

The Mountain Research Initiative (MRI): MRI Newsletter Number 1, 2003

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CONDESAN Complements Mountain Activities With an “Andean Vision” of Water



The Consortium for Sustainable Development of the Andean Ecoregion (CONDESAN) is an association of public and private sector partners with a common focus, who take advantage of synergies to carry out and facilitate concerted action in research, training, development, and policy initiatives. Such action is designed to coordinate sustainable socioeconomic advances that promote the equity and well being of the peoples of the Andean ecoregion. CONDESAN was conceived in 1992 as an organization to promote cooperation among non-governmental organizations (NGOs), universities, international research institutions, and private companies; work for preservation of natural resources, agrofood chains, and conservation of biodiversity; engage in policy advocacy; and facilitate exchange of information and communication (InfoAndina).

CONDESAN and IYM2002

During the International Year of Mountains (IYM2002), CONDESAN actively participated in national and

regional events and cooperated in the organization and dissemination of agendas, results, and principal recommendations through its InfoAndina network, the Latin American Node of the Mountain Forum.

In its role as a promoter of regional conservation policies and sustainable management of Andean natural resources, CONDESAN–InfoAndina organized an electronic forum, in May and June 2002, emphasizing sustainable development of Andean communities associated with decentralization and local management processes. The electronic forum, “Rural Municipalities and Sustainable Local Management of Mountain Regions,” was cosponsored by the Swiss Agency for Development and Cooperation (SDC), Sustainable Agriculture and Natural Resource Management (SANREM)–Andes, and the Inter-ministerial Commission on Employment and Wellbeing of Ecuador, moderated by Hernán Valencia, Sustainable Development and Local Governments (DSGL)–Quito. In all, 310 representatives of local governments, NGOs, and the educational

sector participated, collecting 52 case studies and commentaries concerned with natural resource management, solid residues, making the environment healthy, development of high Andean rural industry, microenterprises, and participatory planning of territorial management (see www.condesan.org).

CONDESAN and the Bishkek Global Mountain Summit (4 February 2002–22 April 2002)

The United Nations Development Program commissioned the Mountain Forum (www.mtnforum.org), through its regional nodes in Asia, Africa, Europe, North America, and the Global Node, to organize 10 electronic consultations designed to enrich the thematic documents of the Bishkek Mountain Platform presented at the Bishkek Global Mountain Summit in Bishkek, Kyrgyzstan, in November 2002 (IYM2002; www.mtnforum.org/bgms/).

The Latin American Node of the Mountain Forum, operated by CONDESAN–InfoAndina since 1997, distributed summaries of the thematic articles in English and Spanish to its Latin American audience, soliciting case studies and commentaries that formed part of the Bishkek Mountain Platform. InfoAndina organized a competition for selection of case studies on realities in Latin America, collecting representative cases on all 10 themes (www.condesan.org/infoandina/foros/bishkek/).

Supporting global initiatives for conservation of mountain water resources, CONDESAN–InfoAndina led preparatory electronic consultations on the themes of “Water, natural resources, hazards, desertification and the implications of climate change,” organized in collaboration with the nodes of the Mountain Forum (www.mtnforum.org), under the auspices of the United Nations Environmental Program and SDC.

CONDESAN mandate: research for development of the Andean ecoregion

CONDESAN supports multidisciplinary team research on trans-Andean themes. Some priority themes are: plans for promoting private investment, production systems, the high Andean *páramo*, soil biology, watershed management, and implementation of graduate studies related to systems of production and natural resource management. CONDESAN’s philosophy is based on:

- Application of research to improve rural development processes.
- Permanent learning and evolution based on successful results.
- Input of work in support of local priorities and ongoing processes.
- Strengthening local capacity.
- Promoting strategic alliances between actors to generate synergies.
- Development and validation of instruments, methodologies, and policies based on fieldwork.

The Coordination Unit brings research supply closer to demand generated by development organizations; supports dissemination of advances, lessons learned and instruments; and acts as a catalyst in making technical assistance and information available to different partners in the Andean countries. CONDESAN projects are carried out at pilot sites in watersheds of the Andean ecosystem. Research results are shared among pilot sites in projects with similar interests in mountain zones.

Proposal for Action from the Andean Water Vision

How can the vision of indigenous farming communities in the Andes be respected, to strengthen their identity, assure their rights and conserve their natural resources?

<http://www.condesan.org/memoria/agua/VisionAgua.htm>

Water as Common Patrimony

From the vision and experience of the Andean world, any plan of action with respect to water must be oriented to protect and conserve, guaranteeing its availability with fairness to assure the existence of all living beings on the planet. For that reason one must assure and protect water systems in their geographic setting as much as in their natural cycle, consensually agreeing to actions and mechanisms that maintain the integrity of the ecosystems, animal and vegetal species and the life of the communities with dignity and recreating their cultural identity.

