

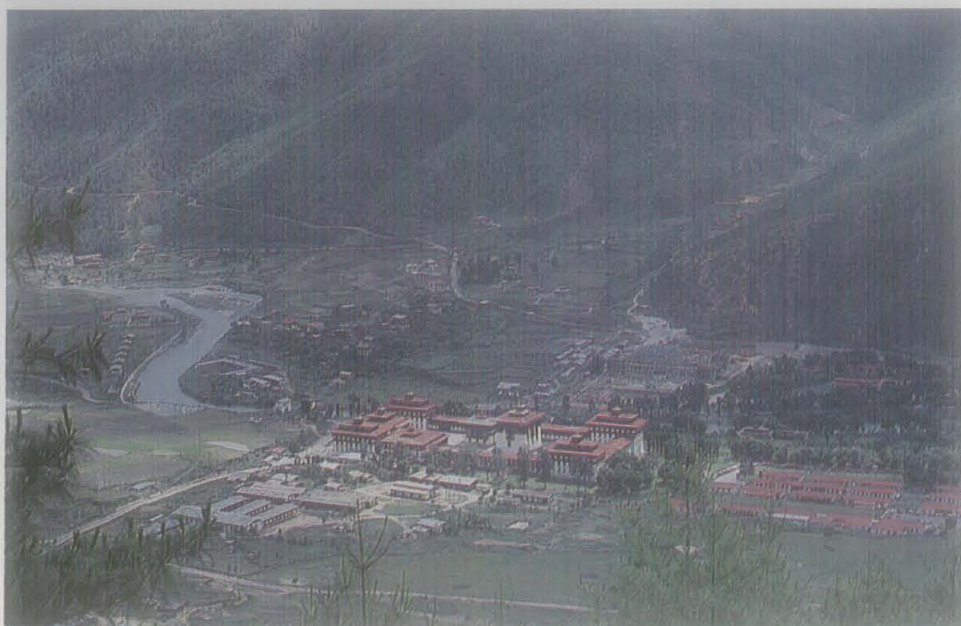
ICIMOD's Twelfth Board Meeting

The Twelfth ICIMOD Board Meeting was held in Thimphu, Bhutan, from June 5-7, 1989, at the invitation of the Royal Government of Bhutan. The Board Meeting was followed by a series of briefings and field trips. This was the first time that the whole Board met outside Nepal. It provided an opportunity for Board Members and Senior Staff not only to discuss issues related to ICIMOD but also to enhance their understanding of the socioeconomic and cultural development of Bhutan. There were several occasions for interaction with high-level government officials from Bhutan, and this has contributed to mutual understanding and better relationships with Bhutan.

The Foreign Minister of the Royal Government of Bhutan, Lyonpo Dawa Tshering, hosted a reception and dinner for the Board members and the staff. Several Ministers, Secretaries, and other high-level officials of the Royal Government were present on the occasion. The Deputy Minister of Planning, Dasho C. Dorji, briefed the Board Members and staff on the policies, priorities, and development programmes in Bhutan. This was followed by some interesting and productive discussions (some of the salient points are presented on page 3).

The following are the major highlights of the Board Meeting.

- The Royal Government of Bhutan and the Government of Bangladesh announced their financial contributions to the core funding of ICIMOD, followed by important statements by both Governments in support of ICIMOD. On behalf of the Board, the Chairman, Dr. Rudolf Hoegger, thanked both Governments for their support.
- To assess ICIMOD's first five years of operation (from September 1984



Bhutan's Administrative Headquarters at Tashi Chho Dzong, Thimphu (J. Bandyopadhyay)

