunbu (*Cordyceps sinensis*)

health products, these plants native to mountain regions have the potential to go beyond household consumption. Herbal products previously used only for home remedies and small-scale trading by mountain communities, for example, are now increasingly in demand by industry as they supply emerging markets of the globe. Medicinal and aromatic plants (MAPs) and other NTFPs are therefore being looked upon for their potential to boost mountain economies and at the same time reduce the stress on trees as sole source of income in the forests.

Studies show, however, that the gains to wild collectors, small-scale growers, and communities dependent on their trade have been negligible and that certain species or groups of species of these plants are being over-utilised and degraded. Apart from the potential to reach the marginal population of mountain regions, protecting, regenerating, and harnessing NTFPs can help to promote their sustainable use and allow mountain communities to capitalise on their high value in the world markets while at the same time ensuring conservation of mountain biodiversity.

The Medicinal and Aromatic Plants Programme for Asia (MAPPA) is a regional network for action research and incentive-based conservation of MAPs and other NTFPs. MAPPA develops, provides, and promotes appropriate options, methods, strategies,

technologies, and sustainable solutions that aim to directly benefit the poor in mountain areas and help them conserve critical medicinal plants. The Programme has been devolved from the INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC) to ICIMOD. As a regional network of researchers, research institutions and funding agencies, MAPPA links government and non-government organisations, universities, research institutions, and the private sector under this multi-donor initiative. It also acts as a 'knowledge broker', providing leadership in strategic research, coordination, and support for livelihood-focused research and sustainable conservation activities. MAPPA has been implementing two regional projects: the Conservation of Medicinal Plants for Sustainable Livelihoods or MAPPA Phase II funded by IDRC and the FORD FOUNDATION, and the Organic Production of Medicinal, Aromatic and Dye Plants (MADP) in South Asia supported by IFAD, FAO, and IDRC. In late 2005, the Programme received funding from the COMMON FUND FOR COMMODITIES (CFC) to implement a third project of regional scope that will develop the supply chain for herbs and medicinal plants in eastern Himalaya. This will make the Programme a step closer to realising its goal of enhancing the quality of life of the mountain poor in South Asia by making favourable impacts on their fragile livelihoods and degraded environments.

## Promoting the region's indigenous honeybees

Mountain farmers can never compete with their counterparts in the plains in grains-based food production and thus need to focus on products that take advantage of the special niches offered by the mountain environment. ICIMOD's indigenous honeybee programme has achieved enormous success in bringing high-value bee products and services to the awareness of mountain farmers. The programme has improved locally available technology to produce better quality honeybees and honeybee products and has trained farmers who have reaped the benefits of improved incomes as a result. The decade-long initiative on indigenous honeybees has also helped the region better understand the bee-plant-community dynamics both from the perspective of benefits to agriculture and the environment, and the livelihood opportunities they create. The Project's first phase focused on promoting indigenous *Apis cerana* beekeeping as a sustainable livelihood to farmers and development workers, and to policy makers to inform and influence policy. Useful honey plant resources of the HKH region have been identified and a pollen data

bank has been created. Awareness of honeybee pollination has been raised across the region, emphasising the special role of the indigenous bees in enhancing agricultural productivity. Different types of training were also provided to beekeepers, farmers, and extension workers.

The second phase developed better colony management and multiplication techniques adopting the community-based approach. Many farmers have integrated indigenous beekeeping into their farming systems as a result. A selection and multiplication process was developed and adopted in selected communities to explore expanding productivity. Better understanding of the role and importance of wild honeybees and their contribution to the communities was developed and brought into the net of apiculture. Capacity building processes and mechanisms for beekeeping were designed, tested, and refined for a variety of clients, and a new concept of promoting socially acceptable and environmentally friendly honey hunting and bee-watch tourism was developed.



(L-R) Community training in queen bee multiplication in Nepal; selling honey and honeybee products in Pakistan



Min Bahadur Gurung

Min Bahadur Gurung



## Honeybees Provide Relief from Poverty and New Hope for Mountain Farmers

As a result of partnerships, networking, training and other capacity-building efforts by ICIMOD's Indigenous Honeybee Project, *Apis cerana* colonies have increased substantially in three project sites in Nepal (Dadeldhura, Jumla, and Kaski districts), in Himachal Pradesh in India, and in Swat Valley in Pakistan.

In Kaski district, *Apis cerana* colonies in traditional as well as movable frame hives have more than doubled (from 436 in 2001 to 1056 in 2005). New entrepreneurs making beehives and other equipment have emerged from Project and partners' efforts. This has led to substantial increases in honey production and beekeepers' income. On its own initiative and management, for example, BEENPRO in Kaski, a partner NGO, has organised various kinds of training and honey-hunting events and the effort is generating NRs. 70,000 (US\$1,000) annually through selling nucs, queens, honey, and beeswax. In Alital, a VILLAGE DISTRICT COUNCIL of Dadeldhura district, also in Nepal, average annual cash income from beekeeping was estimated at US\$45 per household, or about 25% of total household cash income. Organising honey-hunting groups to conserve the natural habitats of *Apis laboriosa* and *Apis dorsata*, the project has played a pivotal role in creating income opportunities and has contributed to conservation efforts. The population of these bee species has increased significantly at a few nesting sites and has stabilised at depleting sites.

Beekeepers and households benefiting from the project have increased substantially at all sites of the Project. In Kaski, beekeepers have increased by 85% from 233 to 432. Women made up a quarter of participants in the training courses organised by the Project and its partners. Follow-up visits made to one of the project sites found over 80% of the trainees actively involved in beekeeping and related activities. Through capacity building efforts, more than 700 households or about 4200 individuals have benefited directly from the Project in India, Nepal, and Pakistan. Indirect benefits have spilled over to thousands more, including owners of small orchards through pollination services provided by the honeybees, middlemen trading honey and other bee products, and carpenters making beehives and other equipment. This regional project has given hope to thousands of beekeepers, honey hunters, and mountain farmers of the region, previously alienated from mainstream economy and society.





A smoke-free kitchen and women in more productive endeavors as a result of the Women, Water and Energy Project

Building on these successes and the good practices developed, and seeing the potential to adopt the programme in diverse communities across the region to extend its spectrum of benefits, ICIMOD is scaling up the programme. Rigorous consultations and planning exercises were carried out in regional member countries during the year to feel the pulse of communities. Partnership arrangements are being developed with rural development organisations, technical institutions, and international agencies for using bee resources and services as a means of alleviating poverty while contributing to conserving the region's biodiversity. The year 2005 has been dedicated to networking, planning, and fundraising. The focus remains on bringing partners together, conducting an inception workshop, formulating steering committees, and fine-tuning proposals to support the Project's new cycle. Training and capacity building activities are also being planned to continue the momentum created.

Partner organisations in Bangladesh, India, Nepal, and Pakistan, and international partners have been sensitised to high value products and sustainable mountain agriculture with special reference to indigenous honeybees and pollination through policy briefs, brochures, and training manuals. Partners in India, Nepal, and Pakistan have generated resources and have incorporated programme activities on indigenous honeybees and pollination in their annual

work plans. The Rural Development Programme of the Himachal Pradesh government in India, for example, has provided financial assistance to the YS PARMAR UNIVERSITY to promote the management and sustainable use of the native hive bee, *Apis cerana* and managed pollination. The NATIONAL AGRICULTURAL RESEARCH COUNCIL in Pakistan has included research and extension on indigenous honeybees in the programmes of the HONEYBEE RESEARCH INSTITUTE, which had earlier been working only with the European honeybee species, *Apis mellifera*. The DEPARTMENT OF AGRICULTURE OF HIS MAJESTY'S GOVERNMENT/NEPAL has become the strongest advocate of promoting indigenous honeybees in the country's mountain districts. Nepal has placed special emphasis on the promotion of beekeeping with *Apis cerana* in its 10th Five Year Plan. The GOVERNMENT OF NEPAL has already established a number of *Apis cerana* resource centres in various mountain districts. The centres are providing information, training, and bee colonies and equipment to farmers at the local level.

International conservation and development initiatives have also made use of the knowledge and information generated by the project to transform their thinking on the issues of productivity and pollination through indigenous bee resources. This has been clearly spelled out in initiatives like the International Pollinators Initiative of the



GLOBAL ENVIRONMENT FUND, the UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP), FAO's Programme on Conservation and Sustainable Use of Pollinators, and the Eco-agriculture partners. Several other national and local non-government organisations in the region are emphasising the promotion of indigenous honeybees. This is one ICIMOD project close to achieving ICIMOD's target of transforming lives and livelihoods of tens of thousands of households in the greater Himalayan region while making significant contributions to biodiversity conservation, the environment, and people's health.

### **Institutionalising water, energy and gender in national rural development**

Women and men experience poverty and oppression differently, and unless development programmes also address women's needs and promote gender equality, development may be difficult to achieve. ICIMOD's Women, Water, and Energy Project has contributed to addressing women's disadvantaged position in the Himalayan region. The project has provided energy options that have made a transformative impact on women's lives and that of their families in the project areas. In the project sites in the mountain villages of Bhutan, India, and Nepal, women have adopted multiple function

energy-saving and water-heating technologies that have reduced their workload and the drudgery and long hours of collecting fuelwood and fetching water from some distance, freeing up a considerable amount of their time for more productive activities such as childcare and income generation. The women have used the time saved for vegetable gardening, rainwater harvesting, tailoring and other activities. Some of the technologies adopted include improved cooking stoves, drip irrigation systems, wastewater management systems, solar dryers and greenhouses, toilets, sprinkler systems, and beehives at the household level, among others. Not only have the women been relieved from the burdens of work, their kitchens have become smokeless, healthier environments. This has also improved the health and quality of life among households. Women have emerged as energy



Sanjay Madhani

In the mountain areas of South Asia, women spend long hours and drudgery fetching and queuing for water from distant sources – making the Women, Water and Energy Project very relevant



Sanat Chakraborty

entrepreneurs and leaders, for example running a liquefied petroleum gas depot in Bhutan, a village technology demonstration centre in Nepal, and producing and selling solar dryers and improved cooking stoves. Facilitating the formation of women-only groups at each project site and building their organisational capacity, the Project has created a platform for women to come together, nurture their social capital, and build each other's and the community's awareness. The women have addressed their water and energy problems and have also resolved disputes. They have progressed from improving their condition to initiating productive development activities in their communities. This forum has triggered a process of raising community consciousness at various levels. With their own group savings and credit schemes, the women's new economic independence and their organisational strength for collective action have gained them a voice in shaping and improving their lives.

The project has earned international distinction as a "good practice" by the WUPPERTAL INSTITUTE FOR CLIMATE, ENVIRONMENT AND ENERGY (WISONS) in Germany and was featured in *WISONS of Sustainability*, 'Water and Energy - Precious Resources' II, Issue 2004 ([www.wisions.net](http://www.wisions.net)). The Project has demonstrated how good practices can be anchored in a national programme through a participatory bottom-up approach. On the clamour of local women from another village who witnessed how it was transforming their fellow women, the Project is being scaled up and replicated in Vedetar-Dharapani by the DHANKUTA DISTRICT DEVELOPMENT COMMITTEE (DDC) of Nepal. The MINISTRY OF ENVIRONMENT, SCIENCE AND TECHNOLOGY of the GOVERNMENT OF NEPAL has also incorporated gender mainstreaming of water and energy in its future programmes.

In India, new villages have begun recharging traditional water springs based on the

methods demonstrated by ICIMOD in Uttarakhand, India under the Project. Both these examples highlight how a good practice has been mainstreamed into policy at the national and local levels.

The most telling proof of success is that women's groups in all counties of the Project continue to function well after the end of project support in October 2004. Realising the innovative work and strength of the women's group, a new Solar Dryer Project supported under South Asia Regional Initiative (SARI) has been uploaded in both project sites in Nepal. In Bhutan, women are running the LPG depot and solar dryer production and marketing system as a profitable enterprise smoothly. In the project site in India, some women leaders have been transformed into change agents empowering women in other communities by helping them form similar women's groups.

The project concludes that it is not merely which technologies best serve the needs of women but, more important, how to enable and empower them to choose from among options those that meet their needs and improve their status in society. The learning and lessons emerging from the Project have been published in three publications (*Project Learning, Policy Guidelines* and a *Training of Trainers Manual*) and a film, which have been reviewed as "important pieces of work on what have been done and what lie ahead" for women in the context of the South Asian mountain region.





## RURAL ENTERPRISES and MOUNTAIN TOURISM



Conservation and quality production of medicinal and aromatic plants



through efficient supply chain management



Mountain tourism provides livelihoods to people in different ways



Design by Punam Pradhan; Photos: CIMOD file photos

## STRATEGIC OUTCOME

### Promoting Decreased Physical Vulnerability within Watersheds and Regional River Basins



Elisabeth Kerkhoff

A mountain stream

The greater Himalayan region is the source of eight major Asian rivers that serve nearly half of the world's population living downstream in South and East Asia. The region, being the highest, largest, and most complex mountain region in the world, also provides unique and diverse environmental services and products, a wealth of flora and fauna – many of them endemic – and a diversity of peoples and cultures.

But it is also a region of great hazards and risks that include floods and glacial lake outburst floods (GLOFs), soil erosion, earthquakes, landslides, and sedimentation that threaten not only its mountain communities but also the millions living downstream.

By facilitating formal and informal regional information networks, building the capacity of partner institutions in the latest technologies for observing, measuring, and mapping environmental changes, and by showing the way to these technologies through development of databases of mountain hazards such as GLOFs, ICIMOD contributes to making the region a little less vulnerable and thus better preparing its communities to anticipate and deal with disaster. Through integrated initiatives with elements of regional cooperation, support from social institutions and the international scientific community, and involving the most vulnerable sectors, the grassroots communities, ICIMOD strives to make the mountain region a safer habitat for all.

### **Towards an integrated approach to floods and disaster management**

Building on its strength as a knowledge centre and regional node for information sharing, ICIMOD has taken the lead in developing an integrated approach to floods and disaster management in the region. Recent flood events, not just in the region but around the world, have demonstrated how floods wreak havoc on entire societies and the environment. Yet the rate with which the region has been swamped by floods in the last few years, and scientific projections, indicate that floods may continue with increasing frequency and magnitude in the region. Thus,





Xu Jianchu

Mountain settlements are most prone to flash floods, landslides, earthquakes, and other physical vulnerabilities

ICIMOD focused considerable attention in 2005 in addressing the phenomena of floods and flash floods. The Centre worked to enhance and strengthen regional cooperation in the exchange of information and data on floods, disaster vulnerability and mitigation, and water quality. Many of the data and information needed to predict these disasters require the exchange of data and information across country boundaries in real time.

### **Sharing flood data and information across countries in 'real time'**

ICIMOD facilitated the exchange and sharing of vital hydro-meteorological data among and between member countries sharing transboundary watersheds of the Ganges, Brahmaputra, and Indus. Together with the WORLD METEOROLOGICAL ORGANIZATION, it initiated this exchange through a high-level meeting in Bhutan in mid 2005 sponsored by the U.S. DEPARTMENT OF STATE REGIONAL ENVIRONMENT OFFICE FOR SOUTH ASIA and the U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT OFFICE FOR US FOREIGN DISASTER ASSISTANCE. The meeting had gathered high level decision-making officials

and heads of national hydrological and meteorological services in six member countries – Bangladesh, Bhutan, China, India, Nepal, and Pakistan – to assess the countries' capabilities for this kind of exchange, then to reach an agreement among RMCs wishing to participate in implementing a regional flood information system. The meeting recommended the Project Document, which is the proposal for implementing the regional flood information system for funding implementation.

These initiatives are part of a larger project started in 2001 to stem the chronic flooding catastrophes in the region. The first phase tested the information-sharing component from selected pilot stations in the participating countries during the monsoon months from June to September. During this phase, ICIMOD and project partners tested the feasibility of the flood information system technical components to exchange real time data. The phase demonstrated the process from dialogue to tangible results. ICIMOD continues to dialogue with participating member countries to sustain and expand this



# Landslides, Flashfloods and their Impacts

**Rapid flashfloods due to landslide dam failure are significant hazards in the greater Himalayan region and are particularly common in the high, rugged mountain areas of China, India, Nepal, and Pakistan.**

## The Yigongzanbu River

On 9 April 2000, a huge landslide occurred in the valley of the Zhamulongba stream north of the lower reaches of the Yigongzanbu River. About 300 million cu. m of displaced debris, soil, and ice dammed the river. The landslide dam failed, leading to a flashflood that caused great disaster downstream. About 3,000 million cu.m of water was released with a maximum discharge of 124,000 cu.m per sec. The flood water was 50m high, 17km downstream from the dam and about 30m high in Arunachal Pradesh in North India, where 30 people died, hundreds were reported missing, and over 50,000 were rendered homeless. The flood washed away 20 bridges and caused an estimated \$23 million in damage.



Sketch map of the Tibetan (Xizang) Autonomous Region, People's Republic of China, showing the location of the Zhamulongba landslide that dammed the Yigongzanbu River.



View of the Yigongzanbu River before the landslide occurred (Landsat TM image of 01 Dec 1995, note the remains of the landslide dam which occurred in 1990 in the right corner of the image)



SPOT image on the 26th day after the Yigong landslide occurring (SPOT4 XS of 5/4/2000) (Source: Remote Sensing Institute of Chinese Academy of Sciences)



View from downstream of the landslide dam which was about 130m high and 1.5km wide across the river (middle background), and created in eight minutes.

## The Pareechu River

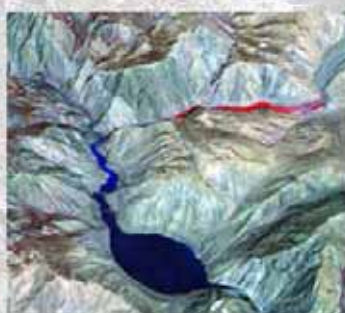
A landslide in the early summer of 2004 created a dam in the Pareechu River in Tibet. The river's water level rose by 12-15m after an artificial lake formed. A year later, breaching in this artificial lake threatened downstream villages in India. A flood warning was issued and thousands of people were evacuated in Himachal Pradesh. The landslide dam burst flooding the Sutlej River, but **no one died, they were saved by early warning and evacuation.**



Location Map



Before the landslide (May 2000)



After the landslide (September 2004)

Source: NASA/SPOTCOMETERSDACSAROS, and U.S./Japan ASTER Science Team



After the breach (July 2005)



exchange. The project builds upon existing bilateral treaties and agreements among the participating countries. ICIMOD is exploring potential donors to fund the initiative.

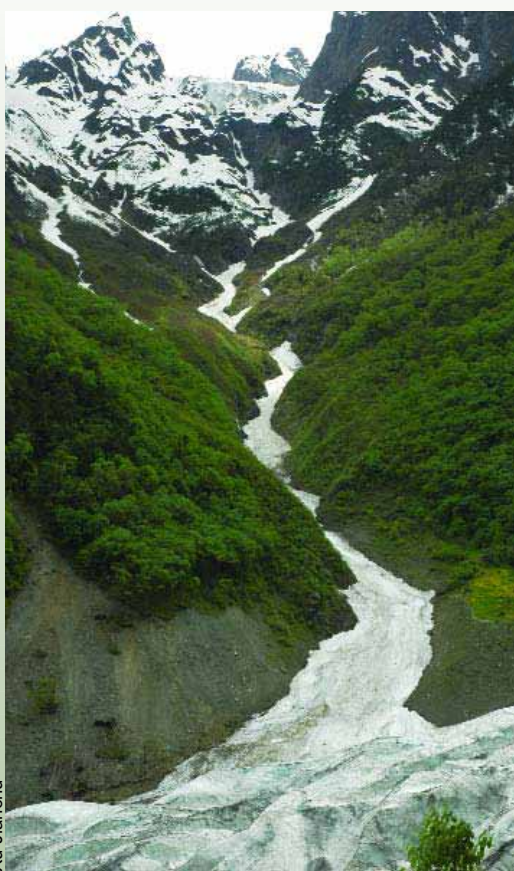
### **International Workshop on Flash Flood Management in the Himalayan Region**

As an offspring of the high level meeting in Bhutan and the clamour from the participating countries for more workshops and exchange of knowledge and expertise on flash floods, ICIMOD and partners organised an international workshop in Lhasa, Tibet in October. Research professionals from around the world and key institutions and stakeholders from the region, including NGOs, government agencies, and donors gathered to share information and knowledge and scientific understanding on the causes of the region's flash floods during this important

meeting. The objective was to help the countries develop early warning systems and national coping strategies. The Centre invited country reports on flash floods from the eight regional member countries to synthesise and characterise flash floods in the region into a regional body of knowledge, which will help in mitigation efforts and in identifying institutional support required.

