



# 2

The Regional Member  
Countries – Commitment  
to a Common Future

# Afghanistan

## Message from HE Eng Ghulam Mostafa Jawad

Member, ICIMOD Board of Governors; Deputy Minister, Ministry of Agriculture, Irrigation and Livestock, Government of Afghanistan



Afghanistan is a less developed mountainous country that has suffered greatly over the last twenty-five years of war, devastation, and instability. Agriculture and natural resource utilisation have formed the basis of our economy for centuries and are still the most important sources of livelihood for over eighty-five per cent of people. The years of conflict have set Afghanistan back and removed us from opportunities to develop our agriculture and forestry and water resources, which many other Himalayan countries have been able to do. As a mountainous country, Afghanistan has special needs and opportunities that are different from those of the plains.

As an organisation established to share knowledge among mountain countries, ICIMOD has helped to integrate and connect Afghanistan with its mountain neighbours, thus facilitating exchange of scientific knowledge and cooperation in order to deal with natural disasters and environmental degradation.

ICIMOD can play an important role in helping Afghanistan to acquire up-to-date scientific knowledge, specific to our mountain context, to make our agriculture and natural resources more productive. This is increasing in importance as climate change is now affecting the amount and timing of rain and snow and this is likely to require us to make further adjustments in the future.

I have been pleased to be associated with ICIMOD over the last seven years. During this time Afghanistan has made remarkable progress in rebuilding the government and development services. However, we realise that there is much more to be done. We very much welcome ICIMOD's cooperation in our efforts to rebuild and develop Afghanistan. We are happy to take up our membership in this important organisation, but are also impatient to see a higher level of activity here to bring real development to the country. We also welcome ICIMOD's role in helping Afghanistan to become more active in the Hindu Kush-Himalayan region.

I congratulate ICIMOD on the occasion of its Silver Jubilee and look forward to a strong and perpetual partnership in the future.

# Bangladesh

## Message from Mr Shaikh Altaf Ali

Chairperson, ICIMOD Board of Governors; Secretary, Ministry of Chittagong Hill Tracts Affairs, Government of Bangladesh



I am very pleased to know that ICIMOD is celebrating its 25th Anniversary. On behalf of the Government of Bangladesh, and myself, it is indeed a pleasure to extend greetings and congratulations to ICIMOD on this occasion. ICIMOD was established in 1983 with a dual mandate to improve the lives of mountain communities in the Himalayan region and to conserve the mountain environment. Since then, ICIMOD has travelled a long way. From a small documentation and training centre, it has grown into a well-recognised 'mountain knowledge and learning centre'.

This special celebration provides us with an opportunity to reflect upon the many and varied contributions made by ICIMOD over the last 25 years. ICIMOD, with its national and international partners, has been working to develop and provide integrated and innovative solutions to the multitude of problems encountered by mountain people. ICIMOD has also accumulated valuable experience over the years. Several technologies and options have been developed, tested, and demonstrated by ICIMOD together with its partners and are now well accepted. Their impact, however, has remained limited as widespread adoption could not be facilitated.

Development experiences and wisdom generated over the years suggests that no solution can be sustained or scaled up until it is owned by the direct beneficiaries. I am glad that ICIMOD has rightly recognised that in order to enhance the relevance and effectiveness of its efforts, it needs to be 'owned' by its eight regional member countries (RMCs). ICIMOD recently formed a Board Executive Committee with a view to engaging the RMC Board Members more intensively in providing strategic inputs, supervision, and guidance to the Centre. Its new Medium Term Action Plan (MTAP II 2008-12) was also prepared in detailed consultation with the agencies concerned in the RMCs in order to align ICIMOD's work with their needs and priorities. These are undoubtedly steps in the right direction. However, to take it further, ICIMOD's learning, knowledge and development efforts need to be anchored in appropriate institutions in the RMCs so that the knowledge and good practices that evolve can be sustained and scaled up.

Of course, ownership and commitment are interrelated. Strengthening ownership requires stronger commitment from all the RMCs. Ownership needs to be translated and reflected in joint plans and programmes, as well as by scaling up good practices by integrating them into government plans and programmes.

Bangladesh has participated continuously and supported ICIMOD's activities since the inception of the Centre. Bangladesh has also recently significantly increased its financial and in-kind contribution to ICIMOD. This not only reflects Bangladesh's increased ownership, but also its strong commitment to ICIMOD's mission, vision, and activities. On behalf of the Government of Bangladesh, I would like to renew our strong interest and commitment to ICIMOD and welcome any endeavours that support the lives and livelihoods of the people of Bangladesh in general, and those of the Chittagong Hill Tracts in particular.