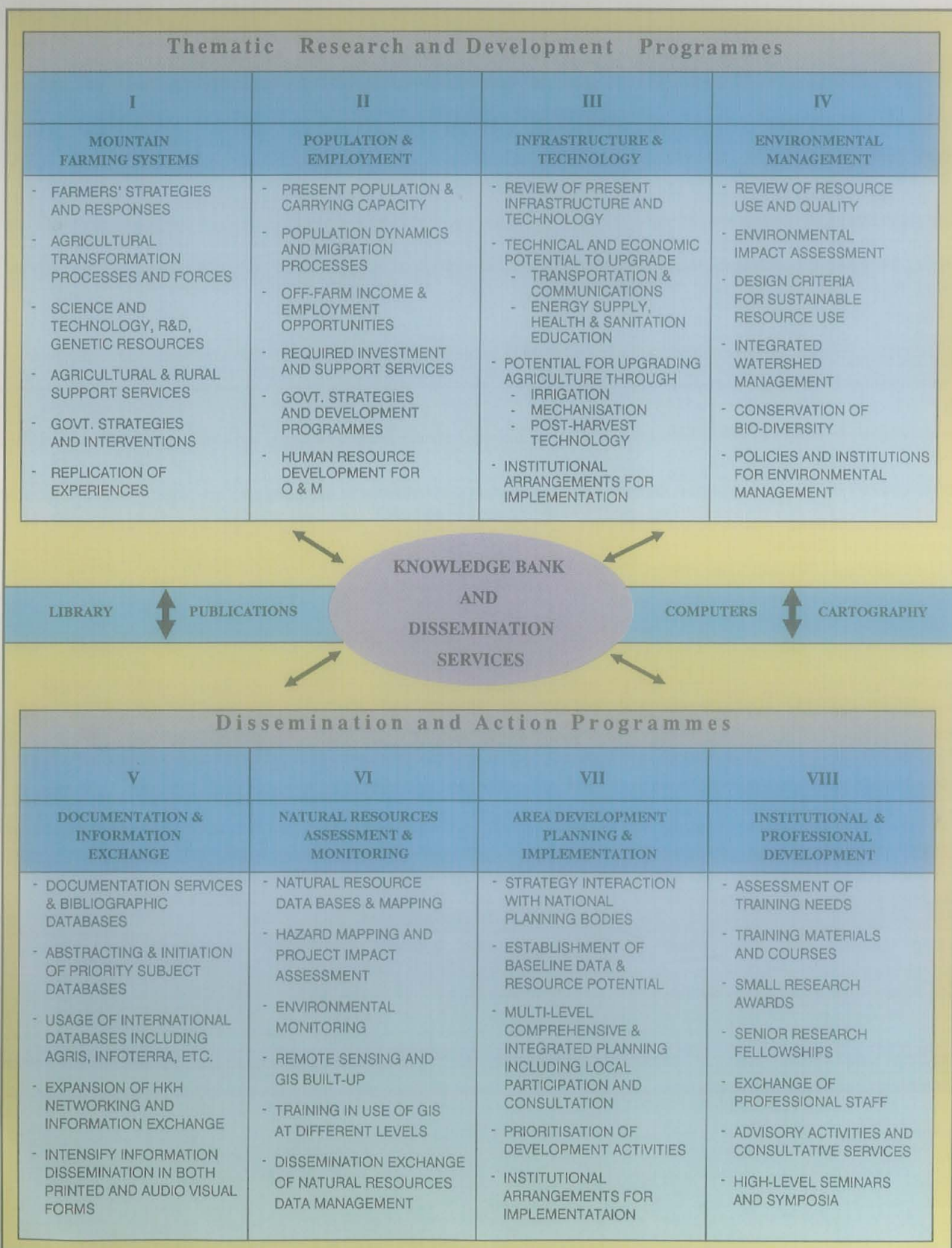
to August 1989), the Board set up a Quinquennial Review (QQR) Panel consisting of three distinguished professionals from within and outside the Hindu Kush-Himalayan Region. The panel is headed by Dr. Amir Mohammed, Chairman, Pakistan Agricultural Research Council. Other members include Dr. John Cool, Senior Social Scientist, Winrock International, and Dr. Rolf Wilhelm, Deputy Director, Swiss Development Cooperation. In addition, Professor Bruno Messerli, Rector and Professor of Geography, University of Berne, has agreed to serve as Technical Adviser to the Panel in order to assess the scientific aspects of ICIMOD's programmes. The panel will begin its work in January 1990 and submit the report to the Board by June 1990.

- Members of the Senior Professional Staff of ICIMOD gave a comprehensive presentation on ICIMOD's concept of "integrated mountain development" and the

implications for its programmes. This was followed by a presentation on the lessons gained from experiences with ICIMOD's *modus operandi* in programme design and implementation. The Half Yearly Progress Report on 1989 programmes was also presented.

- The Board formally welcomed Dr. Frank Tacke, the new Director, and wished him success with his assignment at ICIMOD.
- The Board formally bade farewell to Dr. Colin Rosser, the founding Director of ICIMOD, and thanked him for his contributions towards the establishment of ICIMOD and his able guidance over the first five years. The Chairman, on behalf of the Board, presented a *Thangka* (Buddhist religious painting) that depicted the life of the Buddha in a setting of the Himalayan landscape. He wished Dr. Colin Rosser and Mrs. Tessa Rosser many happy returns and every success in their future endeavours.

ICIMOD Workplan Framework (1989-1993)



Development Efforts In Bhutan

During ICIMOD's Twelfth Board Meeting, the Board Members and the Senior Staff were able to observe some of Bhutan's development efforts. The development ethos in the country was aptly expressed by the Foreign Minister, Lyonpo Dawa Tsering, at a reception hosted by the Chairman of the Board. According to Lyonpo Dawa Tsering, harmony with nature, not domination, is the fundamental precept pursued. The quest for modernization, he said, is compatible with environmental conservation and the preservation of cultural heritage.

This was further echoed by Dasho C. Dorji, the Deputy Minister, Planning Commission, in a special briefing session. He stressed that the Government is committed to maintaining the forest cover at the current level of 70 per cent and preventing its exploitation as a source of revenue. Local needs are, however, met and felling is done on a sustainable basis. Bhutan is now exporting power and efforts will be made to establish more hydropower stations. Non-polluting industries are encouraged to add value to horticultural products. Investigations are being carried out for excavation of copper, lead, zinc, tungsten, graphite, and calcium carbide. The principles of self-reliance and improved living standards guide Bhutan's development plans.

