

Policy Priorities for Sustainable Mountain Development: An Overview

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Introduction

A three-day regional workshop on 'Policy Priorities for Sustainable Mountain Development' was organised by the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, Nepal from 18-20 September 2006. The purpose was to share lessons, experiences, and good practices gained from ICIMOD and partners' work over the last five years. The higher objective was to facilitate a common understanding and vision about mountain policy issues, options, and priorities.

Over 70 participants from Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan, representing government agencies, nongovernment organisations (NGOs) or civil society, research and development organisations, and universities, and representatives from international research and development bodies and organisations such as FAO and UNDP, participated. The workshop was a forum for exchanging policy experiences amongst regional policymakers, and knowledge and information on good practices in the policy arena focusing on the experiences in the regional member countries in the HKH region. Mr. Jagadish Chandra Pokharel, Vice Chair, National Planning Commission, Nepal (NPC/N), inaugurated the meeting.

The workshop's specific objectives were to:

- identify and discuss critical policy and institutional issues, opportunities, and challenges in key natural resource sectors in the HKH region
- share lessons and experiences including good practices gained through ICIMOD and partners' work concerning policies governing renewable natural resource management
- improve insight and understanding of national and global policies as well as the institutional environment of regional member countries and specifically identify areas needing improvement to facilitate an enabling policy environment for sustainable mountain development
- develop a common policy framework within which to address critical issues and gaps in promoting sustainable use and management of natural resources

The workshop sessions were organised into the following themes.

- Sustainable mountain development: the need for enabling policies
- Promoting productive and sustainable community-based management of vulnerable mountain natural resources
- Promoting increased regional and local conservation of mountain biological and cultural heritage
- Promoting improved and diversified income opportunities for vulnerable rural and marginalised mountain peoples
- Reducing physical vulnerability within watersheds and regional river basins
- Promoting greater voice and Influence, dignity, security and social equity for all mountain people
- Policy processes and challenges

Seven thematic sessions followed the opening session to set the scene, and the closing session wound up with key messages for the participants to carry back to their respective countries and organisations. One session was dedicated to group work; four working groups deliberated on recommendations for action and mechanisms to improve ICIMOD's policy research work to assist the RMCs in policy reform and in developing and implementing pro-mountain and pro-poor policies.

Policy makers, researchers, scientists, and ICIMOD staff presented altogether 38 papers on issues related to the policy making processes, practices, and learning based on their experiences applied to the thematic areas of their work, which served as inputs to the workshop deliberations. The presentations yielded valuable experiences, which led to informed discussions on the thematic areas of the workshop. Important recommendations were made with a view to improving ICIMOD's policy work and promoting sustainable use and management of natural resources as a means of reducing poverty and inequality.

Workshop recommendations

At the end of the two-day deliberations, the participants made specific recommendations for ICIMOD and its partners to strengthen their role in shaping mountain policies in the eight member countries. The key recommendations of the workshop are given below.

1. Recognise policy formulation as a continuous process, continuously influenced by stakeholders and governed by dynamic factors at different levels and stages. ICIMOD can play an important role as a regional knowledge base through generation, analysis, and sharing of knowledge and good practices gained in its member countries and in other mountain areas in the region.
2. Make concerted efforts to highlight mountain issues and identify viable solutions through national, regional, and international policy discourse, providing suitable platforms, examples of implementation, and frameworks for policy development.
3. Form a policy analysis group at ICIMOD and national policy working groups in each of the eight regional member countries involving strategic partners to foster demand-driven policy research and analysis that can feed into national and regional policy development processes.

4. Carry out country-level policy studies and in-depth comparative analysis and arrange exchange visits by policy makers to countries in the region to facilitate cross-regional learning.
5. Promote dynamic, horizontal, and vertical linkages by building networks and partnerships with and among national organisations involved in policy research and advocacy, as well as with global research and development partners, to promote mountain-specific policy agenda and solutions.
6. Document and disseminate good practices and approaches to policy development and monitor their impact in the regional member countries to facilitate their adoption and implementation.
7. Identify areas in which regional cooperation can be promoted and strengthen such cooperation across boundaries, sub-regions, and river basins.
8. Strengthen multi-channel communication through e-networks, seminars, symposium, and other media and forums for dynamic exchange on policy issues.
9. Promote the capture of local perspectives through consultative and multi-stakeholder policy-making processes involving civil society and other key stakeholders.
10. Ensure that the reformed policies and legal frameworks developed promote social inclusion, are gender sensitive, and incorporate the needs of minorities and marginalised people.
11. Facilitate policy and programme evaluation by developing and providing the necessary tools for policy makers and other key stakeholders.

Summary opening statements

The opening session was inaugurated by senior policy makers from Nepal and Bangladesh, who provided the broad perspectives on national policy areas. ICIMOD and representatives of donor organisation in Nepal provided the mountain context, mountain specificities, and the sociopolitical environment for the discussions. Mr. Jagadish Chandra Pokharel, Vice Chair of the National Planning Commission, Government of Nepal, and Mr. SK. A.K. Motahar Hossain, Secretary, Ministry of Chittagong Hill Tract Affairs, Bangladesh, both members of the ICIMOD Board, delivered the opening remarks.

