

# Fact sheet Rio+20

Source: Heinz Veit

Fact sheet No. 2, 2012

## Mountains, a priority for a planet under pressure and for Switzerland



Source: NASA

**Mountains provide vital goods and services for the benefit of all humankind, helping to support sustainable development and to move the world towards a greener economy. But mountains face challenges that threaten the provision of these goods and services. The global community must act – a new agenda for mountain development is urgently required.**

### Global sustainable development depends on mountain regions

Mountains cover 24% of the earth's land area (without Antarctica) and are home to about 20% of the world's population. If large plateaus, wide valleys and basins are excluded, mountains still cover 12.3% of the global land area. They provide 60–80% of the world's freshwater resources for drinking, for irrigation in lowlands to ensure global food security, and for industry and green energy in the form of hydropower. Mountains supply important minerals, as well as the plant genetic resources of many major food crops. 17 of the 34 global biodiversity hotspots are in mountains. Mountains are major destinations for tourism in an increasingly urbanised world, especially in industrialised countries – with over 540 million overnight stays per year, for example, the Alps are the world's second most important tourist region after the Mediterranean coast.

### Mountains – a threatened realm of the planet

However, mountains worldwide are facing serious challenges that threaten the provision of these vital goods and services. This is particularly true in developing and transition countries,

where land degradation, exacerbated by inappropriate resource governance and insecurity, is a major problem. 90% of the global mountain population of over 1.2 billion people live in such countries, and close to 40% are vulnerable to food insecurity. In contrast to the mountains in industrialised countries such as the Alps, access to basic infrastructure is often poor, and mountain populations are often politically marginalised. Globally, mountains are prone to natural disasters; for example, 55% of mountain land is susceptible to earthquakes as opposed to 36% of non-mountain land. Mountains are also very sensitive to climate change, as shown by the rapid melting of glaciers worldwide, with consequences far beyond mountain regions.

### Opportunities for collaboration

In 53 countries in the world, mountains account for over 50% of the territory, and mountainous land makes up 25–50% of the surface area of another 46 countries. Many more countries have a much smaller percentage of mountains but are critically dependent on mountain resources such as fresh water, biodiversity or clean air. Countries with mountain regions show different backgrounds in terms of

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This fact sheet has been prepared jointly by the Swiss Agency for Development and Cooperation (SDC), the Federal Offices for the Environment (FOEN) and for Spatial Development (ARE), the Centre for Development and Environment (CDE), the Swiss Centre for Mountain Regions (SAB) and the Interacademic Commission for Alpine Studies (ICAS).

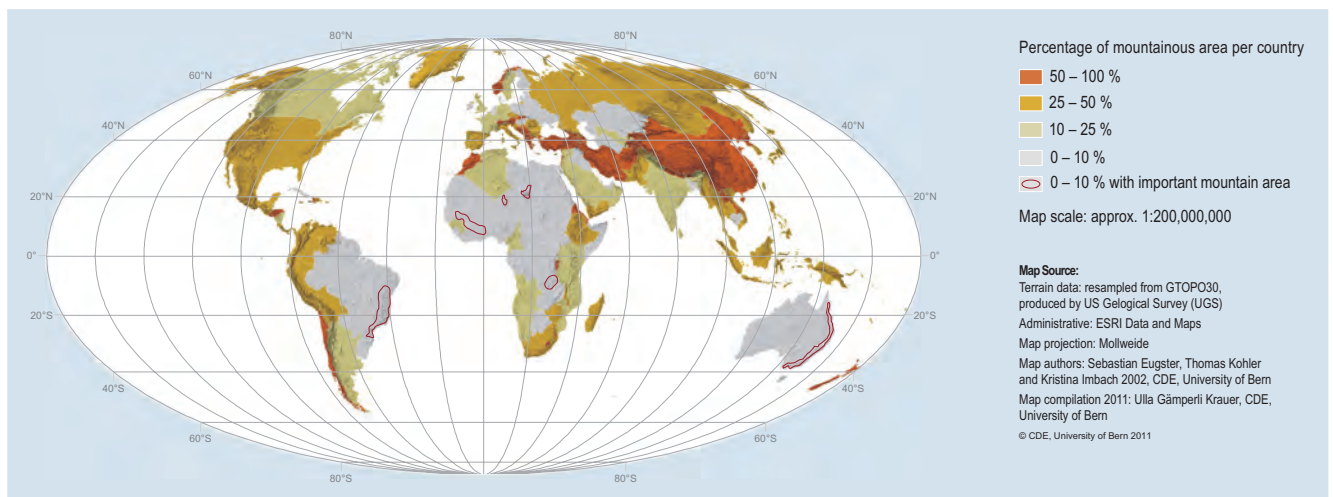


Figure 1: Map of the countries of the world and their mountain areas. Source: CDE, University of Bern, 2009.

