

## Welcome Address

*J. Gabriel Campbell*

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

Honourable Minister, Distinguished Scientists and Agriculturalists, Ladies and Gentlemen.

On behalf of ICIMOD, it is my pleasure to welcome you all to this International Symposium on Mountain Agriculture of the Hindu Kush Himalayan (HKH) region. Many of you had long journeys to Kathmandu, and I am pleased that you have been able to come. Your presence at this meeting reflects the importance of agriculture in our mountain areas and your commitment to the development of mountain agriculture.

We know that agriculture is the basis of survival for the vast majority of the 140 million people who live in the mountains of the Hindu Kush-Himalayas. We know that mountain agricultural systems are highly diverse in comparison to those found in the plains. Complex cropping systems; animal husbandry systems; and water, forest, and range use systems have been built up over the centuries to deal with mountain dynamics and the diversity of micro-ecologies found on even the smallest farms.

Through the actions of millions of farmers over thousands of years, parts of our mountain landscapes have been transformed into terraces, kitchen gardens, and agroforestry or horticultural plots. Other parts have been transformed into denuded and eroded hillsides with bare and depleted soils.

The dynamic nature of these young mountains and the vast impacts of water running rapidly down fields, slopes, and valleys have created an ever-changing mosaic of mountain land use. Landslides wipe out fields and pasture, and in their wake create new fields. Forests are burnt and create new pastures. Many trees are cut down, but others such as the nitrogen fixing *Alnus nepalensis* return, and cash crops such as cardamom are planted to return fertility to soil previously lost.

However, these ever-changing mountain landscapes are too often caught in a downward spiral of degradation.

We know that most mountain women and men toil long and hard hours for very meagre returns and very difficult lives. The amazing fact to any outsider is that they manage to survive at all under the harsh conditions in which they work. With extremely small landholdings, extremely difficult conditions for land management, difficult access to markets, limited technological options, weak extension support, few basic services, and frequently changing market conditions, many – if not most – mountain farm households struggle to come up with less than subsistence. Their productivity is very low and many perceive their prospects to be dim. They then end up having to take on extra jobs as labourers to make ends meet, or migrate to cities and plains. The scale of poverty in our region continues to increase.

In general the research and extension support provided to address the problems of mountain agriculture has been substantially less than that available to farmers in the plains. The solutions for increasing long-term productivity are rarely as easy, and the effort involved in dealing with the complex interactions of mountain agricultural systems has discouraged both government and private-sector institutions from investing the necessary skills and manpower.

But dedicated farmers, researchers, and agricultural workers have worked long and hard to find some solutions, as well as to better define and understand the research and development agenda required by our mountain conditions.

You represent these people – the committed scientists and policy makers who have not feared to directly tackle the daunting challenges of improving mountain agricultural systems. You are the people who have had the vision to see opportunity where others see only gloom. You are the people who have formed partnerships with one another and with local farm households to introduce new technologies, methods, or approaches through research, field testing, and adaptation. You are the ones to help identify and foster improved cropping systems, improved horticultural systems, improved livestock systems, improved agroforestry systems, and improved soil conservation systems.

And as a result, we do have pockets of success – areas where productivity has increased, livelihoods have improved, and soil and forest loss have dramatically decreased. And where we do not yet have solutions, we have better ideas on how to identify them – how to work with farmers to set up research that will address real problems and opportunities.

This is why we are here this week – to share results, to share questions, and to think together about how to build on our knowledge and improve mountain agriculture.

ICIMOD is working with partners in the Hindu Kush Himalaya – many represented here today – to help support this effort. As a regional institution with each of the Hindu Kush Himalaya countries represented on our Board of Governors, we are built on a model of regional collaboration. We are fortunate in being able to take advantage of this collaboration to bring together scientists and development workers from most of the countries and ecosystems found in our region to facilitate cross-pollination of ideas and knowledge.