In his opening speech, Mr. Pokharel underscored the relevance and timeliness of the workshop's theme for Nepal in the light of the country's ongoing transformation as a result of the people's movement. Recent developments in Nepal have increased people's hopes and expectations on development planners and policy makers and the Nepal government faces the challenge of fulfilling the nation's expectations for peace, stability, and social justice to root out the country's deeply rooted inequalities, and alleviate persistent poverty especially in Nepal's mountain regions. In its long and arduous journey towards peace and development, Nepal sought the support and cooperation of neighbouring countries, development partners, and knowledge centres like ICIMOD. Mr. Pokharel noted the importance of appropriate policies and their proper implementation:

“...we may have good policies and programmes...(but) implementation is generally weak. The major challenge...is how to create an enabling environment for policy making and implementation for sustainable mountain development and the well-being of mountain people.”

He expressed the hope that the workshop be instrumental in developing a common understanding and vision on critical mountain issues.

Mr. J. Gabriel Campbell, then ICIMOD Director General, welcomed the participants and expressed appreciation for their taking time out of their busy schedules to attend the workshop. Reviewing its historical mandate, he traced that ICIMOD was established in 1983 by the eight regional member countries through the active facilitation and support of international organisations. Its dual mandate was to reduce poverty and conserve the environment in the HKH region. Although the Centre has travelled far, it has a long way to go to accomplish its mission, he reflected. Despite the best efforts of governments of the member countries, the mountains remain home to immense hardship, poverty, and social and physical vulnerability. The major challenges faced by policy makers, professionals, and development practitioners in the region are: to improve the quality of life in the mountains and conserve the natural resources and the environment. Mr. Campbell emphasised the need for innovative policies, options, suitable technologies, and supportive institutions. Mountains are different from the plains and require different approaches because of such factors as mountain fragility, vulnerability, and ethno-cultural diversity. Strategies and policies must respond to the needs, priorities, problems, and potentials of mountain communities. He hoped that the intellectual contributions of the participants during the workshop would provide innovative ideas and solutions in dealing effectively with mountain issues and foster regional cooperation.

Ms. Ingrid Schwoerer, Programme Manager, the German Technical Cooperation (GTZ), Nepal, thanked ICIMOD for organising the workshop. GTZ and the Federal Ministry for Economic Cooperation and Development (BMZ) Germany are keen to see such platform events for sharing and discussing innovative policy and institutional instruments for sustainable mountain development, she said. She hoped that the workshop would contribute to shaping mountain policies and enhancing the role of mountain communities in the decision-making processes.

Mr. SK. A.K. Motahar Hossain, Secretary, Ministry of Chittagong Hill Tract Affairs, Bangladesh, and ICIMOD board member, was pleased to see high-level representatives from the regional member countries, and eminent scholars and professionals from the region and abroad at this workshop. This is testimony to the significance of ICIMOD's role as a mountain research and development centre, he said. With such level of support, he added, ICIMOD can enhance its role and relevance in the coming years. Mr. Hossain highlighted that mountain problems transcend national boundaries and therefore need regional collaboration to address. Bangladesh in particular suffers from any adverse effects of conditions and policies on the upper Himalayas. He emphasised the need to develop innovative policies and institutional mechanisms for conserving the mountain environment and ecosystem. He proposed that ICIMOD carry out studies and pilot, test, and disseminate new ideas and options relevant to the member countries.

“We need to know what works, what does not work, what kind of policy, strategy, and model need to be put in place, and what kind of institutions and support mechanisms need to be developed. ICIMOD, being a mountain learning and knowledge centre, can help and guide us with the right information, knowledge, and understanding.”

Mr. Madhav Karki, Deputy Director General of ICIMOD, provided a brief background of the workshop: its purposes, objectives, structure, and framework. ICIMOD's past work provided integrated and innovative solutions to the variety of problems faced by mountain people. It is increasingly realised that any solution aimed at solving mountain people's problems would neither be effective nor sustainable unless supported by favourable policies and enabling institutions. ICIMOD, with support from its regional and international partners, has strengthened efforts in policy work since 2003, he said. Efforts are being made to integrate policy components into all six of its integrated programmes. Partnership-based programmes and projects have been reoriented and managed accordingly. Special attention is being given to identifying policy issues, gaps, and weaknesses in the process of developing knowledge, information, approaches, and options to empower mountain communities and reduce physical, economic, and social vulnerability. Mr. Karki outlined the objective, theme, and structure of the workshop, indicating its participatory and multi-sectoral orientation. The workshop was expected to create a platform for facilitating and sharing lessons, experiences, and good practices gained through the work of member country governments in collaboration with ICIMOD. The aim was to develop a common understanding of the issues, priorities, and options for addressing emerging issues and challenges in the HKH region.

Summary of technical papers, presentations, and discussions

Plenary Session I: Mountain Development: the Need for Enabling Policies

Chair: Mr. Bir Singh Parsheera, Additional Secretary, Ministry of Environment and Forests, Government of India

Plenary Session I focused on setting the policy scene, providing the participants with a general overview of mountain policy issues and ICIMOD's role and experiences in supporting policy issues and improving the policy environment. Four keynote papers were read, illustrating different mountain development issues and issues of the environment and the role of policy and institutions.