population, economy, culture and environment, but they often face similar challenges that call for exchange and cooperation. Moreover, mountains frequently cross country borders and thus present opportunities for transboundary collaboration, especially relating to water management, hydropower generation, biodiversity conservation, tourism promotion and infrastructure development.

#### The Alps: pilot region for cross-border cooperation

The Alps form a coherent habitat and natural area that is linked to its surroundings, offering opportunities and facing challenges. Various developments, such as climate change, international economic competition, trans-Alpine traffic, decreasing biodiversity and demographic change, require cross-border strategies. Since 1991 eight Alpine states, amongst them Switzerland, have been working together within the framework of the Alpine Convention in order to promote sustainable development. The European Union supports economic development in the Alps, the establishment of local partnerships or strategic networks and the exchange of mountain-specific knowledge by means of the Alpine Space Programme. The future of the Alpine region as a whole is not clear: The formation of European metropolitan and macro-regions raises questions as to the relationship between the Alpine region and its surroundings.

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#### Calling for a new global mountain agenda

- **Mountain-specific strategies:** Mountain areas require specific strategies at the national level. At the international level, policy frameworks need to include specific programmes dealing with mountains.
- **Transboundary and regional cooperation:** Many mountain ecosystems and services benefit regions far beyond mountains, including major cities in distant lowlands. Strengthening transboundary and upstream downstream collaboration will improve the effectiveness of interventions.
- **Governance and institutions:** The targets of Agenda 21 require the involvement of local communities and mountain populations in all steps of decision-making from planning to implementation; mechanisms and institutions must be put in place to achieve this aim.
- **Compensation for ecosystem goods and services:** In general, mountain communities only derive insignificant benefits from the ecosystem goods and services they provide. Ensuring full compensation will enhance local livelihoods, reduce poverty and ensure a sustained flow of goods and services.
- **Green economy and innovation:** Mountain agricultural products are produced with low external input. Policies supporting their production can create added value for mountain regions. Sustainable forms of tourism as well as responsible forms of mining, industry and hydropower should be promoted.
- **Regional centres of competence:** Lack of data on mountain areas prevents informed decision-making and effective action. There is an urgent need to promote regional centres of competence for research and technology development, capacity building and policy advice adapted to mountain areas.

# Swiss mountain areas under pressure

Mountains make up two thirds of Switzerland's surface area. They played a decisive role in creating the national identity of Switzerland and also – owing to Alpine tourist destinations and the watchmaking industry based in the Jura mountains – its worldwide reputation. Up to now Switzerland has successfully integrated its mountain regions in the political and economic development of the country. However, their sustainable development is endangered by various megatrends, such as globalisation and urbanisation.

## What is the situation today?

### *1992 to 2012: positive developments and strengths*

Within the last 20 years Switzerland has created suitable framework conditions for a sustainable development of mountain regions, such as the article on the protection of the Alps, which is part of the Federal Constitution. Thus, Switzerland has been a pioneer in European transport policy; it has introduced performance-based direct payments to farmers and advanced regional policy and financial compensation. Furthermore, Switzerland has improved the use of water resources; it has created new parks and established the Swiss Landscape Fund. The Swiss Centre for Mountain Regions (SAB) was instrumental in linking the political forces supporting the concerns of mountain regions. Thanks to the solidarity of the Swiss population with mountain regions, numerous non-profit organisations, such as Swiss Mountain Aid, are able to open up future perspectives for private actors with the help of donations. Alpine research is established at various institutes, and, in a number of research programmes, has taken up topics such as sustainable land use, water use, climate change, biodiversity, natural hazards and visitor management, as well as contributing to science-based political decision-making. Switzerland has recognised the importance of Alpine-wide cooperation and got involved in the Alpine Space Programme (Interreg) and the Alpine Convention. Due to the engagement of the Swiss Agency for Development and Cooperation (SDC), Switzerland has been an outspoken advocate for mountain regions worldwide.