As Chairperson of ICIMOD's Board of Governors during this important event, I recognise the valuable financial and technical support from all the regional member countries, as well as from the International Support Group. I believe that this support will continue and further increase given the Centre's growing role and value to the region, as well as to the world.

A silver jubilee is certainly a cause for celebration. On behalf of the ICIMOD Board of Governors, please accept my best wishes for a joyous celebration. I believe this event and this special publication on 'ICIMOD and the Himalayan Region: Responding to Emerging Challenges' will contribute to raising awareness of ICIMOD's work and advance the vision, mission, and agenda of the Centre.

# Bhutan

## Message from Mr Sherub Gyaltshen

Member, ICIMOD Board of Governors; Secretary, Ministry of Agriculture,  
Royal Government of Bhutan



Climate change and its effects are of great concern and pose a serious challenge to small, landlocked economies like Bhutan, whose economic development is highly dependent on climate sensitive sectors such as agriculture, forestry, and hydropower. Climate change seems to take place at a much faster rate in the mountains, where the impacts are more visible than anywhere else, especially as a small change in temperature is enough to change snow to water. This phenomenon has a huge impact on the stable supply of water for drinking and for hydropower generation. The climate has become more unpredictable with very high intensity rains and more extreme frost and hail. Rainfall patterns have also changed.

The Hindu Kush-Himalayan mountains and their glaciers serve as a water reservoir, feeding Himalayan rivers on which up to three billion people depend for food and energy. Himalayan glaciers are retreating at a faster rate than the world average and are reported to be thinning by 0.3 to 1 metre per year.

Today, poverty in Bhutan stands at 23% and is mainly a rural phenomenon. It is the poor who are most vulnerable and who will bear the brunt of climate change. Water resources continue to be threatened, not only water for irrigation, but even for drinking. While some places experience drought, others suffer from flash floods. As temperatures continue to rise and glaciers melt at a faster rate than ever, glacial lake outburst floods (GLOFs) are a constant threat in Bhutan. New pests and diseases appear every year and ravage the crops that used to fetch good cash incomes for our farmers, affecting the livelihoods of rural women and men.

Can ICIMOD rise to the challenge?

ICIMOD, as the only international centre devoted to integrated mountain development, has daunting challenges to face, as well as opportunities, in preparing mountain people to be resilient and adapt to the global phenomenon of climate change.

The Ministry of Agriculture, Royal Government of Bhutan takes this opportunity to reconfirm to ICIMOD its assurances and commitment to the success of ICIMOD's noble programmes in its focus areas.

# China

## Message from Professor Ding Zhongli

Member, ICIMOD Board of Governors; Vice President, Chinese Academy of Sciences (CAS)



### **A Stronger Strategic Partnership between China and ICIMOD for the Next 25 Years**

As an independent international research and knowledge centre, the International Centre for Integrated Mountain Development (ICIMOD) serves eight regional member countries in the Hindu Kush-Himalayan (HKH) region, with a clear mission to facilitate global environmental protection and the conservation of mountain ecosystems. Since its inception 25 years ago, the centre has made many contributions to the promotion of mountain research, regional resource development, eco-environmental protection, and sustainable development. It has committed much effort to the improvement of people's living standards and sustainable development in the HKH region, as well as accumulating knowledge and experience for sustainable development.

Being a founding member of ICIMOD, China has been actively collaborating with the Centre in achieving its various goals. Since 2006, China has doubled its annual financial contribution to ICIMOD from US\$ 45,000 to US\$ 100,000. Additional aid of US\$ 100,000 was also provided for the construction of ICIMOD's new headquarters. In recent years, ICIMOD's activities conducted in China, and Chinese engagement in the activities of ICIMOD and of other regional member countries (RMCs) have increased significantly. Over 30 Chinese professionals have contributed their knowledge and expertise as full-time staff of ICIMOD during the past quarter century. More than 300 Chinese researchers have been invited to carry out cooperative research and engage in other activities organised by ICIMOD such as international seminars and training courses. These activities cover a wide range of fields, including water and soil conservation, mountain agricultural development, disaster control, remote sensing and GIS applications, rangeland management, watershed management, shared management of natural resources, and biodiversity protection. In order to further develop and strengthen collaboration and communication with RMCs under the guidance of ICIMOD, the Chinese Academy of Sciences (CAS), the key partner of ICIMOD in China, set up the Chinese Committee on ICIMOD (CNICIMOD) in October 2006. ICIMOD highly praised its establishment and the former Director General, Dr J Gabriel Campbell, made a special trip to the Chengdu Institute of Mountain Hazards and Environment, CAS, to officially launch the opening of the CNICIMOD Secretariat. Dr Andreas Schild also visited the CNICIMOD Secretariat after assuming the post of Director General of ICIMOD. CNICIMOD has played an important role in organising and coordinating various activities for ICIMOD since its inception.