Mr. J. Gabriel Campbell's presentation, 'Sustainable Mountain Development: Reflections on Supporting the Development of Inclusive and Pro-Environment Policies in the Himalayas' outlined ICIMOD's vision and mission and highlighted its experiences in support of developing mountain policies. He shared his personal reflections on the dynamics of the policy development processes. By emphasising policy-making as a national process, he explained the approach ICIMOD follows and the experiences gained, with examples from community forestry, the Himalayan honeybees and their role in pollination, rangeland management, shifting cultivation, regional cooperation on floods, and work related to ecotourism.

Mr. Mahesh Banskota's presentation, 'Policy and Institutional Reforms in the Context of the Hindu Kush–Himalayas: A Review of Experience in the Context of ICIMOD' explained the relationship between policies, institutions, and organisations. The evolution of policy can take place in two ways: top-down or bottom-up. Using this framework, he assessed ICIMOD's contribution to policy and institutional reforms in the HKH region, analysing the changing context of mountain policies and institutions and ICIMOD's past policy work. He enumerated as successes work in areas such as the application of geographic information systems (GIS), remote sensing (RS), and sloping agricultural land technologies (SALT), and indicated the areas in which ICIMOD could play an important role in promoting these technologies through awareness generation and technical backstopping. He suggested more in-depth studies and policy analysis to identify emerging policy and institutional issues.

Drawing from Indian experience, Mr. N.C. Saxena, an accomplished policy researcher and policy maker, presented the 'Policy Issues for Sustainable Natural Resource Management in the Indian Himalayas' with focus on participation, decentralisation, and regional cooperation. He analysed how Indian policies promoting devolution and participation in forest resource management have influenced the relationship between poor people and their access to natural resources and livelihoods. Policy-making processes and outcomes can be improved and he provides some options, and a mechanism for strengthening people's control over and access to resources for their livelihoods. ICIMOD in collaboration with national partners should pay more attention to key areas such as policy research, analysis, and pilot demonstration, he proposed. He emphasised inter-country and inter-state studies, cross-country comparisons, as well as sharing of knowledge and experience to promote decentralised resource management to benefit the people.

Recounting the experience of natural resource management in the Indian Himalayas, Ms. Reba Paul, with contribution from Mr. Quamrul Islam Siddique, presented their group paper on 'Integrated Water Resource Management in the Ganges, Brahmaputra, and Meghna River Basins in South Asia: Prospects and Challenges'. She examined the prospects and challenges for integrated water resource management in South Asia, discussing the Ganges, Brahmaputra, and Meghna (GBM) river systems and their natural and common features, and highlighting the growing demand for water for domestic, industrial, and environmental needs, and the possible consequences of water-related conflict and tensions in the region. Regional cooperation in the GBM river basins can facilitate integrated and efficient management of water resources for the mutual benefit of riparian countries of the region, her paper concluded.

Discussion

Responding to a question raised about whether increased forest cover in Northeast India was because of a change in ownership from common property to private property or because of the Supreme Court's ruling banning timber logging and leaving land fallow in the shifting cultivation system, Mr. Saxena noted how the timber logging ban has, in fact, created disincentives to forest conservation. The incentive of owning private property, however, proved a stronger force than a Supreme Court decision and has helped to increased forest

cover. On payment for environmental services (PES) for mountain farmers and forest users, Mr. Banskota cited Shivapuri watershed in Kathmandu Valley as the only example of a watershed with a PES policy in the context of Nepal. He emphasised the need for further research to understand complex policy and institutional issues in the context of PES. The experiences from other parts of the world such as Central and South-America could be useful. Concerns were raised about lasting impacts on the well-being of mountain people inspite technological developments. Besides technologies, sound policies and institutional support are essential to creating the desirable impacts. It was suggested that policy recommendations be rooted in facts and in-depth analysis. Many existing policies, for example, do not have a mountain perspective:

“There is a need to demonstrate what the cost of not having a mountain perspective is to the whole country and not just (to) mountains.”

Plenary Session II: Promoting Productive and Sustainable Community-Based Management of Vulnerable Mountain Natural Resources

Chair: Mr. Damodar Parajuli, Acting Secretary, Ministry of Forest and Soil Conservation, Government of Nepal

The second plenary session attempted to understand the critical issues in promoting productive and sustainable natural resource management to promote community-based management of natural resources, especially forest resources. Seven papers were presented in this session.

Mr. Madhav Karki began the session with a presentation of ‘Issues, Options, Challenges, and Opportunities in Promoting Community-based Natural Resource Management in the Hindu Kush-Himalayan Region’. His paper provided an overview of the status of natural resources in the HKH region, analysed critical issues in community-based natural resource management such as persistent poverty, unclear property rights, dominance of technological and bureaucratic solutions, and ambiguous and unimplemented policies and legislation. Sustainable mountain development and management of natural resources required not only the active and sustained participation of local people who depend on these resources, but also enabling and dynamic policies with improved access rights, and good technical support to facilitate wise management of resources by primary users, he concluded. In developing policies and strategies it is necessary to pursue a people-centred and livelihood-focused model, he added. Under this framework, governments, NGOs, and CBOs should work together to decentralise decision-making and ensure devolution of authority to local communities by strengthening effective community-based institutions. He suggested supporting the accelerated move from mere protection to active participatory management and from subsistence to equitable commercial management of natural resources such as non-timber forest products. Positive action in favour of disadvantaged groups to address second generation issues such as governance, markets, social and gender inclusion and socio-economic empowerment is also needed.

