

The Mountain Perspective as an Emerging Element in the International Development Agenda

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Mountains occupy 24% of the global land surface area and are home to 12% of the world's population. Mountains have significant ecological, aesthetic, and socioeconomic importance not only for those living there but also for people living beyond.

Mountains and the evolution of an international development agenda

About 10% of the world's population depends directly on the use of mountain resources for their livelihoods and well-being, and an estimated 40% depends indirectly on them for water, hydroelectricity, timber, mineral resources, recreation, and flood control. Mountains are the earth's unique freshwater reservoirs. They store immense amounts of water and hold them to gradually release to support the lives downstream. The important

cooling and mitigating climatic services offered by the frozen ice of the mountains to the atmosphere have been taken as a given fact of nature. Despite their critical importance for the well-being of humanity, mountains receive little attention in the international development agenda.

The prevailing global concerns focus on economic growth, macroeconomic stability, trade liberalisation, privatisation, deregulation, and structural reform. These macro trends have left little room for local, geographical,



Trekkers
buying
local
Tamang
woven
products

Esther Kruk

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cultural, and social differentiation. As a result, many countries are left with pockets and huge areas of poverty. Mountains are typical regions where global trends in terms of trade, economic growth, and climate change have not considered the specific characteristics such as physical environment, economic structure, public and community institutions, social norms, and economic opportunities and constraints.

Structural adjustment policies in the 1980s, poverty reduction strategies starting in the 1990s, and the Millennium Development Goals (MDGs) have brought poverty to the top of the international development agenda. The policies deduced from these agendas have mostly led to country-wide national strategies without considering local characteristics and have failed to address location-specific needs of mountain communities. As a result, with the exception of some countries where some growth has been achieved, mountain regions in many parts of the world, including the Hindu Kush-Himalayan (HKH) region, lag behind in development.

Since the second half of the 20th century, there has been a growing interest in mountain development, with rising environmental awareness and concerns for the deterioration of the global environment including global warming, climatic change, biodiversity loss, and changes in livelihoods and economies, which seriously threaten the ability of mountain regions to provide the

goods and services upon which humanity depends. Realising the global importance of mountains, the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992, incorporated a specific chapter in Agenda 21, entitled '**Managing Fragile Ecosystems: Sustainable Mountain Development**', the plan for action endorsed by the heads of state of most of the world's nations.

In 1995, a global NGO consultation in Lima, Peru, brought together 110 participants from 40 countries. This meeting led to the establishment of **Mountain Forum** – a global network for mountain communities, environments, and sustainable development, whose secretariat is now housed at the International Centre for Integrated Mountain Development (ICIMOD).

Mountain issues began receiving high international, political, and scientific visibility only when the UN General Assembly declared 2002 as the **International Year of Mountains (IYM)**. The IYM ended officially with a Global Mountain Summit in Bishkek, Kyrgyzstan in November 2002, and the formulation of recommendations for concrete action towards sustainable mountain development, providing guidance to governments and others on how to improve the livelihoods of mountain people, protect mountain ecosystems, and use mountain resources more wisely. In these processes, mountains have gained importance and entered into the international development agenda.

These initiatives have remained too selective and specific and have hardly ever led to a shift in priorities of international funding institutions (IFIs), UN agencies, or bilateral donors. The global and macro visions have largely dominated the allocation of funds. Regional differentiation remained at a high level of aggregation, reducing investments in Asia and Latin America, and increasing the attention for Africa.

Globalisation calls for locally identified niches and adaptation to climate change and requires geographically differentiated approaches

Globalisation as an economic, trade, finance, and communication phenomenon is well-recognised and even those questioning it tend to agree that globalisation cannot be stopped. At the same time that it is happening another tendency is gaining importance. We might be economically globalised, but culturally we are becoming more and more local. There is a growing feeling of being world citizens at home not in a nation-state, but in a town, or in a valley. We value local products, appreciate an ecologically intact landscape, we have sympathies for local differences, we celebrate them! This refers also to the ethnic aspects and has led to excesses in areas where the state had completely imploded and where ethnic identification has been questioned and associated with scarce resources. Globalisation has created localisation. In this context, mountains have become a space for retreat, for recovery, and for identification.

Globalisation and climate change have brought other dimensions to the awareness of the scientist, and a growing number of citizens and politicians. The vision of melting glaciers and of mountains falling down because of receding permafrost has become a frightening vision. It questions the vision of 'mountains built for eternity' and the growing concern is for the sustainability of systems we have all taken for granted. This refers to the familiar panorama of snowcapped mountains, the wealth of biodiversity as a source of beauty and recovery, but also as a heritage for mankind. It refers also, and very realistically, to the availability of water, and electricity, and reaches the basic requirements and services we need for our survival. All of a sudden, mountains as a natural system with natural and human features are not anymore in a position to provide the services we have taken for granted.

The Hindu Kush-Himalayan region

The HKH region, stretching from Afghanistan in the west to Myanmar in the east, covers the mountain ranges from the Tibetan Plateau and other Himalayan mountain areas of China in the north, to the Indo-Gangetic Plains in the south. The region directly

sustains more than 150 million people, but the water basins count 1.5 billion inhabitants, and up to 3 billion people live from the food and energy produced by the Himalayan rivers. The region is also home to more than 100 ethnic groups and indigenous communities speaking as many languages and dialects. This remarkable socioeconomic and cultural diversity is matched by a high degree of environmental diversity, with huge variations in climate, soil, vegetation, and wildlife within the region.

