

Chapter 1

Poverty: Issues and Options in Mountain Areas, with Specific Focus on China

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INTRODUCTION

This chapter reports the findings of a five-day 'International Conference on Poverty Alleviation in Mountain Areas with Special Focus on China'. China's rising concern regarding poverty in its mountain areas and policy-programme interventions to address them led to this workshop, the conclusions of which were quickly synthesised for presentation to relevant policy groups in the country. Following an executive summary, the second section of this chapter covers the background, objectives, and organisational structure of the conference. This section is divided into two parts: the first comments on the emerging issues and concerns relating to poverty, which was the focus of most of the papers and group discussions during the conference. The second part sums up the past discourse and debate on the subject to facilitate policy and action on poverty in China. Section 3 summarises the main issues, challenges, and opportunities highlighted in the papers presented at the conference. Section 4 highlights the issues raised and options and recommendations made in working-group discussions on poverty alleviation, and the final section presents the main inferences and recommendations made by the conference.

Executive Summary: A Post-conference Brief for Policy Makers¹

Introduction

The conference was jointly organised by Chengdu Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, INWENT (DSE-ZEL, Germany), IFAD (Rome), and ICIMOD (Kathmandu) in Chengdu. Nearly 80 participants from China and other countries attended, including representatives of donor agencies. Participants included researchers, policy/programme-makers, NGOs, and field workers.

In addition to being one of the activities planned during the International Year of Mountains (2002), the conference was very timely in China where, despite remarkable economic achievements, the country is faced with new challenges of rising regional inequities, as the mountain areas lag far behind other regions of the country in economic development, the elimination of poverty, and the capacity to develop quickly in the future. Furthermore, China's 'opening to the world' is not confined to trade liberalisation alone, but includes increased interactions and exchanges with other countries in the field of development approaches and strategies, particularly in the context of mountain areas.

The conference was to facilitate and share the experiences of different mountain areas from the Hindu Kush-Himalayan region in terms of understanding poverty and ways to alleviate it. To accomplish this goal, experts were asked to focus on relevant issues, policies, strategies, and experiences directed to mountain development and poverty alleviation.

This summary of conference discussions (during the plenary as well as group sessions) is not designed to be a routine report of the proceedings of each session and each issue debated. Instead, we summarise the substantive issues and their implications that have direct and immediate policy relevance.

Highlights

The conference was designed to facilitate exchange of development/poverty reduction experiences in different mountain regions. The accounts of successes and gaps in poverty alleviation efforts from mountain areas of India, Nepal, Pakistan, Bhutan, and several mountain counties of China (particularly from Western China) richly contributed towards attaining this goal.

¹ Entitled, 'Executive Summary of the Conference Deliberations', prepared by N.S. Jodha for submission to a meeting of policy-makers in Beijing in December 2002.

Chinese organisers of the conference initially thought primarily of learning from other mountain areas, and they did. But an equally important outcome was that experts and policy-makers from other mountain regions learned from the Chinese experience as well.

A major difference between the presentations and elaboration of issues made by the two groups was that Chinese experts put up simple but pragmatic observations and arguments, while outsiders did the same with more conceptual, theoretical backgrounds to their observations.

Incidentally, if one compares the present conference with the international conference on 'Anti-Poverty Experiences in China's Himalayan Region' in May 1992, held in Beijing (organised by ICIMOD in collaboration with the Chinese Academy of Sciences[CAS] with which one of the present authors was closely associated), the progress in terms of conceptualisation and articulation/presentation (in English) on the part of Chinese experts was remarkable.

Focus on mountain poverty

The need for an increased and changed focus on poverty alleviation in mountain areas was strongly demonstrated by the following reasoning presented at the conference.

China has a well-recognised record of achieving both growth and equity. It has no visible poverty in terms of hunger, landlessness, or gaps in various social sector indicators (such as education, health, and required social services). However, the pace and patterns of present gains (or poverty alleviation) now indicate significant differences emerging between mountain areas and the rest of the country. This is a growing concern of the government. The implied regional inequalities may become further accentuated in the era of economic globalisation. Several examples from other countries were presented in this context.

Despite increased concerns and efforts, mountain area development poses a significant set of challenges for planners. First, the relatively easy development approaches that led to equity promotion and poverty alleviation in other areas (plains) may not readily work in mountain areas, due to the latter's specific features like poor accessibility, resource diversity, fragility and marginality of land, and population (i.e., minority nationalities). Thus, past strategies cannot be readily replicated in poor mountain areas, as the former lack a mountain perspective.

Second, the government's conventional approach to mountain areas of helping through subsidy, charity, or outright social transfers cannot be sustained for long in the era of economic globalisation and associated structural/economic reforms, which do not permit subsidies. Hence, there is no escape from designing and implementing development/poverty alleviation strategies that suit the situation of mountain areas and make mountain areas productive and competitive.

In contrast to the above challenges, there are several development opportunities in mountain areas which could be profitably exploited and the need for charity eliminated. As Chinese experts from different areas indicated, there are several niche resources such as minerals, hydropower, non-timber forest products (NTFPs—herbs, flowers, etc.), and other opportunities linked to tourism, rich biodiversity, and indigenous products. These could be harnessed with profit. Many examples of harnessing such niche opportunities were presented from Nepal, India, Pakistan, and Bhutan, as well as from some mountain counties in Hunnan, West Sichuan, and Tibet. To build upon these successful experiences, increased exchange of experiences between mountain regions and countries through focused networking arrangements was advocated.

One of the less emphasised potential income sources for mountain areas is adequate compensation for the use of mountain resources (e.g., timber, minerals, water for hydropower and irrigation, and so on) used by mainstream economies. This issue was repeatedly emphasised during discussions on the highland–lowland economic links which are currently unfavourable to mountain areas. Governments should act on this issue by pricing mountain resources fairly and compensating adequately for their use.

Why mountain communities are poor

While discussing the issues of why mountain communities are poor and how they can be helped to get rid of poverty, several concrete suggestions emerged; and these may constitute the most constructive and usable outcome of the conference. The important ones are listed below.

- **Integration of the mountain economy with the mainstream economy**
This suggestion was put forward repeatedly by many experts. This would not only promote investment and local-resource-centred development but would help to reorient local communities towards economic enterprises and incentives. This will require increased investment, as most mountain areas suffer from chronic under-investment. The Chinese government's recent policies on 'go west', and on encouraging rich provinces and counties to help poor provinces and counties, are two

useful initiatives in this direction. However, the experts suggested more liberal fiscal facilities for mountain areas.

- **Enhanced accessibility**

Improved physical and market linkages and access to mountain areas are key requirements for economic transformation of these areas. With improved access, the introduction of new technologies and management/marketing systems, and the general inflow of information and skills, will become easier and usable. It will help in local human resource development also.

- **Demarginalisation of marginal populations**

Most mountain areas in China are inhabited by minority nationalities. They are not only poor but are also largely governed by their traditional cultural systems and norms. The latter in turn do not encourage economic thinking and action needed for modern development. In this context need for HRD (human resource development) and community participation was emphasised. Reduced controls and increased autonomy for mountain areas and communities were also advocated.