Ms. Yan Zhaoli discussed 'High Mountain Rangelands in the Hindu Kush-Himalayas: Appeal for Proper Recognition and Legislation', where she highlighted critical issues faced by pastoralists in rangeland management in the region. These issues include uncertain land tenure, disputes over boundaries, and lack of coordination among stakeholders. She described ICIMOD and partners efforts to facilitate rangeland co-management in the HKH region, highlighting the necessity for creating an enabling legal environment and institutional arrangements to support collaborative efforts. The co-management approach might be the right option to bring key stakeholders together to jointly manage critical rangeland resources, she concluded.

Mr. Hans Beukeboom's presentation, 'Enhancing Livelihoods through Community-based Technologies and Approaches: Experiences from Bhutan, India, and Nepal' highlighted the importance of forest-based enterprises in improving the livelihoods of local people based on experiences in Bhutan, India, and Nepal. Illustrating selected technical and institutional innovations introduced by natural resource management projects in these countries, Mr. Beukeboom argued for an opportunity to enhance rural livelihoods, achieve the millennium development goals (MDGs), empower women, and improve local economies while conserving the natural resource base through value addition and commercial use of forest resources.

Drawing on the joint learning from some GTZ projects in the three countries, Mr. Jochen Statz's presentation focused on 'Sustainable Institutions and Resource Governance in Managing Renewable Natural Resource...'. The paper highlighted the experience of building local institutions to promote community-based natural resource management and proposed the creation of conditions for robust local institutions to promote community-based natural resource management.

The last two papers for the session discussed the application of models such as participatory 3-dimensional modelling (P3DM) and decision support systems (DSS) in natural resource management. Mr. Dhruvad Choudhury's presentation, 'Participatory 3-Dimensional Modelling: A Pivotal Tool for Sustained Community Engagement and Empowerment in Mountain Natural Resource Management' highlighted the potential of P3DM to address conflicts in participatory resource use by reconciling competing interests in a mutually acceptable way and engaging communities in participatory resource planning and management based on a case study from Meghalaya, India. He recommended the wider application of P3DM for participatory land-use planning and natural resource management.

Mr. Samjwal Bajracharya gave a presentation on 'Developing Decision Support Systems (DSS) for Protected Area Management and Policy Planning', illustrating the potential for applying DSS to improving protected area management.

Discussion

Discussions emphasised the need to enlist stakeholders' participation and use reliable data and information, enabling policies, and favourable institutional arrangements. Questions

were raised about reconciling contradictions and overlaps among sectoral policies and establishing coordination among ministries and agencies of the government to promote sustainable natural resource management. The discussions emphasised sharing research-based information and documenting the process of rangeland co-management experiences in China, community forestry experiences in Nepal, applying the P3D-modelling experiences in Northeast India, and targeted dissemination of information to other countries with similar conditions and problems.

Session III: Promoting Increased Regional and Local Conservation of Mountain Biological and Cultural Heritage

Chair: Ms Linxiu Zhang, Centre for Chinese Agricultural Policy, Chinese Academy of Sciences (CAS), Beijing, China

Session III focused on sharing good practices in regional biodiversity conservation and mountain-specific cultural heritage. Four papers covered the different dimensions of increased regional and local conservation of biological resources in the HKH region.

Mr. Eklabya Sharma's presentation, 'Lessons and Prospects for Increased Regional Cooperation on Conservation of Biological Diversity and Cultural Heritage: An Overview of the Hindu Kush-Himalayas,' highlighted the importance of transboundary biodiversity conservation following a landscape approach. He discussed the need to adopt efficient management principles such as participatory forest management, rangeland co-management, and enterprise-linked biodiversity conservation. He elaborated on different aspects of the 'regional cooperation framework' for transboundary conservation in the Kangchenjunga landscape being promoted by ICIMOD. Among the benefits that can be derived from regional cooperation in biodiversity conservation are: participation of local communities within the landscape, ecological sustainability, and landscape-level management of biologically diverse resources.

Mr. Nakul Chettri's presentation, 'Species to Landscape: A Paradigm Shift in Biodiversity Conservation through People's Participation and Policy Reform' elaborated on important research findings of the transboundary biodiversity conservation project in the Kangchenjunga landscape. There are strong linkages between research and policy issues and instruments, specifically in the context of national policies and global conservation goals and covenants. His paper described the planning process for drafting a policy framework for regional cooperation in the implementation of the Convention on Biological Diversity (CBD) between Bhutan, India, and Nepal.

Drawing upon experiences from protected area (PA) management systems, Mr. Gernot Brodnig, Policy Advisor on Natural Resources of UNDP Bangkok, in his presentation on 'Mountain Protected Areas: A Policy Perspective,' illustrated the policy dimensions from the perspective of an international development agency. Providing a brief overview of the status and challenges of managing mountain biodiversity and protected areas, he reviewed and assessed some of the policy issues and dimensions, such as policy processes, using examples from UNDP's mountain biodiversity portfolio.

