

WWF International's Regional Approach to Conserving High-Altitude Wetlands and Lakes in the Himalaya



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Water is a major global issue with social, economic, political and ecological dimensions, particularly in Asia. High-altitude wetlands, lakes, and watersheds are rapidly degrading. Protecting water sources is the most effective and economic way of addressing this major water crisis. All the major rivers in the Hindu Kush–Himalayan countries—the Indus, Ganges, Brahmaputra, Yangtze, Mekong, Amu Darya, and Hilmand—originate in high-altitude lakes and wetlands. WWF International is working to conserve high-altitude Himalayan wetlands and lakes, ie to protect the ecosystems that directly benefit people living in this harsh but spectacular region as well as the millions of people who depend on freshwater downstream. The impact of climate change makes it even more urgent to initiate an integrated approach to protect and conserve these highly fragile ecosystems.

Experience in Ladakh, India

WWF aimed to establish a model field project in this region to get experience in this sparsely populated area. Ladakh—part of the state of Jammu and Kashmir—is about 98,000 km² in size, with unique spaces and species, and is one of the several Tibetan Plateau ecoregions among WWF's "The Global 200." It is home to about 700 plant species, 285 of which are used in traditional Tibetan medicine. The most spectacular of the endangered mammals here is the snow leopard (*Uncia uncia*). Others are the Himalayan ibex (*Capra ibex*), kiang (*Equus kiang*), and Tibetan wolf (*Canis lupus chanku*). About 225 species of birds have been identified in the region. WWF recently recorded 15 breeding pairs of black-necked cranes around wetlands (Figure 1).

Threats to these ecosystems include tourism, excessive grazing, poorly planned development activities, and activities related to security

forces. WWF is currently concentrating on the Changthang subdivision, which is about 21,000 km². Within this subdivision, 3 specific sites—Tso Moriri (40 km², 4511 m), Tsokar (20 km², 4530 m), and Pangong Tso (a 700 km² transboundary site with China)—were selected for the first phase. The project in the Ladakh region is now well established, with a good institutional base at Leh and a field office at the Tso Moriri lake (see also *MRD* vol 23 no 3, August 2003, pp 219–221).

Involvement of stakeholders

The main approach of the project is to involve all stakeholders: the local community, religious leaders, security forces, political leaders, the tourism industry, state government institutions, etc. WWF is facilitating this process by bringing all these stakeholders together to engage in dialogue and take appropriate steps—from simple site-based interventions to policy-level changes—to conserve and protect these unique sites. The conservation measures suggested through this consultative process have been incorporated into a development planning process. Significant achievements so far are:

- A continuous field presence with locally trained and committed staff. This is extremely important in inaccessible places where cultural sensitivities are as important as conservation work.
- Large amounts of scientific, socioeconomic, and institutional technical data.
- Learning from people. WWF gave priority to learning from people who have lived in and protected these areas for centuries. A wealth of information on local customs, beliefs, and practices, with inherent conservation and respect for fauna and flora, has emerged in dialogue with local communities. These sites are sacred to the people

who work with them, and strengthening their institutions is vital to any initiative.

- Building local institutions. WWF combined local informal institutions with the advantages of establishing formal legal arrangements. A local conservation trust has been established involving all stakeholders.
- Declaration of one Ramsar site, with 2 more in the final stages.

Based on this field experience, WWF is expanding the project, both in India and other countries in the region. In India, expansion is in 3 phases:

- a) Continuing work in the Ladakh region on 10 more sites, using the model established at 3 sites;
- b) Completing the process of building local institutions and mobilizing the required resources so that WWF can withdraw from some sites; and
- c) Initiating a process in the Eastern Himalaya to identify suitable sites for initiating conservation.

Pakistan

Northern Pakistan contains the Himalaya, Karakoram and Hindu Kush mountain ranges. This area consists of large Alpine glaciers that are a source of water for South and Central Asia. This region is also the home of unique and ancient cultures. Several languages are spoken in the area, some of which, like Wakhi, are not written. People depend on natural resources for their survival; their cultures, beliefs, and traditional practices are attuned to nature. But communication and transport are changing things here, too, and there is pressure on natural resources. Climate change is adding to the complexity. This region is also the home of highly endangered species such as the Marco Polo sheep (*Ovis ammon*

FIGURE 1 The black-necked crane (*Grus nigricollis*)—a globally threatened species—breeds in the highland wetlands of the Tibetan Plateau and Ladakh. It is sacred to local populations. (Photo by Joanna van Gruisen)



polii), the golden marmot (*Marmota caudata aurea*), the bearded vulture (*Gypaetus barbatus*), and the snow leopard (*Uncia uncia*).

WWF initiated a project in northern Pakistan to conserve Alpine wetlands through community participation. The first phase of this project includes:

- Identification of 6 potential Ramsar/MAB sites;
- Work with governmental institutions to designate these sites;
- Initiating a process to involve local communities and local institutions in conservation activities;
- Preparation of participatory management plans for initiating action;
- Developing a database on biodiversity at these sites.