China is also a country with nearly 70% per cent of its land mountainous. Of the mountainous areas under the direct concern and investigation of ICIMOD, about half are located in China, including the Tibet Autonomous Region, Qinghai Province, Yunnan Province, Xinjiang Uygur Autonomous Region, and part of Sichuan Province and Gansu Province. The Chinese Government has attached much significance to the study and management of these areas and has committed much effort to achieve poverty alleviation, eco-environmental conservation, and the sustainable development of these regions. The new development strategy of ICIMOD focuses on the integrated management of water and hazards, environmental change and ecosystem functions, and sustainable livelihoods and poverty reduction. All of these priorities resonate very well with those of China. China and the Chinese Academy of Sciences will continue to support ICIMOD in relation to the study and tackling of global climate change challenges and the protection of ecosystem security for the benefit of all the people in the HKH region. It is believed that the following are the key areas for future cooperation between China and ICIMOD: integrated management of river basins and watersheds; eco-agriculture in mountain regions including rangelands and sloping farmlands; forest management; knowledge-sharing and technology transfer; hazard control and reduction; and sustainable development.

I am particularly pleased to note that ICIMOD in its new strategy has reiterated its role in promoting mountain research and cooperation in the HKH region. I believe that ICIMOD will prove to be a helping hand and valuable platform for its RMCs, while the RMCs will continue their commitment to the development of ICIMOD and take ICIMOD as their own organisation. I am looking forward to an even stronger partnership between ICIMOD and its RMCs, and with the strong support of ICIMOD networking, closer links and cooperation among member countries.

In conclusion, I would like to extend my warmest congratulations to ICIMOD for its 25th Anniversary and the Jubilee publication on behalf of the Chinese Academy of Sciences and a regional member country.

# India

## Message from Mr Vijai Sharma

Member, ICIMOD Board of Governors; Secretary, Ministry of Environment and Forests, Government of India



It is a matter of great satisfaction that the International Centre for Integrated Mountain Development (ICIMOD) will soon be commemorating its 25th Anniversary. This is an opportunity for ICIMOD to reflect on its experience, draw lessons from the past, and consolidate its framework of action for the future in the light of its objectives.

In India, the G.B. Pant Institute of Himalayan Environment & Development (GBPIHED) is the nodal institute for ICIMOD. GBPIHED and ICIMOD will soon be signing a memorandum of understanding to provide an institutional mechanism for undertaking mutually beneficial activities in the Indian Himalayan Region.

ICIMOD has indeed emerged as a significant knowledge centre for learning and information exchange, and we in the Ministry of Environment and Forests look forward to further building our association with a view to enriching the lives of local communities.

I wish ICIMOD all success in its endeavours.



# Myanmar

## Message from Professor Kyaw Htun

Member, ICIMOD Board of Governors; Deputy Director-General, Planning and Statistics Department, Ministry of Forestry, Government of Myanmar



I feel honoured and privileged to be able to contribute my thoughts and insights to ICIMOD's Silver Jubilee publication. The Earth on which we live was originally endowed with abundant natural resources. Lands were fertile, water and air clean, and forests green – the environment was uncontaminated. However, these precious natural resources have been used

beyond their capacity and in an unsustainable manner. As a result, lands have been degraded and forests have deteriorated and been converted into non-forest lands. The environment has been seriously affected by the pollution of land, water, and air. To make matters worse, some natural resources are disappearing forever from our planet, mainly due to anthropogenic activities. Today, we are faced with unprecedented environmental challenges, which could threaten the existence of human beings on this planet if they are not wisely resolved. Countries throughout the Hindu Kush-Himalayan (HKH) region are also being confronted with the challenge of maintaining their forest resources in the face of increasing demands, both for land and forest products. About 60% of the land area in the greater Himalayan region is rangeland, which is threatened by land degradation and desertification. Mountain poverty is exacerbated by environmental change.