- **Fragility and environmental concerns**

The fragility of sloping landscapes makes intensive resource use difficult and costly in mountain areas. Hence, mountain areas need cautious and non-extractive resource usage systems. Combining production and protection needs was emphasised. In this context, identification of non-extractive farming systems, appropriate resource upgrading technologies, and promotion of off-farm employment opportunities were emphasised and illustrated by experiences from different areas.

- **Diversities to be recognised**

Mountains are well known for their biophysical and socioeconomic diversities. Hence, development strategies have to be area specific. To facilitate this, the development experience of different mountain areas in China and outside should be shared on a regular basis. Developing some networking arrangements on an institutional basis needs strong consideration and support.

Summary

The issues identified and discussed made the conference a successful, educative, and productive exercise. It identified several issues for consideration by policy-makers and planners. As a side benefit, it generated the idea of building a community of mountain development experts who informally agreed to continue exchanging ideas and experiences in the future. Given interest and support from the mountain countries and the donors, this initiative can be institutionalised. Most participants were happy to be involved in the focused discourse on poverty alleviation issues in

mountain areas of China and hoped that the experiences of successful programmes would be repeated in different mountain regions.

Background and objectives

The preceding section summarised the highlights of the conference. The processes leading to them are elaborated upon in the following discussion.

Poverty is a pervasive feature of the Hindu Kush-Himalayan (HKH) mountains, including mountain regions of China, and the economic and environmental dimensions of mountain development are inextricably linked with poverty alleviation in these areas. In the face of relatively steady population growth and the rapid change in external relationships, traditional survival strategies are fast losing their efficacy in the mountains.

Furthermore, though mountain areas and communities share the broad causes and consequences of poverty that prevail elsewhere in the developing world, their problem is unique in terms of poverty-promoting processes. The latter are rooted in their biophysical conditions as well as in their environmental and socioeconomic imperatives, which (unless addressed appropriately) restrict income-enhancing options and their dependability. The conditions in mountain areas—inaccessibility and remoteness, the fragile and scale-sensitive nature of the resource base, underused niches for local production, and the marginal economic and political positions of mountain communities—add a critical dimension to the issues of poverty and sustainable development in these regions. Insufficient attention to these features has significantly reduced the effectiveness of past development interventions in mountain areas. As the forces of liberalisation and globalisation gather momentum, mountain areas and communities are further exposed to risks and uncertainties, with limited abilities to harness the new opportunities. To facilitate concerted action at the policy and programme levels, there is a need to take stock of the existing situation in mountain areas, and to distil lessons from past experiences in dealing with issues of economic and environmental development and alleviation of poverty.

Among the countries of the ICIMOD region (covering the contiguous mountainous area of Afghanistan, Pakistan, India, Nepal, Bhutan, China, Bangladesh, and Myanmar), China has been relatively successful in alleviating poverty in several of its mountain areas. Several well-targeted programmes have been in place for quite some time, and there is a lot to be learned from these experiences. However, despite these achievements, the levels of development and poverty reduction in mountain areas are far below the corresponding levels in other parts of China.

These gaps are significant because about one-third of China's population lives in mountain regions; 40% of the country's farmland and much of its forest and mineral resources are located in mountain areas. Furthermore, because of the specific conditions of mountain areas (fragility, marginality, and so on) the approaches and strategies that alleviate poverty in other parts of the country are not readily applicable to mountainous regions. The past charity-focused approach to helping these areas is less possible today due to global (market friendly) norms of resource allocation.

Guided by these concerns and the possibility of learning from the experiences of other countries within and outside the HKH, in November 2001 China requested DSE (the German Foundation for International Development) and ICIMOD to organise a regional workshop on 'Poverty in the Mountain Areas of China'. China's initiative to learn and share experiences on poverty reduction in mountain areas through international discourse builds upon similar efforts in the past. In 1993, a symposium entitled 'International Forum on Development of Poor Mountain Areas' was jointly sponsored by the Chinese Academy of Sciences, the State Council Leading Group for Economic Development of Poor Areas, the Ford Foundation, and ICIMOD. The meeting was attended by over 50 experts from China and other countries, including those of the ICIMOD region. The meeting facilitated the exchange of inter-country experiences and helped in synthesising key issues in the diagnosis of poverty problems. Several anti-poverty programmes and measures were assessed to help reorient development strategies that could simultaneously address poverty and environmental degradation. The proceedings of the symposium were subsequently published jointly by ICIMOD and the Chinese Academy of Sciences as *'Development of Poor Mountain Areas'* (Banskota and Sharma 1994).

The present regional workshop/conference sought to revisit many of the past issues in the contemporary global context, and to examine ongoing successful anti-poverty measures and their efficacy and replicability in different contexts. In addition, we wished to draw from and build upon the experiences discussed during the International Conference on 'Growth, Poverty Alleviation and Sustainable Resource Management in the Mountain Areas of South Asia' jointly organised by DSE and ICIMOD in Kathmandu in 2000 (Banskota et al. 2000). One of the suggestions of that conference was to organise or facilitate interactions on the subject at national levels in the region. The need to examine critically the whole issue of poverty during the year also fit well as one of the activities of 2002, which the United Nations had declared as The International Year of Mountains.

It is against this background that the German Foundation for International Development/Food and Agriculture Development Centre (DSE/ZEL), Feldafing, Germany; the International Centre for Integrated Mountain Development (ICIMOD), Kathmandu; the International Fund for Agricultural Development (IFAD), Rome; and the Institute of Mountain Hazards and Environment (IMHE), Chinese Academy of Sciences, Chengdu, jointly organised a five-day International Conference on 'Poverty Alleviation in Mountain Areas with Special Focus on China' from November 11-15, 2002, in Chengdu, China. The overall goal of the conference was to identify key issues related to poverty alleviation and to formulate strategies for a pace and pattern of growth that could alleviate poverty in mountain areas. The specific objectives of this conference were as follow:

- to review conceptual approaches and analyse the trends and future outlook on mountain poverty, particularly in China;
- to review experiences of poverty alleviation strategies and policies in mountain areas;
- to identify appropriate strategies and policies to accelerate poverty alleviation in the mountains, particularly in China; and
- to review IFAD's poverty alleviation strategy for the Asia-Pacific region and its relevance to mountainous areas in China and other countries in the region.

Organisation of the conference: presentations

The Chengdu conference was attended by about 80 participants, including senior government officials engaged in policy and decision-making, academics, experts, and representatives of civil society from Bhutan, China, India, Nepal, Pakistan, and Germany. Representatives of international development organisations, bilateral donors and experts from InWEnt (formerly DSE/ZEL), ICIMOD, IFAD, and IMHE also participated.

The main activities of the conference were presentation of thematic papers, parallel participatory working group sessions facilitated by experienced moderators, presentations in plenary sessions, a field visit, and a concluding session to highlight the principal inferences and recommendations of the meeting.

Altogether 21 papers were presented in the three plenary and two sub-plenary sessions. In Plenary Session 1 on the first day of the conference, five papers were presented. The first paper broadly highlighted the incidence of rural poverty in Asia and the Pacific region and the constraints and opportunities for reducing it. The second paper reviewed the poverty situation in mountain areas of the Hindu Kush-Himalayas, followed by

another paper highlighting the efforts made towards poverty reduction in the mountain areas of China. The next two papers reviewed the conceptual issues relating to poverty and approaches to addressing them in mountain areas.