The meeting produced the 'Lhasa Declaration', which recognised the serious threats flash floods pose to the region, the need to improve forecasting, warning, and communication systems in the regional member countries, and for a 'catchment approach' to flash floods management. This would include a functioning dialogue upstream and downstream in a transboundary context across countries, and among sectors

### **Transboundary Effect of Glacier Retreat: A Case Study from Xixiabangma area in Poiqu Basin of China**



Xu Jianchu

Mingyong glacier, Yunnan

ICIMOD and its partner organisation in China, the COLD AND ARID REGIONS ENVIRONMENTAL AND ENGINEERING RESEARCH INSTITUTE (CAREERI), conducted a study which confirms a remarkable retreat of glaciers due to climate change in the Poiqu Basin in Xixiabangma area – a basin shared by China and Nepal. At present, about 150 glaciers cover 11% of area within Poiqu Basin. About 5% of the glaciers from the entire basin have vanished in the last three decades. As a result of glacier retreat, glacial lakes are growing at alarming rates. Lakes such as LumuChimi and GangxiCo have swollen and grown by almost 100%. They pose potential threats of glacial lake outburst floods, which can have devastating consequences on local people and the surrounding environment. GLOFs may damage existing infrastructure such as hydropower and roads, and agricultural land downstream in the lower riparian country. There is a need to cooperate across countries or on a regional basis to exchange scientific information and to carry out detailed field investigation in the areas to evaluate the possible damage downstream. Early warning systems on potentially dangerous lakes, and downstream areas likely to be along the path when they make their virulent rampage, are necessary to minimise and mitigate the effects of such natural disasters.



Measuring the rise in water level in the East Rapti River, Nepal

and governance levels at country levels. While a specific outreach strategy still needs to be developed, the key elements of a regional approach have been identified:

- to improve national capabilities including the regional exchange of data, information technologies, and know-how;
- to promote and implement national and transboundary projects to reduce flash flood disasters; and
- to facilitate partnerships among key national agencies and nongovernment organisations region-wide and to reach out to the general public to create and increase awareness for flash flood challenges and mitigation options.

ICIMOD has initiated efforts to move these key elements forward, and is working on a proposal to find the resources to advance them further.

### Developing community-based disaster management strategies

Mountain communities, being in the first line of defense when mountain disasters like flash floods and GLOFs strike, play an important role in managing disaster. The mountain poor

often do not have the resources for relocation and rehabilitation and therefore are the most vulnerable victims. Moreover, national governments and urban-based research institutions find it difficult to reach local communities for disaster management. ICIMOD has extended its community-based approach to natural resources management to flood disaster preparedness and mitigation. To complement the regional approach, the Centre has

identified local partner institutions such as ACTION AID in Nepal, and the AGA KHAN RURAL SUPPORT PROGRAMME in Pakistan, as intermediaries to reach out and spread awareness to the local communities and thus prepare them to manage disaster. Two sub-basins, in Nepal and Pakistan, have been selected for flash flood mapping, capacity building, and disaster management as a joint learning process together with ICIMOD partners.

### Mapping glacial lake outburst flood 'hotspots'

Glacial lakes and their outburst floods are the most common source of flooding in the mountain areas. In response to the demand from regional member countries, their hydro-



Dyutiman Choudhary

Organising the community is the best way to prepare them to manage disaster



electricity sectors, and local communities, an ICIMOD team identified 10 potential GLOF hotspots in the Poiqu Basin between China and Nepal (*related story on p. 36*). The Centre is also near completing an inventory of glacial lakes and GLOFs of the entire Himalayan region, a project in partnership with UNEP, APN, and in close collaboration with partner institutions in the regional member countries. ICIMOD has compiled the most comprehensive datasets on glaciers and glacial lakes to date. Identifying potentially dangerous lakes has raised awareness of their threats and the risks to mountain inhabitants, infrastructure, and downstream. International research institutions and scientists are also using the information in climate change research, such as in monitoring the glacier environment and developing early warning systems, in monitoring GLOF hazards and assessing their potential impacts, in water resources management studies, among others. Media around the world have highlighted the importance and contribution of these studies to understanding mountain ecosystems and their services. The baseline datasets are considered important in time series analysis of the glaciers environment in relation to global warming. ICIMOD has distributed these important datasets to the scientific research community to enlarge and expound on its findings for the benefit of the mountain region and the rest of the globe.

### Building the capacity of national agencies in hazard mitigation and disaster management

ICIMOD's capacity building efforts in geo-information systems (GIS) have resulted in a sustainable network of national agencies and research and learning institutions promoting GIS for a variety of uses in mountain development and disaster mitigation, including earthquake preparedness and planning. Many of these institutions that have

### Summary of Glaciers and Glacial Lakes in the Mountains of Pakistan, India, and China/Tibet Autonomous Region compiled by ICIMOD

River Basins	Glaciers		Glacial Lakes	
	Total number	Area (km <sup>2</sup> )	Total number	Area (km <sup>2</sup> )
<b>Pakistan Himalaya</b> Indus Basin	5,218	15,041	2,420	126
<b>India Himalaya</b> Himachal Pradesh	2,554	4,161	229	380
Uttaranchal	1,439	4,060	127	2.5
Tista River	285	577	266	20
<b>TAR, China</b> Sub-basins of Ganges	1,578	2,864	824	85
<b>Nepal Himalaya</b>	3,252	5,324	2,323	76
<b>Bhutan Himalaya</b>	677	1,317	2,674	107
<b>TOTAL</b> (within the study area)	<b>15,003</b>	<b>33,342</b>	<b>8,863</b>	<b>797</b>

benefited from our training and capacity building initiatives now have GIS programmes of their own. The training courses have attracted significant co-financing from partners, and many of the training programmes are now conducted jointly with partner organisations with minimal inputs from ICIMOD. More than a dozen universities in the region have been strengthened with ICIMOD assistance and are now offering GIS/RS courses in their curriculum. With this welcome development, the Centre hopes the region's future generation will have better understanding of and will be able to harness the benefits of technology and its applications in reducing the region's vulnerability to natural hazards. ICIMOD's MENRIS Division continues to play a catalytic role in harnessing technology in the service of the mountain region. Demand continues for its services in GIS and other technologies from partners and research institutions.

### Monitoring regional air pollution levels

As a further contribution to research, ICIMOD hosts one of UNITED NATIONS ENVIRONMENT PROGRAMME's network of observatories in the region to monitor regional air pollution levels. The Nepal Climate Observatory at ICIMOD is equipped



The brown haze as seen from the horizon in Banderban, Bangladesh

with radiation and meteorological instruments that will allow the continuous monitoring of pollution levels across the region. This is part of the Indian Ocean Experiment carried out in February 1999 in the islands of the Maldives to monitor the atmospheric brown cloud (ABC) detected hovering over much of the region in Afghanistan, Pakistan, Bangladesh, Bhutan, India, and Nepal, extending up to the Maldives and Sri Lanka. Although follow-up studies are needed to unravel the precise effects of the brown cloud, preliminary results suggest serious regional and global

implications. The blanket of pollution is reducing by as much as 15% the amount of solar energy hitting the Earth's surface, with direct effects on agriculture by infringing on the important process of photosynthesis in plants. The combination of surface cooling and lower atmosphere heating as a result of the haze appears to be also altering the winter monsoon, leading to sharp decreases in rainfall over the north-western parts of Asia and an increase in rainfall along its eastern coast and may be accounting for the serious droughts in 1999 and 2000 in Pakistan and the north-western parts of India, and increased flooding in the high rainfall areas of Bangladesh,

Nepal, and India's north-eastern states.

ICIMOD is part of this initiative to continuously monitor pollution levels across the region, to trace the origins of the brown cloud and long-term impacts on the region and its populations.



Narendra Bajracharya



Nepal Climate Observatory (NCO) at ICIMOD and some of its instruments for measuring pollution levels





# Global warning for the Himalaya

## Millions face glacier catastrophe

by KUNDA DIXIT

As officials haggle over emission targets and a long-term strategy to address climate change this week in Montreal, glaciological experts have warned of 'Himalayan tsunamis' caused by outbursts of mountain lakes swollen by snow melt.

At a recent international workshop here, scientists agreed global warming was now a certainty and it was already bringing dramatic changes to snow cover in the Himalaya.

'Projections indicate that the magnitude and frequency of flashfloods in the greater Himalayan region may increase in the future as a result of change in climate and its variability,' said the Lhasa Declaration issued at the end of the conference that was sponsored by the Kathmandu-based ICIMOD and the China Meteorological Administration.

ICIMOD already has a regional flood initiative for exchanging hydrological data but says Himalayan flashfloods need even greater crossborder cooperation because many of the steep rivers flow across boundaries and reaction time is measured in hours, not days.

"Major Himalayan rivers are transboundary river basins and flashfloods will not respect national borders," says Xu Jianchu, a Chinese scientist with ICIMOD, "that is why we need to think regionally and act locally."

Indeed, an existing bilateral early warning mechanism between India and China prevented what could have been a catastrophe on the Sutlej River in February this year. **By the time flood waters surged through Himachal Pradesh, people had been evacuated and no lives were lost.**

Similarly, despite strained relations between India and Pakistan they share warning through radio broadcasts and this prevented another potentially devastating loss of life on the Chenab earlier this year.

However, officials say a lot more needs to be done to map hazardous valleys, glacial lakes in Bhutan, Nepal and Tibet that are in danger of bursting and to transmit rainfall data in real time so downstream regions have time to evacuate.

"There is a lack of exchange of real time data and there needs to be a regional mechanism for this," says Mandira Shrestha, a water resource specialist at ICIMOD.

Although Nepal has got the most experience in the region in mapping and draining glacial lakes, our domestic warning system for big rainfall events is almost non-existent which is why flashfloods triggered by cloudbursts in the central midhills during monsoons in 1981, 1993, 2002 and 2003 were so catastrophic.

"There is no operational flood forecasting in Nepal," says Arun Bhakta Shrestha of the Department of Hydrology and Meteorology.

Pradeep Mool of ICIMOD is an international expert on glacial lake outburst floods (GLOFs) and says there is now little doubt that climate variability is causing rapid glacial retreat, especially in the eastern Himalaya. The frequency and damage caused by GLOFs have been increasing due to climate change, and Mool is working with Chinese scientists to study several lakes in Tibet that drain into the Trishuli and Bhote Koshi that are in danger of bursting.

The Bhote Koshi Power Company has installed sensors all the way up to the Chinese border that gives the 46 MW project five minutes warning in case of a GLOF. There are 42 glacial lakes in the Bhote Koshi basin in Tibet and the river has a history of flashfloods. "What we'd like is to have sensors further upstream and extend the warning time," says Bhote Koshi's Sandip Shah.

There have been 25 glacial lake floods recorded in Nepal and more than half of them originated in Tibet. Of the 2,315 glacial lakes within Nepal, 20 are said to be extremely dangerous. And one only needs to look at geological evidence of past events to see the kind of damage they can cause. Pokhara is situated on the debris field of a catastrophic flashflood on the Seti some 800 years ago which if it happened today could cause up to 200,000 deaths.

Average temperatures across the mountains are increasing at 0.06 degrees a year. Glacial lakes that used to be small ponds 20 years ago are now 5 sq km and larger.

Closer cooperation between China and Nepal could protect downstream infrastructure and towns in Nepal not just in the Bhote Koshi but the Trishuli and Arun as well. Says ICIMOD Director General J Gabriel Campbell: "We must make information travel faster than flashfloods."

## STRATEGIC OUTCOME

Promoting Greater Voice and Influence, Dignity, Security, and Social Equality for All Mountain Peoples



Women's group in the high mountains of Pakistan

By implementing programmes and approaches that give centrality to women in decision-making, and by promoting equitable rights for the region's mountain communities, ICIMOD contributes to helping mountain people find their voice – denied them by centuries of isolation, deeply rooted caste systems, and poverty.

The Centre is mainstreaming equity and poverty considerations especially for indigenous peoples in its programmes, particularly on biodiversity conservation and natural resources management. ICIMOD also promotes the right of mountain people to information as an approach to improving governance in mountain communities. Enhanced and expanded databases on socioeconomic indicators for several of ICIMOD's regional member countries has aided these efforts and has helped member governments and their community organisations and NGOs implement national and local interventions, and plan and craft policy more in tune with their needs.

### **Empowering mountain people through advocacy**

In 2005, ICIMOD enhanced the capacity of over 70 community institutions for advocacy, a process of helping mountain people find voice to claim their rights. The Centre brought together over a hundred participants from regional member countries and partner





Xu Jianchu

Participatory planning in Tibet Autonomous Region, China

organisations working with mountain communities, to discuss issues of equity rights and access to natural resources, relevant to mountain life. The discussions have explored ways in which, through advocacy, mountain women and men may be helped to articulate their needs and views. On the ground advocacy experiences were shared and publications and videos on advocacy were produced based on ICIMOD's and partners' work to aid in this work. Four specific areas in which ICIMOD's advocacy training has helped the region's marginalised mountain peoples include:

- *Lobbying for pro-mountain policies.* With ICIMOD's support, the RURAL TECHNOLOGY AND DEVELOPMENT CENTRE (RTDC), a partner organisation in Palampur, Himachal Pradesh, has been helped in its advocacy work to promote a special policy for India's mountain areas. Inputs in advocacy skills and processes given by ICIMOD's regional training workshops have helped the organisation take this issue forward to the central government of India. Training in advocacy has also helped members of NAVRACHNA, a civil society network based in Kangra

district (also in Himachal Pradesh) bring a 'Himalayan Niti' or mountain-specific policy to the attention of the UNION GOVERNMENT OF INDIA. NAVRACHNA now reports that the state level policy makers are increasingly receptive to the interest of their mountain communities.

- *Advocacy in natural resources management.* ICIMOD has also provided technical support to one of Nepal's largest and strongest advocacy organisations, the FEDERATION OF COMMUNITY FOREST USER GROUPS IN NEPAL (FECOFUN). FECOFUN has district branches with district executive committees in 74 of Nepal's 75 districts, and almost half of its members in both the district and the national executive committee levels, including its Vice President, are women. ICIMOD's advocacy training has assisted other NGOs to promote policies in water resources management. Sambandh - a network of 42 NGOs in Uttarakhand which has been beneficiary of ICIMOD training workshops has identified the need for a water policy as a priority issue at the state level. Framing advocacy strategies around this issue, the network has held three

## 'Advocacy can be empowering' Testimonies from some of the 'Empowered'

“Before the advocacy training, we were not thinking about the importance of networking for advocacy. We were doing advocacy for health issues for a long time but were doing it alone. Consequently, we were achieving fewer successes. Now, we realised that we need to be in touch with other organisations, although they are not directly working for health issues.”

**Mayfereen, Meghalaya, India, ICIMOD partner**

“When we were alone we used to be afraid of going to a government office. But now we are united in a network of 16 community-based organisations (working) together. Looking at our social capital and group strength, local level government agencies even ask us (now) to participate in their meetings for resource allocation and other important decisions.”

**Ms. Saria Tariqu from Dhanak village, Kashmir, Pakistan, participant to one of ICIMOD's advocacy training workshops**

“The training of trainers in advocacy was a turning point for me. Afterwards, I started to focus more on rights and ways of getting rights for the people rather than just a temporary solution to the problem.”

**Mr. Lala, Training of Trainers participant from Green Hill NGO, Chittagong, Bangladesh**

“Knowledge and skills on how to make arguments logical have made many things possible at the local level. We are (now) able to meet various local needs without damaging our cordial relation(ship) with the government and other agencies.”

**A young community member from Dhanak village working with NRSP and committed to local development**

regional meetings, one state level seminar, and has made presentations before policy makers and government bureaucrats. State stakeholders now realise the need for a water policy at the state level.

- *Empowering women through advocacy*  
Women's organisations in the region lobbying for women's property rights have



Design by Sanjay Madnani; Photos: Mani Lama

been increasing significantly in the last few years. HIMAWANTI NEPAL, LEGAL AID AND CONSULTANCY CENTRE, DIDI BAHINI, and SANCHARIKA SAMUHA are some of these women's networks in Nepal with close associations with ICIMOD and are now active in the lobby for women's property rights. At the regional level, HIMAWANTI has been working closely in the Chittagong Hill Tracts of Bangladesh. These networks are also joining the NATIONAL FORUM FOR ADVOCACY, a network of networks to collaborate and obtain issues-based support. In addition to supporting a state level water policy, SAMBANDH NETWORK in Uttaranchal, India has been taking up women's issues before state level forums. SUNGI DEVELOPMENT FOUNDATION in Pakistan, another ICIMOD partner, has been working with village women's groups in the North West Frontier Province for women's rights and their effective participation in local government institutions.



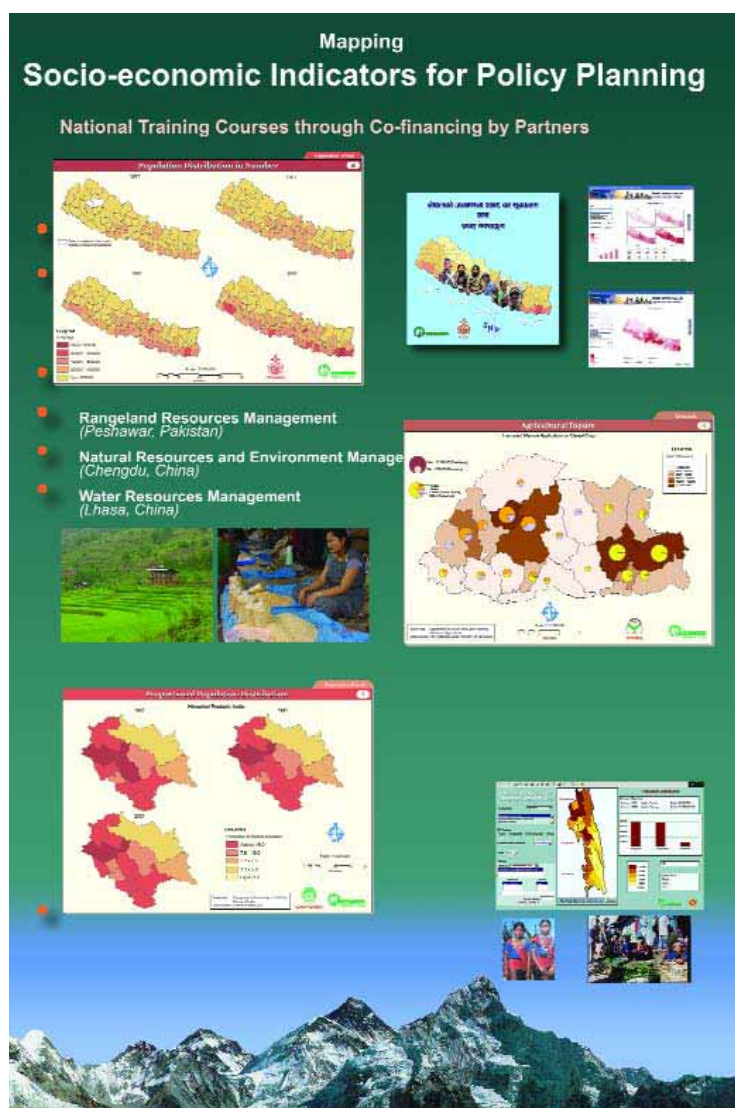
- *The importance of networking in advocacy*  
Joining or associating with other networks has strengthened advocacy efforts. Lessons from the past indicate that there have been successful cases of advocacy in communities of the Himalaya although the advocates may not have used the term 'advocacy'. Their stories of success have not, however, been shared to inspire others or to provide models for other groups as they promote their own advocacy causes. The same issues concerning forest resources crop up in mountain areas of India, Nepal, and Pakistan, for example. Many community based organisations and associations are advocating for policies in favour of the users of these resources. However, they have not considered coming together as common voices at country and regional levels. With ICIMOD providing a catalytic convening role, several advocacy networks have emerged including the 'Advocacy Forum for Revitalising Equitable Societies in the Himalayas', a regional forum; HIMACHAL AND UTTARANCHAL JOINT NETWORK FOR ADVOCACY, in India; Capacity Building in Advocacy and Networking in Meghalaya, India; and the NATIONAL FORUM FOR ADVOCACY NEPAL.

In Haripur, North West Frontier Province of Pakistan where SUNGI DEVELOPMENT FOUNDATION has been working for many years, local organisations have formed a Community Development Council to serve as an umbrella organisation for community development organisations in the area. Elected people's representatives at local levels are leading this Council, a concrete

application of a networking strategy which ICIMOD's advocacy training workshops and programmes continue to promote. The DISTRICT DEVELOPMENT COUNCIL (DDC) of Haripur has also agreed to a joint regular meeting of the DDC and civil society organisations every three months. This is the first district in Pakistan where this kind of joint meeting is now taking place regularly and is putting lobbying and collaboration strategies promoted by ICIMOD into action.