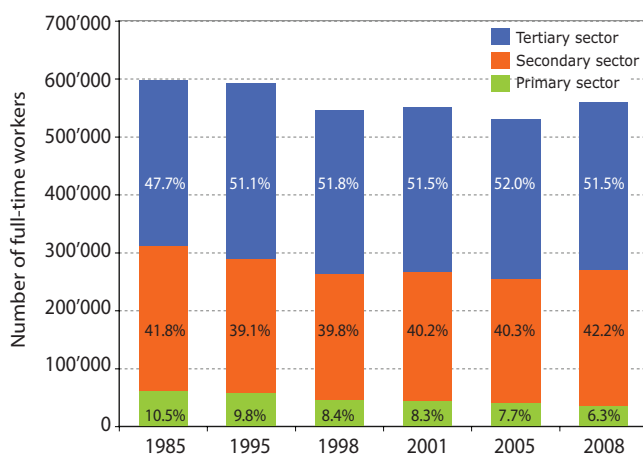


Figure 2: Since 1985, the economic structure in Swiss mountain areas has been dominated by the tertiary sector, which has been slightly increasing (tertiarisation), while the primary sector (mainly agriculture) has been steadily decreasing. Source: SAB 2012.

### *1992 to 2012: critical developments and weaknesses*

Modern urban Switzerland has begun to separate from rural Switzerland. This process also takes place in the mountain regions. Today, more than 60% of the mountain population live in towns and larger villages. The attractiveness of mountain regions for housing and recreation, the phenomena of multi-local living and economic growth have strongly increased the demand for residential property. In many regions, particularly in the Alps, booming investments, building activities and immigration have caused considerable disparities. The top destinations and economically prospering mountain cantons contrast with peripheral areas with low development potential. In the latter, the dismantling of services by the public authorities is under way, job security in the public sector is increasingly endangered and agricultural land use is decreasing. So far, the loss of biodiversity, amongst others caused by the concentration of agricultural activities, has not been halted. Little progress is made in key areas, such as the transfer of transit traffic from road to rail or adaptation to climate change, especially in winter tourism.

## Facts about Swiss mountain regions

Swiss mountain regions ...

- ... generate 87 % of their social income themselves.
- ... contribute 32 % to Swiss electricity production.
- ... register 20 million overnight stays per year.
- ... lose 10 farms per week.

In Swiss mountain regions ...

- ... the population increased by 15 % between 1990 and 2008 (Switzerland: 14 %).
- ... 41.4 % of the population live in communes with more than 5,000 inhabitants (2010).
- ... the forest area has increased by the area of the canton of Glarus within the past 8 years.
- ... since 1992 the glacier area has decreased by about 20 %.<sup>1</sup>
- ... 21.1 % of the area are parks of national importance (2011).<sup>2</sup>

Sources: SAB 2012, <sup>1</sup>Frank Paul, University of Zurich, <sup>2</sup>Network Swiss Parks.



### Challenges until Rio+30

1. Work out a strategy for rural Switzerland, e.g. the concept of development axes between Swiss plateau and Alpine region.
2. Adaptation to climate change: elaborate a new risk culture with regard to natural hazards; reinvent Alpine tourism; develop strategies for biodiversity conservation.
3. Promote and expand the production of renewable energies as a basis for a green economy in the Alpine region in the context of multi-sectoral national planning.
4. Introduce compensation by users of resources and ecosystem services in order to ensure their recreational function for the European population.
5. Control the process of urbanisation by encouraging urban densification and by implementing the new article of the Federal Constitution concerning secondary residences.
6. Ensure the nationwide provision of basic services and actively accompany the process of structural change.
7. Promote the transfer of transit traffic from road to rail.
8. Improve territorial cooperation both within Switzerland and cross-border, and focus increasingly on functional relationships.
9. Increase the competitiveness of the main economic activities through mountain-specific policies.
10. Strengthen Switzerland's role in the international cooperation of mountain areas.



Figure 3: Alpine glaciers suffer from global warming. (Picture: M. Cimeli)

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