Dasho C. Dorji also expressed several concerns. For example, the migration of rural people to urban areas is increasing. The Government's response is to ensure the provision of basic needs, increase opportunities for enhancing the farmer's income, and improve housing and the quality of life in rural areas. Emphasis is placed on human resource development and labour-saving devices because of the acute shortage of manpower for development activities. Local resource mobilisation, people's participation, and decentralisation are

areas where a great deal of attention is given.

Adaptation of modern technologies to fit Bhutan's development priorities was apparent from field visits. The Bondey Farm in Paro, for example, consisted of the Agricultural Machinery Centre (AMC) and the National Seed and Plant Production Programme (NASEPP). The AMC was established to address the national farm mechanisation support programme. Appropriate farm machinery is designed, field-tested, and distributed to make up for Bhutan's manpower shortage. The NASEPP produces and supplies improved cereal and vegetable seeds as well as fruit plants. A tissue culture laboratory, a food processing unit, production farms, and a research farm constitute its main units.

Research on the improvement of Bhutan's potato production is the principal objective of the Applied Research Centre (ARC) at Yusipang. The Centre has screened over 130 potato genotypes and conducted research on yield, diseases, and storage of potatoes over the last few years.

At the Centre for Agricultural Research and Development (CARD) at Wangdi Phodrang, the emphasis is on farm crop diversification. The experimental farm carries out research on different crop combinations including cereals, vegetables, and fruits.

The Animal Husbandry Complex, Serbithang, is devoted to livestock development. The Royal Veterinary Diagnostic Centre in the Complex is equipped to run pathological, microbiological, and parasitological tests. Various rhizobium inoculants and bacterial vaccines for legumes are produced. Proximate analysis of feed stuff, soil tests for fodder production, and the selection of species are other functions. The Complex also includes a dairy, a piggery, a poultry farm, and a breeding and rearing unit for experiments on small animals.

The ICIMOD Board Members and staff were impressed by Bhutan's deliberate attempts to combine the ethos of environmental conservation, cultural preservation, and modernization. The challenge that lies ahead is, of course, enormous. Preliminary discussions were held concerning the role that ICIMOD staff could play in supplementing ongoing efforts at Bondey Farm, ARC, CARD, and the Animal Husbandry Complex. Collaboration could be on technology information exchange and action-research on technology diffusion, marketing of products, and refinement of implementation strategies. Detailed plans and approaches will be pursued in the future through mutual consultations.



Surroundings of the Drukgyal Dzong, Paro, Bhutan. (J. Bandyopadhyay)

Population and Employment Programme

The premise of this programme is that the promotion of off-farm employment and income generation is essential to counteract the deterioration of mountain environments and the impoverishment of mountain people. The traditional subsistence production regime has been unable to cope with continued population growth and the consequent pressure on land and other resources. This realization is not new, but a significant breakthrough in off-farm activities has not occurred. The reasons for such sluggish growth as well as the constraints faced by people in taking the required initiatives are the main concerns within the programme.

ICIMOD has developed an analytical framework based on the state-of-the-art reviews and the conclusions reached at the 1986 Workshop on Off-Farm Employment. It provides a systematic basis for the review of (a) broader implications of off-farm employment for environmental, demographic, economic, and dis-

tributonal concerns in the mountains, and (b) operational problems and prospects of specific activities in particular areas. In conducting the analysis, attention is given to special characteristics that prevail in the mountains, viz., inaccessibility, fragility, marginality, and diversity. Emphasis is placed on unique opportunities for harnessing comparative advantages vis-a-vis indigenous knowledge systems and specific resource-related features. The analysis will be undertaken in three countries of the Hindu Kush-Himalayas. The review of prominent or potential off-farm activities will be followed by an in-depth analysis of one or two such activities in each country. Funding has been requested from IDRC.

In addition, the programme includes action-research activities on employment promotion and environmental regeneration by rural women's organizations. This will be implemented jointly with the International Labour Organisation (ILO). The

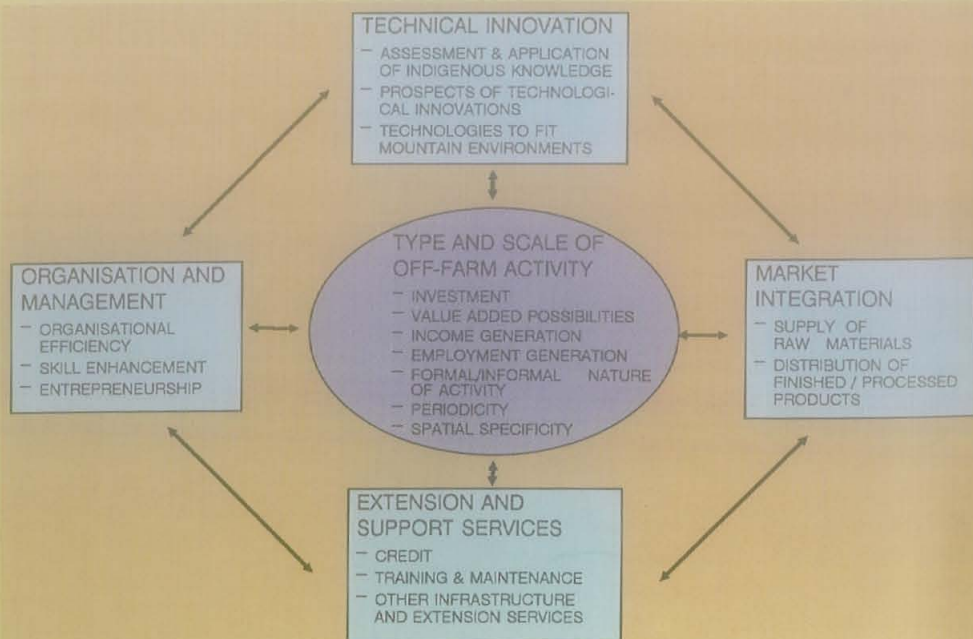
objectives are: (a) to provide viable economic alternatives to poor rural women; (b) to plan with them to meet their food, fodder, and fuel needs without environmental destruction; (c) to provide them with access to training, technology, and decision making for environmental regeneration; and (d) to engage in pilot demonstrations to bring these priorities and experiences into mainstream planning and programmes.