## Expanded mapping and use of indicators of development in the Himalayan region

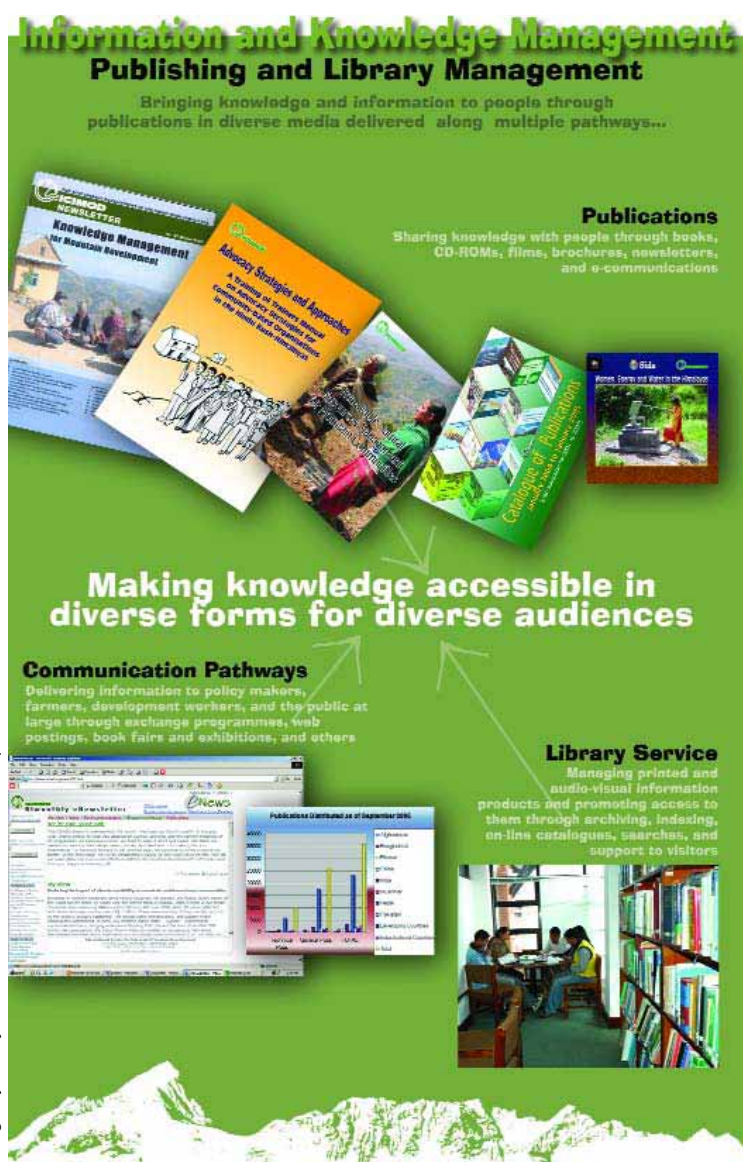
Two ICIMOD publications, *Mapping Nepal Census Indicators of 2001 and Trends*, and *Districts of Nepal: Indicators of Development Studies*, published in 2003, have both been



Design by Gauri Dangol; Photos: ICIMOD file photos

widely received and recognised by policy-decision makers and development practitioners in Nepal. There is continuing request for these publications by all sectors of society in Nepal, and to date more than 1500 copies have been distributed and are being used by government and development organisations in designing and implementing interventions. The POVERTY ALLEVIATION FUND OFFICE of Nepal has used the indicators to select six priority districts for programme intervention and recently has added the other 19 districts, using the publication as source. SNV-NEPAL and other donors have also been using the *Indicators of Development* to select priority districts for programme implementation. UNDP NEPAL disseminated the publications to all district headquarters.

Realising growing demand for these studies, SNV-NEPAL provided additional resources to translate the publications into Nepali. The studies and methodology were found useful in other member countries and efforts to publish similar studies are being undertaken in Bhutan, in the Chittagong Hill Tracts region in Bangladesh, and in Himachal Pradesh, India. The Census Commissioner of Bhutan visited ICIMOD in 2005 to better understand the methodologies and processes involved as they develop similar socioeconomic indicators for Bhutan after its first population census in May. Many of these studies, as co-financing undertakings of ICIMOD and partner institution in each of the RMCs, have underscored the importance of baseline data on socioeconomic aspects vital to research and development activities.



Design by Sanaja Madhani; Photos: ICIMOD file photos

## Outreach and publications

Outreach and publication activities contribute in diverse ways to all five of ICIMOD's strategic outcomes. They provide pathways for disseminating information and channels for communicating with partners and other interested people.

## The Library

As of December 2005, 1000 records of new documents have been added to ICIMOD's bibliographic database. These include books, reports, articles, and similar publication; 500 documents have been recorded in the accessions register (books and reports); 450 journal issues were received; 20 new serial titles were added to the serials database; and bibliographic citations have been provided. The library now has a total of 29,500 bibliographic records. A newspaper clipping compilation was prepared of articles mentioning ICIMOD



activities including press releases, book reviews, and reports of meetings, among others, during the past year.

Between January and December 2005 more than 1,200 users visited the Library. A total of 35 retrospective searches were conducted for ICIMOD staff and visitors. Lists of New Documents and New Serials in the Library were published on the ICIMOD Intranet at fortnightly and monthly intervals, respectively. The on-line database was updated once a month, and 25 records of ICIMOD publications were added to the AGRIS database.

### **ICIMOD E-news**

An ICIMOD e-Newsletter, published bimonthly, continues to inform readers on the CENTRE's most current activities and programmes. The e-News focuses primarily on news from ICIMOD and its partners. Through it, one can share knowledge and news and voice opinions and give feedback on mountain issues. Six issues of e-News were brought out during 2005; by the end of the year there were 300 subscribers. New subscribers can register at

<http://www.icimod.org/enews/>

- Fourth Issue, February/March 2005
- Fifth Issue, April/May 2005
- Sixth Issue, June/July 2005
- Seventh Issue, August/September 2005
- Eighth Issue, October/November 2005
- Ninth Issue, December 2005/January 2006

All issues are available at

<http://www.icimod.org/enews/index.htm>

### **ICIMOD web page**

On average some 9500 unique visitors (maximum 14000 in October) browse about 65,000 pages (maximum 76500 in October) on the ICIMOD website per month. A total of 1,400,000 hits were made during the year. Feedback from some 50 people was received from various parts of the world – including Bangladesh, Canada, Denmark, Germany, Ghana, India, Italy, Kyrgyzstan, Nepal, USA,

and UK – citing the information on the site as useful, especially for mountain information and soliciting knowledge management implementation in development organisations and ICIMOD publications on specific topics.

### **Training needs assessment on ICT**

The ICT capacity building team carried out an on-line training needs assessment survey in July 2005. Its main objective was to identify staff's priority for the ICT training. The survey data collected from 19-31 July 2005 was divided into three categories – training needs by all staff, by administration staff, and by programme staff. The data were further classified into three sub categories – most responded, top priority, and not responded. Following this survey, an 'Internet Searching' training was conducted for 32 staff members from 8-9 September 2005. The ICT team will be building on past experiences to organise useful and effective training sessions in the future to further enhance staff's skill in using ICT tools.

### **Publications dissemination and marketing**

ICIMOD continued to prepare and diversify its range of communication 'products'. During 2005, some 47 scientific and general publications were brought out together with an array of brochures, flyers, and posters. The technical publications include training manuals, resource books, workshop summaries, proceedings of meetings, two films, a CD-ROM, a manual for web posting, and an information booklet to accompany a film. Three books were translated into regional languages (Chinese, Nepali, and Hindi) in response to project needs and published together with partners. The general publications included newsletters, the Annual Report, a publications catalogue, information sheets, articles for peer-reviewed journals, brochures, and flyers. In addition 40 posters and 44 photo displays were prepared for display at various functions and publicity sheets were prepared for the technical publications.

More than 47,800 hard copy publications were distributed (including 12,809 technical and 35,044 general publications, posters, videos, and CD-ROMs). ICIMOD mailing list membership increased by 287 to 3,803 during the year, 75% of the members are from HKH countries. The mailing list update process is ongoing. Seven new publication exchange programme (PEP) agreements were formalised (India-4, Nepal-2, and Pakistan-1). Similarly, two agreements were signed for Contribution to a Resource Centre (CTRC) (one each in Pakistan and Afghanistan). The total member of PEP members is now 83 and of CTRC members 37. A further 76 resource centres and libraries were provided with ICIMOD publications in response to requests. Feedback comments on publications were compiled and forwarded to the relevant programmes and the publications section.

ICIMOD publications were promoted regularly through e-announcements and the ICIMOD website. Promotion of publications also continued on earthprint.com, UNEP-Grid's official bookstore and through the panasean e-commerce mall run by ASEAN FOUNDATION, Jakarta, Indonesia. The e-commerce contract with SMI (DISTRIBUTION

SERVICES) LTD., United Kingdom was renewed for another two years in May 2005. ICIMOD CD-ROMS were submitted to and are promoted on the Asian Development Bank Institute's CD-ROM Review Programme, Tokyo, Japan website. Twenty-one press releases, book reviews and book announcements were prepared and distributed widely through our own channels and the press.

## Book fairs and exhibitions

Book fairs and exhibitions continue to be an important component of ICIMOD's outreach activities. The year's major events included:

*The ICIMOD Open House on 14 May* including an Office Visit Programme, ICIMOD Book Fair & Information Bazaar, and a 'ramailo mela'. As part of the Programme Visit, visitors received briefings on ICIMOD and its programmes from its management and staff; 15 of our partners took part in the book fair and the 'ramailo mela' comprising a number of games stalls, handicraft stalls, and food stalls, and including a street drama, 'Daura ra Pani' by villagers from Lakuri Banjyang in the Phulchoki Watershed as part of ICIMOD Alternative Media Project activities.



Punam Pradhan

Exhibition visitors look at some of ICIMOD's publications

## *World Environment Day, 5 June 2005.*

ICIMOD organised, jointly with the MAHENDRA ADARSHA VIDYASHRAM (MAV) HIGHER SECONDARY BOARDING SCHOOL, a three-day inter-school Environmental Quiz Contest among the schools of the Lalitpur District on 31 May, 1 June and 3 June 2005 at the ICIMOD Headquarters. Sixteen schools participated. In addition, ICIMOD





An exhibition of ICIMOD publications complement a workshop in Yangon, Myanmar

co-sponsored the Dohori Geet Environmental Awareness Programme jointly with the Ministry of Environment, Science and Technology, His Majesty's Government of Nepal, and Radio Nepal on 2 June, and co-sponsored a tree planting programme at the UN Park, organised by the UN Park Development Committee, in addition to its own tree planting activity on the ICIMOD grounds on 6 June 2005.

***Exhibition of the Department of National Parks and Wildlife Conservation, (DNPWC)/ HMG, Nepal, 31 August-1 September.*** On the occasion of THE DEPARTMENT OF NATIONAL PARKS AND WILDLIFE CONSERVATION's Silver Jubilee Celebration, ICIMOD took part in an exhibition at the ROYAL NEPAL ACADEMY, where the CENTRE's work relating to biodiversity conservation was put on display.

***ICIMOD Book Launch on the Occasion of ICIMOD Day, 5 December 2005***  
ICIMOD marked its 22nd anniversary with the launch of 'Women, Energy and Water in the Himalayas', a set of three books with accompanying CD-ROM and a CD-ROM and film on the Training and Demonstration Centre, Godavari. Staff, donors, partners,

including government officials of Nepal, consultants, and the media attended the event.

***International Mountain Day, 11 December 2005.*** ICIMOD celebrated the 3rd International Year of Mountains, with the slogan 'Sustainable Tourism for Poverty Alleviation in Mountain Areas' by taking part in programmes organised by the Ministry of Forests and Soil Conservation, HMGN, in Kathmandu, Nepal. The programmes highlighted opportunities and challenges in various aspects of mountain life, livelihoods of local communities, natural and agricultural resources, and poverty alleviation in Nepal.

ICIMOD participated in the book sale, at the '*Negotiating Ethnicity in Nepal, Past and Present*' workshop organised by the Nepal Social Baha from 12-15 September 2005 represented by a local bookseller, Vajra Books. It also participated in Film South Asia '05, from 29 September to 4 October 2005 organised by Himal Association.

***Poster Display and Session*** at the ICIMOD Open Day on 14 May 2005 and the 35th Board of Governors' Meeting in Shillong, India from 23-25 November 2005

# ICIMOD BOOKSHELF 2005

## Technical publications

Andersen, P.; Tuladhar, J. K.; Karki, K. B. **Micronutrients in South and South East Asia: Proceedings of an International Workshop held on 8-11 September 2004, Kathmandu, Nepal.** (University of Bergen/NARC/ICIMOD) 239p ISBN: 92-9115-210-2

Gyamtsho P.; , Tashi N.; Kaiser K.; and Richter J. (eds.) **Sustainable Rural Development in Mountainous Regions with a Focus on Agriculture in the Tibet Autonomous Region** (prepared by ICIMOD for InWEnt gGmbH, Germany) ISBN: 3-937235-07-1

Sharma, B.; Banskota, K. **Women, Energy, and Water in the Himalayas – Project Learning.** Nairobi: UNEP/ ICIMOD. 112p. ISBN: 92-807-2596-3/92-9115-191-2

Sharma, B.; Banskota, K.; Luitel, S. **Women, Energy and Water in the Himalayas: Integration of Women in Planning and Management – Policy Guidelines.** Nairobi: UNEP/ICIMOD. 64p. ISBN: 92-807-2597-1/ 92-9115-093-2

Sharma, B.; Luitel, S.; Banskota, K. **Women, Energy and Water in the Himalayas: Incorporating the Needs and Roles of Women in Water and Energy Management - Training of Trainers Manual.** Nairobi: United Nations Environment Programme/ ICIMOD. 107p. ISBN: 92-807-2598-X/ 929115-207-2

Shrestha, M.; Shilpakar, R. L. (eds.) **Water Quality in South Asia: Issues and Status – Proceedings of a Regional Integrated Workshop on Water Quality, 29 June - 2 July 2004, Kathmandu, Nepal.** (Partnership Platforms 1/05). 46p. ISBN: 92-9115-076-2

Stocking, M.; Helleman, H.; White, R. **Renewable Natural Resources Management for Mountain Communities.** 312p. ISBN: 92-9115-062-2

Subedi, N. R. **Advocacy Strategies and Approaches: A Training of Trainers Manual on Advocacy Strategies for Community-Based Organisations in the Hindu Kush-Himalayas.** 171p. ISBN: 92-9115-031-2

Subedi, N. R. **Advocacy Strategies and Approaches: A Resource Manual for Community Advocates and Trainers in Advocacy in the Hindu Kush-Himalayas.** 127p. ISBN: 92-9115-045-2

White, R.; Bhuchar, S. K. (eds.) **Resource Constraints and Management Options in Mountain Watersheds of the Himalayas.** 204p. ISBN: 92-9115-143-2

Wright, I. A.; Duncan, A. J. (eds.) **Livestock, Fodder, Pastures and People: An Integrated Study in the Northern Areas of Pakistan.** 67p. ISBN: 92-9115-059-2

Xu Jianchu; Chun K. Lai; Bajracharya, S. comp. **Land Use History in Montane Mainland Southeast Asia: Highlights and Outcomes of a Mobile Workshop, 15-17 Jan. 2005, China, Laos and Thailand.** (Partnership Platforms 2/05). 108p. ISBN: 92-9115-112-2

Zurick, D.; Pacheco, J.; Shrestha, B.; Bajracharya, B. **Atlas of the Himalaya.** 96p. ISBN: 92-9115-224-2

## CD-ROM and DVD Films

ICIMOD Demonstration and Training Centre Godavari Interactive CD-ROM. ISBN 92-9115-109-2

ICIMOD Demonstration and Training Centre, Godavari Introductory Film (DVD Film) 16 mins

Women, Energy and Water in the Himalayas (DVD Film) 18 mins. (UNEP/ICIMOD)



## **Publications in regional languages**

Groverman, V.; Gurung, J. D. **Gender and Organisational Change**. Yunnan: Yunnan Science and Technology Press. 134p. Lang: Chinese ISBN: 7-5416-2118-8

Shrestha, B.; Bajracharya, B.; Pradhan, S. **GIS for Beginners: Introductory GIS Concepts and Hands-on Exercises**. 102p. ISBN: 92-9115-238-2 Lang: Nepali

## **Publications by partners supported by ICIMOD**

Achouri, M.; Tennyson, L.; Upadhyay, K. (eds.) **Preparing for the Next Generation of Watershed Management Programmes and Projects Asia: Proceedings of the Asian Regional Workshop Kathmandu, 11-13 Sep 2003**. Food and Agriculture Organization of the United Nations (FAO), Rome, Italy. 164 p.

HMGN/MFSC; ICIMOD; TMI; WWF Nepal. **Proceedings of the National Stakeholders' Consultation on Sacred Himalayan Landscape in Nepal, 05 April 2005**, Kathmandu, Nepal. Kathmandu, (Nepal): Ministry of Forests and Soil Conservation, Dept. of Soil Conservation. 50p.

Jamal, N. **Peoples' Rights Movement: Dir-Kohistan Forest Royalty Issue**. Islamabad: SUNGI Development Foundation. 72p

Khan, S. R.; Yusuf, M.; Ahmed, R. **Anatomy of Peoples' Rights Movement: Sarhad Awami Fotrestry Ittehad (SAFI)** Islamabad: SUNGI Development Foundation. 50p.

Subedi, N. R. **A Training of Trainers Manual on Advocacy Strategies for Community-based Organisations in the Hindu Kush-Himalayas**. Green Hill/ICIMOD. 171p, ISBN: 92-9115-0241-2 Lang: Bengali

Subedi, N. R. **A Training of Trainers Manual on Advocacy Strategies for Community-based Organisations in the Hindu Kush-Himalayas**. Society for Ecology, Water Resources and Afforestation/ICIMOD 166p, ISBN: 92-9115-157-2 Lang: Hindi

Subedi, N. R. **A Training of Trainers Manual on Advocacy Strategies for Community-based Organisations in the Hindu Kush-Himalayas**. National Forum for Advocacy Nepal/ICIMOD 188p, ISBN: 92-9115-160-2 Lang: Nepali

## **General publications**

2004 Annual Report, 70p ISSN 1019-1356

ICIMOD Newsletter No. 48: **Diversifying and Enhancing Livelihood Options in the Himalayan Region**, Winter 2005. 56p ISSN 1013-7386

ICIMOD Newsletter No. 47: **Knowledge Management for Mountain Development**, Summer 2005, 44p

ICIMOD Catalogue of Publications, January 2004-January 2005 (with summaries for 2001 to 2003), 32p

Mountain Development Profiles (MDP # 10): **Regional Cooperation in Flood Forecasting and Information Exchange**. It is also available online at [www.icimod.org/publications/profiles](http://www.icimod.org/publications/profiles)

**Asia Pacific Mountain Network (APMN) Bulletin**, Vol. 7, No. 1, Autumn 2005. It is also available online at <http://www.mtnforum.org/apmn/>

ICIMOD Brochure: **Partnerships in Mountain Development: Securing the Future of the Himalayan Region** (an update)

Water, Hazards and Environmental Management (WHEM) Brochure, 6p

ICIMOD Leaflet (an update)

ICIMOD Leaflet (Lang: Chinese)

ICIMOD Calendar 2006

ICIMOD Greetings Card 2006

ICIMOD Wall Planner 2005

## **ICIMOD Bookshelf**

A one page summary sheet, the ICIMOD Bookshelf, accompanies all new publications. This sheet provides abstracts of a book together with ordering details, so that readers can more easily select publications of their interest. The sheets are also intended to disseminate information about ICIMOD publications. The one-page Bookshelf is available for distribution at meetings, conferences, fairs, and during visits to partners and other institutions.

## **Publications on Medicinal and Aromatic Plants**

The INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC), Canada devolved the Medicinal and Aromatic Plants Programme in Asia (MAPPA) to ICIMOD from July 2005. ICIMOD now hosts and coordinates the MAPPA network and, together with its integrated programmes and partners, will expand the network to other ICIMOD regional member countries. A number of interesting and useful publications have been brought out by IDRC New Delhi under the MAPPA programme over the years. The remaining stock of these publications are now held by ICIMOD and are listed below.

Bhattarai, N.; Karki, M. (eds.) **Local Experience-Based National Strategy for Organic Production and Management of MAPs/NTFPs in Nepal** 2004. 237p.

Bhattarai, N.; Karki, M. (eds.) **Sharing Local and National Experience in Conservation of Medicinal and Aromatic Plants in South Asia**. 2002. 237p.

Bhattarai, N.; Karki, M. (eds.) **Local Experience-Based National Strategy for Organic Production and Management of MAPs/NTFPs in Nepal** 2004. 237p.

Nagpal, A.; Karki, M. **A Study on Marketing Opportunities for Medicinal, Aromatic and Dye Plants in South Asia**. 2004. 114p.

Warrier, P. K.; Nambiar, V. P. K.; Ganapathy, P. M. **Some Important Medicinal Plants of the Western Ghats, India: A Profile**. 2000. 398p.

## ***Three proceedings volumes***

**Medicinal Plants: A Global Heritage - Proceedings of the International Conference on Medicinal Plants for Survival**. 1998. 400p.