Salient features and the challenge for the HKH region

Persistent poverty. Despite notable economic growth in some countries of the region, poverty and inequality remain persistent and ubiquitous, and the vulnerability and severity of poverty is much higher in mountain areas. Poverty combined with limited employment and economic opportunities forces out-migration of young people. The extent of adult male migration in some countries went up to 40%. High migration rates have led to a significant change in gender roles in the region, with already overburdened women being forced to take up added roles for both farm and household activities.

Degradation of resources and ecosystem services. Natural resources and accompanying environmental and ecosystem services are increasingly degraded. This has exacerbated environmental hazards such as landslides, floods, and glacial lake outburst floods (GLOFs), among others. Deterioration of environmental quality has severely affected the regional and global environment, including climate. In China, for example, precipitation has decreased by 10% in the last 50 years. Similarly, glacier area has decreased by 25% in the last 200 years. A recent study shows that China's Qinghai-Tibetan Plateau glaciers are shrinking by 7% per annum because of global warming.

Shrinking water storehouse. The Himalayas are considered as a 'third pole', as here lies the greatest concentration of snow and ice outside of the pole. However, the storehouse of fresh water has been degrading over the years due to global warming and climate change.

Climate change. The Himalayan region including the Tibetan Plateau has shown consistent trends in overall warming during the past 100 years. With rising temperatures, areas covered by permafrost and glaciers are decreasing in much of the region. In many areas a greater proportion of total precipitation appears to be falling. As a result, snowmelt begins earlier and winters are shorter. This affects river regimes, natural hazards, water supply, and peoples' livelihoods. Many

Himalayan glaciers are retreating faster than the world average and are thinning by 0.3-1 m/year.

Emerging issues and ICIMOD's position

Based on the accumulated experience of 23 years, and considering the changing institutional environment of the member countries – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – ICIMOD is refocusing its priorities to maximise its contributions to climate change adaptation, and building resilience of the people of the Hindu Kush-Himalayas.

ICIMOD aims to strengthen its role as a regional knowledge broker and clearing house and as a learning and enabling centre. It intends to contribute significantly to monitoring water resources – closing some of the important knowledge gaps signaled by the IPCC (2007) – and to reducing climate-induced risks. A second strategic orientation is sustainable provision of ecosystem services. Finally, ICIMOD wants to support and document examples of adaptation of livelihoods of marginal mountain communities, reducing their poverty.

The enormous dimensions of the tasks and challenges ahead require ICIMOD to choose a strategy focusing on areas of its core competencies, working with and through strategic national partners and customising international state-of-the-art through collaboration with international resource centres. Growing regional ownership of the process and international solidarity will be the prerequisites for success.

We are convinced that as an inter-governmental, non-political and technical institution, ICIMOD is in a privileged position to make a substantial contribution. Nevertheless a sustainable adaptation requires globally-agreed mitigation measures and enhanced regional and national adaptation strategies.

In particular, ICIMOD, with its partners, sees its challenges in the following.

Strengthening regional cooperation. As the HKH region gradually integrates into the global markets, institutions and policies and their environments are being affected by the ecological and societal processes of global change. No country alone can address this effectively; it needs concerted efforts from all countries of the region and the globe.

Creating a mountain knowledge base. There is little data and information at a regional scale on climate, hydrology, and meteorology, and this has hindered proper planning and decision-making. Because of this dearth, the recent IPCC report (2007) categorises the HKH region as a 'white spot' on the global climatic map. Given the global ecological significance of the region and the importance of scientific data and information,

it is essential to create regional databases on different aspects of mountain regions as well as strengthen regional cooperation for the exchange of data and knowledge to reduce scientific uncertainty about the region and facilitate proper planning and decision-making by the RMCs and international organisations.

Disseminating successful results in sustainable mountain development. In order to promote sustainable mountain development, it is vital to share and disseminate successful policies, programmes, and national strategies among the RMCs.

Disaster risk reduction and flood forecasting. Floods are the main natural disasters aggravating poverty in the Himalayas. Technical advances in flood forecasting and management offer an opportunity for regional cooperation in disaster management. Transboundary disaster risk management should become an important regional and international political agenda. Preparedness for disaster through disaster management is the best solution.

Strengthening ecosystem services. All the countries of the region have now recognised the mountain region's fragility and the need for concerted action to minimise risks and effects. This recognition, however, needs to be reflected in policies and programmes that provide economic incentives to mountain communities for their environmental services, for being stewards of the mountain ecosystems and environmental resources. ICIMOD wants to concentrate on the following ecosystem services: integrated watershed management, the sustainable management of rangelands, and the conservation and management of biodiversity.

Globalisation and climate change put an increased stress on mountain communities. The adaptation of livelihood systems through the promotion of high-value mountain niche products and services rendered by the vulnerable, particularly women and the marginalised, is a visible contribution to the reduction of poverty among mountain communities of the HKH region.

Facilitation of international cooperation. International communities including development agencies, research organisations, policy makers, and private and public sectors need to be informed to advance regional and international cooperation to address the ecological, socioeconomic, and cultural implications of climate change in the Himalayas.

Reference

IPCC (2007) *Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge (UK): Intergovernmental Panel on Climate Change and Cambridge University Press