Ms. Elisabeth Kerkhoff, in her presentation, 'How Can Policy Support Rotational Agroforestry as a Culturally Acceptable Good Practice for Biodiversity Conservation?', shared the research findings of ICIMOD's shifting cultivation project and its links with policy dialogue. She described how research on shifting cultivation in the Eastern Himalayas has led to policy dialogue and advocacy, which is influencing and changing the thinking and attitudes of policy makers towards this traditional practice.

Discussion

A comment was raised concerning whether or not the private partnership approach highlighted in one of the papers contradicted the community-based approach stressed in another paper. Questions were asked about whether depletion of nutrients and loss of topsoil in shifting cultivation plots had been studied, and the relationship between biodiversity quality and tenure, and the impact of the involvement of industries in forestry in the context of biodiversity conservation. Suggestions were made about expanding transboundary work in the eastern Himalayas to the western Himalayas with suitable adaptation, as well as about the need to set up demonstration pilots for incentive-based conservation.

Plenary Session IV: Promoting Improved and Diversified Incomes for Vulnerable Rural and Marginalised Mountain People

Chair: Mr. Masood A. Rana, Commissioner Special Crops and Joint Secretary, Ministry of Food, Agriculture and Livestock, Government of Pakistan

Session IV focused on sharing experiences, good practices, and options available for promoting diversified income generation and reduced economic and social vulnerabilities to benefit mountain communities. Five papers were presented during this session.

Mr. Kamal Banskota's presentation, 'Enhancing Economic Opportunities for the Mountain Poor', provided a detailed account of how ICIMOD through its partners has developed, piloted, and mainstreamed income-generating and drudgery-reducing technologies and practices. His presentation began with a brief discussion on the mountain condition, characterised by absence of conditions historically associated with enhanced economic performance all over the world. He described the experiences and impacts of two important projects: Himalayan honeybees, and 'Women, Energy and Water,' on enhancing livelihood options and environmental sustainability in mountain rural areas. The honeybee programme had increased the incomes of beekeepers and household earnings by an average of US\$ 85 per annum, while the women and energy project had reduced women's drudgery and freed up a considerable part of their time to explore and increase their livelihood options.

Mr. Farooq Ahmad of ICIMOD's beekeeping project provided a detailed account of conservation-oriented apiculture for promoting sustainable management of indigenous honeybees in mountain areas of the HKH region. His presentation, 'Honeybees in the Himalayas: Linking Research and Livelihoods to Policy' enumerated the multiple benefits, among them, improved livelihoods, biological conservation, and pollination services from honeybees. He discussed issues related to beekeeping development and managed

pollination and proposed possible policy measures, especially in the international market to lift the exclusion of the Himalayan honeybees from honeybee products accepted in the European market.

Mr. R B S Rawat, in his presentation on 'Poverty Reduction through Medicinal and Aromatic Plant-based Enterprise Development and Private Sector Collaboration,' highlighted expanding livelihood opportunities and biodiversity conservation through community-based conservation and enterprise development, based on the Medicinal and Aromatic Plants Project. He described how ICIMOD, with its partners, has developed and promoted viable options, practical methods, and simple technologies to provide increased benefits for poor and marginalised people while ensuring optimal conservation of the diversity of medicinal plants.

Mr. Bikash Sharma, in his presentation on 'Women Focused Energy and Water Interventions for Poverty Reduction in Mountain Areas', illustrated how a pilot project implemented in Bhutan, India, and Nepal, has made a difference in the lives of women pastoralists, their families, and communities. Highlighting experiences from the project, he argued for ensuring easy access to water and energy as instrumental in alleviating poverty and promoting sustainable mountain development. He believed that it required a drastic change in existing approaches as well as fundamental readjustments to public policies to integrate women's roles and needs into the decision-making process at the micro, meso, and macro levels.

Ms. Linxiu Zhang, in her presentation on 'Investing in Rural China: Tracking China's Commitment to Poverty Alleviation,' provided a detailed background on economic growth and poverty reduction in China. The Chinese economy has grown over the last two decades and has rapidly decreased poverty in China. She analysed the factors contributing to this remarkable growth: the development of markets; liberalisation of trade; improved basic infrastructure such as roads, irrigation, electricity, education; off-farm employment opportunities; and linking rural areas to fast-growing urban and suburban areas. The government must invest heavily in rural infrastructure and human resource development and special attention should be given to poor, mountainous, and minority areas, she concluded.

Discussion

Questions asked during this session related mainly to the ways in which to increase the share of mountain farmers in the growth pie and reduce the influence of middlemen and intermediaries in the market chain. ICIMOD has made efforts to understand and minimise hidden transaction costs in the marketing of mountain products and has been assessing actual returns to different groups from the commodity chain's total gain. According to its findings, middlemen are taking up to 55% of market margins in some cases, but this includes the cost of functions and services they provide. Other hidden costs have not been accounted for and hence, we need to do a critical breakdown to estimate exact returns to different members of the chain. Suggestions were made to conduct in-depth studies in order to develop practical measures to protect poor communities from price shocks (such as increased prices of agricultural commodities and market fluctuations in natural products). Questions were asked

whether agricultural modernisation, such as use of inorganic pesticides and insecticides, have adverse impacts on beekeeping, as well as whether overemphasis on medicinal and aromatic plants for income generation would lead to overexploitation of these resources. It was asked whether the poverty data in China were segregated by gender and ethnicity. The response was that there are no available disaggregated data on these at present.