Plenary Session 2 on the second day focused on past approaches and experiences in dealing with mountain poverty. Four papers were presented. Two dealt with the use and management of natural resources in mountainous areas (one in Western China and another in Bhutan). Two other papers focused on generic issues, one on highland–lowland linkages in a globalised world and another on sustainable livelihoods and poverty alleviation in mountain areas. Development of human resources and off-farm activities in China were covered by another set of two papers. Two papers focusing on tourism (one from China and another from Nepal) were presented on the third day. Two papers were presented on agricultural transformation: one focusing on China and another on Himachal Pradesh, India. The third day's presentations also included one paper focusing on livestock husbandry in Chinese mountain areas and another paper dealing with approaches to the rehabilitation and socioeconomic development of mountain regions affected by construction of the Three Gorges Reservoir on the Chang Jiang River.

Plenary Session 3 on the fourth day focused on strategies and policies. Four papers were presented; two papers focused on the minority regions and backward areas of China. Another reviewed the growth, inequality, and poverty situation in rural China. The fourth paper reviewed IFAD's strategy for rural poverty reduction in China. The synthesis and recommendations of the conference discussions were presented as part of a closing ceremony on the last day of the conference.

Intensive discussions during the working group sessions focused on subjects such as causes and indicators of poverty in mountain areas; natural resource management and its links to development and poverty reduction; highland–lowland linkages and the role of accessibility; human resource development and the situation of minority/tribal areas; tourism and other off-farm industries; and agricultural transformation and migration of rural population. Based upon these discussions, recommendations were made to address mountain poverty through focusing on aspects such as natural resource management and environmental protection, infrastructure and communications' development, local participation and institutional development, human resource development and capacity building, and agricultural transformation and off-farm employment in mountainous areas.

EMERGING ISSUES, CHALLENGES, AND OPPORTUNITIES

Mountain poverty: indicators and understanding

Poverty is a multidimensional phenomenon. Most often its assessment is based on the current level of welfare, disregarding the capabilities of the population to sustain or enhance that level. These levels of welfare are mostly seen in terms of some economic indicators—income or consumption—ignoring the non-economic aspects of welfare and poverty. Most of the concepts routinely used by different development agencies are not very relevant in terms of dealing with poverty in mountain areas. Non-linearity between consumption levels and other aspects of welfare and capabilities are more prominent in mountain areas. Here variations in access to markets, services, and knowledge can lead to drastically different levels of welfare and capabilities, not necessarily reflected in current consumption levels. Indicators based on income, consumption, and access to infrastructure and services are inadequate and at times misleading in the case of mountain areas.

Insecurity and vulnerability, social and political exclusion, unfavourable geographical situations with physical stress, natural hazards, and risks are other dimensions of poverty in mountain areas. Inaccessibility, fragility, and physical marginality lead not only to a limited production base for sustaining livelihoods but, more importantly, result in a high degree of risks and uncertainty in realising the outcomes of livelihood activities.

Limited usable resources; restricted access to natural resources; poor and unstable access to markets, technologies, and inputs; unequal exchange relations with other areas; weak formal institutions and organisations; and neglect of the imperatives of mountain specificities by past development policies and programmes are major factors contributing to the persistence and accentuation of poverty in most mountain areas.

Because of the primacy of biophysical circumstances, there is a strong link between poverty and resource degradation in mountain areas. It is necessary to understand such linkages. It is widely agreed that the poorest sections of society are hurt most by a declining natural environment. The key to understanding the poverty–environment nexus is to focus on the issues of natural resource management systems. The present situation in mountain areas is characterised by decline of traditional practices of resource protection and usage, on the one hand, and selective over-extraction of niche resources by downstream agencies with limited local benefits on the other. The unequal highland–lowland economic links are rooted in the specific patterns of mountain resource use. Unless guarded against, this process may become accentuated with the promotion of

globalised patterns of resource use in mountain areas. Hence, economic policy reforms to benefit from globalisation should incorporate parallel reforms on social, environmental, and institutional aspects to prevent increases in inequality, poverty, and environmental degradation in mountain areas. An integrated approach to environmental sustainability and poverty alleviation has been recognised as a global concern, reflected in the millennium development goals (MDG) accepted by the governments of the HKH region.

Strategies and their focus

Approaches, strategies, and interventions for poverty alleviation in mountain areas have mostly been in the form of replications and extensions of those developed for the mainstream areas in the plains. Often the development strategies have been sectoral, relying on a lead-sector approach, but identification of the sectors has often not been based on the area-specific approach required in mountain areas and location specificities. Likewise, even sectoral development approaches require intersectoral linkages in mountain areas (due to diversities), but this has not been adequately recognised.

Intensification of resource use, narrow specialisation, promoting standardisation, and large scales of operation are other features of plains-based interventions that do not match with the fragility, diversity, and other characteristics of mountain areas.

In light of the above, the first essential requirement for a relevant poverty alleviation strategy in mountain areas is to combine the relevant elements of various approaches and adapt them to mountain conditions. Recognition of the constraints of inaccessibility, fragility, and marginality and opportunities linked to diversity, niche resources, and people's adaptive practices is a basic step in evolving or adapting development interventions to suit mountain areas. Put differently, poverty alleviation and development efforts in mountain areas should have a *mountain perspective*, implying explicit recognition and understanding of mountain specificities and their imperatives.

The conference participants made several suggestions about how to achieve this, and these included the following. (1) Focus on improving the physical access of mountain people to markets, technologies and information, social services like education/ health, and modern forms of energy. (2) Perform critical assessments of niche resources and comparative advantages of each area and develop policies and programmes to harness them by involving the communities. (3) Upgrade marginal resources and

people's capacities and capabilities to reduce their vulnerabilities and poverty. The role of communities and community-based organisations is extremely important in this respect. (4) Recognise and respond to diversity in ecological conditions, resource endowments, and socioeconomic conditions within mountain regions to facilitate area-wide differentiated development interventions. While adopting an area-based approach, it is necessary to combine physical (e.g., watershed) and economic (e.g., market towns) spatial units. In view of the highly diverse landscape of the mountains, resource assessment and development planning must be highly sensitive to spatial variations. Mapping techniques using tools like Geographical Information Systems (GIS), therefore, have particular significance in mountain areas. (5) The immediate policy implication is that the state would have to increase investment in infrastructure and services and also evolve pro-mountain policies to ensure that markets function better and that the risks and effects of market failures are minimised. (6) To harness the benefits of diversity, diversification of mountain economies compatible with market-oriented development will be necessary. This will involve promoting products with comparative advantages and improving people's capabilities to harness them. (7) Pro-mountain policies can be justified not merely on the grounds of equity, but even more on the ground that mountain people must be compensated for the deprivation and costs involved in conserving and protecting their environment which, through the downstream flow of resources and environmental services, sustains the development and livelihoods of downstream people and economies. (8) Development and poverty alleviation in mountain areas can be achieved only if government, civil society, private sector, and international organisations are convinced that the fate of larger national and global economies and societies is closely linked to that of the mountain areas and people. To facilitate this, more systematic work on highland–lowland economic links is essential.