Johari, R.; Karki, M., (eds.) **Tribal Folk Medicinal Plant Resources of South Asia**. 1999. 46p.

Karki, M.; Williams, J. T. **Priority Species of Medicinal Plants in South Asia**. 1999. 63p.

Karki, M.; Johari, R., (eds.) **The Role of Medicinal Plants Industry in Fostering Biodiversity Conservation and Rural Development**. 1999. 120p.



# Staff Contributions 2005

ICIMOD has a multidisciplinary staff. Many present papers at Centre-sponsored conferences and workshops. These are documented in the reports of the workshops or in other ICIMOD publications. In addition, ICIMOD staff are invited to present papers at conferences for which ICIMOD does not have their primary responsibility. They also contribute articles in journals and magazines. The papers in this category presented or published during 2005 are listed below.

## Articles published in journals, magazines, and books

Anil, C. N. (2005) 'Participatory 3-D Modelling for Ecological Monitoring in Mountainous Areas.' In *Newsletter International Society for Ecological Economics*, June 2005. pp4

Aumeeruddy-Thomas, Y.Y., Karki, M. (2005) 'Institutional Development Process in Medicinal Plants Sector: A Case Study of Nepal.' In *Proceedings of Wise Practices in Sustainable Management of Himalayan Medicinal Plants*. PPI & IDRC (in press)

Aumeeruddy-Thomas, Y.Y., Karki, M. (2005) 'Organic Production of Medicinal and Aromatic Plants: A Strategy for Improved Value-Addition and Marketing of Products from the Himalayas.' In Aumeeruddy-Thomas, Y.; Karki, M.; Gurung, K. (eds) *Proceedings of Himalayan Medicinal and Aromatic Plants: Balancing Use and Conservation*, pp 56-69. Kathmandu: HMGN/MFSC

Chalise, S.R.; Shrestha, M.L.; Budhathoki, K.P.; Shrestha, M.S. (2005) 'Glacio-hydrological Aspects of Climate Change in the Himalayas: Mitigation of Glacial Lake Outburst Floods in Nepal.' In *Regional Hydrological Impacts of Climate Change - Impact Assessment and Decision Making*, pp 309-316. Wallingford: IAHS Press

Chettri, N. (2005) 'Biodiversity Valuation in the Mountain Context.' In Young et. al (eds) *Landscape Scale in Biodiversity Assessment: The Problem of Scaling. Report of an E-Conference*. pp 18-19, 21, 123-124 and 178. Vacratot: Institute of Ecology and Botany of the Hungarian Academy of Sciences

Chettri, N.; Sharma, E. (2005) 'Landscape Conservation Approach for Bio-socio Resilience in the Kangchenjunga Complex.' In *Proceedings of the Fourth Biennial Conference of INSEE on Ecology and Human Well-being, 3-4 June 2005, June, Mumbai, India*

Chettri, N.; Deb, D. C.; Sharma, E.; Jackson, R. The Relationship Between Bird Communities and Habitat: A Study Along a Trekking Corridor in the Sikkim Himalaya. In *Mountain Research and Development*, 25(3): 235-243

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Dhakal, M.P.; Dongol, B.S.; Dangol, P.M.; Merz, J.; Weingartner, R. (2005) 'Issues and Options in Water Management: A Case Study from Two Middle Mountain Watersheds in Nepal.' In Herrmann, A. (ed) *Proceedings of International Conference on Hydrology of Mountain Environments*, pp 225-235. Clausthal-Zellerfeld: Papierflieger

- Dongol, B. S.; Merz, J.; Schaffner, M.; Nakarmi, G.; Shah, P. B.; Shrestha, S. K.; Dangol, P. M.; Dhakal, M. P. (2005) 'Shallow Groundwater in a Middle Mountain Catchment of Nepal: Quantity and Quality Issues.' In *Journal of Environmental Geology*, 2005: 219-229
- Dongol, B. S.; Merz, J.; Dhakal, M. P.; Dangol, P. M. (2005) 'Comparative Study of Low Flow in the Middle Mountain Catchments of Nepal.' In *Journal of Hydrology and Meteorology*, 2 (1): 1-7
- Immerzeel, W.W.; Quiroz, R.A.; Jong, S.M.De. (2005) 'Understanding Precipitation Patterns and Land Use Interaction in Tibet Using Harmonic Analysis of SPOT VGT-S10 NDVI Time Series.' In *International Journal of Remote Sensing*, 26(11): 2281-2296
- Jodha, N.S. (2005) 'Adaptation Strategies Against Growing Environmental and Social Vulnerabilities in Mountain Areas.' In *Himalayan Journal of Sciences*, 3(5): 33-42
- Jodha, N.S. (2005) 'Economic Globalisation and its Repercussions for Fragile Mountains and Communities in Himalayas.' In Huber, U.M.; Bugmann, H.K.M.; Reasoner, M.A. (eds) *Global Change and Mountain Regions: An Overview of Current Knowledge*, pp 583-592. London: Springer
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Xu Jianchu; Ai Xihui; Deng Xiqing (2005) 'Exploring the Spatial and Temporal Dynamics of Land Use in Xizhuang Watershed of Yunnan, Southwest China.' In *International Journal of Applied Earth Observation and Geoinformation*, 7:299-309

Xu Jianchu; Jefferson F.; Zhang Peifang; Fu Yongshou; Yang Lixin; Jie, Q.; Leisz, S.; Vogler, J. (2005) 'Land-Use and Land-Cover Change and Farmer Vulnerability in Xishuangbanna, Prefecture in Southwestern China.' In *Environmental Management*, 36(3): 404-413

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Chalise, S.R.; Shrestha, M.L.; Budhathoki, K.P.; Shrestha, M. (2005) 'Glacio-hydrological Aspects of Climate Change in the Himalayas.' *Paper presented during the IAHS Assembly in Iguassu*, pp 309-316. Brazil: IAHS Publication

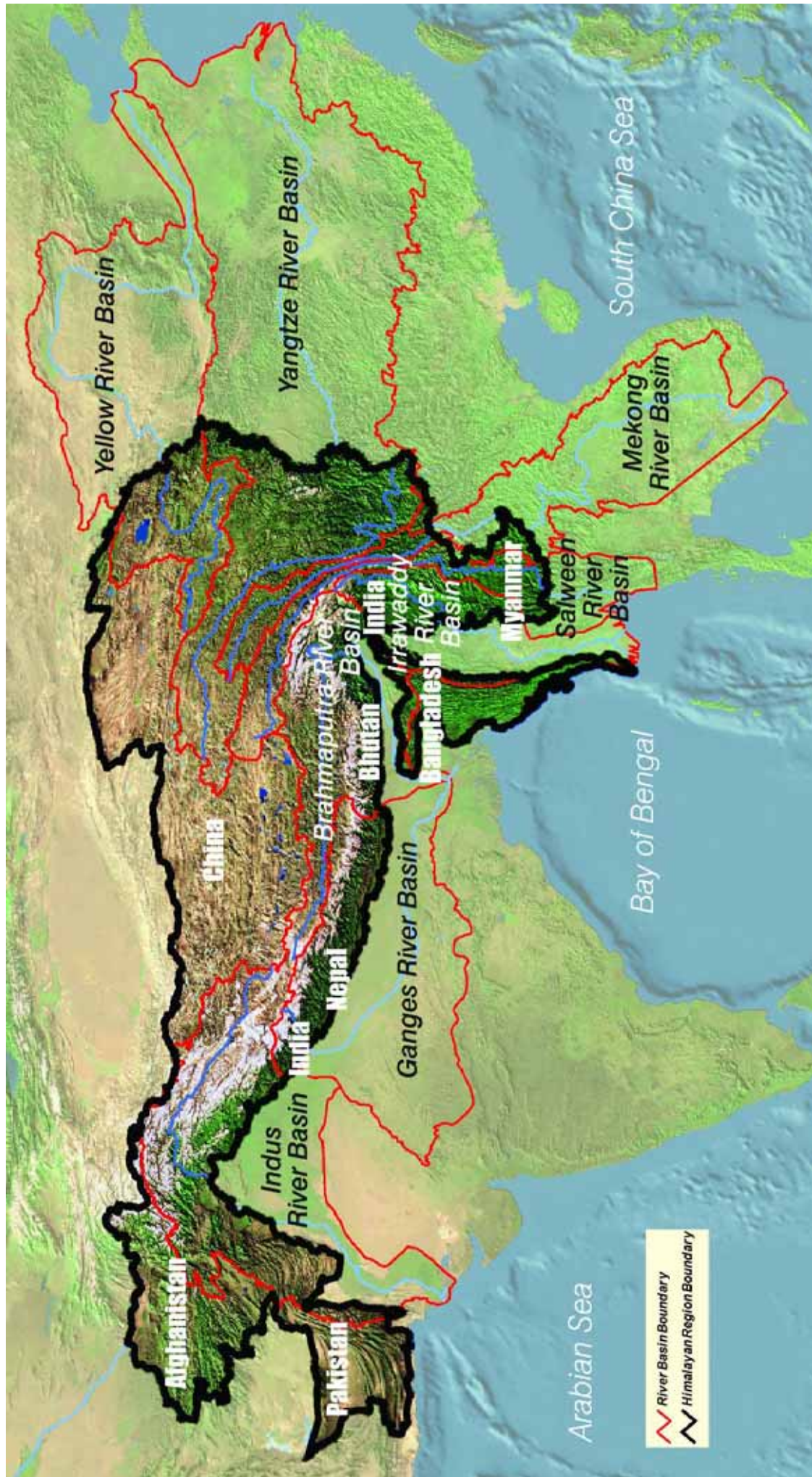
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- Gupta, R. (2005) 'The Traditional Irrigation Practices of Ladakh.' *Paper presented at the Conference of the 'International Association of Ladakh Studies', 12-15 July, 2005, Kargil, Ladakh, India*
- Karki, M.; Rawat, R.B.S.; Johari, R. (2005) 'Medicinal Plant Conservation and Economic Development.' *Paper presented at the IUFRO Congress, August 2005, Brisbane, Australia.*
- Karki M.; Rasul, G. (2005) 'Sustainable Use and Management of Natural Resources in the Mountain Areas of China: Policies, Issues and the Way Forward'. *Paper presented at the China-EU Sustainable Development Forum Conference, Beijing, 5-6 September 2005.*
- Mikolajuk, Z. (2005) 'Mountain Knowledge Partnership: A System for Knowledge Delivery in the Hindu Kush – Himalayan Region.' *Paper presented at the International Conference on Knowledge Management (ICKM) 2005, Kuala Lumpur, Malaysia, July 2005.*
- Rasul, G. (2005) 'State Policies, Praxis and Land-Use Change in the Chittagong Hill Tracts of Bangladesh'. *Paper presented at the 6th Open Meeting Conference, University of Bonn, Germany, 9-13 October 2005.*
- Rasul, G., Karki, M. (2005) 'Information and Knowledge Needs in Policy.' *Paper presented at the Policy Making Workshop on Information & Knowledge Support for Decision Making in Development of Western China. Leshan, Sichuan, China, 23-25 May 2005.*
- Rasul, G. (2005) 'Cost-benefit Analysis of Agricultural Land-use Systems for Promoting Sustainable Land Use: The Case of the Chittagong Hill Tracts in Bangladesh'. *In the Proceedings of the ESSC Conference on Soil Conservation Issues in the World, Estonia, 25-26 May 2005.*
- Shakya, K. (2005) 'Protected Areas of Nepal: Conservation Portal.' *Paper presented at the 25<sup>th</sup> Annual ESRI International User Conference and Annual SCGIS Conference, July and August 2005.*
- Shrestha, B. (2005) 'GIS for Municipal Planning - A Case Study of Kirtipur Municipality.' *Presented at the Rural Sustainable Development Workshop organised by JICA. Bangladesh, September 2005.*
- Shrestha, M; Chhophel, K. (2005) 'Disasters in the Himalaya – A Case Study of Tsatichhu Lake in Bhutan.' *Paper presented at and collected in the Proceedings of the Headwater 2005 Conference, Bergen, Norway, June 2005.*
- Turin, M. (2005) 'The Role of Language in the Formation of Ethnic Identity: Case Studies from Nepal and Eastern India.' *Paper presented at Negotiating Ethnicity in Nepal's Past and Present conference organised by Social Science Baba, 13 Sep 2005, Kathmandu, Nepal*
- Xu Jianchu (2005) 'Managing Land Use Transition for Human Health in Himalayan Region.' *Paper presented at COHAB 2005: First International Conference on Human and Biodiversity, Galway, Ireland, 23-25 August 2005.*

# Country Reports





# Afghanistan



J. Gabriel Campbell



J. Gabriel Campbell

## Activities and initiatives with ICIMOD Partners

- ICIMOD delegation to Kabul and Jalalabad in January, to discuss implementation modalities for the beekeeping project and potential projects in the CEGG and IKM programmes
- Partner capacity building on participatory methods of planning, implementation, and monitoring of the Rangeland Management Programme
- Proposal development on GIS capacity building in Afghanistan

## Training programmes, workshops, and study tours

- 8-13 January, training on rangeland co-management, Kabul

Participation in

- January: workshop on 'Capitalisation and Sharing of Experiences on the Interaction between Forest Policies and Land Use Patterns in Asia', held in Kathmandu, Nepal
- March: inception workshop on the Honeybee Programme, held in Islamabad, Pakistan
- March: study tour in Pakistan to visit organisations engaged in beekeeping, observe nesting habitats of indigenous honeybees, and markets for honey and honeybee products
- April: Advocacy Case Study Sharing Workshop, in Kathmandu, Nepal
- June: Workshop on 'Satellite Rainfall Estimation and Associated Technologies' held in Kathmandu, Nepal
- July: training course on 'Geo-informatics for Rangeland Resources Management' held in Peshawar, Pakistan
- August: workshop on 'Advancing Minority Rights to Environmental Justice', held in Kathmandu, Nepal
- September: Rangeland Co-management M&E Workshop, in Chengdu, China
- October: Flash Floods Workshop, held in Lhasa, China
- December: training on 'Application of GIS/RS for Rangeland Resource and Inventory and Monitoring', held in Kathmandu, Nepal

## Collaborating institutions

- Ministry of Agriculture, Animal Husbandry and Food Stuff, Kabul (Focal Point)
- Ministry of Forest, Kabul
- United Nations Development Programme, Kabul
- Afghanistan Information Management System/UNDP, Kabul

## Publications Exchange Programme: 1

**Mailing list:** 30

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# Bangladesh



Ester vander Blonk



## Activities and initiatives with ICIMOD Partners

- Advancing Minority Rights to Environmental Justice
- Alternative Media Project
- Assessment of the UN Decade of Indigenous Peoples in Asia, 1995-2004
- Digital database of social indicators of development for Chittagong Hill Tracts
- Himalayan Honeybees Programme
- Regional flood forecasting and information sharing
- Policy Issues in Natural Resources Management in Bangladesh, with special reference to Forest Management in CHT of Bangladesh

## Training programmes, workshops, and study tours

- 26 February, First South Asia Sustainable Tourism Forum, held in Dhaka
  - 11-17 March, Alternative Media Prototype Development Training Workshop, held in Chittagong
- Participation in
- March: Inception Workshop for the Honeybee Programme, Islamabad, Pakistan
  - March: study tour to Pakistan to visit organisations engaged in beekeeping, to observe nesting habitats of indigenous honeybees and market places for honeybee products
  - May: High-level meeting on regional flood information system, Thimphu, Bhutan
  - June: Workshop on Soil and Water Conservation and Watershed management, held in Kathmandu, Nepal
  - June: Workshop on 'Satellite Rainfall Estimation and Associated Technologies', held in Kathmandu, Nepal

## Research and demonstration sites

- Alternative Media, at the Chittagong Hill Tracts
- Policy Processes and Environment in Natural Resources Management in Bangladesh, with special reference to Forest Management in CHT of Bangladesh

## Collaborating institutions

- Ministry of Chittagong Hill Tracts Affairs, Dhaka (Focal Point)
- Assistance for the Livelihood of the Origins, Khagrachari
- Bangladesh Adivasi Forum, Dhaka
- Bangladesh Forest Department, Dhaka
- Bangladesh Forestry Research Institute (BFRI), Chittagong
- Bangladesh Institute of Apiculture, Dhaka
- Bangladesh Institute of Theatre Arts, Chittagong



- Bangladesh Meteorological Department, Dhaka
- Bangladesh Small and Cottage Industries Corporation (BSCIC), Dhaka
- Bangladesh University of Engineering & Technology (BUET), Dhaka
- Bangladesh Unnayan Parishad, Dhaka
- Bangladesh Water Development Board
- Centre for Environment GIS, Dhaka
- Chittagong Hill Tracts Regional Council, Rangamati
- Green Hill - NGO, Rangamati
- Institute of Water Modeling, Dhaka
- Jahangirnagar University, Dhaka
- Local Government Engineering Department (LGED), Dhaka
- Ministry of Environment and Forest, Dhaka
- Ministry of Water Resources, Dhaka
- Trinamool Unnayan Sangstha, Khagrachari
- TOYMU for Sustainable Overall Economic Development, Sadar Hospital Road, Bandarban, Chittagong Hill Tracts
- United Nations Development Programme (UNDP), Dhaka
- World Conservation Union (IUCN) - Bangladesh, Dhaka
- Zabarang Kalyan Samity, Khagrachari

#### **Publications Exchange Programme: 7**

**Mailing list:** 125

#### **Country representative to the ICIMOD Board and Focal Point**

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# Bhutan



Pema Gyamtsho



## Activities and initiatives with ICIMOD Partners

- Assessment of the UN Decade of Indigenous Peoples in Asia, 1995-2004
- Digital database on Social Indicators of Development
- Fact finding mission to eastern Bhutan, to develop the agro-biodiversity proposal
- Exploratory field trip to examine the status of payment for environmental services (PES) in Bhutan
- Final evaluation mission for the Women, Water and Energy Project in Phobjikha and Limukha
- Low flow studies - hydrological information on the main North-South Rivers
- Regional flood forecasting and information sharing
- Regional Rangeland Programme Phase II
- Transboundary Conservation Landscape Project

## Training programmes, workshops, and study tours

- 27 January, Stakeholders Workshop on Tourism Destination Selection, held in Thimphu
- 17-19 May, High level meeting on Implementing a Regional Flood Information System, held in Thimphu
- 7-11 November, National Workshop on Rangeland Management Policy and Strategies, held in Bumthang

### Participation in

- January: Workshop on Capitalisation and Sharing of Experiences on the Interaction between Forest Policies and Land Use Patterns in Asia, held in Kathmandu, Nepal
- April: GTZ/ICIMOD joint NRM learning: kick-off meeting in Kathmandu, Nepal
- April: GTZ/ICIMOD joint NRM learning mission to ChFDP, Lahan, Eastern Nepal
- June: Workshop on Soil and Water Conservation and Watershed Management, held in Kathmandu, Nepal
- June: 2nd Proposal and Project Development Workshop held in Kathmandu, Nepal
- June: Workshop on "Satellite Rainfall Estimation and Associated Technologies", held in Kathmandu, Nepal
- June: Census Commission delegation to ICIMOD to explore possible collaboration and to learn from Nepal's experience in packaging census information for wider dissemination
- June: internship on monitoring and evaluation at ICIMOD
- July: Training on Transboundary Landscape Management and Application of Geo-informatics, held in Kathmandu, Nepal
- July: Workshop on Access and Benefit Sharing of Biodiversity Resources, held in Kathmandu, Nepal
- August: GTZ/ICIMOD joint NRM learning mission to IG-CEDP, Himachal, India
- August: GTZ/ICIMOD joint NRM learning: wrap-up workshop, held in Kathmandu, Nepal
- September: Training Workshop on Participatory Monitoring and Evaluation of Rangeland Management Programmes, held in Chengdu, China



- September: SDB delegation to ICIMOD to explore possible areas of collaboration and to share experiences
- October: Flash Floods Workshop, Lhasa, China
- October, Sustainable Agriculture and Rural Development Policies in Mountain Areas (SARD-M), held in Kathmandu, Nepal
- November, Securing Livelihoods of Uplands and Mountains of HKH - Phase II start-up workshop held in Lalitpur, Nepal
- December: Training Workshop on Application of GIS/RS for Rangeland Resources and Inventory and Monitoring, held in Kathmandu, Nepal

### **Research and demonstration sites**

- Women and Energy Project, at Wangdue, Gangtey, Phobji, Biena
- Watershed Management Project, at Punakha, Lingmuntechu
- Transboundary biodiversity conservation, at Ha: Yomto, Gyensa, Talung, Jamtey
- Rangeland Co-management, at Paro: Soi Yaksa / at Gasa: Laya
- Integrated farming system, feed production, milk processing, at Mongar: Lingmethang

