

The Alpine Space

The European Alps comprise an incredibly diverse and complex web of interconnected natural and human systems. They are the highest and most extensive inner-European mountains, spanning 8 countries (France, Switzerland, Liechtenstein, Italy, Germany, Monaco, Austria and Slovenia). With their considerable differences in altitude and climatic conditions, these mountains contain a dramatic variety of landscapes, ecosystems and species. Moreover, despite the relatively small amount of land that is available for settlement or agriculture, the Alps are densely populated and preserve an exceptionally rich cultural heritage. Unique traditions of mountain agriculture have emerged here, where grassland farming predominates over cereal, fruit, and vegetable agriculture, especially at higher altitudes (Tappeiner et al., 2008). These widespread alpine pastures and hay meadows are rich in species and contribute substantially to the biodiversity of the mountains, surrounding foothills and lowlands (Muheim & Meier, 2017).

The Alps are not, however, immune to the threats of recent global changes. Globalization has brought about new opportunities but also new challenges. Market changes have had severe social and economic effects and led to changes in land use. A rapidly changing climate has already begun to impact many facets of life for these mountain populations. Understanding these complex trends is a difficult process, but certain patterns are already apparent.

Political and economic processes, together with social changes, are altering many structures in the Alpine Space. For example, they have resulted in agglomeration processes in the valleys; the average size of farms is increasing, while their number and diversity are decreasing. Agriculture has slowly vanished from many hillsides and Alpine pastures, instead concentrating in extensive holdings found in the lowlands. This change is causing a loss in biodiversity, as species-rich Alpine pastures are overgrown by forests. Moreover, socio-economic trends such as marginalization and urbanization are changing the population distribution and land use across the Alps. Younger people are moving away from remote regions to urban settlements with greater education and work opportunities, leaving some areas to face ageing, depopulation and isolation. Areas where agricultural land has been abandoned, but neither tourism nor urbanization occurs, risk becoming more and more marginalized (Tappeiner et al., 2008). On the other hand, regions that are easily accessible and rich in tourist and cultural attractions are experiencing growing populations, intensified commuter flows and high seasonal tourism. These trends bring a different set of problems to sustainable development, such as pollution, soil sealing and reduction of open spaces. These are only some of the general socio-economic trends and changes that the Alps currently face, the impacts of which vary greatly across the diverse countries, regions and communities found here.

Climate change is another major threat to Alpine ecosystems. One obvious outcome of climate change is that glaciers are melting at an ever-accelerating rate. This melting results in a cascade of downstream problems, such as dwindling glacier-fed rivers and the consequent lack of drinking water. Changes in precipitation, snow-cover patterns and glacier storage are expected to alter the Alpine water cycle. This could potentially lead to more droughts in summer, more floods and landslides in winter, and greater variability in the water supply throughout the year (EEA, 2010). Furthermore, the rising snowline poses a serious risk of upward migration of Alpine plants and the expansion of exotic species, thus substantially altering plant communities (Pauli et al., 2003). A warming world has major effects upon the natural systems of the Alps and every day new impacts are being uncovered.

These diverse processes have become more and more pronounced in recent years, challenging stakeholders in the region to ensure that development remains sustainable and further environmental and cultural degradation is avoided. By the late 1990's, it became clear that the effort to mitigate

these impacts and to make better use of shared resources has to be coordinated between all Alpine countries. Accordingly, the first transnational EU cooperation programme for the Alps was launched in 2000. Since then, two more editions of the programme, each running for seven years, have been approved. The third, and current, Interreg VB Alpine Space Programme was launched in 2014. With an increasing number of project partners in each iteration, the Alpine Space programme now plays a pivotal role in ensuring cooperation between Alpine states. It is worth noting that the Alpine Space cooperation area covers not only the Alps, but also their surrounding lowlands, as these areas are inextricably linked.

References:

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