Plenary Session V: Promoting Decreased Physical Vulnerability within Watersheds and Regional River Basins

Chair: Md. Abdul Aziz ndc, Member, Planning Commission, Government of Bangladesh

Session V focused on promoting decreased physical vulnerabilities within watersheds and river basins. Four papers were presented in this session.

Mr. Mats Eriksson's paper, 'Integrated Water Resources and Disaster Management', highlighted the importance of integrated water resource management in addressing conflict related to water use and management in the mountains. He emphasised that although water is crucial for life, it also creates hazards, therefore, water can be dealt with both as a hazard as well as a service. From this perspective, there is need for holistic planning of strategies for and stakeholder participation in the management of water resources. He pointed to ICIMOD's work in the Regional Flood Project which, supported by the Lhasa Declaration, is one of the efforts to promote integrated water resource management in the HKH region.

Mr. Xu Jianchu, in his presentation on 'Rewarding Environmental Services to Mountain Ecosystems; Where are We and Where to Go (from Here)?' explained the concept of payment for environmental services (PES). Hazards and services are mutually linked in a double feedback system, he explained. He proposed key steps and methods for assessing and identifying environmental services and preparing a framework for developing a mechanism for PES, using the example of Shivapuri Watershed Conservation Area in which IUCN and ICIMOD had jointly conducted a study on the feasibility of PES. PES can be a means to improve management of water resources in the HKH region, he concluded.

Mr. Pradeep Mool presented 'Mapping of Glacial Lakes and Glacial Lake Outburst Floods in the Himalayas', providing a brief overview of climatic variations in the HKH region over the past few years. Drawing on examples from the Indian Himalayas, Bhutan, China, and Nepal, he explained how unprecedented warming has led to widespread glacial retreat. He warned that current deglaciation might lead to major shortages in water supply. In addition, rapid increases in lake water and weak moraine dams can lead to occasional glacial lake outburst floods (GLOFs), with serious consequences on the lives and livelihoods of people living downstream. He described the work carried out by ICIMOD preparing a database on glacial retreat and glacial lakes in the HKH region, and classifying glaciers and glacial lake outburst floods into different GLOF categories. He stressed the need for policy support for sound disaster preparedness and community-awareness-raising campaigns.

Mr. Sanjeev Bhuchar, in his presentation on 'Emerging Options in Watershed Management: Lessons Learned in PARDYP' described the key findings and achievements of ICIMOD's work under the People and Resource Dynamics in Mountain Watersheds Project (PARDYP). Water scarcity was found to be more critical than flooding in the study watersheds. Other important issues included soil erosion, degradation of common lands, soil fertility loss, and nutrient leaching. He provided examples of how low-cost technologies promoted by PARDYP and implemented by farmers in the PARDYP project sites were improving soil and water conservation. Appropriate policies and institutional support were essential for wider adoption of suitable technologies, he concluded.

Ms. Lin Zhen, in her presentation on 'Land-use Dynamics and Policy Implications: Experiences from Mountain Watersheds of West China, began by highlighting current problems faced by Jinghe Watershed in China. While at the macro level in China land use patterns were stable, at the micro level changes were taking place in land use over time. She described policies on land use which have been implemented by the government between 1950 and year 2000 and examined how they influence land use patterns at micro levels. Local people prefer to grow food crops rather than develop nearby forests and grassland because of their concern for food security. She suggested the need for a comprehensive natural resource conservation strategy, one based on a framework integrating resource conservation into policy making, institutional reforms, and local participation, as well as the need to promote indigenous technology for resource conservation and management, and population planning.

Discussion

Recognising the need for regional cooperation in integrated water resource management and disaster risk reduction, discussions centred on how to promote regional cooperation. ICIMOD could take on a proactive role by using regional cooperation to promote the concepts of integrated water resource management and disaster management. Concerns were raised about overlooking the efficiency and economic issues of water, as water is often misused and also monopolised in the form of groundwater by rich and powerful people. The participants noted that misuse of water needs to be stopped and rules, regulations, policies, and institutional arrangements put in place for groundwater management. One suggestion was that water be considered a human rights issue rather than purely as a commodity. Whether in a poor region like the HKH or elsewhere, payment for environmental services (PES) for water is seen as applicable and feasible. Both positive and negative aspects such as drinking water and soil erosion should be considered in arrangements for PES. The difficulty in estimating the value of environmental services because of the flow aspects was recognised. It was suggested that ICIMOD develop the capacity to estimate the true value of environmental services. The reasons behind the poor rate of adoption of simple soil and water conservation technologies introduced by PARDYP should also be studied, and how to promote their wide adoption explored.

Plenary Session VI: Promoting Greater Voice and Influence, Dignity, Security, and Social Equality for all Mountain Peoples

Chair: Mr S.K. Das, Additional Chief Secretary and Commissioner, Forest and Rural Development, Government of Uttarakhand, India

This session focused on various tools and approaches for raising voice for mountain communities to promote equitable and sustainable development. Five papers were presented addressing the topic.