### **Collaborating institutions**

- Ministry of Agriculture, Thimphu (Focal Point)
- Bhutan-German Sustainable RNR Development Project, Lobesa
- Department of Land Records and Survey, Thimphu
- Department of Livestock, MoA, Thimphu
- Dzongkhag Administration, Paro and Gasa
- Hydromet Services Division, Department of Energy, Thimphu
- Ministry of Home Affairs, Thimphu
- Ministry of Works and Human Settlements, Thimphu
- Nature Conservation Division, DFS, Thimphu
- Royal Society for Protection of Nature, Thimphu
- Tarayana Foundation, Thimphu
- WWF-Bhutan Programme, Thimphu

**Publications Exchange Programme:** 8      **Mailing list:** 131

### **Country representative to the ICIMOD Board and Focal Point**

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 Natural Resources Policy Specialist  
 Natural Resources Management (NRM) Programme  
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Xu Jianchu



Xu Jianchu

## Activities and initiatives with ICIMOD Partners

- Assessment of the UN Decade of Indigenous Peoples in Asia, 1995-2004
- Capacity building on knowledge management and GIS applications
- High altitude wetlands conservation
- Inventory of glaciers, glacial lakes, and glacial lake outburst floods
- People and Resource Dynamics Project, Phase III
- Proposal development on land use transition and human health in the eastern Himalayan region, with sites in Tibet and Yunnan
- Regional flood forecasting and information sharing
- Regional Rangeland Programme, Phase II
- Transboundary Biodiversity Conservation Programme development mission to North-West Yunnan

## Training programmes and workshops

- 15-27 January, 'Mobile Workshop' on Land Use History in MMSEA (jointly organised with KIB, and CBIK)
- 23-25 May, Workshop on Information and Knowledge Support for Decision Making, Leshan, Sichuan
- 26 May, APN-GLOF Dissemination Workshop, held in Lhasa, Tibet Autonomous Region (TAR)
- 8-15 June, Training Workshop on Participatory Rangeland Management, held in Dingri County, TAR
- 17 September - 1 October, Training on Geo-information for Natural Resources Management, held in Chengdu, Sichuan
- 21-27 September, Training of Trainers Workshop on Rangeland Co-management Monitoring and Evaluation, held in Chengdu, Sichuan
- 15-29 October, Training course on Application of Geo-information for Water Resources Management, held in Lhasa, TAR
- 23-28 October, Conference on Flash Floods and Sustainable Development, held in Lhasa, TAR

### Participation in

- January: Workshop on Capitalisation and Sharing of Experiences on the Interaction between Forest Policies and Land Use Patterns in Asia, held in Kathmandu, Nepal
- May: High level meeting on regional flood information system, Thimphu, Bhutan
- June: Workshop on Soil and Water Conservation and Watershed Management, held in Kathmandu, Nepal
- June: Workshop on 'Satellite Rainfall Estimation and Associated Technologies', held in Kathmandu, Nepal
- July: Training on Transboundary Landscape Management and Application of Geo-informatics, held in Kathmandu, Nepal
- July: Workshop on Access and Benefit Sharing of Biodiversity Resources, held in Kathmandu, Nepal
- July-September: Training on Policy Development and Advocacy Support held at ICIMOD



- October, Sustainable Agriculture and Rural Development Policies in Mountain Areas (SARD-M), held in Kathmandu
- October/November, National Workshop on Rangeland Policy and Strategies, held in Bumthang, Bhutan
- November, Securing Livelihoods of Uplands and Mountains of HKH - Phase II start-up workshop held in Lalitpur, Nepal
- December: Training Workshop on Application of GIS/RS for Rangeland Resources Inventory and Monitoring, Kathmandu, Nepal

### **Research and demonstration sites**

- People and Resource Dynamics Project, at Baoshan watershed site, Yunnan
- Soil, Water, Nutrient Management, at Ningnan County, Sichuan
- Rangeland Programme at rangeland site in Hongyuan County, Sichuan
- Rangeland Programme at rangeland site in Qiangtang, TAR
- Assessment of the water tower function of Tibet under the Eco-regional Project at the catchment site in Duilondeqing County, TAR

### **Collaborating institutions**

- Chinese Academy of Sciences, Beijing (Focal Point)
- Chengdu Institute of Mountain Hazards and Environment (Designated at the Secretariat of the National Committee, lead agency on mountain hazards and disaster management)
- Kunming Institute of Botany, CAS, Kunming (lead agency in biodiversity and natural resources)
- Tibet Academy of Agriculture and Animal Husbandry Sciences, Lhasa (lead agency in rangeland management and rural diversification)
- Bureau of Hydrology, TAR, Lhasa
- Bureau of Water Conservancy, TAR, Lhasa
- Centre for Biodiversity and Indigenous Knowledge, Kunming
- Chengdu Institute of Biology, CAS, Chengdu
- China Meteorological Administration, Beijing
- Cold and Arid Regions Environment and Engineering Research Institute, Lanzhou
- Gansu Agricultural University, Gansu
- International Network for Bamboo & Rattan (INBAR), Beijing
- Institute of Geographical Sciences and Natural Resources Research, Beijing
- Ministry of Water Resources, Beijing
- Sichuan Grassland Institute, Chengdu
- Sichuan University, Chengdu
- Tibet University, Lhasa

**Publications Exchange Programme:** 6

**Mailing list:** 192

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Pema Gyamtsho



Narendra Bajracharya

## Activities and initiatives with ICIMOD Partners

- Advancing Minority Rights to Environmental Justice
- Advocacy training and capacity building for NGOs and CBOs
- Alternative Media Project
- Assessment of the UN Decade of Indigenous Peoples in Asia, 1995-2004
- Capacity building on application of GIS/RS
- District Development Indicators
- Final evaluation mission of Women, Water and Energy Project in Uttaranchal and Himachal
- High level ICIMOD delegation to Uttaranchal to discuss priority programmes, mechanism of collaboration and exchange of information and knowledge
- Honeybees in the Himalayas Project
- ICIMOD mission to Leh and inputs for Ladakh Vision 2025
- Inventory of glaciers and GLOF
- Kyoto Think Global, Act Local Project, Phase II
- People and Resource Dynamics Project, Phase III
- Policy Issues in Shifting Cultivation in the Eastern Himalayas
- Regional flood forecasting and information sharing
- Regional Rangeland Programme - Phase II
- Transboundary Conservation Landscape Project
- Technical backstopping to IFAD investment projects in mountain states

## Training programmes, workshops, and study tours

- 2-6 February, Alternative Media prototype Development Workshop, held in Guwahati, Meghalaya
- 16-20 February, first regional meeting with Kyoto project managers, held in Nainital
- 9-11 March, Training on CBO Advocacy Strategies, held in Shillong, Meghalaya
- 10 May, Consultation on Participatory Planning on Corridors between PA, Sukhna, Darjeeling
- 7-9 June, Workshop on Networking for CBO Advocacy Capacity Building, held in Jagjit Nagar, Himachal Pradesh (HP)
- 14 July, Dissemination Workshop on Inventory of Glaciers & GLOFs, held in Dehradun, Uttaranchal
- 20-26 November, meetings of ICIMOD Board of Governors and associated committees, held in Shillong, Meghalaya

### Participation in

- January: Workshop on Capitalisation and Sharing of Experiences on the Interaction between Forest Policies and Land Use Patterns in Asia, held in Kathmandu, Nepal
- March: Training of Trainers on Colony Management, Queen Rearing and Hive Making, held at ICIMOD's Godavari Demonstration and Training Centre, Kathmandu, Nepal
- March: Inception Workshop on the Honeybee Programme, held in Islamabad, Pakistan
- March: study tour in Pakistan to visit organisations engaged in beekeeping, to observe nesting habitats of indigenous honeybees, and market places for honeybee products



- April: Advocacy Case Study Sharing Workshop, held in Kathmandu, Nepal
- April: GTZ/ICIMOD joint NRM learning: kick-off meeting in Kathmandu, Nepal
- April: GTZ/ICIMOD joint NRM learning mission to ChFDP, Lahan, eastern Nepal
- May: High level meeting on implementing a regional flood information system, held in Thimphu, Bhutan
- June: GTZ/ICIMOD joint NRM learning mission to BG-SRDP, Lobesa, Bhutan
- June: workshop on 'Satellite Rainfall Estimation and Associated Technologies', held in Kathmandu, Nepal
- June: Workshop on Soil and Water Conservation and Watershed Management, held in Kathmandu, Nepal
- June: PARDYP water group meeting held in Kathmandu, Nepal
- June: PARDYP on-farm group meeting in Kathmandu, Nepal
- June: 2nd Proposal and Project Development Workshop, held in Kathmandu, Nepal
- June: study tour to CIFOR, Indonesia under the 'Kyoto: Think Global, Act Local' Project
- July: PARDYP access group meeting held in Kathmandu, Nepal
- July: Training on Transboundary Landscape Management and Application of Geo-informatics, held in Kathmandu, Nepal
- July: Workshop on Access and Benefit Sharing of Biodiversity resources, held in Kathmandu, Nepal
- August: GTZ/ICIMOD joint NRM learning: wrap-up workshop, Kathmandu, Nepal
- August: Workshop on Advancing Minority Rights to Environmental Justice, held in Kathmandu, Nepal
- September: Training Workshop on Participatory Monitoring and Evaluation of Rangeland Management Programmes, held in Chengdu, China
- October: Flash Floods Workshop, held in Lhasa, TAR, China
- October, Sustainable Agriculture and Rural Development Policies in Mountain Areas (SARD-M), held in Kathmandu, Nepal
- November, Securing Livelihoods of Uplands and Mountains of HKH - Phase II start-up workshop held in Lalitpur, Nepal
- December: Application of GIS/RS for Rangeland Resources Inventory and Monitoring, held in Kathmandu, Nepal

#### **Research and demonstration sites**

- People and Resource Dynamics Project, at Bheta Gad Watershed, Almora
- Regional Rangeland Programme, at Changtang, east Ladakh
- Beekeeping, at YS Parmar University of Horticulture & Forestry, Himachal Pradesh
- Alternative Media at The Missing Link, Nagaland

**Publications Exchange Programme:** 36

**Mailing list:** 790

#### **Collaborating institutions**

- Ministry of Environment and Forests, Government of India, New Delhi (Focal Point)
- Govind Ballabh Pant Institute of Himalayan Environment and Development, Almora, Sikkim & Itanagar (Designated lead agency)
- Alternate Hydro Energy Centre (AHEC), Roorkee
- Aquatic Biology Laboratory (ABL), Guru Nanak Dev University, Amritsar
- Ashoka Trust for Research in Ecology & Environment, Kalimpong
- Central Himalayan Environment Association, Nainital
- Central Water Commission, New Delhi
- Center for Environment and Development, Kolkata
- Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), Dehradun
- Centre for Spatial Database Management and Solutions, Delhi
- Chhattisgarh State Minor Forest Produce Co-operative Federation Ltd., Raipur
- CSK HP Agricultural University, Palampur
- Darjeeling Earth Group, Darjeeling
- Darjeeling Ladenla Road Prerna (RCDC), Darjeeling
- Department of Life Science, North Bengal University, Siliguri

- Department of Forests, Darjeeling Gorkha Hill Council, Darjeeling
- Department of Agriculture, Govt. of Sikkim
- Environment Biology Laboratory (EBL), Patna University, Patna
- Federation of Societies for Environment Protection, Darjeeling
- Food and Agriculture Organization of the United Nations (FAO), New Delhi
- Gauhati University, Guwahati
- Government of Uttaranchal, Dehradun
- Grassroots Options, Shillong
- Indian Institute of Technology, Roorkee
- India Meteorological Department (IMD), New Delhi
- Indian Social Institute, New Delhi
- Indo-German Changar Eco-Development Project, Palampur
- Jlet Technology, Noida
- Ladakh Autonomous Hill Development Council, Leh
- Ladakh Environment and Health Organisation, Leh
- LEAD-India, New Delhi
- Livelihoods Improvement Project for the Himalayas, Govt. of Meghalaya, Shillong
- Livelihoods Improvement Project for the Himalayas, Govt. of Uttaranchal, Dehradun
- Ministry of Water Resources, New Delhi
- Nagaland Empowerment of People through Economic Development Project, Kohima
- National Centre for Advocacy Studies (NCAS), Pune
- National Centre for Medium Range Weather Forecasting (NCMRWF), Noida
- National Remote Sensing Agency (NRSA), New Delhi, India
- National Meteorological Centre, New Delhi
- National Remote Sensing Agency (NRSA), New Delhi
- NAVRACHNA, Palampur
- NE Regional Institute of Water and Land Management, Assam
- North Eastern Council, Shillong
- North Eastern Hill University, Shillong
- North Eastern Region Community Resource Management Project, Shillong
- North Eastern Society for Protection of Nature, Siliguri
- North Eastern Social Research Centre, Guwahati
- Office of the Conservator of Forests, Govt. of West Bengal, Darjeeling
- Sambandh Network, Uttaranchal
- Society for Ecology, Water resources and Afforestation, Mussoorie
- Society for Technology and Development, Mandi, HP
- South Asian Network for Social and Agricultural Development (SANSAD), Delhi
- Support to Rural Technology and Development Centre, Palampur
- SUTRA, Jagjitnagar
- Tata Institute of Social Studies, Bombay
- The Missing Link, Guwahati
- The Mountain Institute, Sikkim Office, Gangtok
- Voluntary Health Association, Meghalaya
- Wadia Institute of Himalayan Geology, Dehradun
- Watershed Management Directorate, Government of Uttaranchal
- WWF-Nature (India) Darjeeling Project - SERVE, Darjeeling
- YS Parmar University of Horticulture and Forestry, Solan

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# Myanmar



Cung Chin Thang



Cung Chin Thang

## Activities and initiatives with ICIMOD Partners

- Capacity building on GIS/RS applications
- Exchange visit of four scientists on developing joint collaboration on GIS/RS applications
- MENRIS team visit to follow up ongoing networking and to develop potential future collaboration
- Policy dialogue on shifting cultivation

## Training programmes and workshops

- 7-18 November, training course on 'Application of Geo-informatics for Natural Resources Management' held in Yangon
- 11 November, awareness raising workshop on 'GIS for Planning and Decision Making', held in Yangon
- Participation in
- June: Workshop on Soil and Water Conservation and Watershed Management, held in Kathmandu, Nepal
- June: Workshop on 'Satellite Rainfall Estimation and Associated Technologies', held in Kathmandu, Nepal
- October: Flash Floods Workshop, held in Lhasa, China

## Collaborating institutions

- Forest Department, Yangon (Focal Point)
- Department of Meteorology and Hydrology, Yangon
- ECODEV Group, Yangon
- University of Forestry, Yezin
- University of Yangon, Yangon

**Publications Exchange Programme:** 3

**Mailing list:** 67

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Joyce Mendez



PARDYP team

## Activities and initiatives with ICIMOD Partners

- Advancing Minority Rights to Environmental Justice
- Advocacy training and capacity building
- Alternative Media Project
- Assessment of the UN Decade of Indigenous Peoples in Asia, 1995-2004
- Atmospheric Brown Cloud Initiative
- Decision Support Systems - HKKH Partnership Programme
- Feasibility study, gravity ropeways technology
- Women, Water and Energy Project networking activities
- GIS applications for biodiversity management
- Honeybees in the Himalayas Project
- Identification of strategic non-timber forest products
- Kathmandu city environment assessment
- Kyoto Think Global, Act Local Project, Phase II
- Medicinal and Aromatic Plants Project (MAPPA)
- National sustainable development strategy
- Regional flood forecasting and information sharing
- Transboundary Conservation Landscape Project
- Upper Mustang Collaborative Programme
- Women Entrepreneurs in the HKH Region Project

## Training programmes, workshops, and study tours

- 24-28 January, Workshop on Forest Policies and Land Use Patterns in Asia, held in Lalitpur
- 16-26 February, Training on Colony Management for Khoramuk Beekeepers, held in Kaski
- 20-23 February, Training on Colony Management for Deurali women's group, held in Kaski
- 2-22 March, training course on Colony Management, Queen Rearing and Hive Making, held in Lalitpur
- 3-4 March, start-up workshop of IFAD: Leasehold Forestry and Livestock Project, held in Lalitpur
- 5 April, Workshop on the Sacred Himalayan Landscape in Nepal (co-organised with The Mountain Institute and WWF Kathmandu, held in Kathmandu
- 1 April, Policy workshop for Sagarmatha National Park, MP and DSS, held in Lalitpur
- 7 April, Nepal Stakeholders Workshop on Tourism Destination Selection, held in Kathmandu
- 13-23 April, DSS-HKKH Partnership Workshop and exchange visit, held in Namche, Lukla
- 18-22 April, Workshop on Capacity building in Advocacy: Case Study Sharing, held in Lalitpur
- 20 April: GTZ/ICIMOD joint NRM learning: kick-off meeting, Lalitpur
- 22 April, meeting of regional network - AFRESH, Kathmandu
- 23 April, HIMAWANTI Regional Workshop, Lalitpur
- 14-17 May, Final Workshop of the Alternative Media Project, held in Nagarkot, Kathmandu



- 1-5 June, meeting on soil and water conservation approaches and technologies, Lalitpur
- 1-7 June, training on queen rearing, Jumla
- 5-11 June, PARDYP workshop on Expected Results 3: Water, held in Lalitpur
- 6-10 June, PARDYP workshop on Expected Result 1: On-farm, held in Lalitpur
- 6-10 June, Workshop on Satellite Rainfall Estimation and Associated technologies, held in Lalitpur
- 9-15 June, 2nd Proposal and Project Development Workshop, held in Lalitpur
- 11-15 July, PARDYP workshop on Expected Result 4: Access, held in Lalitpur
- 18-29 July, Training on Transboundary Landscape Management and Application of GIS, held in Lalitpur
- 19-22 July, Workshop on Access and Benefit Sharing of Biodiversity in Eastern Himalaya, held in Lalitpur
- 21-23 August, GTZ/ICIMOD joint NRM learning: wrap-up workshop, Kathmandu
- 22-23 August, workshop on advancing minority rights to environmental justice, Kathmandu
- 17-18 October, Sustainable Agriculture and Rural Development Policies in Mountain Areas (SARD-M), held in Kathmandu
- 14-15 November, Securing Livelihoods of Uplands and Mountains of HKH - Phase II start-up workshop, held in Lalitpur
- 5-16 December, Application of Geo-informatics for Rangeland Resources Management, held in Lalitpur
- 19 December, exchange workshop on system for rice intensification (SRI), Lalitpur
- 21-23 December, inception-cum training programme for preparation of Kathmandu Valley Integrated Environment Assessment report, Lalitpur

#### Participation in

- January, 'Mobile Workshop' on Land Use History in MMSEA, China/Laos/Thailand
- February: exposure visit/regional meeting in Nainital, India for Kyoto Project partners
- March: Inception workshop on the Honeybee Programme, held in Islamabad, Pakistan
- March: study tour in Pakistan - to visit organisations engaged in beekeeping, observe nesting habitats of indigenous honeybees and market places for honeybee products
- May: High level meeting on implementing a regional flood information system, held in Thimphu, Bhutan
- May: exchange visit of regional DSS-HKKH project partners to Islamabad and Skardu in Pakistan
- June: study visit to CIFOR, Indonesia for the Climate Change Project
- June: GTZ/ICIMOD joint NRM learning mission to BG-SRDP, Lobesa, Bhutan
- August: GTZ/ICIMOD joint NRM learning mission to IG-CEDP, Himachal, India
- September: Training Workshop on Participatory Monitoring and Evaluation of Rangeland Management Programmes, Chengdu, China

#### Research and demonstration sites

- Appropriate technologies for mountain farming systems, at the Godavari Demonstration and Training Centre, Lalitpur
- People and Resource Dynamics Project, at Jhikhu Khola Watershed, Kabhre
- Rangeland Programme, at Upper-Mustang
- *Apis cerana* (Bee) Management Project, at Jumla Bazar, Jumla & Alital VDC, Dadeldhura
- Biodiversity management, at Langtang National Park
- Non-timber forest products, at Jumla and Humla Districts
- Alternative Media, at Thaiba, Lalitpur

#### Collaborating institutions

- National Planning Commission, Kathmandu (Focal Point)
- Action Aid Nepal, Kathmandu
- Alital Multipurpose Cooperative Ltd., Dadeldhura
- Annapurna Beekeeping and Environment Promotion, Kaski
- Apiculturists' Network Nepal, Lalitpur
- Canadian Centre for International Studies and Cooperation, Kathmandu
- Centre for Environmental and Agricultural Policy Research, Kathmandu
- Centre for Rural Technology, Kathmandu
- Churia Forest Development Project, Siraha
- Community Development Organisation, Chitwan