Different approaches have been used to assess the development levels, constraints, and potentials in mountain areas. However, to supplement the qualitative assessments, the reliability and validity of data and the appropriateness of indicators must be evaluated before sound conclusions about regional disparities and other aspects of mountain development may be drawn. The lack of good quality data disaggregated within mountain areas is a major problem in measuring development and poverty accurately.

Poverty in China

Poverty in the mountain areas of China is indicated by low income, food insecurity, poor infrastructure, restricted access to social services (health,

education, drinking water etc.), poor quality of life, and inability to cover basic needs and to cope with risks. The official indicators of absolute poverty are per capita cash income of less than 400 RMB per person per year and grain availability of less than 175 kg per person per year.

The most important reasons for poverty in mountain areas of China are poor access to markets, poor infrastructure, poor access to social services, fragile environments and ecosystems, increasing population pressure, low productivity of agriculture, weak institutions, lack of off-farm employment opportunities, low levels of human resource development, limited investment, lack of benefits to local people in extracting resources from mountain areas, lack of appropriate mechanisms in poverty reduction programme planning, and specific issues related to minorities (languages, education). As discussed by participants from other countries, most of these indicators and causes of poverty are not specific to China, but are common in other HKH countries.

Experiences: regional context

The Asia-Pacific region

Although the Asia-Pacific region, of which the Hindu Kush-Himalayas constitute an important part, has made impressive progress in economic growth and poverty reduction in the last three decades, this region still accounts for nearly two-thirds of all poor people in the world. Poverty is basically a rural problem in the region, and 80–90% of the poor are rural people in all the major countries of the region. However, the poverty trends vary widely from country to country and within countries. Socioeconomic issues such as growing inequality, economic vulnerability, persistence of poverty, and high deprivation levels have emerged as major indicators as well as constraints to reducing rural poverty. Globalisation and economic liberalisation, with side effects that promote inequity, have fuelled the region's rapid economic growth, but they have also increased the vulnerability of these economies to external shocks. Such external shocks can lead to severe economic downturn and rapid reversal of gains in poverty reduction. While poverty may be a transitory phenomenon for many of the poor, it is more or less a permanent condition for many more. The level of deprivation is usually higher than indicated by income figures. The region continues to suffer from very low levels of other human development indicators such as the Human Development Index, the Gender Development Index, and the Gender Empowerment Index.

Poverty in the region is concentrated in less favoured areas such as remote uplands and mountains, marginal coastal areas, and unreliably watered drylands. Major groups of rural poor include women; indigenous peoples

and scheduled castes; the landless, marginal farmers and tenants; pastoralists; coastal fishers; internally displaced persons; and victims of landmines.

The major constraints faced by the poor are lack of access to productive resources, employment, technologies, financial services, markets, and decision-making processes. In the absence of institutions for the poor, their collective strength is weak. The challenge is to tackle the causes of restricted access and control over the use of resources. Changes in access to resources—such as property reform for forests in the uplands and access to finance, technology, and markets—will increase the income and overall capabilities of the poor.

Despite enormous problems, this region has a number of strengths that create a window of opportunity to significantly reduce rural poverty. Most governments have adopted pro-poor policies that provide a conducive environment for effective collaboration between donors and member governments. The region also has a vibrant civil society that is playing an increasingly crucial role both in advocacy and in service delivery to the rural poor. (Unfortunately the disconnection between macro-perspectives and micro-level realities reduces the effectiveness of the above positive developments.) There is a need to build on these strengths and work together to achieve the common goal of reducing rural poverty in the region.

HKH region

The poverty ratios in mountain areas of the HKH region are generally higher than in the plains, although there are strong spatial variations in these ratios. Traditional subsistence economic systems widespread in mountain areas are becoming unsustainable in the context of rapid population growth and inequities caused by increasing external linkages and demand for cash to fulfil basic needs for services such as education and health. Nevertheless, diversification towards high-payoff horticultural and cash crops has been observed in quite a few areas. Other visible changes taking place are the development of urban areas, tourism, hydropower, transportation networks, growing external linkages, and growth in institutions.

Despite these changes mountain people continue to be exposed to greater physical, social, and economic vulnerabilities as a result of poor access to service infrastructures such as hospitals, schools, banks, markets, and so on; and in their turn these result from highly rugged terrain, scattered human settlements, and limited development of transportation networks.

Also, degradation of mountain natural resources—land, forest, pastures, and water—is one of the negative changes observed in this region. As a consequence productivity has declined, creating further chain reactions. Increasing scarcity of labour due to out-migration of many economically active males, landlessness, food deficit, indebtedness, and an increasing burden on women are other changes observed. Some areas have been facing serious problems of unrest and insurgency that stem largely from growing income disparities.

Poverty processes in the HKH are unique due to several factors. Mountain areas in the region are very dynamic and fragile. Frequently they are susceptible to natural hazards causing loss of life, physical assets, and production base. The poor in marginal areas exposed to such hazards are less capable of coping with, resisting, and recovering from them. Their livelihood is further impoverished by man-made disasters in mountain areas. Furthermore, declining access to natural resources; poor infrastructure and service facilities; poor access to information, technology, inputs, and markets; social and political exclusion; feminisation of poverty; weak institutions; and high spatial diversity all contribute to the intensification of poverty processes in the HKH region.

Several approaches and programmes, such as land reform to improve access to natural and physical assets; building infrastructure; provision of input-intensive agricultural technologies to enhance productivity and food security; target oriented credit and employment programmes; development of human resources; and social mobilisation, have been implemented for poverty alleviation in the region. They show a mixed picture in terms of success and failure, as well as significant spatial variations.

An area-based approach based on detailed analysis of comparative local advantages—along with infrastructural, technical, and financial support to manage and mitigate mountain risks—has been an effective strategy for poverty alleviation in China. Similarly, self-reliance, social mobilisation, and strong support services—including research and development (R & D)—are other important factors responsible for diversification of economic activities and reduction in poverty, as shown by the experience of Himachal Pradesh, India.

The mountain areas in the HKH have comparative advantages in a number of products and activities involving mountain natural resources. Poverty alleviation through harnessing local resources, therefore, should stress appropriate natural resource management, including activities to rehabilitate and regenerate resources.

The growth of cereal crops in most of the HKH areas is stagnant, suggesting the need for (1) enhancing their productivity through technologies and input support and (2) diversification of land-based and related economic activities to reduce poverty. To facilitate diversification and harness its gains, improved access to markets, information, and technology is crucial. The development of entrepreneurship to transform present subsistence-focused activities into market-oriented activities is necessary. Here again, collective entrepreneurship is especially important in the context of the highly fragmented resources and limited economies of scale in mountain areas. Such changes require successful human resource development and empowerment of the poor, which will enable the poor to take their own initiatives in reducing their poverty.

Because mountain poverty has a strong spatial dimension, an area-based holistic approach and the active participation of the local community are necessary. Institutional mechanisms for rational and suitable sharing of costs of conservation of mountain areas must be developed because of the benefits that such mountain services offer to lowland areas. Good governance and social mobilisation are other essential activities often mentioned in this regard. Finally, stability and security are prerequisites for growth and poverty reduction.

