

How do global changes affect ski resorts and how do ski resorts adapt to global changes? General trends and local responses

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Climate change is now universally accepted, although its effects still need to become more refined. Like winter sports, which are largely dependent on weather conditions, many tourism sectors will undoubtedly endure very directly the climate disruptions (Le Scouarnec and Martin, 2008). These phenomena could not leave indifferent the laboratory of excellence "Innovation and Mountain Territories" (LabEx ITEM), dedicated to the multidisciplinary study, in human and social sciences, of the issues which characterize the mountain territories. Indeed, for many mountain territories, winter tourism is a central economic activity whose regression would have serious consequences for the economic development and the living conditions of local populations. Several members of the LabEx have therefore wished to participate in the understanding of these complex upheavals by the publication of a collective book dedicated to the analysis of the pressures that affect the winter sports resorts and to the adaptation strategies that they deploy for answer to these pressures. This book also aims to fill three gaps identified in the academic production : a focus on climate change at the expense of global changes as a whole; the lack of studies dedicated to the adaptation strategies of ski resorts to global changes; a lack of study on emerging markets.

From climate change to global changes

First, winter sports are not only affected by the climate, but by a number of largely connected evolutions called "global changes". Among these, we must first mention economic developments such as the increase in economic inequalities of developed regions and the increase in consumption in other previously poorer regions, the decline of previously established markets, the emergence of new trends and the increased competition between destinations but also their concentration. Then come cultural evolutions such as the demand for more individualized tourist stays and the reduction of skiing in favor of new sports or leisure activities. Finally, societal changes influence both supply and demand. These include the environmental imperative that can affect the consumption patterns of tourists and which is translated, on the supply side, by restrictive legislations for tourism destinations. Security issues related to natural hazards (diseases, extreme weather events, etc.) and political (terrorism, wars, etc.) also influence consumer preferences, as well as the aging of the population (Dawson and Scott, 2013 ; Hatt and Vlès, 2014 ; Kuscer, Mihalic and Pechlaner,

2017). Beyond the only climate change, the book proposed by LabEx ITEM will therefore identify the main changes affecting winter sports tourism.

Adaptation strategies to face global changes

Secondly, most of the academic work is devoted to assessing the impacts of climate change on winter sports resorts to the detriment of the analysis of adaptation strategies. Anchored in the natural sciences and modeling, the first propose scenarios of warming while the second, developed by the human and social sciences, highlight the vulnerability of tourism to climate disturbances. Interdisciplinary studies, which intersect models of climate change with adaptation strategies of territories and resorts, are not non-existent but still need to be developed (Demiroglu, Dannevig and Aall, 2013). What is more, the most studied adaptations are of a technical nature. On the contrary, the book proposed by the LabEx ITEM will focus on different ways of adapting tourism destinations, both technical, economic and social.

A global picture of global changes and winter sports resorts: comparison between old and emerging destinations

Thirdly, studies related to the influence of climate change on ski resorts focus on the Alps, followed by North America, Northern and Eastern Europe and Oceania. Regions like Asia and the Middle East, where the winter sports market is expanding, are poorly studied (Yang and Wan, 2010 ; Demiroglu, Dannevig and Aall, 2013). There is also a lack of perspective on the specific situations of these different regions, whereas, depending on their history and resources, these regions do not necessarily provide the same answers to global changes. The book proposed by the LabEx ITEM will therefore focus on different regions of the world (Europe, America, Asia and the Middle East) by showing how they respond sometimes differently to cross-sectional phenomena described as "global changes".

Structure of the book

Through a huge repertoire of cases structured in five parts (each consisting of three chapters), the book will describe the types of changes that affect winter sports resorts and their adaptation strategies, according to their historical trajectories and their specific resources. The first part will give the framework of the book by detailing the forms that winter sports resorts can take and the viability of their business models (with particular attention to the community based model, the corporate model, the small resorts and their management system). The second part will focus on the main adaptation strategies adopted by the ski industry: technical solutions (climate change scenarios and snowmaking), diversification (seasons and practices) and modes of governance. Little studied compared to the supply, the expectations of tourists and how they respond to global changes will be studied in the third part of the book. The fourth section will focus on the sustainability issues of the resorts, from both a social and environmental point of view. In particular, the issues of environmental labels, the economic impact of winter tourism on local populations and seasonal work will be addressed. Finally, the last section will be dedicated to three emerging markets : Turkey, Poland and China. Their development prospects, their specific difficulties and how they are affected by global changes will be at the heart of this last part.



References

- Dawson, J. and Scott, D. 2013. Managing for climate change in the alpine ski sector. *Tourism Management*, 35, 244 – 254
- Demiroglu, O. C., Dannevig, H. and Aall, C. 2013. The multidisciplinary literature of ski tourism and climate change. In Nazmi, K. and Metin, K., eds., *Tourism research : An interdisciplinary perspective*, Cambridge: Cambridge Scholars Press, 223 – 237.
- Hatt, E. and Vlès, V. 2014. Mutations socio-environnementales et perspectives d'adaptation des stations de montagne pyrénéenne. *Sud-Ouest européen*, 37, 1 – 27.
- Kuscer, K., Mihalic, T. and Pechlaner, H. 2017. Innovation, sustainable tourism and environments in mountain destination development: a comparative analysis of Austria, Slovenia and Switzerland. *Journal of Sustainable Tourism*, 25 (4), 489 – 504.
- Le Scouarnec, N. and Martin, L. 2008. Effet du changement climatique sur le tourisme. *Direction du Tourisme, Ministère français de l'Economie, de l'Industrie et de l'Emploi*.
- Yang, J. and Wan, C. 2010. Progress in Research on the Impacts of Global Climate Change on Winter Ski Tourism. *Advances in Climate Change Research*, 1 (2), 55 – 62