- Dabur Nepal Private Limited, Kathmandu
- Department of Agriculture, Lalitpur
- Department of Forests, Kathmandu
- Department of Hydrology and Meteorology, Kathmandu
- Department of Irrigation, Lalitpur
- Department of National Parks and Wildlife Conservation, Kathmandu
- Department of Water Induced Disaster Prevention, Kathmandu
- Department of Soil Conservation & Watershed Management, Kathmandu
- Development Projects Services Centre, Kathmandu
- District Road Support Programme, Lalitpur
- Educate the Children, Kathmandu
- Environment and Public Health Organization (ENPHO), Kathmandu
- Federation of Community Forestry Users-Nepal, Kathmandu
- Hills Leasehold Forestry and Forage Development Project, Kathmandu
- Himalayan Grassroots Women's NRM Association, Lalitpur
- Ilam Cooperation Council, Ilam
- Institute of Agriculture and Animal Sciences, Chitwan
- Intermediate Technology Development Group, Lalitpur
- Kathmandu University, Kavre
- King Mahendra Trust for Nature Conservation, Lalitpur
- Local Initiatives for Biodiversity Research and Development, Kaski
- Ministry of Forests and Soil Conservation, Kathmandu
- Ministry of Environment, Science and Technology, Kathmandu
- Ministry of Water Resources, Kathmandu
- Namsaling Community Development Centre, Ilam
- National Forum For Advocacy Nepal, Kathmandu
- Nepal GIS Society, Kathmandu
- Nepal South Asia Centre, Kathmandu
- South Asia Watch on Trade, Economics and Environment, Kathmandu
- Spiny Babbler, Lalitpur
- SNV/Nepal, Kathmandu
- The Mountain Institute, Kathmandu
- Tourism for Rural Poverty Alleviation Programme, Kathmandu
- Tribhuvan University, Kathmandu
- United Nations Development Programme, Lalitpur
- Western Upland Poverty Alleviation Project, Banke
- World Conservation Union (IUCN) - Nepal, Lalitpur
- WWF-Nepal, Kathmandu

**Publications Exchange Programme:** 25

**Mailing list:** 1308

### **Country representative to the ICIMOD Board and Focal Point**

Prof. Dr. Ram Prasad Chaudhary  
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 Kathmandu, Nepal  
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 Fax: 977-1-4226500  
 Email: rpchaudhary@npcnepal.gov.np, ram@cdbtu.wlink.com.np

### **Country focal staff in ICIMOD**

Dr. Madhav Karki  
 Deputy Director General - Programmes  
 Email: mkarki@icimod.org



# Pakistan



## Activities and initiatives with ICIMOD Partners

- Advocacy training for local NGOs and CBOs
- Alternative Media Project
- Decision Support System - HKKH Partnership Programme
- Honeybees in the Himalayas Project
- Inventory of glaciers and glacial lakes
- People and Resource Dynamics Project, Phase III
- Regional flood forecasting and information sharing
- Regional Rangeland Programme, Phase II

## Training programmes, workshops, and study tours

- 8-18 March, inception workshop of the Beekeeping Project and study tour to Islamabad, Peshawar, Swat, and Lahore
- 14-20 April, Alternative Media Prototype Development training workshop, held in Chitral
- 28 April, APN-GLOF dissemination workshop, Islamabad
- 1-10 May, DSS-HKKH partnership exchange visit to Karachi, Islamabad, Gilgit
- 4-16 July, Training on Geo-informatics for Rangeland Resources Management, in Peshawar
- 15-18 August, rangeland co-management initiation, held in Quetta

### Participation in

- January: Workshop on Capitalisation and Sharing of Experiences on the Interaction between Forest Policies and Land Use Patterns in Asia, held in Kathmandu, Nepal
- April: Advocacy Case Study Sharing Workshop, held in Kathmandu, Nepal
- April, DSS-HKKH Partnership Workshop and Exchange Visit, held in Namche, Lukla
- May: High level meeting on implementing a regional flood information system, held in Thimpu, Bhutan
- June: Workshop on 'Satellite Rainfall Estimation and Associated Technologies', held in Kathmandu, Nepal
- June: Workshop on Soil and Water Conservation and Watershed Management, held in Kathmandu, Nepal
- June: PARDYP water group meeting, Kathmandu, Nepal
- June: PARDYP on-farm group meeting, Kathmandu, Nepal
- July: Workshop on Access and Benefit Sharing of Biodiversity Resources, held in Kathmandu, Nepal
- August: Workshop on Advancing Minority Rights to Environmental Justice, Kathmandu, Nepal
- September: Training Workshop on Participatory Monitoring and Evaluation of Rangeland Management Programmes, held in Chengdu, China
- October, Flash Floods Workshop, held in Lhasa, China

- October/November, National Workshop on Rangeland Policy and Strategies, held in Bumthang, Bhutan
- November, Securing Livelihoods of Uplands and Mountains of HKH - Phase II start-up workshop held in Lalitpur, Nepal
- December, Application of Geo-informatics for Rangeland Resources Management, held in Lalitpur, Nepal

### **Research and demonstration sites**

- People and Resources Dynamics Project, at Hilkot, Sharkul Watershed, North West Frontier Province
- Soil, Water, Nutrient Management, at Maira, Begowal, Islamabad
- Beekeeping, at the Honey Bee Research Institute, National Agricultural Research Council (NARC), Islamabad
- Alternative Media, at Chitral

### **Collaborating institutions**

- Ministry of Food, Agriculture and Livestock, Islamabad (Focal Point)
- Pakistan Agricultural Research Council, Islamabad (designated lead agency)
- Aga Khan Rural Support Programme, Chitral
- Benti Malakand Welfare Organisation, Malakand, NWFP
- Dir Area Support Project, Dasp-Tamirgara
- Federal Flood Commission, Islamabad
- Honeybee Research Institute, Islamabad
- Innovation for Poverty Reeducation Project, Swat, NWFP
- Northern Areas Development Project, Chilas
- NWFP Agriculture University, Peshawar
- Pakistan Council of Research in Water Resources (PCRWR), Islamabad
- Pakistan Forest Institute, Peshawar
- Pakistan Meteorological Department, Islamabad
- Rural Support Programmes Network, Islamabad
- Society for Awareness of Human Development and Rights, Buner, NWFP
- South FATA Development Project, Peshawar
- SUNGI Development Foundation, Islamabad
- University of Peshawar, Peshawar
- Water & Power Development Authority (WAPDA), Lahore
- Water Resources Research Institute/NARC, Islamabad
- World Conservation Union (IUCN) - Pakistan, Islamabad
- WWF-Pakistan, Lahore

**Publications Exchange Programme:** 11

**Mailing list:** 277

### **Country representative to the ICIMOD Board and Focal Point**

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Email: minfal@isb.comsats.net.pk

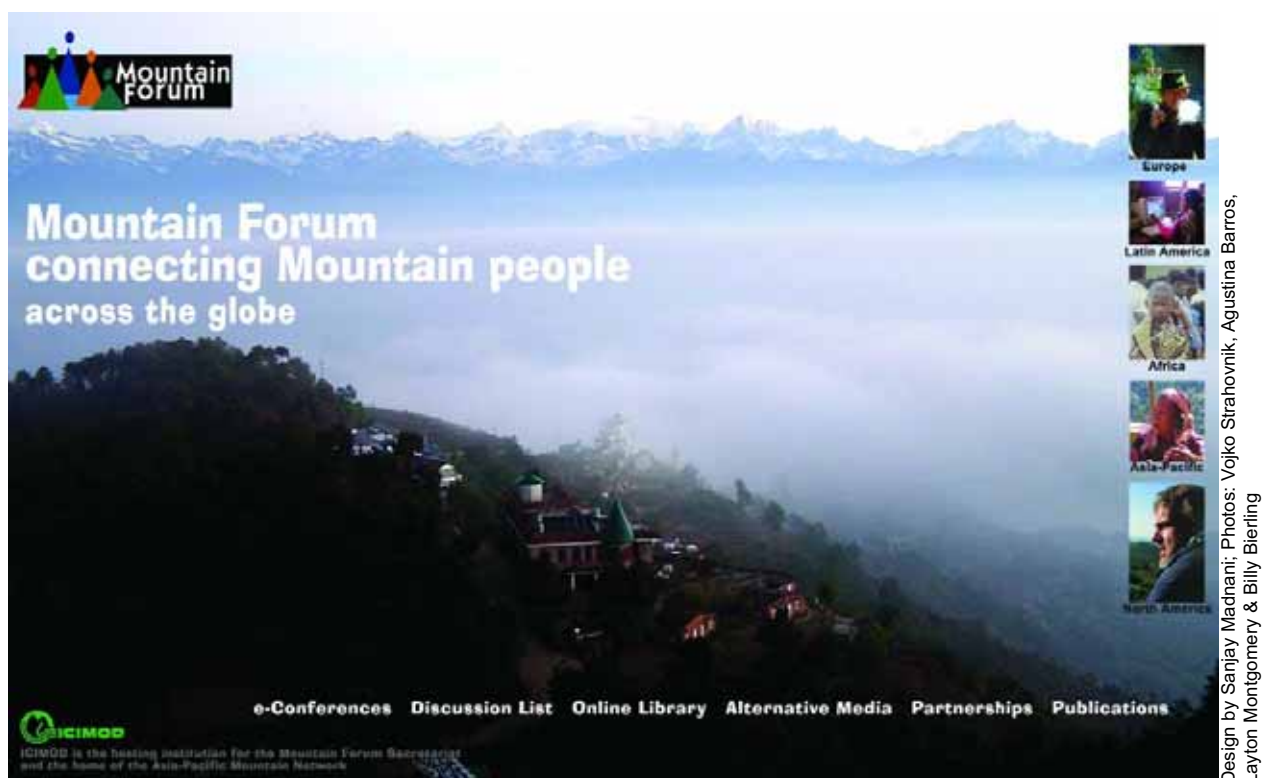
### **Country focal staff in ICIMOD**

Dr. Farooq Ahmad

Project Coordinator, High Value Products and Sustainable Agriculture

Agriculture and Rural Income Diversification (ARID) Programme

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ICIMOD is an active member of MOUNTAIN FORUM, an autonomous network of networks for equitable and ecologically sustainable mountain development around the world, and hosts the MOUNTAIN FORUM SECRETARIAT at the ICIMOD Headquarters in Kathmandu, Nepal.

In March 2005, Dr. Ana Maria Ponce joined the MOUNTAIN FORUM as its new Executive Secretary. Dr. Ponce brings to the MOUNTAIN FORUM her wealth of experience at INFO-ANDINA, the LATIN AMERICAN MOUNTAIN FORUM hosted at the INTERNATIONAL POTATO CENTER, where she worked for many years.

In April, the MOUNTAIN FORUM SECRETARIAT started its new three-year operational phase with funding for core operations for 2005-2008 from the SWISS AGENCY FOR DEVELOPMENT AND COOPERATION (SDC). With SDC contribution to the MOUNTAIN FORUM, seamless operations during this phase are assured.

## Renewed collaborations

The MOUNTAIN FORUM SECRETARIAT and the MOUNTAIN PARTNERSHIP SECRETARIAT, hosted at FAO in Rome, began a new phase of collaboration to support MOUNTAIN PARTNERSHIP initiatives. The collaboration will include organising regional and global e-consultations, developing a resource kit on information and communication technology (ICT) for MOUNTAIN PARTNERSHIP members, and shared databases and website. Support from the MOUNTAIN FORUM SECRETARIAT to the regional nodes towards ICT-related training and regional MOUNTAIN PARTNERSHIP initiatives are envisaged under this new phase.

MOUNTAIN FORUM also strengthened ties with the *Mountain Research and Development (MRD) Journal*, planning on a joint agenda for 2006. A joint publication similar to the *Mountain Agenda series* produced in preparation for the 'International Year of Mountains' in 2002 is being planned in view of the upcoming IYM+5 in 2007. In addition, the MOUNTAIN FORUM SECRETARIAT in collaboration with its



regional nodes in Europe, Latin America, Africa, Asia-Pacific, and North America, will facilitate contributions to the *MRD Journal* from MOUNTAIN FORUM members, and will provide subsidised subscriptions for members. A summary of MOUNTAIN FORUM global community's views on a topic related to 'Climate change in the Hindu Kush Himalayan region' was prepared by the MOUNTAIN FORUM SECRETARIAT for the November 2005 issue of the *MRD Journal*, in keeping with the issue's theme.

## Mountain Forum members represented on the Board of Directors

In its commitment to be an inclusive and democratic organisation, MOUNTAIN FORUM elected in early June 2005 representatives from among its membership to serve on the MOUNTAIN FORUM Board of Directors for three years, beginning in 2005. Regional elections were organised this year by INFOANDINA for Latin America, and by the ASIA-PACIFIC MOUNTAIN NETWORK for the Asia-Pacific region. MOUNTAIN FORUM members from these regions nominated candidates who met the MOUNTAIN FORUM criteria. Votes were cast using web-based and email-based voting forms. Elected to represent their region in the MOUNTAIN FORUM Board of Directors were Mr. Ismail Khan for Asia-Pacific and Dr. Sonia Salas for Latin America. MOUNTAIN FORUM will elect a Board representative from Africa in 2006.

## Annual Mountain Forum Board and Node Managers meeting

Every year, the MOUNTAIN FORUM organises a Board and Node Managers meeting to update everyone on progress of activities carried out at MOUNTAIN FORUM's various

nodes around the world, and to exchange ideas for future collaboration and new projects. This year's meeting was held in June in Chambéry, France and was attended by all Board representatives from MOUNTAIN FORUM hosting organisations. Observers from SDC and FAO, and the recently elected Board representatives from Asia-Pacific and Latin America participated in the meeting. The Board re-elected Dr. Gabriel Campbell as Chairperson of the Board for the next two years, and Dr. Hugo Li-Pun as the Vice-Chairperson.

Node managers from all five continents where MOUNTAIN FORUM has regional nodes, including the recently appointed node manager of AFRICAN MOUNTAIN FORUM, Mr. Moses Musinguzi, and Mr. Jose Borrás, Coordinator of the newly established Mediterranean sub-node of the EUROPEAN MOUNTAIN FORUM attended the Node Managers meeting, which gathered for four days 25 people from four continents who gave presentations, papers, and shared information and exchange ideas.

## E-consultations

Under the overall moderation of Dr. Pralad Yonzon, Chair of the RESOURCES HIMALAYA FOUNDATION, MOUNTAIN FORUM conducted a six-week regional e-consultation starting in



Mountain Forum team

Annual Board meeting held in Chambéry, France in June 2005



Swiss Alps

August on 'Biodiversity in the Hindu-Kush Himalaya' for members of the MOUNTAIN PARTNERSHIP's HKH Initiative and other interested MOUNTAIN FORUM organisational members.

A second e-consultation entitled 'Sustainable Agriculture and Rural Development for the Mountains (SARD-M) Initiative: Organisation and Priorities' was conducted for the MOUNTAIN PARTNERSHIP in collaboration with MOUNTAIN FORUM's regional nodes in October. This was moderated by Dr. Peter Trutmann, Coordinator of the Global Mountain Programme. Summaries of the discussions were provided members of the SARD-M initiative of the MOUNTAIN PARTNERSHIP as follow-up on the initiative.

### **Mountain Forum contribution to grassroots dialogue**

In recognition of its efforts to reach grassroots communities, the MOUNTAIN FORUM's radio project with the ASIA-PACIFIC MOUNTAIN NETWORK and Radio Sagarmatha carried out in 2004 was shortlisted as finalist for the Stockholm Challenge Dialogue with the Grassroots Category 1. The Stockholm Challenge is recognised as a premier global award for innovation using ICTs for development.

### **Representation at international events**

MOUNTAIN FORUM SECRETARIAT staff represented the MOUNTAIN FORUM in several international events, including:

- The Congress of the INTERNATIONAL FEDERATION OF AGRICULTURAL JOURNALISTS, in Thun, Switzerland (31 August - 4 September)
- The World Summit of the Information Society, in Tunis, Tunisia (14-18 November)
- The Society for Conservation Biology Asia Section Conference, in Kathmandu, Nepal (17-20 November)

In these events, MOUNTAIN FORUM disseminated information on its services and initiatives, and established or renewed contacts with global, regional, and national organisations in the field of sustainable mountain development and ICT for development.

### **Mountain Forum contributions to partners' publications**

In 2005, the staff of the MOUNTAIN FORUM SECRETARIAT contributed articles to a number of publications of stakeholders in the fields of sustainable mountain development and information technology for development. These contributions are listed below:

Sherchan, U. 'Mountain Forum: Network of Networks', *i4d*, Vol. III No. 8, August 2005.

Ponce, A.M. 'IESA-AL VI Latin American Symposium for Farming Systems Research and Extension', *Peak-to-Peak*, August 2005.

Sherchan, U. 'Knowledge Networking for Development', *ICIMOD Newsletter*, No. 47, Spring 2005.

Sharma, P. 'Partnerships for Development:

The Mountain Forum Experience', *ibid*, October 2005.

'Climate Change in the Himalaya: Views of Mountain Forum Members Voiced on the Mountain Forum Global discussion list'.

Sherchan, U and Sharma, P. *Mountain Research and Development*, Vol. 25 No. 4, November 2005.

## **Tent appeal for the South Asia earthquake**

With the support of partner institutions, ICIMOD and TMI, MOUNTAIN FORUM mobilised support around the world for earthquake relief in Pakistan. Dr. Gabriel Campbell, MOUNTAIN FORUM Chairperson and ICIMOD Director General, appealed to members on all MOUNTAIN FORUM discussion lists for support for the earthquake survivors. As of end of December, MOUNTAIN FORUM members have raised over USD 38,500, which have been used to purchase tents and multi-purpose heaters – the most immediate needs in the earthquake affected areas at that time. The tents are good quality, winter-resistant, water-proof tents that measure 13 ft x 13 ft x 7.5 ft. Each can accommodate extended families of up to 20 members. They were shipped at no cost, courtesy of PAKISTAN INTERNATIONAL AIRLINES to Islamabad, where they were given to the central pool set up by the government for distribution. Updates on

the relief efforts can be viewed at THE MOUNTAIN INSTITUTE website:  
<<http://www.mountain.org>>

## **Information services**

The *Mountain Forum Bulletin* was revived in 2005. Its maiden issue, published in June, focused on 'Conflict in Mountain Regions', which is related to the 2004 International Mountain Day theme, 'Peace and Conflict in Mountains'. The new *Mountain Forum Bulletin*, June 2005 is now also accessible at the MOUNTAIN FORUM website:  
<<http://www.mtnforum.org/rs/pub/bul.cfm>>

The *Bulletin* is published twice a year, in June and December, and features thematic regional perspectives on a variety of issues related to sustainable mountain development. The *Bulletin* is mailed to all MOUNTAIN FORUM organisational members as well as to off-line members with no Internet access or email connectivity. MOUNTAIN FORUM members with slow or no Internet access may request a copy of the *Bulletin* by writing to [bulletin@mtnforum.org](mailto:bulletin@mtnforum.org) or to the following postal address: MOUNTAIN FORUM SECRETARIAT, c/o ICIMOD, GPO Box 3226, Khumaltar, Kathmandu, Nepal. We encourage MOUNTAIN FORUM members to contribute to the *Bulletin* and provide feedback.

## ***The New Mountain Forum Website***

The MOUNTAIN FORUM website, <[www.mtnforum.org](http://www.mtnforum.org)>, was also recently reviewed and enhanced. The website now features an updated visual design, better site navigation including a bread crumb trail and enhanced security features such as industry standard SSL technology, which protects all information sent to the website from being intercepted by spammers and hackers. It was MOUNTAIN FORUM's utmost



J. Gabriel Campbell



consideration to make the site more accessible for users with limited Internet access. Users who still encounter difficulties accessing the web site may try this address: <http://www.loband.org>, through provide a text-only version of the website and other websites.

#### *Restructuring the Online Library*

To provide world-class services to members, the MOUNTAIN FORUM Online Library is also in its last stages of redevelopment. The new library will be 'keyword searchable' and will feature standard formatting for all documents, bibliographic information for every entry, searchable annotated bibliographies, and well-organised web resources. We anticipate the new and improved Mountain Forum Online Library to be ready in January 2006.

#### *Important Changes to the Membership System*

Starting in 2006, some MOUNTAIN FORUM services including the discussion lists, online library, and membership directory will be accessible to members only. Membership will remain free of charge. With these changes, discussion list subscribers and members may now enjoy the same benefits as members and MOUNTAIN FORUM can now accurately report statistics of website use to current and future donors. The new system is based on a secure platform, providing better protection of contact details including email addresses of members.

Members subscribed to one or more MOUNTAIN FORUM discussion lists are requested to register for free membership as soon as possible. The following links lead to the registration form for individual membership

<<http://www.mtnforum.org/rs/mem/joinind.cfm>>

or organisational membership

<<http://www.mtnforum.org/rs/mem/joinorg.cfm>>.

#### *Staff Changes*

Some staff changes during the year: in June, the MOUNTAIN FORUM bade farewell to Ms. Agustina Barros who was part of the information services team at the MOUNTAIN FORUM SECRETARIAT. She has been replaced by the former node manager of the ASIA-PACIFIC node of MOUNTAIN FORUM. The post of APMN node manager has also been quickly filled.