ICIMOD has also worked to serve our mountain farmers through a set of programmes identified in the second four-year Regional Collaborative Programme (RCP II) that commenced in 1999. Under the central theme of poverty reduction and sustainable livelihoods, two priority areas are recognised: improving the productivity of marginal farms and promoting options for generating income. With financial support from the Asian Development Bank (ADB), the Australian Centre for International Agricultural Research (ACIAR), and Austroprojekt, ICIMOD has been collaborating with many of you to implement several projects in these two priority areas. These projects include 'Appropriate Technologies for Soil Conserving Farming Systems' (ATSCFS), 'Issues and Options for Marginal Farms', and 'Promoting Beekeeping with Indigenous Honeybees in the HKH Region'.

Within the context of the ATSCFS project, efforts have concentrated on testing, demonstration, and extension of the contour hedgerow intercropping technology (or SALT) and other appropriate technologies, along with capacity building of national and local institutions that can help in diffusing these technologies. The results so far have clearly demonstrated that the contour hedgerow intercropping technology can sustain permanent cultivation of sloping croplands. It can control soil erosion, improve soil chemical and physical properties, enhance crop yield, and provide enhanced income benefits. We are pleased to see that this technology has been adopted by a large number of farmers in China and Bangladesh, and has been recognised by the government of China as an important technology for environmental conservation and upland agricultural development. It has also been incorporated in many programme activities of many institutions in the ICIMOD member countries. We believe that with support from the governments of the member countries, and continuing research and adaptation, this technology will be adopted by increasing numbers of mountain farmers to conserve our precious soil and water for increased productivity and sustainability.

Experiences from the project on Issues of Mountain Marginal Farms and other related projects in the HKH indicate that productivity and income can be improved through appropriate management. ICIMOD studies have supported the conclusion that many marginal farms may not be productive for food crops but can be productive for certain cash crops. A number of ICIMOD reviews have helped identify many examples of successful cultivation of high-value crops and related practices in the HKH region. These examples need to be multiplied, studied, and supported so that a number of options for the diverse conditions and markets of the HKH can become available and adopted by mountain farmers.

In the beekeeping project, apart from a wide awareness generated regarding the Himalayan honeybee, ICIMOD is active in testing and disseminating improved beekeeping practices and training local farmers and local NGOs, especially regarding the native Himalayan species that have been neglected in most of the world. This project aims to increase the productivity of Himalayan bees and demonstrate how bee products can be diversified. Equally if not more importantly, the project documents the essential role of bees in the pollination of plants, especially many of the cash crops we hope to promote for mountain agriculture.

As I hope these examples demonstrate, ICIMOD seeks to work in an integrated manner to tackle the integrated nature of mountain agriculture. Furthermore, we have also identified some other important aspects of applied research in the mountains that we hope to strengthen in the future.

You know well, but unfortunately many policy makers still do not, that the primary mountain farmer is often a mountain woman. Gender roles in mountain agriculture are not those of the plains, and we still have a long way to go to incorporate these different roles within our research and extension agendas.

Second, while we do conduct tests and hold participatory planning meetings with local farm women and men, there are immense opportunities for increasing genuine collaboration

with local farmers and their communities. Too often we do not systematically try to identify the innovations that farmers have already introduced and are testing on their own. Too often we do not seek to fully understand the wealth of local knowledge backing up present practices. The potential for knowledge sharing, and for identifying and testing new solutions by becoming real partners with local innovators, is another area we hope to develop much more fully in the future.

Finally, we are working to ensure that we make the knowledge generated by all of you and ICIMOD really useful to both the mountain farmers and policy makers. We realise that this will require far more attention to building effective communication of the results into our programmes and projects from the outset. It will require that results be communicated not just in research reports, but through print and other media in local languages and accessible formats.

We look forward to working with our partners in the region to take these initiatives forward, and we hope that while you are addressing the issues of mountain agriculture you will also provide guidance on how this can best be done.

I hope you have a very successful symposium and a pleasant stay in Kathmandu.

Thank you.