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THREE DECADES  
FOR MOUNTAINS AND PEOPLE

# Karakoram-Pamir Landscape Initiative



Promoting  
transboundary  
cooperation  
between China  
and Pakistan  
for the  
Karakoram-Pamir  
landscape

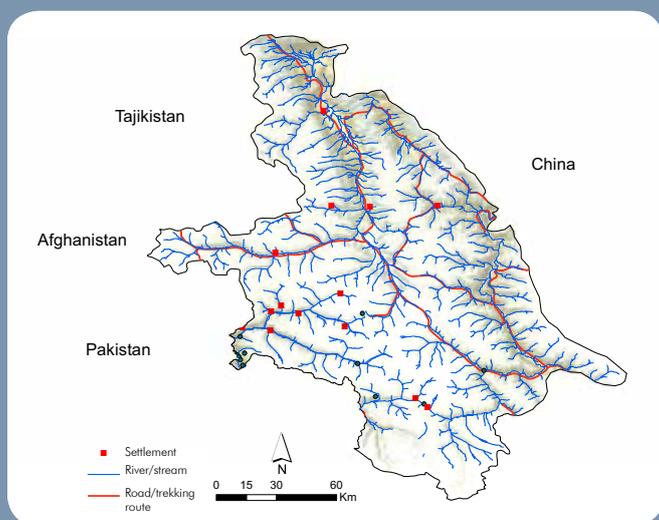
The Karakoram-Pamir Landscape (KPL) initiative is a regional programme for enhancing cooperation among countries for biodiversity management and sustainable development in the China-Pakistan border region of the western Hindu Kush Himalayas. The initiative began with an agreement signed in Beijing for bilateral collaboration between the governments of China and Pakistan to ensure the protection of Marco Polo sheep and other endangered species in two adjacent transboundary protected areas – the Khunjerab National Park in Pakistan and the Taxkorgan Nature Reserve in China – and focuses on maintaining the sanctity of the protected areas on both sides of the border. Emphasis is placed on creating sustainable economic opportunities for the people in the region and improving their quality of life by mobilizing them to protect the environment, which could in turn enhance the local economy.

The initiative aims to address cross-border challenges and increase opportunities through the development of a regional framework for cooperation and understanding. This framework will provide the basis for an integrated and participatory approach to conservation, adaptation, and sustainable development. The process will be based upon the development of an improved regional knowledge base, information and experience sharing, capacity building, and promotion of stakeholder consultation and community participation.

## A Unique and Fragile Landscape

The Karakoram-Pamir Landscape (KPL) is culturally and biologically rich, highly diverse, and one of the most fragile regions of the world. Located in the remote Gilgit-Baltistan Province in Pakistan and Uigur Autonomous Region of Xinjiang in western China, the landscape represents a unique cold-arid ecosystem that harbours globally threatened species, such as Marco Polo sheep and snow leopard, and a diversity of ethnic groups engaging in nomadic or semi-nomadic pastoralism. Its transboundary watersheds provide ecosystem goods and services of vital importance to around 1 million people, including those living in the downstream watersheds of the Indus and Tarim river basins. Maintaining the ecological and hydrological integrity of this headwater region is essential to securing water and ecosystem services to support human wellbeing. However, the KPL is facing accelerated environmental changes due to climate change and other drivers. Livelihood options for local communities within the landscape are limited, adding to a nexus of resource degradation and widespread poverty.

Map of the Karakoram-Pamir Landscape



## Biodiversity in the KPL

The landscape, which has extreme variations in altitude with a wide variety of vegetation and ecological zones, supports a striking mosaic of biodiversity. With a number of large carnivores, such as snow leopard, Himalayan lynx, wolf, and red fox, and mountain ungulates, namely Marco Polo sheep, blue sheep, and ibex, the region provides a fine representation of the high-altitude wildlife of the mountains of south and central Asia. The region also provides ecosystem services that support sustainable agrobiodiversity and a wide range of traditional crops and livestock breeds.

## Changing Livelihoods in the KPL

The KPL is home to nomadic and semi-nomadic herders who earn their livelihood through a mixture of yak, sheep, and goat grazing on high-altitude pastures and crop farming in lower valleys. Agropastoralism makes a significant contribution to the national economy; however, the impacts of climate change and rangeland degradation have resulted in an acute shortage of pastureland, forcing local communities to abandon traditional livelihoods. Livestock-wildlife conflicts and the retaliatory killing of predators have become major conservation concerns. Throughout the region, limited livelihood options for poor communities feeds a cycle of resource degradation and widespread poverty, which limits their ability to adapt to climate change and adversely affects the sustainability of ecosystem services. However, new livelihood options are emerging that, with proper development, could create additional sources of income for local communities.

