

Tackling Climate Change in Partnership

Jane Ross

Mountains host sensitive indicators of global climate change. As the world heats up, mountain glaciers - the source of water for many of the world's river systems and people - are melting at unprecedented rates, while rare plants and animals struggle to survive over ever diminishing areas, and mountain people, already among the world's most disadvantaged, face greater hardships.

We cannot reverse the effects of climate change. However, understanding how climate change affects mountains and working to mitigate its effects is vital for us all - wherever we live.

There are an array of debatable issues and predictions related to climate change. Nonetheless, it is a fact that extremes of climate are becoming more and more common in mountain areas. As global climate change threatens to disrupt mountain environments, life for mountain people in particular - already amongst the world's poorest and most vulnerable - may only get harder. Just as warming trends are forcing many species to migrate uphill in search of habitat, mountain people too may have to adapt to changes - or leave their homes, as traditional sources of food and fuel grow scarce. At the same time, mountains could become more dangerous as the melting of glaciers compromise water storage and melted permafrost increases the likelihood of hazards such as falling rocks, landslides, floods and avalanches. Many mountain people depend upon agriculture for their livelihoods, but climate change could have a significant adverse impact on farming. Irrigation could be affected, first by floods and then by drought, making survival harder for subsistence farmers as well as those who grow cash crops. Nearly all economic activities such as tourism would decline as mountain ecosystems changed irrevocably. One of the indirect consequences of global warming in mountain regions is the increasing risk of infectious diseases. Scientists have reported that the mosquitoes that carry malaria, dengue and yellow fever are spreading to higher altitudes as temperatures warm. Ticks are proliferating northwards and to higher altitudes, causing disease, and insect pests are predicted to spread causing damage to crops. With few resources to ward off infectious diseases, mountain people could be among global warming's greatest victims.

The implications of climate change for specific mountain ecosystems and regions are as yet unknown and under discussion. However, for the sake of mountain environments, mountain people and all of us who depend on mountains - for water, energy, food and medicine - it is vital that we study and monitor the biological, physical and environmental health of mountains so that we can better understand, manage and mitigate the effects of climate change.

Over the last few years, there has been increasing recognition by the international community of the need to rise to the challenge of climate change in high-altitude areas. For example, the last World Conservation Union's World Conservation Congress (WCC) (Bangkok, 17 - 25 November 2004) explored the effects of climate change on the world's mountain ecosystems. Experts attending the event warned that little was being done to monitor the state of glaciers in the Himalayas, which were melting due to global warming and thereby increasing the risk of major

floods. The WCC included a workshop on conservation and sustainable development in mountain areas and adopted several resolutions and recommendations directly relating to mountains. Since then, many organizations have been working towards these goals through advocacy, research, education and action on the ground.

- Around the world, the Mountain Research Initiative (MRI) is working at the interface between climate change and mountains. It conducts a scientific programme that detects signals of global environmental change in mountain environments, defines the consequences of global environmental change for mountain regions as well as lowland systems dependent on mountain resources, and informs sustainable land, water, and resource management for mountain regions at local to regional scales. Among its numerous activities, MRI produced the influential study 'Global Change and Mountain Regions - an overview of current knowledge', managed the recent EU-funded GLOCHAMORE (Global Change and Mountain Regions) project, which convened the international Open Science Conference, and produced the GLOCHAMORE Research Strategy. This is a significant step in furthering our understanding and knowledge of the causes and consequences of global change research, including climate change, and generating collaborative efforts to address the challenges at all levels.
- In the Himalayas, the Ev-K²-CNR Committee oversees the Ev-K²-CNR Project, which has become one of the main international cornerstones of high-altitude and remote-area scientific research in the world. It manages the Pyramid International Laboratory - Observatory at the base of the Nepali side of Mount Everest. This monitoring tool helps us better understand mountain ecosystems, their processes and interactions with the human component, and the effects of global changes at the local level.
- In Central Asia, the Regional Environmental Centre for Central Asia (CAREC) in Kazakhstan recently completed an exemplary project to further environmental awareness and education in the sub-region of climate change, through the production and dissemination of new educational resources (textbooks, posters and video) for secondary schools. There are now clear indications that this Kazakhstani experience is being replicated in other countries in the Central Asia region.
- In Africa, the International Development Research Centre (IDRC) and UK's Department for International Development (DFID) launched a multimillion dollar research programme that will help the poorest in the region cope with the increasing impact of climate change, which is already making them vulnerable to flooding, soil erosion, drought, and crop failure. The programme is expected to strengthen adaptation in a range of ways, such as assisting communities plan and take water conservation measures to make them less vulnerable to drought and improving agricultural production and food distribution practices to ensure secure food supplies during extremes of climate.

- In the European Alps, the annual symposium of the International Commission for the Protection of the Alps (CIPRA) (Bad Hindelang, Germany, 18 - 20 May 2006) focused on the growing threat to Alpine regions posed by natural hazards and the impact of climate change on Alpine tourism. A key outcome of the event was the adoption of the CIPRA Resolution on 'Climate Protection and Climate Change Adaptation Strategies'. This calls upon the European Union, the bodies of the Alpine Convention, the Alpine states and all governmental and non-governmental authorities to intensify their climate protection efforts and to draw up sustainable strategies for dealing with the growing repercussions of climate change.

All of these organizations are working individually and with partners at the local, national and regional level to create awareness, exchange information, generate knowledge and promote concrete action on the ground. However, there is even greater scope to work together in partnership to strengthen and consolidate efforts within and across regions. And that is the Mountain Partnership. 'We can do better and achieve more by working together than working alone' this is the core rationale behind the Mountain Partnership, a global alliance of countries and organizations committed to improving the lives of mountain people and protecting mountain environments around the world. As of today, a total of 142 members in five regions have joined the Mountain Partnership: 47 countries, 15 intergovernmental organizations and 80 major groups (civil society, NGOs and the private sector).

All of the above organizations are coincidentally members of the Mountain Partnership. Indeed work has recently begun between some of them to use their collective energies and commitment to focus on climate change issues within the framework of the Mountain Partnership. A special side event, 'Climate change and sustainable development in high altitude and remote areas' took place during the 15th Session of the United Nation Commission on Sustainable Development (CSD-15) (UN Headquarters, New York, 9 May 2007). The event was organised by Mountain Partnership members, the Government of Italy and the Ev-K²-CNR Committee, in collaboration with other members such as the Interim Secretariat of the Carpathian Convention (UNEP-Vienna ISCC) and the European Academy of Bolzano (EURAC), as well as the 'Friends of the Mountains' Group of the Italian Parliament. It focused on the links between science, sustainable development and cooperation, highlighted specific project examples from the European Alps, the Carpathians and the Himalayas, and discussed the role of the private sector in achieving sustainable mountain development.

We cannot undo the harm already inflicted by climate change. But we can reduce and mitigate the effects and plan for the future by working individually and in partnership. There is clear potential for us to use the framework of the Mountain Partnership to tap into the wealth and diversity of resources, knowledge, information and expertise, from and between one another, to catalyze our collective efforts in order to tackle climate change in mountains.