Water as Public Domain

This principle implies the definition of water in the Constitutions as public property under the control of society as a whole. At the same time, mechanisms for fair use must be formulated that respond to the needs of nature and of the human communities, prioritizing the rights to subsistence, food sovereignty and local development.

Water as a Common Good not as Merchandise

Possession of water by the most dynamic sectors of economy is to the impairment of the majority of users and of nature itself. Therefore, nobody has the right to appropriate control of water for profit in detriment of the rest of the collectivity. Water is a vital resource that cannot be treated as a merchandise, reduced to commercial value and be submitted to the laws of the marketplace.

Revaluation of Andean Knowledge, Technologies and Organization

The knowledge of the Andean world, Andean technological and social systems of water management start from the principle of living together harmonically with Mother Earth, and are maintained in the collective property of water based on a legal and social system of their own.

Systems of Integrated and Participative Management

Systems of water management should be based on a concept of integrity, setting out from the territorial conception of watershed, of compatible uses and sustainability of the resource. Prioritization of water uses should be based on participative mechanisms that allow to guarantee conservation and fair access.

Participative Institutions and Social Control

Legislative norms and water management should guarantee the availability of water in terms of volume and quality, to assure the sustainability and needs of the ecosystems and communities. For that reason, governing systems in watersheds as well as the national level, should be based on existing local water authorities such as indigenous and peasant communities, associations of people who have water rights and the rest of water uses.

Appropriate Economic Policies

All policy of public investment should consider the priorities of resource conservation, sustainable management, and local and regional development based on indigenous and peasant uses and customs.

CONDESAN and the Andean vision of water

In the Andes, water is the most important component in production; it is also a source of coopera-

tion and integration and a fundamental element of cultural identity. Besides marginalizing the perspective of indigenous and peasant populations in the Andes and the rest of the world, the world vision of

water approved at the Second World Water Forum has put their survival at risk. Four proposals in this vision are of great concern to Andean populations:

- Reducing the amount of water in the agricultural sector by generalizing transgenic foods;
- Reallocating water from uses of less value (family agriculture) to uses of greater value (large-scale agriculture, industry, and human consumption);
- Relying on private investment to resolve water problems;
- Charging for the total cost of water.

In view of this situation, CONDESAN, together with the Commission for the Integral Management of Water in Bolivia, is implementing a comprehensive process of reflection and articulation for an "Andean vision," with special emphasis on the indigenous and peasant perspective. These topics were presented at the Third World Water Forum in Kyoto (March 2003) and at other international forums.

Advancement of the "Andean Vision" and the proposals generated are based on systematization of the state of the art in each Andean country and on case studies as a basis for regional systematization, articulated along with visions held by other indigenous peasants of the world. This document will try to advance policies of recognition and protection of indigenous water rights and culture worldwide as well as within the Andean governments themselves.

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The Mountain Research Initiative (MRI): MRI Newsletter Number 1, 2003



This newsletter, MRI's first, represents a new feature of MRD's MountainPlatform section. The MRI newsletter will appear biannually in this venue and is also available from the MRI web site (www.mri.unibe.ch) in pdf format.

A global multidisciplinary research initiative

To address the many important and complex issues of global change in mountain regions, a multidisciplinary initiative, "Global Change and Mountain Regions: The Mountain Research Initiative" (MRI), was launched in July 2001. The ultimate objectives of MRI are:

- To develop strategies for detecting signals of global environmental change in mountain environments.
- To define the consequences of these changes for mountain regions as well as lowland areas dependent on mountain resources.
- To facilitate the development of sustainable resource management policies for mountain regions.

To achieve the above objectives, the MRI research strategy has been structured around the following 4 primary activities, each of which is divided into several specific tasks:

- Activity 1. Long-term monitoring.
- Activity 2. Integrated model-based studies.
- Activity 3. Process studies along altitudinal gradients.
- Activity 4. Sustainable land use and natural resource management.

The Executive Summary of the MRI Implementation Plan as well as additional information on MRI are available on the Internet (www.mri.unibe.ch).

Since the launching of the initiative, MRI has been building part-

nerships that will facilitate both inter- and transdisciplinary global change research in mountains. The Initiative has been formally endorsed by 4 core projects of the International Geosphere-Biosphere Programme (IGBP), the International Human Dimensions Programme on Global Environmental Change (IHDP), and the Global Terrestrial Observing System (GTOS). MRI is currently working with the IGBP Land Project transition team to identify an appropriate role for MRI scientific activities within the new IGBP configuration. In addition, MRI has joined the UN Food and Agriculture Organization's International Partnership for Sustainable Development in Mountain Regions and has recently become active in The World Conservation Union's (IUCN) Mountain Task Force Initiative. Last, closer linkages are currently being developed with the Global Observation Research Initiative in Alpine Environments (GLORIA) and the Global Mountain Biodiversity Assessment (GMBA).