### Animal products

Despite the importance of livestock to communities in the KPL, there are few marketing incentives for local livestock owners, and several policies discourage commercialization in the livestock sector. The lack of feed in the winter creates an additional challenge for people engaged in animal husbandry, and, thus, animal products largely remain within household economies. In Taxkorgan, wool and its processed products are the primary income source for local communities. However, the majority of people sell their products to wholesale buyers for a lump sum based on the price of unprocessed wool. Appropriate value chains are needed to help this sector become a viable and profitable business for herders and to ensure a continuous supply of products to local markets and beyond.



## High-value fruits and vegetables

Developments in the the value chain of apricot in the Pakistan side of the KPL, including the introduction of new technologies and techniques for drying and processing fruit and the introduction of fair trade and organic certification, have already benefitted a large number of poor farmers. On the Chinese side of the landscape, apricot cultivation has been encouraged by a growing domestic market over the last two decades. Growing demands in local markets have led to the introduction of off-season and new varieties of vegetables, which provide additional sources of income for farmers.

## Collection of bioresources

In the KPL, many households harvest a wide range of wild plant products, such as medicinal herbs and mushrooms, from local forests or grasslands for subsistence use and sale in local markets. While the development of these value chains could link these products to wider markets, sustainable collection practices must be promoted in order to prevent the destruction of vegetation, declines in the provision of resources, and threats to the survival of important species.



## Transboundary Challenges and Opportunities

Harsh environmental conditions and limited options for alternative livelihoods are further amplified by acute poverty, which is a significant driver of habitat degradation and species loss within the landscape. Conflicts between people and wildlife and competition between domestic and wild herbivores for forage and water are major conservation issues. Pastoral communities traditionally practised rotational livestock grazing across the landscape, irrespective of political boundaries, which allowed for the even distribution of grazing pressure. However, livestock numbers have increased and the issues of overgrazing, lack of fodder, and spread of livestock disease have increased in part because of shortened migration patterns and a rise in sedentary lifestyle.

Given the linkages between poverty and environmental degradation, one of the most pressing challenges in the landscape is to conserve biodiversity and sustain ecosystem services while meeting the demands of development and needs of local communities. There are many potential areas for cooperation between neighbouring countries to address the vulnerabilities of this landscape and seize emerging opportunities to improve the wellbeing of local communities. Strengthening ecological coherence and resilience through cooperation is necessary for both biodiversity conservation and sustainable development. The Karakoram-Pamir Landscape Conservation and Development Initiative aims to create a common platform for discussion on the management of this transboundary landscape involving communities, conservation organizations, and government agencies keeping the principles of ecosystem management through a regional cooperation framework.



## Ecotourism

With careful planning, and using sustainable tourism development models that are innovative, responsible and consider climate resilience, tourism can be one of the most promising alternative livelihood options for mountain people. The KPL, located along the ancient Silk Road, has been influenced by a variety of cultures and civilizations during its history. Given the region's rich cultural heritage, unique biodiversity, and dramatic landscapes, the KPL has immense tourism potential, which should be leveraged to create new livelihood and income options for local communities.



## Transboundary Landscape Cooperation

The transboundary landscape approach explicitly recognizes the important role of cultural diversity in maintaining biodiversity. The participation and involvement of a variety of stakeholders, including local agropastoral communities and conservation practitioners, is essential for the development of a plan that balances the twin objectives of conserving the fragile ecosystem and fulfilling the needs of the communities that rely on the area's natural resources.

The KPL initiative seeks the support and collaboration of a wide range of stakeholders to formulate a long-term conservation and development plan. The main objectives of the initiative are to:

- Improve understanding of the region's rich biodiversity and the effects of climate change on key ecosystems;
- Assess the adaptive capacity and livelihood options for people living in the KPL; and
- Promote transboundary cooperation for
  - the conservation and long-term monitoring of vulnerable ecosystems,
  - sustainable use of ecosystem goods and services for people within the KPL and beyond, and
  - creation of an international protected area connecting the existing national protected areas.

## Implementing Partners

To accomplish the goals of the KPL initiative, ICIMOD is working with several partners, including scientific institutions and community-based organizations in China and Pakistan, the governments of China and Pakistan, and national and international development agencies.

### China

- Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
- Xinjiang Department of Forestry
- Kashgar Bureau of Forestry
- Taxkorgan Nature Reserve
- Universities and government institutions in Xinjiang
- Other institutes under the Chinese Academy of Sciences

### Pakistan

- Gilgit-Baltistan Forest Wildlife and Parks Department
- Aga Khan Rural Support Programme
- Karakoram International University
- WWF-Pakistan
- IUCN-Pakistan
- Khunjerab National Park
- Central Karakoram National Park



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