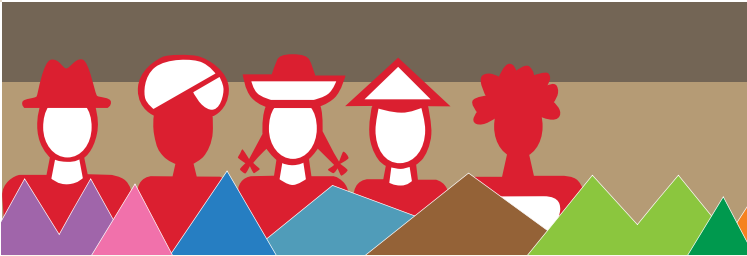


## Why the Central Asian mountains matter



**The Central Asian mountains provide an astonishing array of essential ecosystem goods and services not only to mountain inhabitants but also to people in the lowlands and around the globe. These goods and services include forest products and land for food production; watershed protection; habitat for flora and fauna of local and global significance; the regulation of natural hazards and climate; natural areas for leisure and recreational activities; and the storage and release of water.**

### How the Central Asian mountains contribute to sustainable development

Central Asia's mountains modulate the climate across wide areas, and are important reservoirs for the storage of carbon, but global warming is slowly decimating mountain glaciers, affecting snow reserves and at the same time increasing the water requirements of basic agricultural crops. The downstream and lowland water resource disruptions challenge governments and, in some cases, international relations. Tensions between highland and lowland countries often centre on the issues of energy accessibility and water usage. Almost 90 per cent of the population of Central Asia relies on water that falls in the mountains. Lowland agriculture needs water in the summer and fall, and the mountain countries need the water for power generation primarily in the winter. Finding the balance between energy generation, such as large-scale hydropower, and water provision for large-scale agriculture is difficult and politically sensitive. As the demand for energy and food continues to grow, tensions surrounding water and energy may escalate.

The Central Asia mountains are crucial to the maintenance of natural and agricultural global biodiversity, and host at least 20 distinct ecosystems and thousands of species of vascular plants, many of which are unique to the region. They are home to globally significant fruit-and-nut forests comprising walnuts, almonds, pears, apples, cherries and pistachios.

Where the mountains of Central Asia were once barriers to trade, they are now becoming important hubs. Tourism, mining and trade have been gathering momentum and the supporting infrastructure has developed accordingly. In Central Asia the mix of traditional skills and modern practices are contributing to the revival of the ancient Silk Road in the age of globalization.

The mountains of Central Asia provide a profound sense of place, a source of inspiration and a rich cultural heritage.



Varshedzdara, Tajik Pamirs (M. Mergili)

## Policy action for the Central Asian mountains – and the future we want



The mountain regions of the world have much in common, and while the future we want for Central Asia shares many hopes with other places, what we envision for Central Asia mountains is specific to that region.

The Central Asia mountain report team recommends the exploration of two ideas that have increasingly become part of the discussions on sustainable mountain development in the region:

- The creation of a mountain countries group under the auspices of the United Nations
- The exchange of external debt for an equivalent investment in sustainable development.

Linking strategies for mountain development with broader agreements on trade, economic development, conflict resolution and resource management may enhance the efforts. International organizations can build on the subregional experience exchanges by providing assistance at the community level, and subnational governments may exercise their power to determine the future of their communities.

### Climate change

The lowland countries that are affected by climate change in the mountains are well advised to account for mountain ecosystems in their planning. The mountains have a vast potential for carbon storage through afforestation projects, and sustainable land use practices will benefit the entire region. Mountain regions have the opportunity to build water storage facilities that can release water to downstream regions in drought years.

### Water and energy

Investing in more efficient water use is not only cost-effective but necessary to avoid conflicts. Small-scale water management solutions should be promoted.

Principles for the pricing of resources and services provided by mountain areas to downstream regions should be established, tested and introduced in practice. The potential of hydropower in the mountain countries provides the opportunity to combine progress on the goals of energy security, climate resiliency and economic development.

### Biodiversity

The expansion of protected areas creates a foundation for further biodiversity protection, and new pasture regulations that combine a scientific approach with economic tools and community participation pave the way for others to adopt sustainable approaches in live-stock herding.

### Tourism, mining and trade

Central Asia governments can broaden the opportunities for a community-based tourism. In the mining sector, governments need to promote responsible mining and to ensure that the local concerns are aired and respected. The mountain regions of Central Asia are strategically positioned to create in the heart of Eurasia rail and road links that would benefit their economies and raise their regional importance.

### Education, institutions and the preservation of cultural diversity

Governments and other active players should encourage the trend in the mix of traditional skills and modern practices. Central Asian universities are now specializing in mountain development issues, and higher education institutions have an additional opportunity to focus on the preparation of the next generation of managers in tourism, mining and infrastructure development. An integrated approach to sustainable mountain development provides a regional cooperation model that institutions and non-governmental organizations can follow.