MOUNTAIN FORUM has also found a node manager for the AFRICAN MOUNTAIN FORUM (AMF). With the AFRICAN MOUNTAIN FORUM on board, MOUNTAIN FORUM looks forward to a strong and active community working with nodes in all five continents towards sustainable mountain development in Africa and around the world.

#### **MOUNTAIN FORUM PARTNERS**

- African Highlands Initiative(AHI), Uganda
- The Banff Centre, Canada
- Bellanet, Canada
- Food and Agriculture Organization of the United Nations (FAO), Italy
- Fundacio Territori i Paisatge( FTiP), Spain
- International Centre for Integrated Mountain Development (ICIMOD), Nepal
- International Potato Center (CIP), Peru
- Mountain Partnership , (Secretariat hosted by FAO, Rome), Italy
- Mountain Research and Development (MRD), Switzerland
- Swiss Agency for Development and Cooperation (SDC), Switzerland (donor)
- The Mountain Institute (TMI), USA
- World Agroforestry Centre , Uganda

# International Collaborating Institutions

In addition to regional partners (listed in the Country Reports), ICIMOD works with international partners, both conceptually and within project and programme activities. A list of the main partners in 2005 is given below, we apologise to any whose names have been inadvertently missed out. Some partners who are also donors are only listed under the 'Donors 2005'. The international partners of Mountain Forum are listed in the Mountain Forum section.

- ARGEOPS, The Netherlands
- Asia-Pacific Network for Global Change Research (APN), Japan
- Asian Institute of Technology (AIT), Thailand
- Austroprojekt, Austria
- Centre for Ecology and Hydrology, United Kingdom
- Centre for International Forestry Research (CIFOR), Indonesia
- CESVI, Italy
- Coady International Institute, Canada
- Environment System Research Institute (ESRI), USA
- European Space Agency (ESA), France
- EURAC (European Academy), Italy
- EV-K2-CNR, Italy
- Federal Institute of Hydrology, Germany
- Food and Agricultural Organization of the United Nations (FAO), Italy
- George Mason University, USA
- Institute for Geography and Regional Science, Austria
- International Centre for Underutilised Crops (ICUC), Sri Lanka
- International Development Research Centre (IDRC), Canada
- International Institute for Geo-Information Science and Earth Observation (ITC), The Netherlands
- International Institute for Geo-Information Science and Earth Observation (ITC), Thailand
- International Union of Forestry Research Organizations (IUFRO), Austria
- International Work Group for Indigenous Affairs (IWGIA), Denmark
- InWEnt, Germany
- Japan Aerospace Exploration, Japan
- Leica Geosystems Geospatial Imaging, LLC, USA
- Malcolm Cairns, Canada (individual)
- Masaryk University (MasUniv), the Czech Republic
- National Oceanic and Atmospheric Administration (NOAA), USA
- Office for Outer Space Affairs (UNOOSA), Austria
- Otto-von-Guericke University Magdeburg (Umag), Germany
- Regional Community Forestry Training Centre for Asia and the Pacific (RECOFTC), Thailand
- Royal Roads University, NTFP Centre, Canada
- Sri Lanka Council for Agriculture Research Policy (CARP), Sri Lanka
- SysTem for Analysis, Research, and Training (START), USA
- Tebtebba Foundation, Philippines
- The Macaulay Land Use Research Institute, UK
- The Mountain Institute, USA
- The Mountain Research Initiative (MRI), Switzerland
- The World Conservation Union (IUCN), Switzerland
- The World Conservation Union (IUCN), Asia Regional Office, Thailand
- United Nations Environment Programme, (UNEP) Austria
- United Nations Environment Programme (UNEP), Thailand
- United States Geological Survey (USGS), USA
- University of Applied Sciences, Germany
- University of Berne, Switzerland
- University of British Columbia, Canada
- University of Duisburg-Essen (UDE), Germany
- University of Natural Resources and Applied Life Sciences (BOKU), Austria
- University of Peradeniya, Sri Lanka
- University of Redlands, USA
- University of Salzburg, Austria
- University of Twente, The Netherlands
- University of Zurich, Switzerland
- UNOSAT, Switzerland
- Virginia Polytechnique Institute & State University (VPI &SU), USA
- Wetlands International, The Netherlands
- World Wildlife Fund for Nature Conservation (WWF), Germany
- World Wildlife Fund for Nature Conservation (WWF), USA

## Signed Memoranda of Understanding and Letters of Agreement, 2005



The ICIMOD Director General with PARDYP Focal Point in Pakistan, Hakim Shah

- 7 January: Pakistan Forest Institute, Pakistan  
To implement People and Resource Dynamics of Mountain Watersheds in the HKH Project - Phase III
- 11 January: GB Pant Institute of Himalayan Environment and Development, India  
To implement People and Resource Dynamics of Mountain Watersheds in the HKH Project - Phase III
- 25 January: Wadia Institute of Himalayan Geology, India  
To conduct a study in the Himalayan region of Uttaranchal, India under the Project, 'Inventory of Glaciers and Glacial Lakes and Identification of Potential Glacial Lake Outburst Floods Affected by Global Warming'
- 28 January: Tibet Academy of Agricultural and Animal Husbandry Sciences, China  
For cooperation in 'Geo-information for Environment and Natural Resources Management' in the Tibet Autonomous Region of China
- 12 February: Centre for Biodiversity and Indigenous Knowledge, China  
To implement People and Resource Dynamics of Mountain Watersheds in the HKH Project - Phase III
- February, with Ladakh Autonomous Hill Development Council, India,  
To conduct a case study in Ladakh, under the Regional Rangeland Programme - Phase II
- February, with North Eastern Hill University, India  
To enhance the capacity of community-based organisations in advocacy strategies in Meghalaya, India
- April, with SUNGI Development Foundation, Pakistan  
Framework agreement for collaboration during ICIMOD's Medium Term Action Plan (2003-07)
- April, with Ladakh Environment and Health Organisation, India  
To conduct a case study in Ladakh, under the Regional Rangeland Programme - Phase II



- 27 September: NWFP Agricultural University, Peshawar, Pakistan  
To scale up the beekeeping programme through research and extension in the mountain areas of NWFP, Pakistan
- 23 September: Alital Multipurpose Cooperative Ltd., Dadeldhura, Nepal  
To continue partnership in implementing beekeeping activities and collaborative work in Alital VDC, Dadeldhura district, Nepal
- 23 September: Annapurna Beekeeping and Environment Promotion (BEENPRO) Kaski, Pokhara, Nepal  
To continue partnership in implementing the activities of the beekeeping programme in Kaski, Pokhara, Nepal
- September: Sichuan University, Chengdu, China  
For cooperation in geo-information capacity building and environment and natural resources management in southwestern China
- September: International Institute for Geo-Information Science and Earth Observation (ITC), The Netherlands  
To distribute ILWIS GIS/RS software for ICIMOD and its network of collaborating partners in the Hindu-Kush Himalayan (HKH) region
- 2 October: United Nations Environment Programme Regional Office, Asia and the Pacific  
To develop a pilot knowledge hub for mountain ecosystems to contribute to UNEP's Environment Knowledge Hub (eKH)
- 2 October: United Nations Environment Programme Regional Office, Asia and the Pacific  
To prepare the Nepal Biodiversity Year Book 2006
- 6 October: Centre for Environmental and Agricultural Policy Research, Extension and Development (CEAPRED), Kathmandu, Nepal  
To scale up the Beekeeping Programme through partnership and mobilisation of community-based organisations in the mountain districts of Nepal
- 1 November: Dabur Nepal Pvt. Ltd., Nepal  
To identify strategic non-timber forest products for the IFAD-supported Western Uplands Poverty Alleviation Project (Nepal)
- 8 November: Bangladesh Institute of Apiculture (BIA), Bangladesh  
To upscale beekeeping programme through partnership and mobilisation of beekeepers' groups and other stakeholders in Bangladesh
- 22 November: Honey Bee Research Institute (HBRI), Islamabad, Pakistan  
To upscale beekeeping programme through partnership and technical backstopping to rural development organisations in Pakistan
- 25 November: Central Himalayan Environment Association (CHEA), Nainital, Uttaranchal, India  
To scale up the beekeeping programme through research and extension in the mountain areas of Uttaranchal State of India.
- 2 December: Dr. Y.S. Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh, India  
To scale up the beekeeping programme through research and extension in the mountain areas of Himachal Pradesh, India
- 8 December: District Road Support Programme (DRSP), Kathmandu, Nepal  
Beekeeping training to providing technical knowledge to DRSP participants, Nepal

# ICIMOD Donors 2005

## CORE PROGRAMME DONORS

### Regional member countries

- Afghanistan
- Bangladesh
- Bhutan
- China
- India
- Myanmar
- Nepal
- Pakistan

### Other supporting countries

- Austria
- Denmark
- Germany
- Netherlands
- Norway
- Switzerland

## CO-FINANCING PROJECT DONORS AND PARTNERS

- Asian Development Bank (ADB)
- Asia Pacific Network for Global Change Research/System for Analysis Research and Training (APN/START)
- Austroprojekt, GmbH Austria
- Austrian Development Agency
- German Government – Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
- European Commission (EC)
- European Space Agency
- Federal Government of Austria
- Food and Agriculture Organization of the United Nations (FAO)
- Ford Foundation
- Interchurch Organization for Development Cooperation (ICCO)
- International Development Research Centre (IDRC)
- International Fund for Agricultural Development (IFAD)
- International Institute for Geo-information Science and Earth Observation (ITC)
- International Potato Centre (CIP)
- MacArthur Foundation
- Ministry of Foreign Affairs-Directorate General for Development Cooperation, Italy (DGCS)
- Netherlands Development Organisation (SNV)
- Sandia National Laboratories (SAWAN)
- Swiss Agency for Development and Cooperation (SDC)
- The Mountain Institute (TMI)
- The Netherlands Ministry for Development Cooperation
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Environment Programme (UNEP)
- University of California, San Diego (UCSD)
- Universiteit Twente
- US Department of State/Regional Environment Office for South Asia
- Wetlands International

# ICIMOD Board of Governors 2005

## Regional Board Members

### NEPAL



**Prof. Dr. Ram Prasad Chaudhary**  
Chairperson  
Hon'ble Member  
National Planning Commission  
HMG/N

### AFGHANISTAN



**Eng. Ghulam Mostafa Jawad**  
Deputy Minister of Agriculture  
Ministry of Agriculture and  
Livestock

### BANGLADESH



**Mr. Md. Shahjahan Majumdar**  
Secretary  
Ministry of Chittagong  
Hill Tracts' Affairs

### BHUTAN



**Dasho Sangay Thinley**  
Secretary  
Ministry of Agriculture

### CHINA



**Prof. Li Jiayang**  
Vice President  
The Chinese Academy of  
Sciences

### INDIA



**Dr. Prodipto Ghosh**  
Secretary  
Ministry of Environment  
and Forests

### MYANMAR



**Mr. U Soe Win Hlaing**  
Director General  
Forest Department

### PAKISTAN



**Mr. Muhammad Ismail Qureshi**  
Secretary  
Ministry of Food, Agriculture  
and Livestock

## Independent Board Members



**Dr. Anne Whyte**  
Vice Chairperson  
Mestor Associates  
Ontario, Canada



**Dr. Ruth Egger Tschäppeler**  
Economist  
Thun  
Switzerland



**Prof. Zhao Shidong**  
Forest Ecology  
Vice-Chair and Secretary General  
Scientific Committee of the Chinese  
Ecosystem Research Network (CERN)  
Chinese Academy of Sciences  
China



**Prof. Jamuna Sharan Singh**  
Emeritus Professor  
Department of Botany  
Benaras Hindu University  
India



**Dr. Rob Visser**  
Ministry of Foreign Affairs  
(DGIS)  
The Netherlands



**Dr. Tone Bleie**  
Chief, Gender and  
Development  
UN ESCAP  
Thailand



**Mr. Shoaib Sultan Khan**  
Chairman  
Rural Support Programmes  
Network (RSPN)  
Pakistan



**Dr. J. Gabriel Campbell**  
(Ex-officio)  
Director General  
ICIMOD



# Staff Members of ICIMOD 2005

## DIRECTORATE



**Campbell, J. Gabriel**  
Director General



**Karki, Madhav Bahadur**  
Deputy Director General  
- Programmes



**Tuladhar, Milan Raj**  
Head of Administration  
and Finance



**Gurung, Tika Laxmi**  
Executive Admin.  
Associate



**Shrestha, Angeli**  
Senior Admin. Assistant



**Thapa, Chomu Prerna**  
Senior Admin. Assistant

## NATURAL RESOURCE MANAGEMENT (NRM) PROGRAMME



**Sharma, Eklabya**  
Senior Agricultural Specialist/  
Programme Manager



**Chettri, Nakul**  
Transboundary &  
Biodiversity Specialist



**Gyamtsho, Pema**  
Agricultural Research  
Policy Specialist



**White, Roger John**  
Regional Programme  
Coordinator, PARDYP



**Bhuchar, Sanjeev Kumar**  
Assistant Programme  
Coordinator, PARDYP



**Dhakal, Madhav Prasad**  
Research Associate/ Hydro-  
meteorologist, PARDYP



**Dongol, Bhawani Shankar**  
Research Associate/ Hydro-  
meteorologist, PARDYP



**Dongol, Pradeep Man**  
Regional Database Manager  
/Hydrometeorologist, PARDYP



**Ghale, Neetu**  
Junior, Admin. Assistant



**Joshi, Sami**  
Senior Admin. Assistant



**Kerkhoff, Elisabeth E.**  
Agroforestry Specialist



**Muhammad, Ismail**  
Assistant Research Officer-  
RRP II



**Shakya, Bandana**  
Research Assistant,  
Transboundary Biodiversity  
Management



**Shakya, Samma**  
Admin. Assistant, PARDYP



**Sherpa, Samden Lama**  
Godavari Centre Manager



**Shrestha, Anil**  
Consultant, PARDYP



**Shrestha, Giri Bahadur**  
Driver/Office Assistant, PARDYP



**Shrestha, Ramkumari**  
Garden Consultant



**Sthapit, Keshar Man**  
Country Coordinator,  
PARDYP



**Tamang, Jiwan**  
Record Keeper  
Godavari



**Thapa, Rajesh**  
Consultant



**Zhaoli, Yan**  
Rangelands' Specialist

## AGRICULTURE AND RURAL INCOME DIVERSIFICATION (ARID) PROGRAMME



**Banskota, Kamal**  
Senior Environmental Resource  
Economist/ Programme Manager



**Ahmad, Farooq**  
Project Coordinator,  
Beekeeping



**Bhandari, Shova**  
Junior Admin. Assistant,  
Beekeeping



**Bhattarai, Nirmal K.**  
Consultant



**Chhetri, Prativa**  
Research Assistant  
MAPPA



**Choudhary, Dyutiman**  
Enterprise Development  
Specialist

*Note: Staff listed in following order - Manager/Heads, Action Initiative Coordinators in alphabetical order, all other staff in alphabetical order: as of December 2005*



**Gurung, Min Bahadur**  
Institutional Development Officer, Beekeeping



**Hummel, John**  
Visiting Scientist



**Jodha, Narpal Singh**  
Senior Associate Scientist, Policy Analyst



**Joshi, Surendra Raj**  
Action Research Officer, Beekeeping



**Partap, Uma**  
Research Officer/Pollination Specialist, Beekeeping Project



**Sharma, Bikash**  
Energy Specialist



**Shukla, Anirudha Nath**  
Extension Assistant, Beekeeping



**Shah, Rajendra**  
Senior Admin. Assistant



**Updhaya, Satananda**  
Extension Assistant Beekeeping



**van der Blonk, Ester**  
Eco-tourism Expert

## WATER, HAZARDS AND ENVIRONMENTAL MANAGEMENT (WHEM)



**Xu, Jianchu**  
Ethno-ecologist Programme Manager



**Eriksson, Mats**  
Senior Environment Economist of Water Resources



**Ferdinand, Jacob Fritz**, Consultant



**Shrestha, Mandira**  
Water Resources Specialist



**Joshi, Sarita**  
Admin. Assistant



**Khadgi, Vijay Ratan**  
Project/web Assistant



**Shilpakar, Rajendra Lal**  
Assistant Coordinator

## CULTURE, EQUITY, GENDER, AND GOVERNANCE (CEGG)



**Kollmair, Michael**  
Programme Manager Senior Social Scientist



**Gupta, Radhika**  
Coordinator, Equity and Rights



**Subedi, Nani Ram**, Coordinator, Decentralised & Local Governance



**Cha, J. Mijin**  
Consultant



**Dasgupta, Joy**  
Associate Coordinator ABSBIO-EH



**Mehta, Manjari**  
Associate Scientist



**Oli, Krishna Prasad**  
Regional Coordinator Strengthening ABSBIO-EH



**Shrestha, Govinda**  
Junior Admin. Assistant



**Turin, Mark**  
Visiting Scientist

## POLICY & PARTNERSHIP DEVELOPMENT (PPD)



**Ahmad, Farid**  
Monitoring & Evaluation Officer



**C.N., Anil**  
Assistant Coordinator IFAD



**Manandhar, Prem Krishna**  
Programme Officer



**Rasul, Golam**  
Policy Development Specialist



**Roy, Srabani**  
Programme & Project Development Specialist



**Shrestha, Mamata**  
Research and Admin. Assistant



**Singh, Bijay Kumar**  
Consultant



**Thapa, Samjhana**  
Admin. Assistant

## INFORMATION AND KNOWLEDGE MANAGEMENT (IKM)

### IKM/IMCO



**Mikolajuk, Zbigniew**  
Senior Knowledge Management Specialist/ Programme Manager



**Murray, Anne Beatrice**  
Senior Editor, IMCO



**Pandey, Sushil Raj**  
Systems Officer, IMCO



**Bajracharya, Shanti Prabha**  
Assistant Librarian, IMCO



**Gurung, Nira**  
Communications Officer, IMCO



**Jha, Anil**  
Intern, IMCO



**Khatri, Shiva Hari**  
Distribution Assistant IMCO



**Madnani, Sanjay Kumar**  
Animator Specialist, Alternative  
Media, IMCO



**Maharjan, Dharma**  
Desktop Publisher, IMCO



**Mendez, Joyce**  
Publications Editor, IMCO



**Nepal, Sugam**  
APMN Node Manager



**Pradhan, Punam**  
Desktop Designer-cum-Publisher,  
IMCO



**Pradhan, Saisab**  
Systems' Operator  
IMCO



**Sharma, Bishwanath  
(Sudas), Senior Admin.**  
Assistant, IMCO



**Tandukar Deependra B.**  
Systems Manager, APMN  
IMCO



**Thaku, Asha Kaji**  
Cartographer/ Graphic Artist,  
IMCO



**Thapa, Ram Sharan**  
Assistant Librarian, IMCO

## IKM/MENRIS



**Shrestha, Basanta**  
Division Head/  
Systems Specialist,  
MENRIS



**Bajracharya, Birendra**  
GIS Analyst, MENRIS



**Mool, Pradeep K.**  
Remote Sensing Analyst



**Pradhan, Sushil Man**  
GIS Analyst, MENRIS



**Bajracharya, Rajan  
Man,** Data Management  
Assistant, MENRIS



**Bajracharya, Sagar  
Ratna,** Consultant  
MENRIS



**Bajracharya,  
Samjwal Ratna**  
Geomorphologist/ RS  
& GIS Analyst, MENRIS



**Bhatta,  
Mandakini**  
Web Assistant, MENRIS



**Dangol, Gauri  
Shankar,** Graphics/  
Multimedia Designer  
MENRIS



**Joshi, Govinda**  
Senior Cartographer/ Data  
Analyst  
MENRIS



**Kumar, Prabhat**  
Consultant,  
MENRIS



**Lamichhane, Anupa**  
Consultant Editor  
MENRIS



**Moktan, Monica**  
Senior Admin.  
Assistant, MENRIS



**Pradhan Banmali,  
Bidya,** Male Declaration  
Implementation Officer,  
MENRIS



**Rajbhandari, Lokap**  
GIS data Analyst/  
Photogrammetry  
MENRIS



**Thang, Cung Chin**  
GIS/IR Specialist  
MENRIS

## MOUNTAIN FORUM (MF)



**Ponce, Ana Maria**  
Executive Secretary



**Sharma, Prashant**  
Deputy Executive Secretary  
Communications Manager



**Curi, Celine**  
Programme  
Development Officer



**Karami, Sani Malam**  
Information Technology  
Officer



**Rana, Anju**  
Programme Assistant



**Sherchan, Ujol**  
Programme Officer  
Info. Services & Content  
Development

## ADMINISTRATION AND FINANCE

### Budget and Finance Section



**Mali, Rajendra  
Prakash**  
Budget &  
Finance Officer



**Nepal, Akil**  
Finance Clerk



**Ranjit, Rabindra**  
Senior Technician -  
Stores



**Shrestha, Kiran  
Man.** Payment  
Processing  
In-charge



**Shrestha, Nabindra  
Raj,** Controller -  
Receipts



**Shrestha, Prabha  
Raj,** Controller -  
Payments



**Shrestha, Pramila**  
Finance Assistant



**Vaidya, Jenny**  
Stores & Inventory  
Controller



## Personnel Section



**Kansakar, Chandra  
Bir Singh**, Personnel Officer



**Amatya, Shree Mani**  
Associate Personnel Officer



**Bajracharya, Nani  
Keshari**, Senior Admin.  
Assistant



**Basnyat R L, Ayushma**  
Senior Receptionist/Operator



**Sadasankar, Pashupati**  
Senior Mail Messenger

## Procurement, Equipment Security



**Khanal, Nirajan**  
Procurement and  
Equipment Support Officer



**Bajracharya, Narendra**  
Electrical Overseer



**Jirel, Birkha**  
Security Guard



**K.C., Ram Bahadur**  
Security Guard



**K.C., Sudama**  
Senior Driver/Procurement  
Assistant



**Maharjan, Kishore**  
Technician



**Malla, Prem Dhoj**  
Senior Security Guard



**Gurung, Sher Bahadur**  
Senior Security Guard



**Rana, Ganga**  
Reproduction Clerk



**Shrestha, Shyam**  
Reproduction Clerk



**Tamang, Krishna Bahadur**  
Senior Security Guard



**Thapa, Babukaji**  
Technician



**Thapa, Shambhu**  
Gardener

## Travel and Hospitality Section



**Upreti, Rajen**  
Travel Officer



**K.C., Dhurba**  
Senior Driver



**K.C., Rishi Ram**  
Travel Assistant



**Magar, Bishnu**  
Senior Driver



**Maharjan, Chinikaji**  
Senior Driver



**Maharjan, Krishna**  
Senior Driver



**Maharjan, Pancha  
Narayan**  
Mechanic/Senior Driver



**Maharjan, Ram**  
Senior Driver



**Maharjan, Ram Lal**  
Senior Driver



**Shrestha, Kishore**  
Assistant Motorpool Supervisor



**Shrestha, Mohan Krishna**  
Motorpool Supervisor



**Singh, Sabak**  
Senior Driver



**Subedi, Jai Bahadur**  
Senior Driver

## Interns



**Dahal, Prabina**  
Intern, Personnel



**Flury, Bastian**  
Intern, NRM



**Kakati, Niraj**  
Intern, NRM



**Karmacharya, Jay**  
Intern, MENRIS



**Limbu, Srijana**  
Intern, MENRIS



**Mahat, Tek Jung**  
Intern, Mountain Forum



**Regmi, Prajna**  
Intern, MENRIS



**Thapa, Dipti**  
Intern, NRM

# ICIMOD Income and Expenditure Accounts, 1996-2005

The financial management of the Centre is implemented through the establishment of Core Funds and Co-Financing Project Funds. All unrestricted contributions made by sponsors and member countries are credited to the Core Programme Funds. All restricted contributions, made by sponsors, governments, and non-government sources for specific projects are credited to Co-Financing Project Funds.

