CIPRA
LEBEN IN
DEN ALPEN

FACTS4TOURISM

Project for the communication of tourism-relevant research results

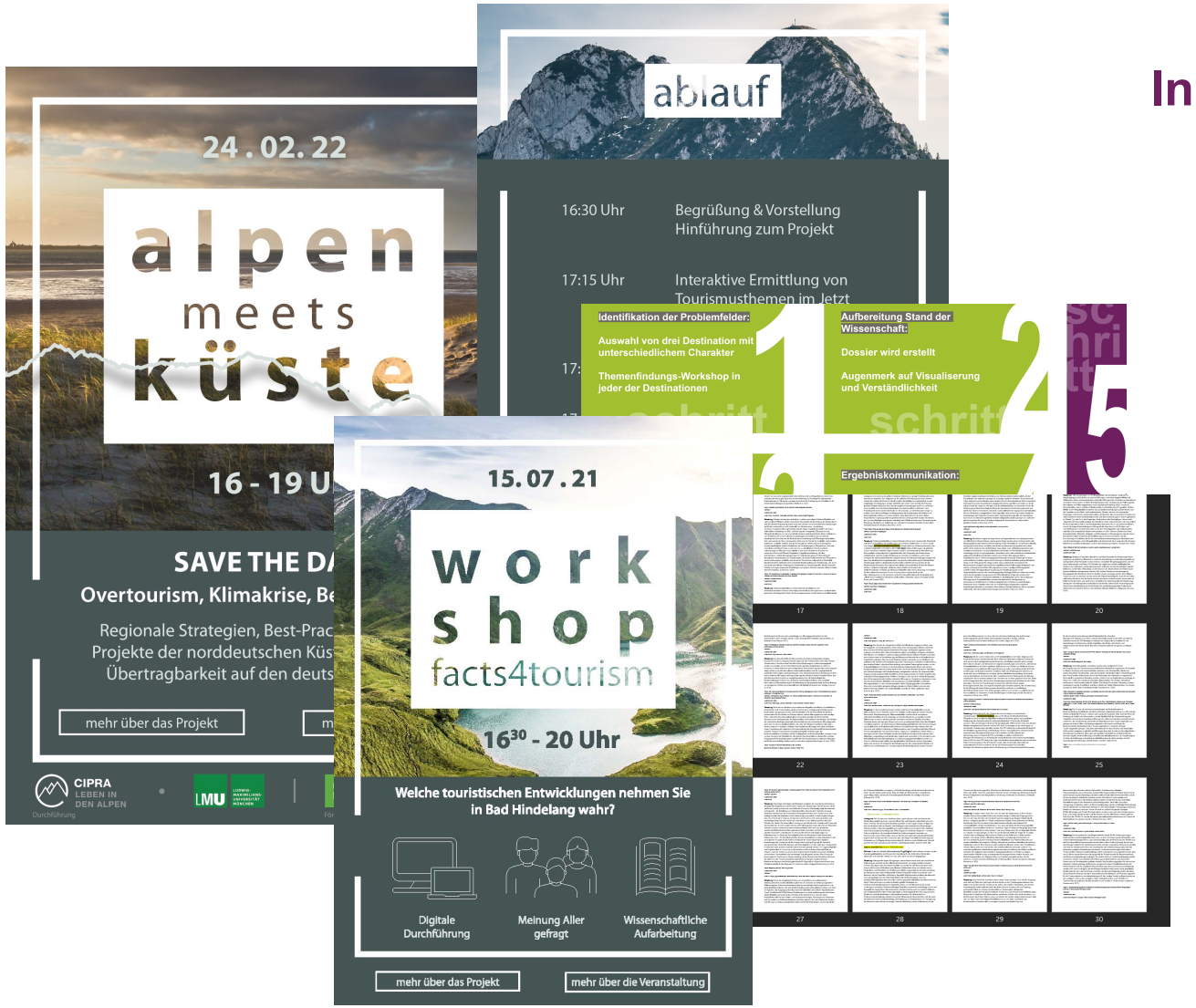
Henriette Adolf | Deputy Director
International Commission for the Protection of the Alps CIPRA Germany e.V.
24 October 2023

This project was funded by the Federal Environment Agency and the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection. The funding was provided by resolution of the German Bundestag.

Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz

Umwelt Bundesamt

PROJECT FACTS4TOURISM



In the Facts4Tourism project …

- six workshops were held in the partner destinations...
- two digital exchange events with a total of over 150 participants from the Alps, the North German coastal region and various state and federal ministries were implemented...
- three meetings were held with the project advisory board...
- over 175 papers were reviewed and summarized for the dossier...

DOSSIER FACTS4TOURISM

BACKGROUND INFORMATION

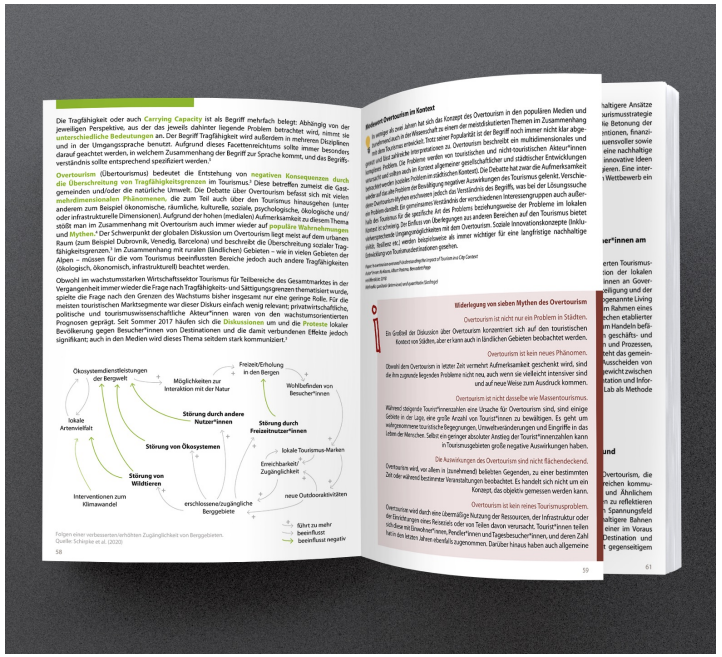
DEFINITIONS

ILLUSTRATIONS

RESEARCH RESULTS

PRACTICAL EXAMPLES

FURTHER INFORMATION



science communication – tourism forms – tourism effects – tourism guidance – tourism resilience

RESILIENCE

CIPRA

Resilience describes how resistant a destination is to stressors, schocks and crises

is the ability of a destination to absorb and overcome schocks and disruptions

RESILIENCE

CIPRA

Resilience describes how resistant a destination is to stressors, schocks and crises

is the ability of a destination to absorb and overcome schocks and disruptions

MEASURES FOR RESILIENT TOURISM

CIPRA

linking with other sectors such as agriculture and education

development of digital offerings for SMEs (small and medium-sized enterprises) and family businesses

avoidance of external dependencies

social innovations and networks (important for sustainable, post-fossil society in tourism)