All the activities will be implemented in close collaboration with professionals and institutions in the Region. Emphasis is on the synthesis of experiences to date, assessment of critical issues, and formulation of management guidelines and investment options. Dissemination of information, dialogues with decision makers, and advocacy of policies and options are complementary activities. The goal is to induce integrated action programmes in communities of the Hindu Kush-Himalayas.

A. THE BROADER CONTEXT

B. THE CONTEXT OF SPECIFIC OFF-FARM ACTIVITY

- ENVIRONMENT AND RESOURCE IMPLICATIONS FOR MOUNTAIN AREAS
- IMPLICATIONS FOR POPULATION AND SPATIAL PROCESSES
- LINKAGES WITH THE FARMING SYSTEM AND INFRASTRUCTURE
- IMPLICATIONS FOR EMPLOYMENT GENERATION
- GENDER PERSPECTIVES AND IMPLICATIONS FOR THE POOR AND MARGINALISED



Schematic Framework for the Analysis of Critical Issues and Options in Off-farm Employment

Area Development Planning and Implementation

The Area Development Planning and Implementation Programme was initiated at ICIMOD in order to address the issue of sustainable development from an area specific perspective. This programme aims to develop practical approaches for integrating basic needs² satisfaction, environmental management, and economic development in mountain areas. The premise of this programme is to rectify the inadequacy of attention given to environmental issues, economic complementarities, and mountain characteristics, in planning and implementation.

The initial exercise will be conducted within the Bagmati Zone of Nepal in association with the National Planning Commission. The Bagmati

Zone lies in the Central Development Region and contains Kathmandu Valley, the most urbanised region in the country. It has an area of 9,400 km² and a population of about 1.8 million (1981 census). The physical and institutional infrastructure provides considerable potential for transforming the agricultural sector. At the same time, it is faced with classic development problems such as rapid population growth, urbanization, rural-urban migration, and depletion of natural resources.

The major objective of the study is to develop a long-term framework for regional and local level planning in the Bagmati Zone. The study will examine existing policies and programmes for the fulfillment of

basic needs, environmental management, and economic development, and will assess the extent to which these policies and programmes are supportive of, or are in conflict with, the long term goals of sustainable development. The exercise will contribute to the development of a regional data base and the identification of problems related to institutional development. The purpose is to evolve a system that allows for effective resource management and integrated planning and implementation. Practical methodologies for regional and local level planning will be formulated and tested. Their wider application to other mountain regions in the Hindu Kush-Himalayas will subsequently be carried out.

Mountain Environmental and Natural Resources Information System

ICIMOD signed a Technical Assistance Agreement with the Asian Development Bank (ADB) for the establishment of a "Mountain Environment and Natural Resources Information System" (MENRIS). The programme will cover a number of activities including the promotion of a natural resources data exchange, dissemination of environmental and natural resource data using the Geographic Information System (GIS), training at the technical level, holding awareness workshops at the policy level for participants from member countries, and establishing a MENRIS network.

Activities to take place in 1990 include training abroad for MENRIS staff, an awareness workshop for the Centre's management personnel, procurement of both hardware and software, and development of a case study on Bagmati Zone with the Area Development Planning and Implementation Programme. The Centre will hold training activities for interested member countries in 1991. Within a year, it is envisaged that the MENRIS programme will be serving as a resource centre both for other programmes, within the Centre and for interested member countries.

To ensure the successful use of this technology as a planning tool, the Centre has contacted other agencies and donor Governments. These include, the UNEP-GRID programme, with a view to establishing the Centre as a node in the global network, UNITAR and AIT for training and dissemination activities, and SEADD/ODA for the purpose of acquiring additional expertise as well as hardware and software. The Centre will continue its contacts with agencies involved in this field to ensure that there is no duplication of efforts.