Mr. Michael Kollmair, in his paper on 'Greater Voice for All Mountain People in the Himalayas,' introduced the concept of equity, empowerment, participation, and social inclusion in development and politics, particularly in the context of mountain areas. He argued that although there was a move towards democratisation throughout the Himalayan region, the necessity for equitable distribution of growth, welfare, and income was often overlooked. Drawing examples from the gender, caste, class, and ethnicity dimensions of inequality in different parts of the Himalayas region, he explained how ICIMOD and its partners had contributed to raising the voice of mountain communities to reduce inequality and create fair opportunities for 'levelling the playing field', and good governance measures to bring those who have historically been marginalised into mainstream socioeconomic and political life.

Mr. Nani Ram Subedi's presentation, 'People-centred Advocacy: A Central Tool for Improving Governance for Mountain People,' described advocacy's role in ensuring better governance for mountain people. He provided a brief overview of the concept of advocacy as a political and collective effort to bring about accountability and increase transparency in policy processes and development, elaborating on various approaches and tools used in people-centred advocacy and lessons learned from ICIMOD's work in this field.

Drawing from the experiences of ICIMOD's work on the state of indigenous peoples, Ms. Radhika Gupta presented 'Policy Priorities for Indigenous People of the Himalayas'. Generally, indigenous people have limited political representation and voice in decision-making as well as limited access to resources. Indigenous communities, specifically tribal and ethnic minorities, can provide the lens through which to view the situation of mountain people in many parts of the HKH: the overlap of cultural diversity and biological diversity, and the underlying causes of conflict. Strengthening tenurial and property rights and access to and sharing the benefits of biological resources can give people a voice, she summed up.

In his presentation on 'Information and Knowledge Support for Promoting Greater Voice and Influence of Mountain Peoples', Mr. Zbigniew Mikolajuk highlighted the challenge of effective communication among different stakeholders and how to deliver policy inputs to meet diverse needs. He explained the approaches and tools ICIMOD uses to 'strengthen two-way information exchange with and access to knowledge by different communities. He emphasised the need to create a supportive environment and tools for sharing knowledge and information with policy makers.

Geography plays a critical role in shaping the unique needs and challenges of mountain regions. In his presentation on 'Geospatial Tools and Methods for Informed Decision Making and Policy Training', Mr. Basanta Shrestha described the multiple applications of geospatial tools and methods such as information and communications technologies (ICT), geographical information system (GIS), and global positioning system (GPS) technologies in helping to understand mountain geography and ecosystems. Drawing on an example from Nepal, he described how the application of geospatial tools can be used to understand socioeconomic problems and public policy making.

Mr. Krishna P. Oli, in his paper on 'Access and Benefit Sharing (ABS) from Genetic Resources and Associated Traditional Knowledge: Key Issues for Policy Makers,' reviewed relevant features of the Convention on Biological Diversity and highlighted the various international processes that have emerged out of it to promote access to and benefit sharing of genetic resources. His paper focused on ICIMOD's approach to developing access and benefit sharing processes, and explained why access to genetic resources and associated traditional knowledge is important in the HKH countries. He explained that the approach studies the state-of-the-art in the ABS process in the HKH region and highlights key issues in implementation. He focused on key issues important for equitable sharing of benefits in the use of plants, animals, microorganisms, and traditional knowledge resources as they can generate benefits through instruments such as bio-prospecting and equitable commercialisation of natural products.

Discussion

Discussions after this session covered questions related to whether access and benefit-sharing mechanisms for biological resources generate significant benefits for poor local communities and how to ensure their participation in the policy formulation and development processes when they are economically and socially marginalised. The participants recommended that ICIMOD support the creation of an enabling policy environment for improved access to resources and for building capacities of poor and marginalised groups.

Plenary Session VII: Policy Processes and Challenges

Chair: Mr. Noor-ul-Haq, Secretary, Government of the North West Frontier Province, Peshawar, Pakistan

This session was devoted to understanding the policy-making process in the regional member countries and the role of different actors and factors involved in different stages of the process. Six papers were presented during the session.

Mr. Md. Abdul Aziz, member, Planning Commission, Government of Bangladesh, presented 'The Policy-making Process in Bangladesh: Past Experiences and Present Trends.' He explained the key factors influencing the policy-making process in Bangladesh, drawing examples from the country's education policy. The demand for improved education and education policies was the main driver of policy reforms in Bangladesh. Donor influence in policy making had declined since the 1990s because of decreasing financial assistance, and strengthening political leadership in a democratic setting was taking an active role

in the policy-making processes. The bureaucracy, because of its multi-sectoral knowledge, experience, and power, continues to play a significant role in policy-making. The media, civil society, relevant stakeholders, independent research institutes, and think-tanks now share and play a role in policy-making. Implementation of policy recommendations, however, remains weak due to frequent changes in policy decisions.