resource-saving developments for a higher quality of vacation and life

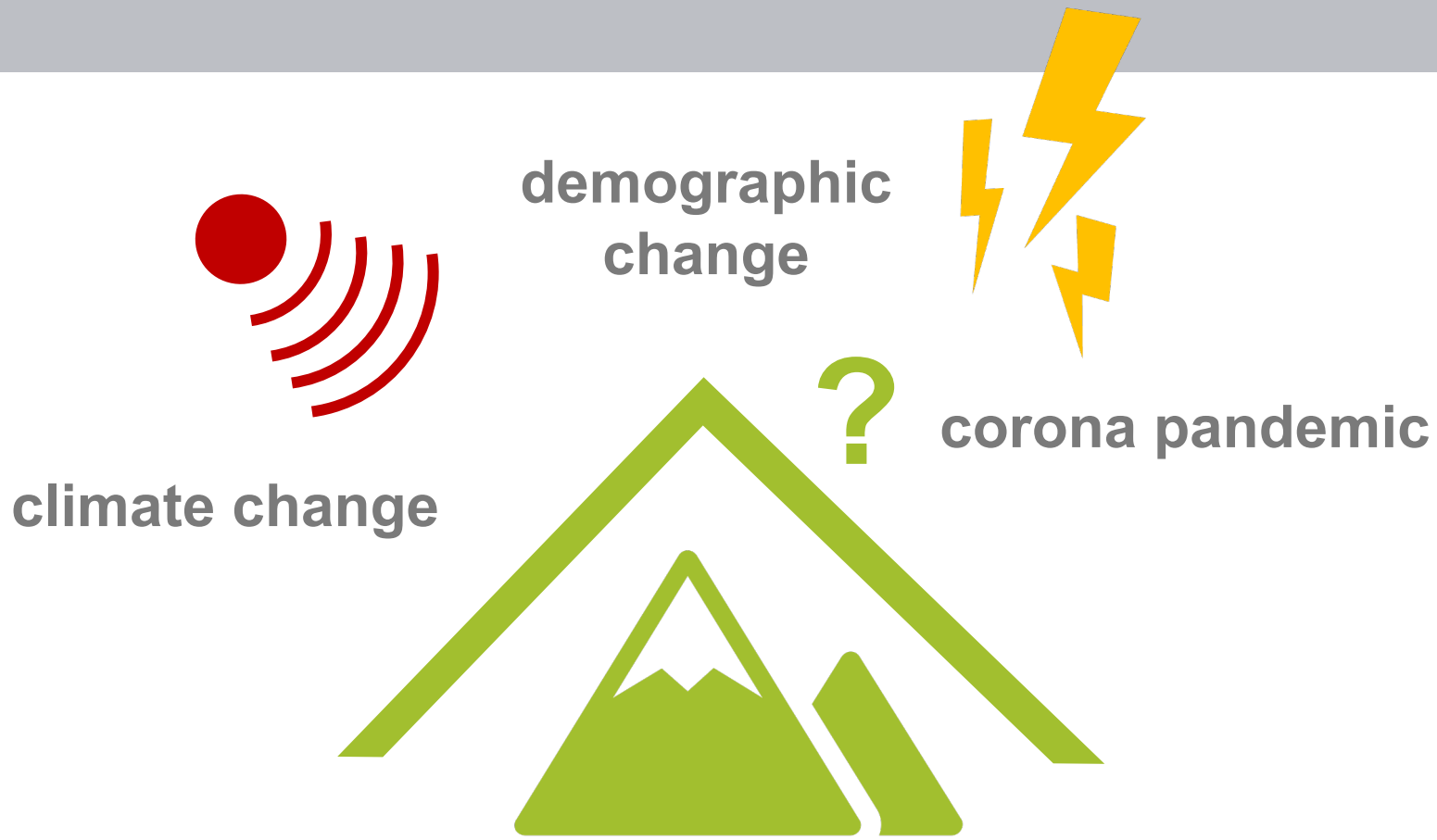
versatile offerings consisting of different elements (diversification) that can be flexibly combined with each other (modularity) in order to be able to recombine, replace and create them (multifunctionality).

feedback loops and involvement of local people (important for quick reactions)

Measures for a more resilient tourism. Source: Own illustration based on Euregio Inntal – Chiemsee – Kasiergebirge – Mangfalltal e. V. (2021), Traskevich und Fontanari (2023)

RESILIENCE AND ALPINE TOURISM

CIPRA



CIPRA

”

The resilience of alpine communities to changes is greatest the more they have linked and integrated social, cultural, political and environmental issues into the community.

Resilience and vulnerability of remote Alpine communities: case study in Vent (AT)

Paper: The resilience and vulnerability of remote mountain communities: the case of Vent, Austrian Alps

authors: Geoff A. Wilson, Markus Schermer, Rike Stotten
published: 2018
methodology: qualitative (interviews)

CIPRA

The interaction of tourism and cultural landscape or agriculture can contribute positively to the resilience of communities. One-sided economic development, for example focused on tourism, means lower social resilience.