China

The rural economy of China has been improving since 1978, when reforms were introduced. However, due to historical, natural, economic, and social reasons, some regions have developed very slowly and poverty remains their key problem. The number of poor who were inadequately fed and clothed dropped from 250 million in 1978 to 30 million by the end of 2000, but most of these remaining poor live in areas with extremely harsh natural conditions and living environments (e.g., mountain areas). Hence, the mountainous areas have become the focus of China's efforts to alleviate poverty.

These areas are sources of big rivers and reservoirs of water. Their role in conserving water and soils, and providing other environmental services, is well known. However, due to a lack of adequate understanding and knowledge about mountainous areas, people have exploited mountain resources indiscriminately and destroyed the ecological balance. Nevertheless, mountainous areas retain comparative advantages in several products and services. For example, mountainous areas have abundant natural, cultural, and tourism resources. They are the areas where China's most internationally competitive products grow. This will ensure high gains to China and the mountains with the country's entry in the World Trade

Organisation (WTO). However, harnessing these gains is constrained by the poor external links of mountain areas, long periods of under-investment, low human capacity and organisational support systems—all of which are direct or indirect products of mountain specificities (inaccessibility, marginality, and so on).

Therefore economic development in mountain areas lags far behind. The contributions of secondary and tertiary sectors are very low. The poor technology, the outmoded facilities, the inappropriate production structure, the high proportion of state-owned enterprises, and the slow pace of change are factors limiting economic development. To sum up, mountains are rich in natural resources but poor in the conditions needed to harness them. China has undertaken several steps to change this situation.

Before 1978, development efforts were targeted through a planned economy and government interventions that ignored the role of markets and price mechanisms. Infrastructural development was influenced by considerations of national defence without paying attention to economic principles or linkages with other sectors such as agriculture. Exploitation of natural resources was emphasised rather than developing other sectors such as education, communication, market links, and local capacities and enterprise.

Understanding these gaps has led to new thinking and reorientation of development strategies for mountain areas in China. The key aspects emphasised under the new strategies are: development of basic infrastructure and service facilities; regulation of industrial structure and allocations of resources through markets; focus on public transportation and communication networks (highways, railways, airports, natural gas pipelines, internet, telecom and broadcasting, and so on); promotion of education, knowledge, technology, and information to enhance development of human capacities; reorientation of production structures, industrial structures, and economic structures according to the demands of domestic and international markets; development of industries and activities that harness the comparative advantages of mountain areas such as tourism, agro-industries involving niche products or rural items such as fruits, tea, handicrafts, and so on; small-scale management with the family as its unit to be changed step by step into large-scale production units; externally-driven resource exploitation involving locals; promotion of activities and industries on the basis of market signals, with involvement of local populations; and separate development policies for different areas based on diversity of niche resources and poverty levels as well as the specific factors causing poverty. Emphasis on rich and developed areas

helping the poorer areas is another important feature of China's anti-poverty strategies in mountain areas.

Experiences: sectoral context

Natural resource management in mountain areas

Poverty processes in mountain areas are closely linked to status and usage systems of natural resources. The poverty–environment nexus is more apparent in mountain areas than in any other area. As mentioned earlier, the biophysical conditions of mountain areas generally offer limited and risky production opportunities for rural people. Traditionally, the communities enhanced and stabilised these opportunities through a process of two-way adaptation—adapting (restricting or rationing their demands) to what nature offered them and adapting mountain conditions and resources for enhanced opportunities and increased supplies. Water harvesting, terracing, diversified land uses, and so on all illustrate this. The natural resource use and management systems involved helped to protect resources while using them. However, with the increased population, market pressures on mountain resources and public interventions with inadequate concern for mountain conditions led to disintegration of traditional ways of managing fragile mountain landscapes. Efforts to increase production through indiscriminate intensification led to resource degradation and consequent reduced production. This scenario characterised most areas of the HKH, including China. China's post-revolution policies, which de-emphasised diversification (sideline activities) and focused on food first (i.e., each area was to achieve food self-sufficiency) accentuated this process.

Accordingly, the extent of environmental degradation shows an increasing trend in mountain areas in China, especially in poorer and fragile mountain counties. In fact the poor counties are those which include a large proportion of fragile eco-environments. The economic deprivation and the survival needs of the poor are the endogenous forces driving environmental degradation. In some areas a vicious cycle of intensification of resource use and poverty is clearly visible. The environmental degradation of poor mountainous areas is manifested in increased desertification, soil erosion, landslides and debris flow, and so on.

In the light of the above, ecological regeneration is being emphasised as the core of sustainable mountain development. For this the links between ecological recovery, resource exploitation, technological progress, and poverty-alleviation efforts should be carefully understood and promoted. However, full consideration must be given to farmers' interests and capacities during the implementation of environmental regeneration

programmes such as wild wood protection, returning farm land to forest, water and soil conservation, and ecological afforestation.

In the field of environmental protection and conservation in mountain areas, Bhutan's experience and achievements are unique and impressive. Facilitated by respect for traditional values and low population on the one hand, and cautious and conservation-oriented farsighted policies and legislation on the other, the country has succeeded in preserving its environmental resources. The situation in other HKH countries is quite mixed, with some pockets of well-managed environments within largely over-exploited, degraded environmental resources.

State policies are identified as a major factor behind the poverty of mountain people despite their rich natural resource base. In all HKH countries, the main benefits linked to natural resources from the mountain regions (e.g., gains from tourism, hydropower, mining, timber, NTFPs, and so on) go to the lowland society. Non-involvement of local communities in harnessing the resources is a key factor causing this. The issues debated and partially acted upon relate to (1) resources directly used by rural people like community forests, pastures, water bodies, and so on and (2) the major resource endowments of mountain landscapes such as minerals, timber, hydropower, and so on. Regarding the first, efforts at change include user-group forestry (Nepal), joint forest management (India), and various programmes in China. China's approach and efforts in this regard will be described below.

In China's initial phase of development, control and management of forest and grassland resources were centralised, but soon it became clear that sustained conservation and optimal use were only possible if the control, management, and economic benefits were given back to the rural population. However, it is also felt that, due to population pressure, inefficiency of resource use, and lack of facilities and awareness about sustainability of resources, simply leaving control of natural resources to local communities would not be enough. Hence, the Chinese government is promoting policies involving land tenure and compensation mechanisms; capacity building, education, and training of local populations; stakeholders' participation and community-based management; and recognition and use of local people's knowledge, experience, and ideas.

Efforts are also being made to introduce best practices in various land-based and other locally-centred activities to help both environmental regeneration and poverty reduction. They include diversification with high-yield cash crops and animal husbandry, eco-tourism, and ecosystem

restoration through conversion of marginal croplands into forest and grasslands. Due consideration is advocated for measures directed to reduce, reuse, and recycle natural resources, integrated multidisciplinary planning based on the rationale of traditional knowledge, site-specific and conservation-oriented development activities, and so on. Technologies such as water harvesting, contour planting, and other soil–water conservation techniques are advocated for sustainable management of natural resources. The role of government in facilitating the above changes in China is considered very crucial.