At the 1992 UN Conference on Environment and Development held in Rio, governments were urged to pursue the National and Subregional Sustainable Development Strategy. At the Rio+5 Summit in 1997, the National Sustainable Development Strategy (NSDS) was reaffirmed as an important mechanism for countries to achieve sustainable development. At the UN Millennium Declaration held in 2000, heads of state and governments again reaffirmed their commitment to the principles of sustainable development and the other provisions of Agenda 21. The 2002 Johannesburg Plan of Implementation called upon countries to take immediate steps towards the formulation and elaboration of the NSDS, and to begin implementation by 2005.

In the 25 years since its inception in 1983, ICIMOD has become a well-established international institution. At this juncture, we need to evaluate to what extent the organisation has fulfilled its objective to promote the development of an economically and environmentally sound mountain ecosystem and to improve the living standards of mountain populations. Based on the experiences gained and lessons learned during the last 25 years, I believe that ICIMOD can streamline its future activities and programmes. ICIMOD has defined its vision, 'that the mountain population of the greater Himalayas enjoy improved wellbeing in a sustainable global environment', and its mission, 'to enable and facilitate their equitable and sustainable wellbeing by supporting sustainable mountain development through active regional cooperation'. Building capacity, raising awareness, and sharing experiences and lessons among the regional member countries is vital to be able to fully take part in the agenda and programmes of ICIMOD. The quest for synergy is the main driver needed to achieve ICIMOD's targets and goals.

# Nepal

## Message from Professor Pitamber Sharma

Member, ICIMOD Board of Governors, and Vice-Chair, National Planning Commission, Government of Nepal



I feel privileged to be able to participate in the Silver Jubilee Celebrations of ICIMOD. The Centre was established in 1983 to address two major interrelated concerns: the deteriorating environment of the Hindu Kush-Himalayan mountains, and the growing impoverishment of the region's people. ICIMOD was set up to help address these concerns through development of an economically and environmentally sound mountain ecosystem and improving the living standards of the mountain populations, in the present as well as in the future.

The challenges that were identified 25 years ago are still as real and imposing. Only the context, in terms of the trends that are unfolding, and in terms of our understanding of the problems, has changed somewhat. For ICIMOD it is a time for reflection. What has ICIMOD achieved in developing an economically and environmentally sound ecosystem in these mountains, and how has ICIMOD contributed to improving the living standards of mountain people? What are the lessons to be learned, and how are these lessons to be utilised in charting the course ahead? To provide simple answers to these questions is not easy. The scale of the problem and the extent of the HKH region are too large for a small institution like ICIMOD to make a visible impact. With the hindsight of a former professional member of staff, I believe that ICIMOD's strength lies in its capacity to utilise cutting-edge knowledge for the understanding and analysis of the problems of the environment, resource use patterns, and human livelihoods; in its use of partner institutions in identifying the gaps and in influencing policy orientations; in building up national capacities through training and experience sharing; and in promoting small-scale problem solving activities with potential for scaling up by national institutions. As it comes of age, ICIMOD should be reflecting on its achievements in these areas, and the strategies to make these achievements sustainable.

Global warming and climate change add a new dimension to our understanding of environmental and related issues and bring to the fore the complexity of the policies and processes needed to move towards the path of sustainable development. It is said that global warming will affect mountain areas quicker and faster than the plains. Poverty and resource degradation issues are already serious in the mountain areas and global warming will further accentuate this. Novel and innovative approaches that bring together communities as well as governments will be necessary to address the problems even as our understanding of the issues increases. As roads link the remote regions to the national and international markets, the very notion of subsistence farming is undergoing a fundamental change, and in many areas it is fast losing its relevance. The small

farmer in the HKH is facing multiple challenges both from within and from outside. Slow but steady increase in access, increased literacy, and a consequent search for new opportunities in a context where local opportunities remain woefully limited, is motivating droves of young men and women to move towards urban centres in search of new prospects. The pace of urban growth has hastened. Many are moving beyond national frontiers, to south-east Asia, to the Gulf and beyond. Economies such as that in Nepal have begun to rely heavily on remittances, even as the remittance receiving households move in increasing numbers from rural hamlets to market towns and urban centres. With the increased role of remittances, economies also expose themselves to increased vulnerability. New opportunities that appear as comparative advantages in the mountains – mountain tourism, biodiversity resources, hydropower development – are taken advantage of by outside interests. The challenge is to create a context where mountain communities can benefit and prosper from these developments.