Lock-ins and community resilience:
Two contrasting development paths in the Austrian Alps

Paper: Lock-ins and community resilience: Two contrasting development pathways in the Austrian Alps

authors: Rike Stotten, Markus Schermer, Geoff A. Wilson
published: 2021
methodology: literature analysis, quantitative (data analysis) and qualitative (interviews)

IMPACTS OF CLIMATE CHANGE IN THE ALPS

CIPRA

More debris and rubble fields are created - this means higher risk of rockfall, increased mudslides, unstable mountain slopes and landslides due to the retreat of glaciers

Change in the water balance: Earlier snowmelt, shift of maximum water runoff from spring to winter, lack of water supply for the valleys due to glacial meltwater in summer

Thawing of the permafrost: The ground, which is frozen all year round in significant parts of the High Alps, warms up. This leads to unstable slopes, increased rockfalls and more rockfall; foundations sink down.

Change in snow cover and snow depth: decrease in ice and frost days; stronger increase in winter temperature than summer temperature; more rain than snowfall, higher snow line, fewer days with closed snow cover

Summer decrease and winter increase in precipitation; higher fluctuations in both temperature and precipitation. As a result, increasing risk of extreme weather events.

Change in vegetation zones:
Fewer high alpine vegetation zones, shift of zones upwards, increase in tree line, more mixed forests at lower altitudes.

Impacts of climate change in the Alps.
Source: Own illustration based on Weber and Köcher (2020)

CIPRA

Popular attractions for alpine summer tourism and their accessibility are affected by direct impacts of climate change. Further growth of tourism is not compatible with a low-carbon economy.

Overview of the impacts of climate change on mountain tourism

Paper: Impacts of climate change on mountain tourism: a review

authors: Robert Steiger, Natalie Knowles, Katharina Pöll, Michelle Rutty
published: 2022
methodology: literature analysis

CIPRA

Due to climate change, traffic loads in the Alps continue to increase in summer and roads can become congested on peak days.

Impact of climate change on tourism mobility in mountain areas: case study in South Tyrol (IT)

Paper: The impacts of climate change on tourist mobility in mountain areas

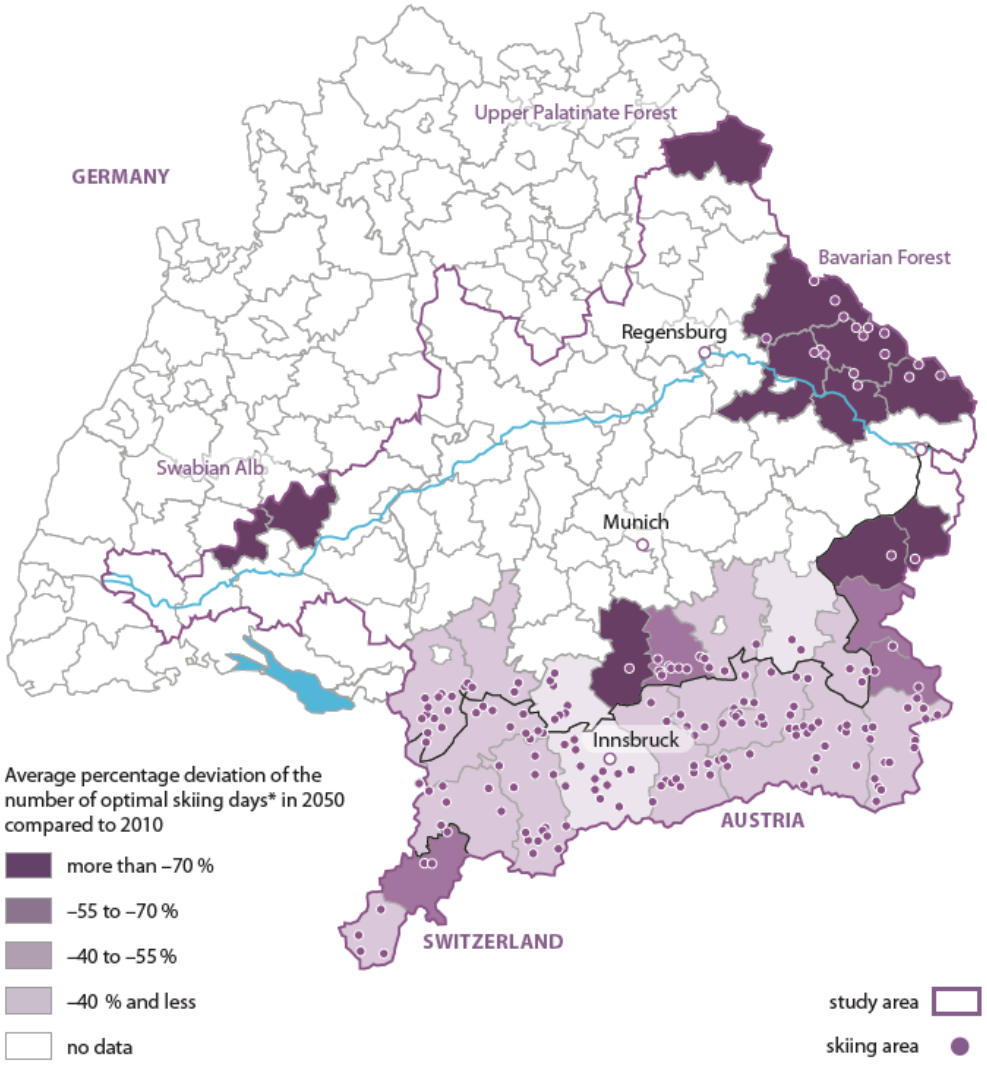
authors: Federico Cavallaro, Francesco Ciari, Silvio Nocera, Franz Prettenthaler, Anna Scuttari
published: 2016
methodology: literature analysis, quantitative (data analysis)and qualitative (case study)