Highland–lowland linkages

The poverty of mountain communities and its persistence despite the rich natural resources of mountain areas are both a cause and consequence of unequal highland–lowland economic links. Highlands and lowlands are endowed quite differently in terms of resources and production opportunities. This forms the natural basis for complementary economic links between the two. However, such exchange-based complementary relationships have been replaced by unequal highland–lowland links. Inequality of highland–lowland economic links and persistence of poverty in mountain areas are rooted in factors like limited accessibility, fragility, and marginality (as constraints) and diversity and niche resources (as potentials not easily harnessed by mountain communities due to the above-mentioned constraints). Furthermore, the lack of serious and appropriate efforts towards raising resource productivity in fragile mountains, sustainably harnessing and regenerating niche resources, and ensuring equitable trade links based on mountain perspectives are also rooted in the socioeconomic and geopolitical marginality of mountain communities and their invisibility and voicelessness vis-à-vis the lowland mainstream systems. Consequently, exploitation and trading of niche resources have been promoted and facilitated by lowland policy-makers without the significant involvement of local communities. Furthermore, export flows from mountains are neither appropriately priced nor do they receive full compensation. This is all the more so in the case of semi-managed natural resource flows from the mountains. They include invisible environmental services or gains in terms of groundwater discharge, nutrients, biodiversity elements, silt-free water flows, physical stability of downstream watersheds, and so on that are directly related to conservation and protection of highland watersheds by mountain people. For want of proper economic assessment and lack of pricing, these services remain uncompensated.

The negative side effects of external links (i.e., unequal highland–lowland links) may further accentuate during the globalisation era, due to the well-known tendency of market-led processes to ignore negative

externalities and nonprofit concerns, while using and integrating mountain areas into wider economic systems.

The welfare-cum-development resource flows (social transfers) from lowlands to highlands are important, but these flows continue to be disproportionately lower compared to both the economic flows from the mountains to the plains and the needs of the highlands. Consequently, the highlands continue to suffer from under-investment, leading to poverty and underdevelopment. Furthermore, the charitable resource flows to the uplands from the lowlands are likely to decline in the era of globalisation, as a consequence of market-driven resource allocations and the reduced role of the public sector.

Patterns of highland–lowland links are changing. The most crucial change relates to efforts to improve accessibility and promote local capacities in terms of both human resource development and promotion of commercialisation involving high-value tradable products. China has adopted specific policies (i.e., developed areas made responsible for helping poor areas to develop) that may help reverse the past pattern of highland–lowland resource flows.

China's experience shows that the nature of highland and lowland linkages is different in different contexts (e.g., at local level to regional scales). China has adopted four approaches to tackle the negative influences of highland–lowland linkages: a logging ban, sloping land conversion, watershed management (soil and water conservation), and integrated rural development. The short-term effects, however, vary under different programmes. For instance, highlanders have to bear the cost of the logging ban as they lose jobs and access to forest by-products (NTFPs) as sources of income. At the same time, lowlands are benefited due to the reduced risk of floods and soil erosion without compensating the highlanders.

In such situations the key issue is to identify the best way to compensate for environmental conservation and long-term sustainability of lowland watersheds. As already mentioned, 'poor area–rich area collaboration' in development of poor areas is one option.

Off-farm activities and tourism

In the experience of China and other transformed areas of the HKH, the overall process of development or enhancement of household incomes in rural communities is highly correlated with the growth of off-farm industries. However, the growth of off-farm activities is comparatively low in mountainous areas; and the main off-farm activities in mountain areas of

China are related to ecotourism, hydropower and mining, transportation and telecommunication, green foods and natural herbal medicines, ethnic handicrafts and circular labour migration, and so on. Vast opportunities exist to develop these activities. To harness their potential, the whole economic and industrial structure of mountain areas would need to change. However, development of off-farm industries in the mountains must be in keeping with the unique features and conditions of mountain areas. In many cases constraints could be transformed into opportunities.

Tourism is one such activity where constraints to development—remoteness, difficulty of access, the natural and biological diversity, wilderness, insular cultures, and subsistence-focused ways of life—can be transformed into opportunities. If properly managed, the backward and forward linkages of tourism can enhance employment opportunities in mountain areas.

Nepal could be considered a leader in promoting and using mountain tourism as a major economic activity, and other countries are giving increasing attention to this sector. But tourism does not spontaneously become an activity that benefits the poor. It needs to be planned and managed to achieve those ends through an effective partnership with all relevant stakeholders, including rural communities themselves. Specific efforts are required to integrate tourism into local development opportunities and efforts.

Mountain areas in general require a sensitive approach to the promotion of tourism for various reasons. Inaccessibility and remoteness call for building local capability and support systems to help better external links. In view of the scale-sensitivity of most activities in mountain areas, the scale of tourism has to be harmonised with the carrying capacity of the areas. Sensitivity to fragile resources and balancing of ecological and economic concerns are of equal importance. Failing this (as observed in many areas), the unique mountain environment that induces tourism becomes a victim of tourism.

In the past, tourism has induced the development, expansion, and reorientation of settlements along trails and tourist destinations. Not all such developments have been systematic, positive, or sensitive to mountain conditions. As tourism develops, the spatial dimension of growth requires careful monitoring and changes. Participatory land-use planning in nodal locations is important to ensure orderly growth of settlements, environmental safeguards, and protection of the poor against losing their meagre resources and earning opportunities due to tourism as an externally linked, highly commercialised activity.

The type of tourism has a bearing on the impact on poverty as well as on area development. In mountain areas trekking and mountaineering tourism has more potential for poverty alleviation than other forms of tourism (e.g., luxury tourism). Development of local enterprises and links with tourism networks are another essential steps. As of now only a few individual entrepreneurs plus porters can benefit from tourism. The poor are not aware of the opportunities opened up by tourism, and the lack of organisation, training, credit support, and policies and programmes to benefit the poor are major issues to be addressed.

Apart from such general concerns, some areas may have specific factors to be addressed while promoting mountain tourism. This is illustrated by Tibet. There are abundant tourism resources in the Tibet Autonomous Region. However, promotion of tourism is constrained by strong seasonality, poor infrastructure and quality of services, limited development investment, lack of skilled human resources, the high cost of transportation, and difficult access. Moreover, the fragile eco-environment and growing concerns for protection of cultural diversity put some restrictions on rapid tourism development in Tibet.

In light of the above discussion, development of tourism should be guided through four basic principles. It should be economically feasible, equitable in the distribution of gains, environmentally friendly, and culturally sensitive. Apart from general funding support, pro-poor policies and mechanisms to help share tourism revenues with local communities (as in Nepal) are needed. Infrastructural development, linking tourism demand with local production, and development of human resources are strategies to deal with the equity aspect.

Human resource development

People in mountain areas generally are poorly equipped to participate in present-day development processes; hence the strong need for human resource development in mountain areas. 'Human resource' means the sum total of labour capacity (intelligence, stamina, technique, and psychology) latent in a population. It is a key factor for economic development and poverty alleviation. The key elements for human resource development include formal and informal education, technical training, and others that enhance the quality of a population.

It is essential that governments increase inputs and investments to ensure that every child, including the girl child, has an opportunity for education. From time to time informal education is important for organised needs-based technical training. In China, community-organised training, pre-

employment training, training of women, needs-based practical and vocational training, and training of prospective migrants and lead farmers are all emphasised using inputs from various sources and international assistance.