During the first phase of MRI activities, when the focus is on process-based studies and modeling, the target audience is primarily the community of researchers working on global change issues in mountain regions. In the second phase of MRI, however, this knowledge will be used to define monitoring strategies for detecting and attributing signals of global change in mountain regions and particularly for defining strategies for the sustainable development of mountain regions. Clearly, the latter implies that the target audience must go beyond the scientific community. Thus, it will include policy makers, economic leaders, and the general public to integrate local knowledge and socioeconomic needs in the process.

The MRI office in Berne, Switzerland, is using the following methods and tools to foster collabo-

ration in the global mountain research community with respect to the mentioned foci of the Initiative:

- Survey of past and ongoing research on global change in mountain regions (review activity).
- Establishment of a global network of researchers working on MRI issues to foster communication among existing research projects (database activity).
- Initiation and coordination of research projects, that is, identifying gaps in current research and encouraging researchers to start new research projects to fill these gaps ("seeding" activity).
- Organization of meetings and workshops to facilitate discussion on the state of global change research in mountains (meeting activity).
- Development and maintenance of communication platforms, such as an e-mail list and a Web site (communication activity).
- Publication of reports (eg, from meetings) and a newsletter (extension activity).

Principal activities and projects

Global change research in UNESCO mountain Biosphere Reserves

During the opening ceremony of the Bishkek Mountain Summit, UNESCO's Director-General Koïchiro Matsuura described a new role for UNESCO's Biosphere Reserves with the announcement of a joint MRI-UNESCO project that focuses on implementing integrated global change research strategies in mountain Biosphere Reserves. By establishing a cooperative research program, both MRI and UNESCO will realize significant added value to their research efforts. MRI represents a network of global change researchers from a wide variety of disciplines, who are keenly interested in global

change research in mountain regions and who will benefit from working with the UNESCO infrastructure that links mountain Biosphere Reserves worldwide. In many cases, mountain Biosphere Reserves provide ideal natural global change laboratories with core-protected mountainous areas surrounded by lower-elevation buffer zones and transition areas that are more strongly influenced by human activities. Similarly, the UNESCO program will benefit from the accelerated level of global change science in the mountain Biosphere Reserves and the linkages to global change organizations such as IGBP, IHDP, GTOS, GMBA, and GLORIA.

The ultimate objective of this proposed collaboration is to provide an integrative research framework for regional interdisciplinary studies that address the causes and impacts of environmental and socioeconomic change in mountain Biosphere Reserves. Through such an integrated research framework, the critical mass of researchers from separate disciplines can be attained, which will be necessary to establish crosscutting linkages among MRI's 4 primary research activities.

State of knowledge overview

MRI is currently compiling a *State of Knowledge Overview* that portrays the status of global change research in mountain regions in a follow-up to the International Year of Mountains.

One of the primary aims of this compilation is to facilitate a synthetic understanding of the interactions among climate, land surface processes, and human activities, emphasizing mountain-specific environmental conditions. This book will present overviews of recent studies and anticipated future research directions from key researchers in physical and social sciences around the world. Research areas addressed in the book cover (a) paleoenvironmental reconstructions in support of monitoring, understanding, and predicting global change effects; (b) observational studies and analyses of indicators of global change; (c) process studies along altitudinal gradients and in headwater basins; (d) integrated model-based studies of environmental change; and (e) research on sustainable land use and resource management in mountains. The book will be published in summer 2003 in the Kluwer Series *Advances in Global Change Research*.

Millennium ecosystem assessment

In 2001, the UN launched the Millennium Assessment (MA), which aims to globally assess the condition of ecosystems, the linkages between drivers of change and ecosystem condition, and the implications for human well-being. It is anticipated that the MA will achieve global recognition and political impact similar to the Intergovernmental Panel on Climate Change. Chapter 27 of this compilation assesses how

changes in mountain ecosystems affect the provision of ecosystem services. GMBA and MRI are taking part in the Mountain Chapter of the MA in a coordinating role under the lead of Christian Körner, University of Basel. Additional details are available at: www.millenniumassessment.org.

European Geophysical Union (European Geophysical Society–American Geophysical Union–European Union of Geosciences) Joint Assembly

MRI is coconvening a session with IGBP Past Global Changes (PAGES) at the European Geophysical Society–American Geophysical Union–European Union of Geosciences Joint Assembly in Nice, France, in April 2003 (www.copernicus.org/EGS/EGS.html). The session will focus on high-resolution paleoenvironmental reconstructions from sensitive high-elevation sites and will bring together mountain researchers who work with a range of paleoenvironmental proxies, such as pollen, macrofossils, diatoms, lacustrine zoological indicators, alpine glacial records, dendrochronological records, and geomorphological expressions of past environmental change.

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