WWF in Pakistan is implementing this project in active partnership with stakeholders. Government departments such as the National Council for Conservation of Wildlife (NCCW), and the wildlife and forest departments are involved in all stages of the project. Specific site-based

conservation activities will be initiated, based on the results of this phase.

Regional initiatives from Urumqi to Leh

In partnership with Ramsar, WWF is working on a regional process to bring together all the countries that share these mountain ranges. The first regional meeting was held in Urumqi in August 2002. The regional workshop was hosted by the government of China, with the help of WWF and Ramsar. Participants from China, India, Pakistan, Nepal, Bhutan, the Kyrgyz Republic and Tajikistan submitted national reports and exchanged information and experiences.

The primary objective of this first regional meeting was to bring the governments together to discuss common concerns and actions to protect these ecosystems in the interests of people. The Urumqi workshop achieved this primary objective, and initial work has been done in the following areas:

- About 200 sites have been tentatively identified that may have the potential to qualify as Ramsar sites, while some may even qualify as World Heritage Sites. Some countries have already declared some of these sites as national protected areas or as biosphere reserves. There is an urgent need to collect information on biodiversity threats and current management systems at some of these sites, so that immediate but simple conservation steps can be instantiated at national level.
- The need for regular exchange of information is felt by all participants. A regional forum could facilitate a process of systematic information exchange among regional experts.
- The workshop felt the need for a common methodology to collect information on these sites.

- Some transboundary sites have been identified, which require transboundary cooperation for joint actions.
- The workshop felt an urgent need for regional cooperation and a regional institutional framework to continue dialogue.

The next regional meeting took place in Kathmandu, Nepal, from 30 August to 1 September 2003. This meeting was organized by ICIMOD with support from WWF and Ramsar. The objective was to continue the forum to establish a regional institutional mechanism. It was reiterated that there is an urgent need for a regional forum to exchange information, training, and joint actions on transboundary sites.

The third regional meeting was held in Sanya, Hainan, China, in February 2004. It was organized by ICIMOD, Ramsar and WWF, with active help and cooperation from the government of China. The Chinese Academy of Sciences provided technical support. The approximately 30 participants included representatives of the governments in the region, ie from Bhutan, China, India, Kyrgyzstan, Nepal, Pakistan, and Tajikistan, as well as scientists, experts, regional and international WWF staff, the World Conservation Union–IUCN, the International Institute for Geo-information Science and Earth Observation (ITC) of the Netherlands, the Chinese Academy of Sciences, etc. The regional meeting had 2 specific objectives:

- Establishment of a regional wetland center to set up a proper institutional base to assist regional governments in
 - a) improving regional cooperation;
 - b) harmonizing data collection and reporting; and
 - c) training and capacity building.

- Initiating a project on “Water resources management and wise use of highland lakes in Great Asian Mountains.” A concept outline to this effect was prepared by ICIMOD. This project is expected to generate a credible knowledge base and suitable technical options, and promote policy development and advocacy (see also www.ramsar.org/key_himalayan_plan.htm).

A regional institution to focus on high-altitude wetlands and lakes

Following in-depth discussion, it was concluded that there is strong need for a regional institution (facility) with specific objectives such as:

- Establishing a **regional database** to serve as a depository of information and help identify data gaps, harmonize data collection methods, and exchange information on transboundary sites;
- Facilitating a process of **regional cooperation** to conserve these sites by establishing joint missions, and alliances with governments, civil society, and international organizations;
- Building **technical capacity** through training, regional forums, and exchange visits to the sites;
- Understanding the impact of climate change and solving some of the transboundary issues such as glacial lake outburst floods (GLOFs).

Such a regional center or facility could ultimately include 15 countries in the region: Afghanistan, Bangladesh, Bhutan, China, India, Kazakhstan, the Kyrgyz Republic, Myanmar, Mongolia, Nepal, Pakistan, Russia, Tajikistan, Turkmenistan and Uzbekistan. But the

process can be started with countries that come forward in the first phase, and expanded later by inviting them to participate in the next phase. Location of such an institution will also depend primarily on which countries come forward with resources and are willing to move the process forward in a consultative way.

The next regional meeting is likely to be held in Leh, India, in July 2005, to discuss the issue further. Representatives of some government might make a specific offer to host such a regional institution. It is also possible that such an institution might be located in two countries, with each emphasizing specific objectives. This depends on the governments in the region. It is interesting to note that from the first meeting in Urumqi up to now, this process has been driven by the people in the region. It is quite clear that the region has very good human resources to establish and successfully run the regional institutions that serve immediate needs related to high-altitude lakes, wetlands and watersheds.

WWF, Ramsar, and ICIMOD are only assisting this process by facilitating dialogue among the countries. Once a regional institution is established, these institutions will continue to assist it in response to specific requests.

Conservation of high-altitude wetlands and lakes in the region should take into consideration several aspects: economic development, livelihood protection, and maintaining cultural diversity and traditional values. This is the only way to forge a wide range of partnerships and dialogue to conserve these ecosystems and allow people to preserve their cultures, languages, and lifestyles. It is also part of protecting the most vital resource—water. WWF is doing its part to bring stakeholders together to conserve these unique places.

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