Economic Policies for Sustainable Development: A Review

ICIMOD has been selected by the Asian Development Bank to review economic policies and activities in key sectors and to determine the extent to which they are supportive of, or in conflict with, the environment in Nepal. Important sectors such as demography, agriculture, forestry, and energy will be examined, as well as the roles of industry, urban development, and tourism. The study

will be completed in the next six months. The bank initiated this study to implement the recommendations of the World Commission on Environment (Brundtland Report). Similar studies are also being carried out in Indonesia, Korea, Malaysia, Pakistan, and Sri Lanka. The bank will prepare a synthesis based upon the country studies and present it at a Ministerial Meeting next year.

Training on CDS/ISIS

Training on the use of computer software, CDS/ISIS, for building bibliographic databases was organised from 25-29 September, 1989 at ICIMOD, in collaboration with UNESCO and Nepal National UNISIST Committee. The participants came from Nepalese institutions such as APROSC, NARSC, CEDA, CNAS, RECAST, and the Central Library of T. U. Mr. G. Del Bigio of UNESCO was the main instructor.

Mountain Agriculture: Search for Sustainability

by N.S. Jodha, Head, Mountain Farming Systems

ICIMOD's efforts to devise a strategy for sustainable mountain agriculture, over the last two years, have uncovered several indicators of unsustainability (see Table). Research in selected hill areas of China, India, Nepal, and Pakistan is being conducted within a conceptual framework designed to understand the sustainability issues. The studies have already alerted our researchers to the fact that disregard of certain mountain characteristics during development interventions leads to unsustainability. For example, landslides have increased in most countries of the region, old terraces have been abandoned in parts of Nepal, and the range of crops and varieties in several mountain valleys have been reduced due to technological interventions. There is a persistent decline in crop yields in many areas. Mining activities have destroyed mountain flora, caused landslides, and choked water channels. In Tibet and Pakistan, highland pastures are overgrazed. High potential grazing areas are disappearing and cattle are being replaced by small ruminants. Over dependence of horticultural development on certain insecticides tends to disrupt the inter-dependent food cycle and leads to reduced botanical diversity. A phenomenal growth in apple production in Himachal Pradesh is reported to have adversely affected the forests due to the high demand for packaging. The increasing scarcity of fuel and fodder is reflected in the longer distances and time involved in collection. Finally, there is an increasing dependence of people on government subsidies and inferior options.

Reversal of the negative trends should be the primary focus of agricultural development strategies in mountain areas. The first step in this direction could be the identification of factors and processes contributing to unsustainability.

In the process of work on the above issues, ICIMOD researchers

identified four primary and two secondary mountain characteristics, all inter-related and all displaying significant variability. To begin with the primary characteristics, *inaccessibility* is caused by slope, altitude, overall terrain conditions, and seasonal hazards, in turn resulting in isolation, distance, poor communications, and limited mobility. *Fragility* is caused by altitude and steep gradients with adaphic, geologic, and biotic factors limiting the tolerance to disturbance. *Marginality* in its turn is both physical and socioeconomic. Its causes are low productivity, physical isolation, fragility, and man-made handicaps. *Diversity* stems from immense variations within eco-zones and has linkages with all other characteristics. If properly harnessed, it can enhance sustainability.

The secondary characteristics are 'niche' or *comparative advantages* and *human adaptation mechanisms*. The mountains have certain comparative advantages over the plains in terms of unique products and potentialities. Their exploitation varies in degree from small to very large scale. Reckless use may eventually destroy such advantages. Finally, the human adaptive mechanisms are responses to overcome constraints and capitalise on opportunities inherent in the environment. Having emerged gradually over centuries of trial and error, traditional strategies, having performed well in the context of low demand, are now losing their efficacy due to new pressures and rapid changes.

In the search for sustainable mountain agriculture, these specific mountain characteristics can be used as a screening device for reviewing public policies and programmes. ICIMOD will use this approach in a search for sustainability in selected hill areas of the four, above-mentioned, countries and eventually, with suitable modifications, apply this to other eco-zones.

Sustainability is a system's ability to maintain its performance level over time and to respond to changing needs by augmenting its performance level if necessary. In order to achieve this, mutually beneficial linkages are essential. This applies both to inter-sectoral linkages within a system and its linkages with the external environment. Failure to respond to time and changing needs and to forge these linkages results in incompatibility between the biophysical characteristics of the resource base and intensity of resource use. This is a difficult situation in mountain areas where options ensuring compatibility between fragile resources and intense usage are limited.

In terms of options, traditional mountain farming systems have adapted their requirements to resource capacities by a number of measures. One such measure is to increase the resource capacity, for example, by terracing or irrigation. Another adaptive strategy is that of limiting requirements to resource capacities and lowering the level of basic needs or opting for occupations that do not exert heavy pressure on the resource base. Gradually, however, rapid change has rendered the traditional compatibility untenable. In the transitional phase of increasing public interventions and market expansions, their negative side effects have become more pronounced due to inadequate understanding or disregard of mountain characteristics. It is hoped that by highlighting these dimensions and their implications, ICIMOD can contribute to a better understanding of the dynamics involved, help enhance sustainability, and ensure development without damaging the essential ecological integrity of mountain agriculture.

Extracted from "Mountain Agriculture: Search for Sustainability" by N.S. Jodha, ICIMOD.