Mountain areas generally lag far behind in terms of these steps to help build human resources. The major constraint to education in mountain areas of China is very low investment in education, reflected by poor quality of teachers, inadequate laboratory facilities, poor housing infrastructure of schools, and instability in teaching institutions. Nine-year compulsory education and three-year senior school education are parts of China's education system, but the dropout rate is high, and higher education is very costly. Several poor, resource-scarce counties cannot afford it. In such a situation establishing facilities for distance education through modern information technology becomes important. Specific vocational education is needed, and techniques to promote it are now available. Learning while working is emphasised by several industries and agencies.

Transformation of agriculture

Despite low productivity, agriculture continues to be the major occupation of mountain communities. In most mountain areas poor access, the high cost of mobility and transportation, the shortage of investment, the low level of technological inputs, the persistence of traditional production systems, and the low level of service facilities continue to cause low productivity of crops and related agricultural activities. Enhanced productivity, diversification of agriculture involving high-value crops, and effective market links—along with promotion of off-farm activities—are important steps for raising the incomes of farmers and other rural poor in mountain areas. The changes emerging in several mountain areas and recent policy-programme shifts in HKH countries incorporate some of these requirements.

In several parts of the HKH, the process of emerging change involves increases in both the level and the quality of products, gradual extension of modern facilities to mountain areas, visible improvement in infrastructure, ecological rehabilitation, development of market economies, increased demand for science and new technological inputs, and so on. In China the latter range from new cultivars to balanced fertilisation, from water-saving irrigation technologies to bio-control of pests and low chemical use in mountain agriculture.

Being natural or organic food products, most mountain products can command high prices. But many of the products do not yet enter the

market easily and at appropriate times due to the small scale of production on the one hand and a lack of storage and transportation facilities on the other. Also, technological innovations move into mountainous areas slowly, as most farmers do not accept new technologies until gains are demonstrated. This calls for training and convincing demonstrations.

Animal husbandry is a major component of mountain farming systems that is also undergoing change. In Nepal, India, and Bhutan, stall feeding of productive animals is increasing. In China animal husbandry is changing from a household sideline activity to a main industry of the rural economy. This has helped peasants and herders to break away from poverty. Along with the land contracting system and a series of policy measures that allowed private farming, choice for self-management, free market pricing, etc., the rural mountain areas now have better economic conditions for specialised livestock farming. With consumer preferences changing from quantity to quality of food and choice for organic products, the market for animal products from mountains is rapidly widening. However, in many high elevation mountain areas where nomadic animal husbandry is practised, the situation has not yet changed. High seasonal variability in fodder and water availability and longer and longer migration distances persist. These factors obstruct market-based opportunities for development. This is a big challenge in improving the economic conditions of the poor.

The validity of these approaches is reinforced by the experiences of Himachal Pradesh in India, several mountain counties in China, and parts of northern Pakistan and Nepal. Himachal Pradesh, despite difficult mountain terrain and associated constraints, has performed better than the all-India average regarding many socioeconomic indicators like life expectancy, infant mortality, total fertility, etc. The key factors contributing to rural transformation in the state included a development strategy responding to mountain specificities; high allocation of resources to the agricultural sector coupled with creation of basic infrastructural facilities; high priority and support to horticulture and high-value cash crops generating employment in a number of non-farm activities through strong backward and forward linkages; availability of vast lowland markets for fruit and off-season vegetables; high levels of preparedness on the part of farmers, awareness, and market consciousness; political commitment and patronage by the state government; appropriate price support programmes and a vast R & D infrastructure; and self-help institutions that played an active role in promoting cultivation of high-value cash crops. With some local variations, most of the factors and processes characterising Himachal Pradesh are visible in different mountain areas of China, Nepal, and Pakistan.

The process of rural transformation in mountain areas is, however, challenged by a number of problems: economic reforms and falling state support, and trade liberalisation policies promoted by the WTO. Strong support for R & D and local value-adding activities are necessary for the sustainable transformation of rural economies in the changing, market-oriented context.

Agricultural transformation within the HKH could help increase incomes and fulfil the basic needs of mountain people. It can also help to promote regional exchange, better local supply of products, and sustainable use of natural resources.

Migration of rural populations

Migration is one of the most important strategies of mountain people in coping with the economic and environmental hardships of mountain areas. Both permanent and seasonal migration are common. The territorial mobility of people can be divided into two kinds—voluntary and involuntary—depending on the main reason and the mode of movement. In China, and to an extent other countries, there has been an increasing trend of both types of migration. Frequent natural disasters (e.g., landslides, debris flow, avalanches, droughts, and so on), decline in production base as a result of degradation of natural resources, lack of off-farm employment opportunities, surplus labour force, poor service infrastructure, and disparity in the pace of regional development are some of the factors pushing migration. Moreover, acquisition of land for construction projects such as dams, reservoirs, roads, mining sites, and environmental protection projects like nature reserves has increased the incidence of involuntary permanent migration from mountain areas in a number of HKH countries. Attractive job opportunities outside are important factors, although for want of requisite skills and capabilities, migrants often land up in poorly paid jobs.

Migration from mountain areas has both positive and negative impacts on poverty alleviation. The temporary migrant sends remittances home and brings information and technological knowledge. As a consequence, local skills and capabilities are improved and help in initiating new enterprises. Migration also indirectly contributes to poverty alleviation. The pressure on scarce mountain resources decreases due to out-migration, though, in most situations in Nepal and India, out-migration involves only male workers. This leads to an increased work burden for women. The increased pressure on urban labour leading to unemployment of large numbers of migrants is another negative consequence. The major challenge at present is to make these migrants more productive through improved

skill training, etc. Special consideration should be given to people displaced due to construction projects and environmental protection activities. These people should be resettled and given adequate compensation. Special packages for resettlement and overall development of displaced people should be designed and implemented. Despite enhanced advocacy for such measures and associated protests by NGOs, this continues to be a poorly addressed aspect of forced migration.

Poverty alleviation in minority regions of China

Most minorities in China live in mountain areas. Harsh biophysical conditions; poor access to resources, information, technology, and decision-making processes; low levels of self-development facilities; and adverse impacts of several macro-economic policies are the main causes of poverty in minority areas. These areas are generally characterised by a single-industrial structure based on agriculture, low levels of productivity, high population growth, low per capita income, subsistence orientation, and poor infrastructure and living conditions. For overall development of such poverty-stricken areas, emphasis should be placed on development of physical infrastructure and service facilities. Because the niche resources of such areas are exploited for the benefit of mainstream national economies but very little gains flow to local communities, development of human resources through education, training, and so on to strengthen the ability for self-development of people and harness the comparative advantages of areas based on their niche resources will help. Area-based and target-group approaches should be combined. The compensation for their resources exploited for use by the mainstream national economy should be an important measure to help minority nationalities. Such a compensation system could replace the charity-oriented approach of the state towards poor and minority areas.

IFAD's approach to reducing poverty in marginal upland areas of China

IFAD (The International Fund for Agricultural Development) was the first international financial institution to assist China in 1981. All IFAD's ongoing projects in China are in remote mountainous areas. Several activities have been promoted in joint IFAD/WFP (World Food Programme) projects since 1996. As the first step towards poverty reduction, a vulnerability analysis and mapping (VAM) methodology for China was developed jointly by WFP and IFAD. Counties were classified according to poverty and vulnerability to recurrent and severe food shortages. A strategic approach to poverty reduction was based on two major thrusts: (a) improved efficiency of interventions directed towards the poor (household- and village-based approach) and (b) a long-term strategy and related funding for remote

mountainous regions with high concentrations of absolute poor (an area-based approach).

