

Why the Andes matter



The Andes, covering 33% of the area of the Andean countries, are vital for the livelihoods of the majority of the region's population and the countries' economies. However, increasing pressure, fuelled by growing population numbers, changes in land use, unsustainable exploitation of resources, and climate change, could have far-reaching negative impacts on ecosystem goods and services. To achieve sustainable development, policy action is required regarding the protection of water resources, responsible mining practices, adaptation to climate change and mechanisms to generate and use knowledge for sound decision making.



How the Andes contribute to sustainable development

The Andes, covering a contiguous mountain region within Argentina, Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela, occupy more than 2,500,000 km² and have a population of about 85 million (45% of total country populations), with the northern Andes as one of the most densely populated mountain regions in the world. At least a further 20 million people are also dependent on mountain resources and ecosystem services in the large cities along the Pacific coast of South America.

The Andes play a vital part in national economies, accounting for a significant proportion of the region's GDP, providing large agricultural areas, mineral resources, and water for agriculture, hydroelectricity (Figure 1), domestic use, and some of the largest business centres in South America. However, some of the region's poorest areas are also located in the mountains.

The region is highly diverse in terms of landscape, biodiversity including agro-biodiversity, languages, peoples and cultures. Such varied conditions have led to a vast pool of knowledge, often undervalued, but of great importance, for example in for climate change adaptation strategies and measures.

Mountain areas have provided fertile ground for innovation in local governance, for example, in making decentralization policies and citizen participation a reality. The Andes also provide a backdrop for the regional policies of the Andean Community, a political organization covering four Andean nations, which provides a regional framework for addressing issues related to sustainable mountain development.

Nevertheless, increasing pressure on mountains, fuelled by a growing population, changes in land use, unsustainable exploitation of resources, and climate change, are important challenges that must be tackled in the pursuit of sustainable development. Ensuring water supplies, maintaining a healthy environment, and addressing climate change are essential tasks for maintaining the livelihoods of the majority of the population of the Andean countries. Success in addressing them will depend on achieving sustainable development within and beyond mountain areas. Without significant policy adaptations, resource use and development in the region will become increasingly unsustainable, with serious consequences for the region's economies, societies and the environment.

Policy action for the Andean mountains – and the future we want



Policy action should cover the regional, national and local levels. Regional integration, stressing the importance of mountain issues, should be promoted within the Andean Community, and eventually, the Union of South American Nations. An especially important function of these organizations is to create a common regional platform for strengthening the position of mountains in international conventions (CBD, UNFCCC, and UNCCD). At the national and local levels, action should focus on drafting and implementing specific strategies (e.g. ecosystem protection, responsible mining, green economy) and on innovative institutional mechanisms that bring mountain issues on political agendas.

Protect mountain ecosystems to safeguard water supplies: Action includes strategies for conservation of mountain ecosystems (paramos, wetlands, puna); lobbying for legal protection (laws for no-go mining zones, protected areas); mobilise basin-wide responsibility through strengthening upstream-downstream partnerships.

Promote agricultural production in mountain areas by building on local knowledge and local native products, while improving food security and protecting biodiversity: Action includes the wider recognition of women's role in food security involving Andean products and incentives for combining environmental protection with increased agricultural production.

Implement climate change adaptation actions for mountain regions across regional, national and local policies: Action includes the promotion of research and monitoring for evaluating the current and future contributions of upland ecosystems (wetlands, glaciers) to overall water supply under different climate change scenarios.

Transform current mining methods with responsible mining codes: Action includes policy formulation for responsible mining, including recyclability at all stages of production chains, both within as well as beyond the mining region.

Use regional cooperation to share and replicate experience on where and how decentralization and increased citizens' participation has been beneficial for sustainable mountain development: Action includes innovative governance mechanisms that allow stronger representation of mountain communities in national and regional decision making.

Improve coordination between educational institutions (especially state universities in mountain areas, research NGOs), and governments to ensure that knowledge generated can be applied to sustainable mountain development: Action includes, for example, alignment of research agendas with the specific development needs in mountain areas.

Improve communication mechanisms within government: Action includes identifying overlapping jurisdictions between government departments, between government levels (local and national); implementing multi-level approaches.

Implement decision support systems at local and regional levels, covering issues such as water management and climate change adaptation: Action includes capacity development for using new technologies in mountain regions; provide incentives to generate and share mountain-specific information for sound decision-making.

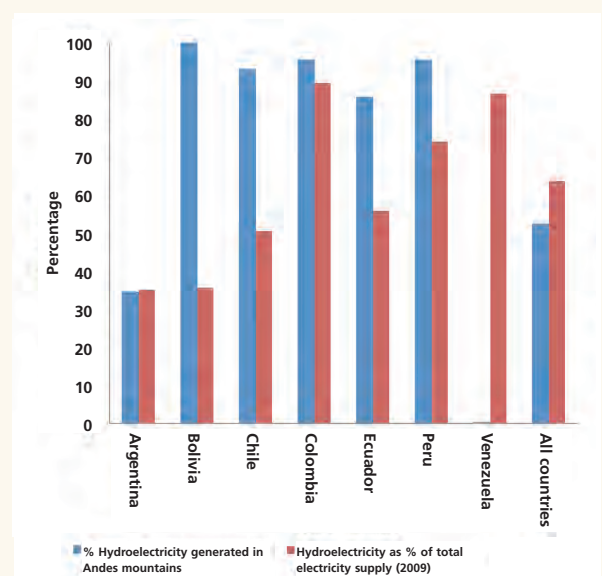


Figure: Hydropower generation, Andean countries.
Source: Devenish, C. y Gianella C. (Eds). 2012.