Indicators of Unsustainability in Mountain Agriculture

Types of Changes	Changes Related to		
	Resource Bases	Production Flows	Resource Use/ Management Practices
Directly visible changes	<ul style="list-style-type: none"> ◦ Increased landslides and other forms of land degradation ◦ Abandonment of terraces ◦ Reduction in per capita availability of cultivated land ◦ Increased fragmentation of land holdings ◦ Change in genetic composition of forest/pasture ◦ Reduction in water flows for irrigation, domestic use and <i>ghatta</i> (grinding mills) 	<ul style="list-style-type: none"> ◦ Negative trends in crop yields and livestock productivity ◦ Increased input requirements per unit of production. ◦ Increased time and distance in food, fodder, and fuel gathering ◦ Lower per capita availability of agricultural products 	<ul style="list-style-type: none"> ◦ Reduction in the intensity of crop rotation, intercropping, and diversified resource management practices ◦ Extension of cultivation to submarginal lands ◦ Replacement of social sanctions for resource use by legal measures
Changes in response to resource degradation	<ul style="list-style-type: none"> ◦ Substitution of big animals with small animals such as cattle by sheep/goats ◦ Change from deep rooted crops to shallow rooted crops ◦ Shift in use of external inputs, from local manures to chemical fertilizers 	<ul style="list-style-type: none"> ◦ Increased seasonal migration ◦ Introduction of public distribution of food and inputs ◦ Intensive cash cropping on limited areas 	<ul style="list-style-type: none"> ◦ Unbalanced and high intensity of external input use ◦ Increased specialisation in mono cropping
Potentially negative changes due to development interventions	<ul style="list-style-type: none"> ◦ Introduction of new production systems without linkages to other diversified activities ◦ Promoting excessive dependence on outside resources (e.g., fertilizer), subsidies ◦ Ignoring traditional adaptation experiences (traditional irrigation structure) 	<ul style="list-style-type: none"> ◦ Agricultural measures directed to short term rapid results ◦ Promoting product-centred rather than resource-centred approaches to development 	<ul style="list-style-type: none"> ◦ Ignoring mountain characteristics in designing programmes and policies for mountain area development ◦ Neglect of indigenous wisdom and skills, excessive dependence on external expertise.

International Symposium on Mountain Environmental Management

11-14 April, 1989, Kathmandu, Nepal

Mountain societies in the Hindu Kush-Himalayan Region are undergoing major transformations. The traditional, self-contained, and subsistent economic communities, are now interacting with the contemporary world and operating within the market economy. While such transformations have brought some positive changes in the quality of life, they have also been largely responsible for causing damage to mountain ecosystems. It has become increasingly evident that, in order to sustain economic development in the threatened ecosystems, environmental management in the mountains should be based on a holistic understanding of the complex interactions between Man and his natural environment. While traditional institutions, existing at the local level, were quite effective in dealing with traditional patterns of human life and simple subsistence needs, they are no longer able to cope with rapidly changing situations propelled by developmental activities.

These concerns motivated ICIMOD and UNESCO/MAB to jointly organise the International Symposium on Mountain Environmental Management. It combined the interests of UNESCO/MAB in scientific understanding of diverse mountain ecosystems, with those of ICIMOD in strengthening institutional capacity at all levels for effective management of mountain environments.

The two basic objectives of the Symposium were:

- to discuss area specific "institutional" and "management" issues under different mountain ecosystems; and
- to identify priorities for a medium-term work programme with special reference to environmental monitoring, research on the management of ecosystems, and integrated area management in the mountains.

Four case studies prepared by ICIMOD staff and one by an external expert were presented in order to focus the discussions on the real "institutional" and "management" issues. They include:

- *The Nyemo Case Study* from Tibet, China, as an example of county level environmental management in a cold and arid Trans-Himalayan region;
- *The Doon Valley Case Study*, India, as an example of an urbanised mountain valley ecosystem in the foothills of the Central Himalayas;
- *The Arun River Basin Case Study* from Nepal, as an example of a river basin from the eastern Himalayas;
- *The Kakani Case Study* as an example of the Middle hills of Nepal;
- *The Swat Case Study* from Swat District, Pakistan, as an example of the western Himalayas.

During the first three days of the Symposium, major issues were identified and emerging problems discussed.

The fourth day was devoted to comprehensive group discussions, with specific focus on the following topics:

- Environmental Monitoring,
- Research on the Management of Mountain Ecosystems, and
- Integrated Area Management

The working group on "monitoring" suggested that ICIMOD should take part in international networks such as GRID or GEMS, and work towards the development of a spatial information system in collaboration with national agencies in the Region.

The working group on "research" stressed the fundamental importance of a deeper ecological understanding of the mountain environment. Generation of new tools for environmental management needs to take place through systematic reviews of experiences in the Hindu Kush-Himalayan Region and other major mountains of the world.

The group on "integrated area management" concentrated on the importance of ecologically sound development, effective delivery systems, better dialogues, communications, and the need for coordination among institutions at all levels. By interacting with national scientific bodies and institutions, ICIMOD can set priorities for integrated mountain development and help in their realisation.



