

Table of Content

Path to the summit – inspire and drive sustainable mountain regions <i>Johann Stötter, Axel Borsdorf & Eric Veulliet</i>	9
Spatial Planning	
Participation in mountain forest management – the role of group building for the outcome of participation processes: two case studies from Bavaria <i>Dominik Himmler, Klaus Wagner & Michael Suda</i>	23
Applicability and appropriateness of risk prevention measures in mountain areas – assessment of the Hazard Zone Plan (HZIP) in South Tyrol – an Applied Risk Management tool <i>Steffen Link, Christian Hoffmann, Willigis Gallmetzer & Rudolf Pollinger</i>	35
Bolivian Andes: from climate change to human displacements? <i>Raoul Kaenzig</i>	47
Designing sustainable pathways: the Highlands and Islands of Scotland in transition. Findings from empirical case studies in the Western Isles <i>Ingo Mose & Marta Jacuniak-Suda</i>	58
Land-use change in Yaylas of the eastern Black Sea mountains, Turkey <i>Mehmet Somuncu, Nevin Akpınar, Nilay Çabuk Kaya, Ekrem Kurum & Tanyel Özelçi Eceral</i>	71
Challenges and opportunities for the sustainability of mountain municipalities in Chile <i>Carla Marchant Santiago & Rafael Sánchez</i>	85
Hydrology	
Analysing changes in flood risks in an Alpine catchment <i>Annegret Thieken, Holger Cammerer, Christian Dobler, Johannes Lammle, Axel Bronstert, Johann Stötter & Friedrich Schöberl</i>	97
Approaching water stress in the Alps: transdisciplinary coproduction of systems, target and transformation knowledge <i>Flurina Schneider</i>	107
Water balance and global change: future perspectives for alpine farming <i>Georg Leitinger, Erich Tasser, Nikolaus Obojes, Dagmar Rubatscher & Ulrike Tappeiner</i>	118
Securing hydrological ecosystem services through catchment-wide land-use management <i>Adrienne Grêt-Regamey, Harald Bugmann, Paolo Burlando, Enrico Celio, Guillaume de Buren, Thomas Koellner, Peter Knoepfel, Christoforos Pappas & Andrea Ryffel</i>	124
Assessment of climate change impacts on floods in an Alpine watershed <i>Christian Dobler</i>	134

Climate Change

- Changes in the glacial and periglacial environment of the European Alps and the Central Asian mountains and their socio-economic implications: a comparison
Martin Mergili, Bernhard Müllebner, Chris Kopf & Jean F. Schneider 145
- Changes in the monsoon pattern and its impact on water resources in the Himalayas: community responses and adaptation
Prakash C. Timari & Bhagwati Joshi 155
- A new permafrost and mass movement monitoring test site in the Eastern Alps – concept and first results of the MOREXPART project
Markus Keuschnig, Ingo Hartmeyer, Jan-Christoph Otto & Lothar Schrott 163

Natural Resources and Ecology

- Leaf and ecosystem response of mountain grassland gas exchange to soil water availability
Georg Wohlfahrt, Lukas Hörtnagl, Albin Hammerle, Alois Haslwanter, Armin Hansel, Francesco Loreto & Federico Brilli 177
- Land use and biodiversity: an indicator set supporting sustainable development
Johannes Rüdisser, Martin Schönhart, Erwin Schmid, Franz Sinabell, Ulrike Tappeiner & Erich Tasser 183
- Adapting mountain forest management to climate change
Robert Jandl 193
- Forest fire research and management options in Austria: lessons learned from the AFFRI and the ALP-FFIRS networks
Harald Vacik & Hartmut Gossow 203
- Multidisciplinary assessments of trail degradation for framing future trail management: examination in Shei-Pa National Park, Taiwan
Yen-Liang Lee & Teiji Watanabe 212
- Vegetation on Alpine rockglaciers
Lorenzo Rieg, Rudolf Sailer & Johann Stötter 222

Tourism and Energy

- The vulnerability of Swiss Alpine tourism to climate change – an analysis of its causes, magnitude, and spatial heterogeneity
Cecilia Matasci 233
- Effects of climate change on future snow conditions, winter tourism and economy in Tyrol and Styria (Austria): CC-Snow, an interdisciplinary project
Ulrich Strasser, Andreas Gobiet, Johann Stötter, Hannes Kleindienst, Friedrich Zimmermann, Karl Steininger, Franz Prettenbaler, Andrea Damm, Florian Hanzger, Judith Köberl, Thomas Lang, Armin Leuprecht, Thomas Marke, David Osebik, Hansjörg Ragg, Robert Steiger, Christoph Töglhofer & Renate Wilcke 245
- Analysis of the sensitivity of ski tourism demand to climate change in Switzerland
Camille Gonseth & Cecilia Matasci 257

Will Alpine summer tourism benefit from climate change? A review. <i>Bruno Abegg & Robert Steiger</i>	268
Australian snow tourist's perceptions of climate change: implications for the Queenstown Lakes region of New Zealand <i>Debbie Hopkins, Susanne Becken & Jordy Hendriks</i>	278
Climate change impacts on Austrian ski areas <i>Robert Steiger & Bruno Abegg</i>	288
Alpine airports as gateways for growing incoming ski tourism: relevance and spatial impacts <i>Tobias Behnen</i>	298
Renewable energy in winter sports destinations – desired, ignored or rejected? <i>Ulrike Pröbstl, Alexandra Jiricka & Florian Hindinger</i>	309
Impacts of weather variability and climate change on tourism in Austria <i>Judith Köberl, Andreas Gobiet, Georg Heinrich, Armin Leuprecht, Franz Prettenbacher & Christoph Töglhofer</i>	319
Climate change and winter tourism – a stakeholders' perspective in the Tyrol Region <i>Lisa Travöger</i>	332

Society and Culture

Alpine agriculture – future water scarcity and options for agriculture <i>Klaus Wagner, Julia Neuwirth & Hubert Janetschek</i>	343
Investigation concerning the evolution of the term “comfort” in contemporary Alpine consumer architecture <i>Andreas Flora</i>	353
The Alps: creative summits or unimaginative valleys? Culture and creativity as potential drivers for regional development in Alpine border regions – the example of the “Alpine Rhine Valley” <i>Julia Scharting</i>	362
Tourist destinations and place development in Norwegian mountain areas <i>Terje Skjeggedal & Kjell Overvåg</i>	374
New demographic developments and their cultural impact on the Italian Alps <i>Roland Löffler, Michael Beismann, Judith Walder & Ernst Steinicke</i>	383
Do we need to consider gender equality for sustainable regional development? <i>Mathilde Schmitt</i>	394
The question of a common ground: attitudes towards conflict management among stakeholders of protected areas in Iceland and Japan <i>Harald Schaller & Haukur Ingi Jónasson</i>	403
The landscape-language relationship in the Raetho-Romanic Alps. A production and development factor of the territory <i>Loredana Ponticelli</i>	415

Ethics and Politics

- Social capital as a key source for sustainable development in protected mountain areas: experiences from Großes Walsertal biosphere reserve
Falk F. Borsdorf 427
- Delineating mountain areas in Europe: the principles used for the ESPON GEOSPECS project and their foundation in previous research
Diana Borowski, Martin Price & Erik Gløersen 440
- “LIFE eQuality?” – teenagers’ inspiring research into quality of life
Lars Keller & Alexander Schober 446

Appendix 459