## Income and Expenditure Account Core Programme Funds

In US Dollars

SOURCE OF FUND	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>A. Regional</b>	<b>134,265</b>	<b>98,333</b>	<b>111,011</b>	<b>90,597</b>	<b>115,667</b>	<b>137,158</b>	<b>76,553</b>	<b>170,880</b>	<b>220,563</b>	<b>344,805</b>
01. Afghanistan									5,000	
02. Bangladesh	--	10,000	9,670	1,000	9,710	18,594	10,000	10,000	28,300	10,000
03. Bhutan	2,870	5,000	5,000	5,000	7,500	-	15,000		7,500	15,000
04. China	20,000	30,000	30,000	30,000	30,000	45,000	45,000	45,000	145,000	45,000
05. India	79,861	44,522	37,870	37,427	44,889	42,050	0	84,695	11,284	155,456
06. Myanmar	10,000	--	10,000	--	10,000	10,000	0	9,667	9,956	
07. Nepal	9,023	8,811	7,601	7,396	13,568	13,359	6,553	12,903	13,523	14,154
08. Pakistan	12,511	--	10,870	9,774	--	8,155	0	8,615		105,195
<b>B. Non-Regional</b>	<b>2,344,680</b>	<b>2,267,440</b>	<b>2,538,437</b>	<b>2,478,183</b>	<b>2,354,315</b>	<b>2,276,530</b>	<b>2,364,407</b>	<b>2,562,469</b>	<b>2,703,124</b>	<b>2,592,999</b>
09. Austria	259,272	--	217,675	108,837	88,821	86,160	99,402	114,118	125,460	122,349
10. Denmark	200,000	300,000	300,000	--	--	--	--		400,572	200,901
11. Finland	--	157,285	157,285	133,554	133,554	133,555	133,554			
12. Germany	780,264	651,742	682,379	648,078	568,336	541,543	574,904	854,625	494,694	630,416
13. Netherlands	605,144	487,600	515,350	471,700	513,943	500,000	450,000	585,714	660,438	600,000
14. Norway	--	--	--	450,837	394,047	387,816	464,087	508,012	521,960	539,333
15. Sweden	--	170,813	165,748	165,177	155,614	127,456	142,460			
16. Switzerland	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
<b>C. Other Income</b>	<b>269,328</b>	<b>346,277</b>	<b>346,739</b>	<b>377,691</b>	<b>215,741</b>	<b>200,868</b>	<b>187,368</b>	<b>172,209</b>	<b>175,155</b>	<b>130,360</b>
<b>Total Core(A+B+C)</b>	<b>2,748,273</b>	<b>2,712,050</b>	<b>2,996,187</b>	<b>2,946,471</b>	<b>2,685,723</b>	<b>2,614,556</b>	<b>2,628,328</b>	<b>2,905,558</b>	<b>3,098,842</b>	<b>3,068,164</b>
Projects Co-financing	2,433,696	2,623,893	2,095,088	3,011,391	2,367,552	1,840,082	2,535,816	3,124,694	2,596,420	3,237,024
<b>GRAND TOTAL</b>	<b>5,181,969</b>	<b>5,335,943</b>	<b>5,091,275</b>	<b>5,957,862</b>	<b>5,053,275</b>	<b>4,454,638</b>	<b>5,164,144</b>	<b>6,030,252</b>	<b>5,695,262</b>	<b>6,305,188</b>
<b>EXPENDITURES</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Programme Cost	1,982,734	1,880,088	1,851,917	1,908,356	1,670,389	1,315,311	1,529,717	1,403,669	1,730,067	1,805,625
Projects Cost	1,863,210	2,875,476	2,581,775	2,440,590	2,513,433	1,986,899	2,495,511	2,598,643	3,018,022	3,242,531
Support Cost	562,708	611,501	627,543	617,522	613,343	610,486	642,656	699,467	675,486	515,203
Directorate Cost	454,255	415,843	382,067	445,591	472,263	436,209	389,368	383,728	366,075	419,671
<b>Total Expenditures</b>	<b>4,862,907</b>	<b>5,782,908</b>	<b>5,443,302</b>	<b>5,412,059</b>	<b>5,269,428</b>	<b>4,348,905</b>	<b>5,057,252</b>	<b>5,085,507</b>	<b>5,789,650</b>	<b>5,983,030</b>

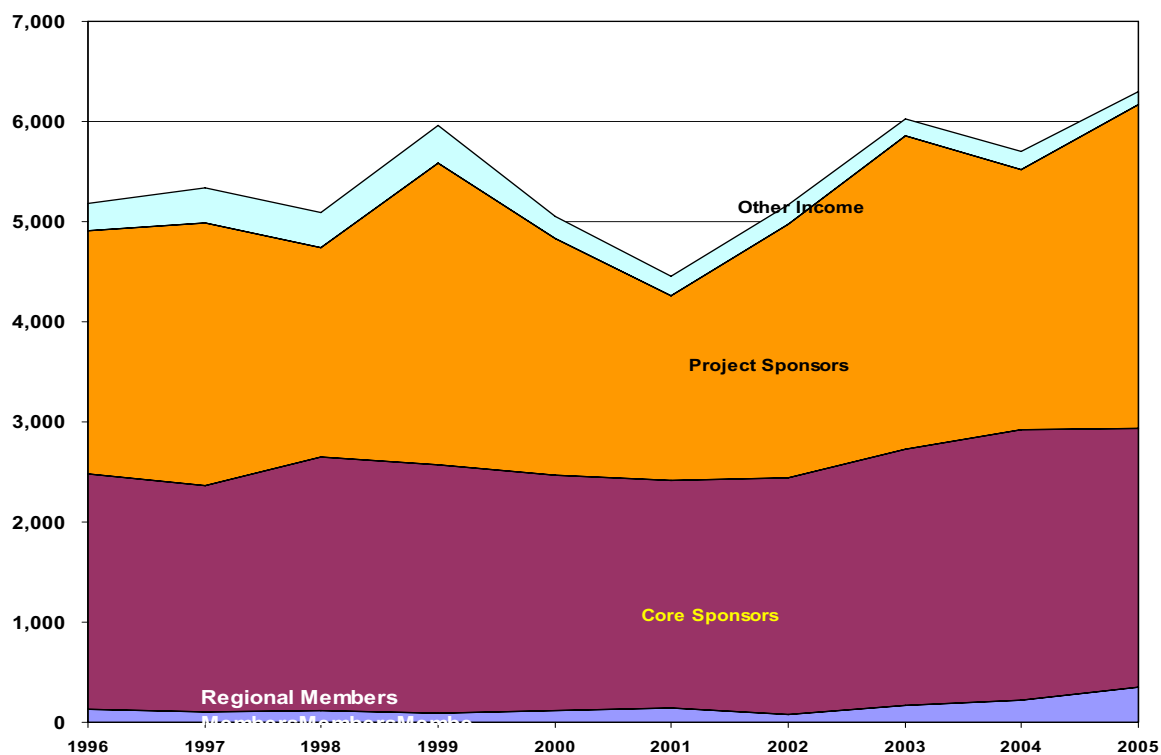
Note: 1) For 2005, the income include Indian contribution of \$98,718 and Pakistan contribution of \$96,841 for the Headquarters(HQ).  
2) Contributions from India received in 2006. Denmark Contribution was for 2006.  
3) 2005 Project Cost includes \$415,896(net) HQ construction cost. Support and Directorate cost is net of overhead recovery.

**Income and Expenditure Account**  
**Project Co-financing**  
In US Dollars

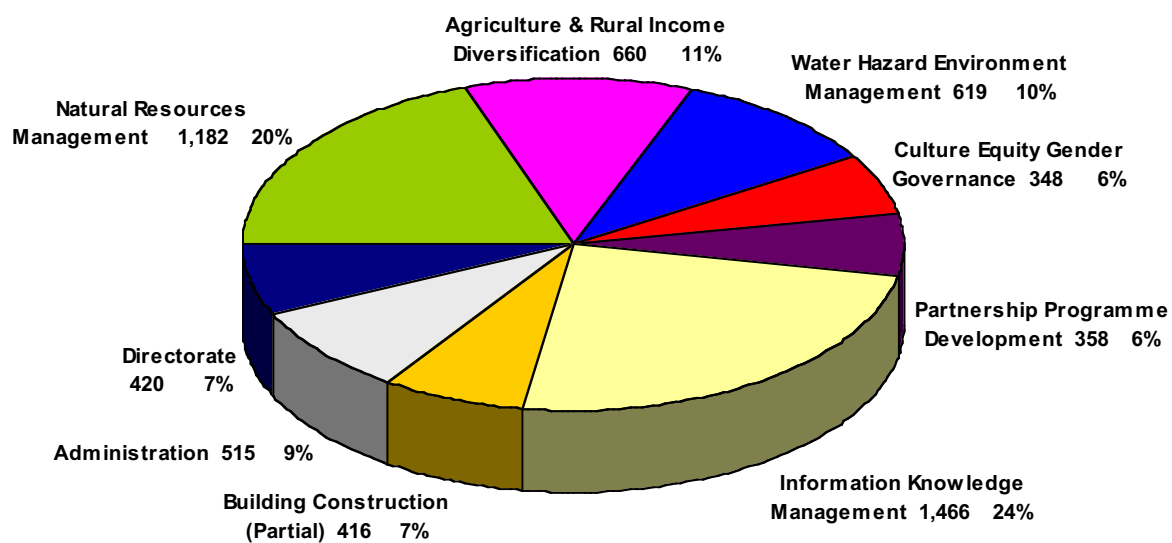
SOURCE OF FUND	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
01. Australia	88,000	175,610	-	95,941	127,818	75,835				
02. Austria	151,584	100,000	170,000	388,722	341,518	164,181	283,198	462,558	339,977	432,394
03. Canada	-	68,165	3,760	-	-	11,693				
04. Germany	15,000	-	-	-	-	2,800	78,159	101,509	51,826	191
05. Japan	100,000	100,000	100,000	-	-	-				
06. Netherlands	437,470	558,000	305,424	428,134	202,266	45,277	96,000	420,814	352,894	169,012
07. Norway	281,264	140,449	146,637	-	-					100,630
08. Sweden	-	-	-	50,000	-		64,246			
09. Switzerland	454,214	342,616	561,704	450,000	472,701	594,408	407,757	404,820	547,166	648,496
10. USA	13,298	1,702	30,000	-	44,850	25,565	82,434	91,950	98,816	158,320
11. ITALY							12,000	47,969	72,441	9,275
12. ADB	282,992	84,008	200,000	160,990	110,000	129,010			20,000	4,000
13. CEC	92,976	339,318	70,412	-	-	-				33,631
14. CIP	-	-	-	100,000	-	-		8,100	9,000	
15. FAO	17,000	15,000	29,000	21,900	22,000	36,500	121,330	70,500	165,200	83,025
16. ILRI	-	-	-	63,000	26,000	20,000				
17. ISNAR	-	-	-	100,000	50,000	217,982	60,000	72,000		
18. UNEP	97,520	10,000	27,617	179,063	161,737	46,932	242,056	125,000	100,558	119,337
19. UNESCO	66,480	118,087	51,000	39,000	-	9,650	500	18,000	9,000	8,000
20. WWF	-	-	-	28,500	1,500	-		28,614	24,825	
21. IFAD	-	-	-	-	250,000	36,545	345,000	428,000	127,000	433,000
22. UNOPS						98,000	30,000			
23. UNIFEM							50,596	48,760		
24. ESA										44,609
25. WI										124,649
26. FORD	200,000	275,000	175,000	380,000	300,000	250,000		200,000	200,000	143,127
27. IDRC	105,898	214,765	132,336	374,447	93,874	48,392	143,415	177,784	132,290	338,707
28. MacArthur	30,000	60,000	35,000	30,000	100,000	-	175,000	100,000	75,000	175,000
29. ICCO							207,715	133,436	24,021	140,015
30. CEH, UK							22,858	52,888	7,248	
31. MLURI							23,220			
32. APN/START							65,606	71,734	68,600	13,400
33. ITC							19,910	35,467	41,991	
34. Twente								24,791	81,953	30,096
35. Sandia									41,969	24,909
36. Others	-	21,173	57,198	121,694	63,288	27,312	4,816		4,645	3,201
<b>T O T A L</b>	<b>2,433,696</b>	<b>2,623,893</b>	<b>2,095,088</b>	<b>3,011,391</b>	<b>2,367,552</b>	<b>1,840,082</b>	<b>2,535,816</b>	<b>3,124,694</b>	<b>2,596,420</b>	<b>3,237,024</b>
EXPENDITURES	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Expenditure	1,863,210	2,875,476	2,581,775	2,440,590	2,513,433	1,986,899	2,495,511	2,598,643	3,018,022	3,242,531



### ICIMOD Annual Fund Application (in US\$'000)



### Programme Cost 2005 (in US\$'000)



**International Centre for Integrated Mountain Development**  
**Statement of Assets, Liabilities and Fund Balances**  
**31st December 2005**

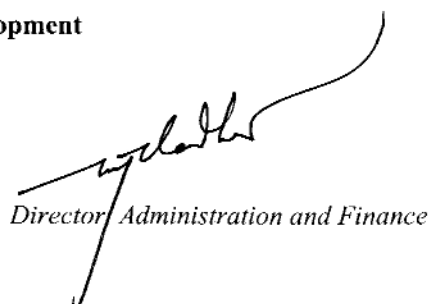
All amounts in United States Dollars

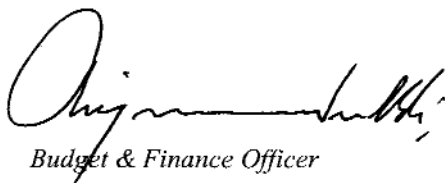
	Schedule	As at 31 December 2005
<b>Fund balances</b>		
General reserve	1	508,201
Operational reserve	1	498,116
Exchange equalization account	1	503,606
Restricted core support fund balance	1	(129,031)
Special project fund balances (net)	6	
Amounts to be incurred on projects		1,767,381
Amounts to be recovered		<u>(253,797)</u>
		1,513,584
<b>Loans</b>		
Loan for building		274,740
		<u><u>3,169,216</u></u>
<b>Assets and liabilities</b>		
Current assets, loans and advances:		
Cash and bank balances	2	3,793,679
Loans and advances	3	41,257
		<u>3,834,936</u>
Current liabilities and provisions	4	<u>(665,720)</u>
Net current assets		3,169,216
		<u><u>3,169,216</u></u>
<b>Notes to the accounts</b>	13	

See accompanying notes to the financial statements.

**For International Centre for Integrated Mountain Development**

  
Director General

  
Director Administration and Finance

  
Budget & Finance Officer

These financial statements are extracts from the audited accounts of ICIMOD as per the audit report of KPMG, 48, DLF Corporate Park, DLF City Phase II, Gurgaon 122002, INDIA

**International Centre for Integrated Mountain Development**  
**Operating Statement for the Year ending 31st December 2005**

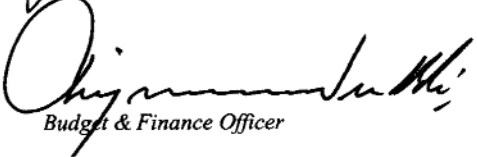
All amounts in United States Dollars

	Schedule	Year ended 31 December 2005
<b>Income</b>		
Contributions from donors		
Core programmes	5	2,111,829
Restricted core support	5	630,416
Construction of headquarter building	5	195,559
Special projects	6	3,237,024
Other income	7	<u>130,360</u>
		<b>6,305,188</b>
<b>Expenditure</b>		
Core programmes cost	8	1,146,708
Restricted core support cost	9	776,379
Special projects cost	10	2,826,635
Building construction cost (Refer Note 2(b)(i) of Schedule 13)		415,896
Support cost	11	524,333
Directorate cost	12	553,244
Less: Overhead cost recovered from special projects		<u>(260,165)</u>
		<b>5,983,030</b>
<b>Surplus</b>		<b>322,158</b>
<b>Appropriations</b>		
Surplus of special project income over expenditure transferred to special project fund balances (net)		410,389
Deficit of restricted core support expenditure over income transferred to restricted core support fund balance		(145,963)
<b>Balance surplus transferred to operational reserve</b>		<u><u><b>57,732</b></u></u>
<b>Notes to the accounts</b>	13	

See accompanying notes to the financial statements.

For International Centre for Integrated Mountain Development

  
Director General

  
Budget & Finance Officer

  
Director, Administration and Finance



## About ICIMOD

ICIMOD – the INTERNATIONAL CENTRE FOR INTEGRATED MOUNTAIN DEVELOPMENT – was established in 1983 to promote the development of an economically and environmentally sound mountain ecosystem in the extended Himalayan region, and to improve the living standards of its mountain communities. The region covers all or parts of Afghanistan, Bangladesh, Bhutan, Myanmar, China, India, Nepal, and Pakistan – ICIMOD's regional member countries. Within the region are found the world's tallest peak (Mount Everest, 8848 masl), largest existing glacier (Siachen, 1112 sq km), highest plateau (Tibet), and many of the major Asian river systems that are the source of water for its mountain populations and for the hundreds of millions living below.

ICIMOD is a unique organisation poised at the interface of research and development and located at the intersection of south, west, and east Asia. As an integrated Centre working with partners throughout the region, ICIMOD's coverage both in terms of geography and population, and sustainable development programmes, is large. The Centre serves both government and nongovernment organisations in a diversity of countries and cultures – close to 150 million people, at least 100 ethnic groups speaking 200 dialects and languages, most of them poor. Huge physical vulnerabilities, from earthquakes and landslides, to floods, droughts, and climate change, as well as areas of ongoing violent conflicts make it the most challenging region for fostering cooperation. The Centre seeks to translate knowledge and innovations into meaningful improvements in livelihoods for the vast majority of its poor mountain peoples.

By bringing together governments of the region, policymakers, planners, development practitioners, and scientists and social scientists from the region and around the world on a nonpolitical platform of regional cooperation and knowledge sharing, the Centre hopes to help reduce poverty and mitigate the vulnerabilities of its fragile environment.

**ICIMOD, P. O. Box 3226, Kathmandu, Nepal**

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