Participants at the Symposium

International Expert Meeting on Horticulture and Beekeeping Development

19-23 June, 1989, Kathmandu, Nepal.

The International Expert Meeting on Horticulture and Beekeeping Development in the Hindu-Kush Himalayas, jointly organised in collaboration with the Ministry of Agriculture of His Majesty's Government of Nepal (HMG) and the Food and Agriculture Organisation of the United Nations (FAO), was inaugurated by the Minister for Agriculture, HMG, Mr. Krishna Charan Shrestha. During the first three days, discussions among the horticultural experts focussed on the following topics:

- the role of horticulture in sustainable farming systems;
- constraints in raising the production and productivity of horticultural crops;
- diversification of horticulture through ancillary programmes;
- post-harvest problems and issues with emphasis on processing and marketing;
- extension services; and
- the ecological and equity implications of commercialization.

The meeting was attended by about 40 experts from Bhutan, China, Nepal, and Pakistan as well as par-



Marpha Horticulture Farm (S.S. Teaotia)

ticipants from FAO and ICIMOD. Altogether 27 papers were presented at the Workshop. Workshop conclusions emphasised the need to:

- promote research activities to generate suitable technologies for different ecological areas,
- develop marketing mechanisms and post harvest technologies,
- reduce the risks of horticultural farmers by providing storage and processing facilities, and
- explore alternative sources for packing materials, other than wood.

It was suggested that ICIMOD should take a major responsibility in identifying successful activities in different countries and disseminating the knowledge gained from these throughout the Region in order to promote horticultural development.

After the completion of the Horticultural Meeting, three days were devoted to an International Expert Meeting on Apiculture (Beekeeping). Fifty participants from Bhutan, China, Nepal, Pakistan, and Thailand attended the meeting. About 21 papers were presented, covering a variety of topics on apicultural science and technology.

Successful experiences in apicultural development in the mountainous

regions of India and China were presented. Some concerns were expressed concerning the threat of extinction to the native bee species, *Apis cerana* and *Apis dorsata/laboriosa*, in the Hindu-Kush Himalayan Region, because of harmful exploitation through traditional honey hunting methods, the introduction of allopatric European honeybees (*Apis mellifera*), indiscriminate use of pesticides, and rapid ecological degradation.

The Expert Meeting recommended the establishment of an "International Centre for Beekeeping Research and Training" in Nepal, in order to generate and deliver improved management technology for apiculture through basic and applied research. The primary focus will be on the Asian species of honeybees that require special management practices. In this respect, it was suggested that ICIMOD initiate the establishment of the "Research and Training Centre" through a regional project on the Himalayan sub-species of honeybees, *Apis cerana*, and their genetic improvement along with a systematic "Training of Trainers" programme. The Reports of the Expert Meetings will be published in the near future.



Honey Extraction by Modern Methods (L.R. Verma)

Visitors to the Centre

Dr. Dean Alter, USAID, Washington, D.C., USA.

Dr. Jeremy E. Carew-Reid, Senior Advisor, IUCN, based in Kathmandu, Nepal.

Dr. Gordon Conway, Representative, Ford Foundation, New Delhi, India.

H. E. The Ambassador of Austria to Nepal, **Mr. Christoph Cornaro**.

Mr. G. Del Bigio, Chief, Division of Software Development and Applications, UNESCO, Paris, France.

H. E. The Ambassador of The People's Republic of China to Nepal, **Mr. Li Debiao**.

A group of five environmental lawyers from Japan headed by **Mr. Suda Masakatsu**.

Dr. F. H. Ochleitener, Ambassador Extraordinary, Austrian Aid Ministry, Austria.

Dr. N.S. Peabody, USAID, Washington, D.C., USA.

Dr. Mark Poffenberger, Ford Foundation, New Delhi, India.

H. E. The Ambassador of The Federal Republic of Germany to Nepal, **Dr. Martin Schneller**.

Dr. Andrea Singh, Chief Technical Adviser, Rural Women's Employment Promotion, ILO, New Delhi, India.

Mr. H. P. Spanier, Ministry of Economic Cooperation (BMZ), Bonn, Federal Republic of Germany.

H. E. The Ambassador of Switzerland to Nepal, **Mr. J.P. Zehnder**.

Senior Fellowship

Professor S. Iqbal Shah, Chairman, Department of Livestock Management, NWFP Agricultural University, Peshawar, Pakistan has been granted a Senior Research Fellowship to work on Livestock Management in the Mansehra district of Pakistan.

Professional Staff Appointments

Professor Hu Zhenhou (China) joined the Mountain Documentation and Information Exchange Programme in September 1989. He was associated with the Chinese Academy of Sciences, Beijing, China.

Professor Lu Rongsen (China) joined the Mountain Farming Systems Programme in July 1989, as Mountain Horticulturalist. He was working at the Chengdu Institute of Biology, Chinese Academy of Sciences.

Ms. Greta Rana (Nepal) joined as Editor in the Publications Programme in November 1989. Earlier, she was on short-term assignment at ICIMOD.

Dr. Pitamber Sharma (Nepal) joined the Population and Employment Programme as Economic Demographer in September 1989. He was Reader in the Department of Geography, Tribhuvan University.