The new Strategic Framework and Medium-Term Action Plan (2008-2012) of ICIMOD is organised around three strategic programmes – Integrated Water and Hazard Management, Environmental Change and Ecosystem Services, and Sustainable Livelihoods and Poverty Reduction. Three major results are expected: equitable and sustainable water management at macro-level, the provision of stable eco-system services at the meso-level, and the generation of more sustainable livelihoods at the micro-level. I hope that ICIMOD will be able to define these results in more tangible and concrete terms and deliver something substantive to the countries of the region.

For 22 of the 25 years of ICIMOD's existence, it operated from rented premises. It is, therefore, a welcome relief to see that the Centre has finally been able to house itself in permanent quarters. Lately ICIMOD has developed a 'brand image', projecting itself as an institution that is ready to take up new challenges. I take this opportunity to congratulate ICIMOD for the efforts it is making to promote itself as regional learning and knowledge centre while, at the same time, making its presence felt in the international arena. At this juncture I would also like to advise ICIMOD to develop strategies for transferring the knowledge and experience it continues to generate to the universities and centres of learning in the HKH region.

As a Member of the Board of Governors, I would like to thank ICIMOD for all the good work that it has done over the past 25 years and also assure the Centre that it will continue to receive full cooperation and support from the Government of Nepal. I believe that other regional member countries have also committed to continue and enhance their support to ICIMOD given the Centre's growing role in addressing the multiple challenges confronting the HKH region. Finally, the Himalayas reach their loftiest heights in Nepal, and the Government of Nepal is proud to host this unique institution devoted solely to the mountains and its people.

# Pakistan

## Message from Mr M Zia-ur-Rehman

Member, ICIMOD Board of Governors; Secretary, Ministry of Food, Agriculture and Livestock, Government of Pakistan



The long and well-established relations between the International Centre for Integrated Mountain Development (ICIMOD) and a number of research and development institutions in Pakistan show ICIMOD's commitment and dedication to the promotion of innovative research and the dissemination of knowledge in this part of the Hindu Kush-Himalayan (HKH) region. ICIMOD's

cooperation in different fields of science and technology serves as a bridge between research and its application in the field, helping to alleviate poverty and restore natural ecosystems. The sharing of good practices by ICIMOD has strengthened the research base of many institutions in Pakistan, such as the Pakistan Agricultural Research Council (PARC), Pakistan Meteorological Department, Pakistan Forest Institute, and the Centre of Excellence in Geology, Peshawar. So far, ICIMOD has collaborative programmes with some 22 institutions, including NGOs, in Pakistan. After the recent earthquake disaster in northern Pakistan, ICIMOD provided valuable support in terms of risk assessment and the rehabilitation of watersheds, in collaboration with FAO. Its support in the areas of agricultural biodiversity, apiculture, rangelands, GIS/remote sensing, and water resource monitoring and assessment, through capacity building and technology transfer is highly appreciated. ICIMOD's initiatives in resource database development and management using geo-informatics and geo-data networking have broadened the base of information technology and provided a rapid access to and transfer of discrete information among stakeholders. The inventory of glaciers and glacial lakes in the HKH region of Pakistan is an excellent example of ICIMOD's collaboration with PARC. This inventory has provided a base for the future assessment and monitoring of water resources and the mitigation of flood hazards in this part of the Himalayan region. Such information is of great importance to countries like Pakistan, where irrigation networks and power generation are heavily dependent on snow and glacier melt in summer and where flood hazards threaten livelihoods and habitats downstream. Such information also helps policymakers in their initiatives in the area of climate change and global warming.

Now it is time to focus on the aftermath of the changing climate by strengthening the regional network base provided by ICIMOD and enhancing the future research capacity towards adaptation and mitigation. It is essential to develop and integrate agriculture mitigation and adaptation frameworks for climate change into sustainable development planning at the national and regional levels to cope with the projected impacts of climate change. There is vast scope for

future collaboration with ICIMOD in areas like (i) resource assessment and the management of arid mountain regions in Pakistan (i.e., Baluchistan and Sindh), for which there is limited knowledge and experience; (ii) the monitoring of snow, ice, and water resources and associated GLOFs and flash floods; (iii) the promotion of renewable energy for better rangeland and water management; and (iv) the exchange of regional experience to help alleviate poverty in mountain areas. ICIMOD has a wealth of baseline information and regional expertise, which should be fully tapped to help the poor and restore natural ecosystems