The project combines geographic targeting of poverty stricken areas with a multi-sectoral programme of interrelated and complementary activities. They include: (1) strengthening infrastructure and service systems for agricultural production to expand productivity and potentially increase food security and creating cash-generating activities through livestock, cash crops, and off-farm income-generating activities; (2) providing technical support and training to build productive capacity and to improve the creditworthiness of the beneficiaries; (3) enabling better access to credit for viable productive activities; and (4) improving access to health and education facilities to increase labour productivity and heighten the population's learning capacity. The project involves a participatory approach, sensitivity to gender issues, and empowerment of the poor. Given the general indifference to mountain areas by some donor groups due to the small numbers of people involved, this initiative is quite unique and pro-poor. This approach has also been extended to other parts of the HKH region.

MAJOR INFERENCES

The following inferences summarise the conclusions of the conference. Depending on the audience, they could form the basis of specific recommendations.

A time to give high priority to mountains

1. The foremost issue emerging from the conference deliberations was the need for specific attention to mountain areas and communities in development policy and planning. This is necessitated not only by the persistent poverty and underdevelopment of these areas causing huge regional imbalances, but also by the off-site (downstream) negative consequences of poverty in mountain areas.
2. Viewed from the dominant mainstream (lowland) side, the poverty of mountain areas and communities is also a consequence of mainstream indifference and extraction of mountain resources for lowland benefit with little involvement of and or gain going to mountain communities. The required undoing of the consequences of past approaches (manifested by chronic under-investment, stagnation, isolation, marginalisation, and so on) and compensation for past neglect of mountain communities by mainstream policy-makers are strong enough reasons for giving greater attention to developing mountain areas.

Mountain development with a mountain perspective

3. Approaches and strategies to alleviate poverty and develop mountain areas must realise and understand their strengths and weaknesses from a development point of view. This implies conscious understanding and consideration of diverse mountain specificities (inaccessibility, fragility, marginality, diversity, and so on) and their imperatives when designing and implementing development interventions. Mountain development strategies should have a clear mountain perspective. Since mountain specificities and imperatives are interlinked, development has to have a strongly integrated approach. For example, roads to reduce inaccessibility cannot be considered without having concern for the landslides they may cause.

Focus on capacity, not charity

4. Past approaches that tried to help mountain areas and people through charity or subsidies are no longer possible in the context of globalisation and associated economic reforms that give primacy to market-driven decisions and give a reduced role to the public sector. Hence, future development interventions in mountain areas will have to depend on the resources and capacities of these regions. Mountains are often described as regions with rich resources and poor people. The focus will have to be on building the capacities and capabilities of mountain communities to harness their rich potential of resources and act as equal partners in the market system. This will require relaxing biophysical and other constraints through infrastructure and effective external market links. For historically neglected areas and communities, fulfilment of these tasks requires strong support from the state and private sector through investment, technologies, and institutional arrangements. The cost of such support may be quite small once the historically under-priced or uncompensated resource and product flows from uplands to lowlands are realistically priced and receive compensation through equitable highland–lowland economic links. To ensure fuller gains from equitable highland–lowland economic interaction, considerable restructuring and strengthening of activities at sectoral and other levels will be essential.

Understand mountain poverty

5. Helping people escape from the poverty trap is a big challenge. In the final analysis, poverty alleviation takes place through highly efficient and productive activities in different sectors and areas. However, poverty is a multidimensional phenomenon. Conventionally poverty is seen in terms of income and consumption levels (or welfare levels) of households. This tends to disregard the capabilities and circumstances of the population to enhance and sustain welfare levels. This is more

important in mountain contexts, where primacy of biophysical conditions and their imperatives reduce the relevance of conventional concepts and yardsticks to judge poverty or welfare levels. This is because of the high degree of insecurity and vulnerability, social and political exclusion, unfavourable geographical situation and physical stress, and natural hazards and risks characterising mountain inhabitants. Both poverty evaluation and responses need to be differentiated from approaches focused on the plains.

Sectoral context of poverty alleviation

6. The processes and manifestations of mountain poverty relate to different sectoral activities, including the following.

The primary step

- a) To enhance capacities and capabilities of mountain areas and communities to initiate and participate in development/poverty alleviation processes is to reduce their constraints and limitations. The biophysical aspects of the latter require measures to reduce isolation, natural hazards, risks, and vulnerabilities. Reducing socioeconomic constraints, on the other hand, calls for measures for human development and restructuring of institutional arrangements suited to specificities of mountain areas. A related aspect is to enhance local access, capabilities, and facilities to harness rich resources. The above measures imply appropriate responses to mountain conditions.

Agriculture

- b) Shifts must take place in the agricultural sector (including crops, livestock, horticulture, and so on) which continues to provide the major employment for mountain communities. While focusing on diversification, elements to be strengthened or introduced include appropriate technologies, equitable market links, and enhanced skills and capabilities of farmers. The success stories from different regions indicated the possibility of such changes.
- c) The niche resources and products of mountain agriculture should be focused upon to benefit from the new opportunities created by globalisation. Here again, successful experiences of some areas in the HKH region can offer a lead.

Natural resources

- d) Because of organic links between agricultural activities and natural resources in mountain areas, agricultural transformation has to be integrated with natural resource management. This should integrate indigenous knowledge and practices with new options provided by R & D-based technologies and changing market processes.

Poverty–environment nexus

- e) A related issue is the fuller recognition of the poverty–environment nexus in both negative and positive contexts. Measures to enhance positive links should include local access to local resources, participatory management, focus on diversity of environmental resources, and differentiated measures to address them.

Trade and off-farm activities

- f) The gains of efficient management of niche resources must accrue to local communities through realistic pricing and equitable trade links with downstream economies.
- g) Value-adding activities (e.g., agro-processing) and high-value products and services (including medicinal herbs, organic farm products, tourism, and ethnic handicrafts) are potential ways to reduce poverty in mountain areas. Promotion of off-farm activities has to focus on harnessing local opportunities, as many areas in the HKH region have successfully attempted.

Tribal/minority areas

- h) Measures and strategies implied by the above suggestions will have various results for different mountain communities according to their physical and social locations. Specific groups to be identified include tribal or ethnic minorities in isolated and more backward areas. De-marginalisation of such groups and their integration as equal partners into the social mainstream without damaging their unique culture must be addressed through various, special programmes. Such marginalised groups are already helped through various interventions, but with mixed success.

Information intensity of mountain development

- 7. Advocacy of the measures mentioned above must be translated into ground-level policies and programmes. The Chengdu conference discussed various options and their impacts. To enhance the range of such options, and to understand their processes and outcomes, a useful and cost-effective approach will be to periodically facilitate mutual leaning and exchange of experiences among different mountain areas. The utility of such an approach was amply demonstrated at the conference.
- 8. Due to diverse mountain specificities, mountain development is an information-intensive activity. The time and costs involved in accumulating information, analysis, and usage can be reduced through exchange events and use of modern scientific techniques such as GIS. Modern information technology can reduce the impacts of physical inaccessibility significantly, as shown by recent experiences in trans-Himalayan areas of Nepal and India.

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