Mr. Kezang Jamtsho presented 'The Policy Development Process in Bhutan with Special Reference to Water Policy', where he provided an account of the availability of water resources in Bhutan, and hydropower generation's potential to contribute to the country's economic development. He described the water management scenario in the past, characterised by lack of proper coordination, inadequate policy, and an unclear legal framework. He discussed the Bhutanese government's initiative after 2001, when it formulated a national policy to ensure coordination among organisations to improve the management of water resources. He described the steps taken and processes adopted in formulating Bhutan's National Water Policy, including consultation and coordination mechanisms, and shared some of the lessons and experiences gained in the process.

Ms. Wang Meiping, in her presentation on 'Policy Development Process in China with Special Reference to Rangeland Policy' described changes in China's rangeland policy since 1949. Taking the example of Gansu province, she cited some of the policies and laws that influenced grassland management. The concept of sustainable development is not properly integrated and needs to be integrated into government and research policies under the present pastoral tenure policies, she urged.

Mr. Hakim Shah gave a presentation on 'Policy Implications for Water Resource Management in Pakistan', where he described the challenges faced by Pakistan in water resource management because of high temporal and spatial variations in the availability of water and the growing water needs from economic activities and livelihoods. He outlined the key issues facing the water sector, such as the absence of a holistic and integrated approach to water resource management, low water productivity, and the inadequate capacity of institutions in the water sector. To address these challenges, he recommended the development of a comprehensive and integrated water policy with adequate representation of relevant stakeholders as well as coordination among government agencies, civil society, and private organisations in the water policy formulation processes.

Mr. Golam Rasul presented 'ICIMOD's Strategy for Enhancing Policy Support for Sustainable Management and Use of Renewable Natural Resources in the Hindu Kush-Himalayan (HKH) Region.' He described the status of natural resources in the HKH region, highlighting the importance of natural resources in sustainable mountain development. Policy and institutional support play an important role in the management of natural resources. He presented the objective and scope of ICIMOD's strategy for enhancing policy support for natural resource management in the HKH region, describing ICIMOD's guiding principles for viable regional policy development, and its advocacy strategy as well as a strategic plan to support policy development for the sustainable management of natural resources.

Discussion

A stimulating discussion followed around the argument that good policy alone will not have the desired impacts: policy has to be supported by an enabling legislative framework, implementable action plans, and the participation and commitment of the government and other stakeholders. There is an increasing need for participation of key stakeholders in the policy development process to ensure ownership of the implementation process. Participants asked how ICIMOD could help the RMCs analyse existing policies and the difficulties faced in implementing them. It was felt that capacity building, effective monitoring, national commitment, and public participation were crucial in order to improve policy formulation and implementation processes. ICIMOD could contribute through knowledge management, information sharing, and regional networking.

Synthesis of Discussions

After the presentations of thematic papers, participants were divided into four working groups for focused group discussions to develop and distill new and innovative ideas and practices to facilitate improving policy formulation and implementation processes in the region and in the member countries. The groups examined approaches that could strengthen regional sharing and cooperation in developing policies to address transboundary issues; link good policies to reduce poverty, inequality, and vulnerability of mountain communities; and ensure active regional sharing of successes and failures. Participants were encouraged to share their knowledge, experiences, and good practices in policy and institutional innovations. Each group selected a leader to facilitate discussions. Group findings and recommendations were presented for discussion in a plenary. Mr. Gabriel Campbell chaired the presentation and reflection session.

Reflections and Recommendations

After presentation of the outputs of focus group discussion, the participants were asked to share their thoughts and perceptions of ICIMOD's role and how this role could be strengthened. Most of the participants found the workshop useful and an 'eye opener' on mountain-specific issues. They considered ICIMOD a 'think-tank' and a model for integrated mountain development. They felt the need to strengthen the link between ICIMOD's knowledge and information systems, and training and awareness raising of decision makers, in order to develop and reform pro-mountain development policies. ICIMOD can play an important role in facilitating policy processes through generation of data, information, knowledge, and understanding required and by working closely with national partners, as was the case in preparing a the Water Policy for Bhutan. ICIMOD could contribute to the policy development process as an objective broker, providing a regional platform and facilitating cross-country learning. The participants regarded ICIMOD to be a neutral forum for sharing regional state-of-art, experiences, national information, regionally adaptive knowledge, mountain-specific technologies, and good practices. The RMC representatives believed that ICIMOD could improve its role in mainstreaming mountain issues in regional fora (e.g., in collaboration with SAARC) and in international fora (e.g., the UN). ICIMOD should have a collaborative framework for integrating learning into national development planning processes through advocacy and knowledge management.

Conclusion

The workshop identified key policy issues, approaches, and strategies to promote sustainable use and management of natural resources in the HKH region. It provided important guidelines for ICIMOD on how to plan policy research and development work in the field of natural resource management, developing effective collaboration between ICIMOD and its partners in the region. It also updated and shared knowledge and information provided by participants to update the status of, issues in, challenges to, and opportunities for managing mountain natural resources in a sustainable way. One of the key outputs of the workshop was the launching of a national policy working group linked informally to a regional policy working group to advise ICIMOD on policy work. The workshop recommendations will be useful for launching and strengthening policy-related networks and research groups. They can also facilitate the provision of a variety of platforms, including virtual ones, to actively share lessons and experiences that facilitate dialogue and discussions and analyse critical policy issues for promoting sustainable use and management of natural resources in the Himalayan region.