Mr. Suresh Sharma (Nepal) joined the Area Development Planning and Implementation Programme as Energy Specialist in July 1989. He was previously with the Dhading District Development Project.

Mr. Sugandha Shrestha (Nepal) joined the Mountain Farming Systems Programme in July 1989, as Livestock Specialist. He was Senior Agriculturalist at APROSC, Kathmandu.

Professor Sun Jizheng (China) joined the Mountain Environmental Management Programme in July 1989 as Applied Ecologist. He was working at the Institute of Applied Ecology, Chinese Academy of Sciences.

Professor L.R. Verma (India) joined the Mountain Farming Systems Programme in July 1989. Earlier he was a Senior Research Fellow at ICIMOD.

Short-term Assignments

Dr. Nigel Allen: Preparatory study for establishing a geographical database in the Bagmati Zone.

Mr. Balram Bhatta: Review of community and private forestry programmes in the Bagmati Zone.

Ms. Jeannette Denholm: Farming-forestry-livestock linkages, indigenous resource management systems and gender issues.

Mr. Megh Raj Dhital: Contributions to the preparation of the Manual on Integrated Training for Mountain Risk Engineering.

Dr. K.G. Tejwani: Watershed management: the institutional issues.

Mr. Alexis Wagner: Contributions to the preparation of the Manual on Integrated Training for Mountain Risk Engineering.

Departing Staff

Dr. Anis A. Dani returned to Pakistan in June 1989 after working for five years at ICIMOD as Social Anthropologist. Dr. Dani has joined the Aga Khan Rural Support Programme (AKRSP) of Pakistan as Deputy General Manager.

Mme. Fu Shuqin returned to the Chinese Academy of Sciences, Beijing, after completing two years in the Mountain Infrastructure and Technology Division.

Dr. M.S. Rathore returned to the Institute of Development Studies in Jaipur, India, in June 1989 as Senior Research Fellow. He worked as Agricultural Economist in the Mountain Farming Systems Division for two years.

Mr. Sun Qingguo returned to the Chinese Academy of Sciences in September after working for one year as Trainee Professional in the Mountain Farming Systems Division.

Change in Leadership at ICIMOD

August, 1989 marked a change in leadership at ICIMOD. Dr. Colin Rosser was succeeded by Dr. Frank Tacke. Dr. Rosser joined ICIMOD in April 1984 and completed five years and four months as the first Director. In a fitting tribute to Dr. Rosser's contributions, Dr. R. Hoegger, the Chairman of the Board, drew the attention of all those present at the Board's Farewell Dinner to a painting of "the Four Friends," placed on a wall of Hotel Motithang, Bhutan. The four friends are evidently trying to reach the fruit hanging from the tree. If the fruit symbolises ICIMOD's goals, clearly the four friends represent Colin Rosser. The Board Chairman continued:

Has he not so many times served as an elephant, carrying on his back the full load of the new institution and resisting so many pressures from so many sides? And was he not comparable to the monkey too? We saw him running for hours and days, upward and downwards in the branches of the institution, in and out, picking [up] telephones, receiving visitors, writing notes, and rushing to meetings. He also resembled the rabbit, who is well-known for his fertility: how fertile Colin was in ideas, new ideas, revised ideas, stimulating, challenging thought-provoking ideas - some of them passing, many of them lasting. Finally the bird! From time to time, Colin flew off, looked at 'his' institution from high above, thought it over and took ad-

vantage of what far-sightedness can mean in every day struggles.

So, Colin has been ICIMOD's elephant, monkey, rabbit, and bird, and has thus attracted many other animals of the same kind to build up the institution. The most important contribution, that he has made, however, was not so much putting in all the animals' qualities, but putting these animals together, one upon the other, as friends and colleagues.

This is the strength of ICIMOD, and it is for this that we thank Colin tonight. And not only Colin, but Tessa as well, who has carried herself so much of the load. Thank you, both of you, for your extraordinary contribution.

Dr. Hoegger also gave a warm welcome to Dr. Tacke. To quote him again:

It is in the spirit of the described cooperation between friends that we welcome, at the same time, Frank Tacke as the new Director. Dear Frank, we trust that you have not only all the necessary professional qualities needed for the task lying before you, but also the wisdom to continue ICIMOD's institution building process with the excellent staff [on] hand and in the same spirit that prevailed hitherto. We wish you the best of luck and much satisfaction in the years to come.

All Board Members and staff concur fully with the Chairman's farewell message to Dr. Rosser and the welcoming note to Dr. Tacke. He



The Four Friends

has aptly expressed the sentiments of us all.

ICIMOD staff had, in addition, organized a dinner party at a later date to bid farewell to Dr. and Mrs. Rosser. It was preceded by a two-hour cultural programme in which most of the staff took part. A wooden idol of Lord Ganesh and a silver *anti* (Jug) were presented as tokens of the staff's appreciation. All the staff wish Dr. and Mrs. Rosser many happy returns and every success in their future endeavours. At the same time, all staff members welcome Dr. and Mrs. Frank Tacke and look forward to a cordial working relationship.



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