In mountain regions, there are widespread deficits in adapting to climate change. Better framework conditions must be created for both stand-alone and state-supported adaptation measures.

Overview of the impacts of climate change on mountain tourism

Paper: Impacts of climate change on mountain tourism: a review

authors: Robert Steiger, Natalie Knowles, Katharina Pöll, Michelle Rutty
published: 2022
methodology: literature analysis



Average number of optimal ski days in 2050.
Source: Berghammer and Schmude (2014)

Average number of optimal ski days* in 2050 compared to 2010

- Bavarian Forest, Swabian Alp, district Bad Tölz-Wolfratshausen: **more than – 70%**
- District Miesbach: **– 55 to – 70%**
- Districts Oberallgäu, Ostallgäu, Rosenheim, Berchtesgadener Land: **– 40 to – 55 %**
- Districts Garmisch-Partenkirchen and Traunstein: **– 40 % and less**

* Assumptions for an optimal ski day: no precipitation, ski area fully operational, (artificial) snow depth on slopes 30 cm or more, surrounding snow cover (scene function) present, perceived temperature between –5 and +5 °C, sunshine duration 5 hours or more, wind speed 10 m/s or less, weekend or public holiday.

CIPRA

The response of winter sports and winter tourists to climate change is not only influenced by weather, snow and operating conditions, but also by individual lifestyles and socio-demographic aspects.

Characterisation of the reaction behaviour of winter (sports) tourists to climate change in two German destinations

Paper: Behavioural change or „business as usual"? Characterising the reaction behaviour of winter (sport) tourists to climate change in two German destinations

authors: Maximilian Witting, Michael Bischof, Jürgen Schmude
published: 2021
methodology: quantitative (survey)

> **Even with an increase in snowmaking capacity, the number of skiers will remain roughly the same in the short term. The combination of the effects of climate change and the generational long-term decline in the number of skiers has a very strong negative impact on the future of ski tourism.**

Climate change and sustainability in ski tourism: an integrated model of adaptation dynamics between resort operations and skier demand

Paper: Climate Change and Ski Tourism Sustainability: An Integrated Model of the Adaptive Dynamics between Ski Area Operations and Skier Demand

authors: Daniel Scott, Robert Steiger, Michelle Rutty, Marc Pons, Peter Johnson
published: 2020
methodology: quantitative (data analysis, survey)

”

The demand for skiing in general is decreasing. Additionally, there is an ageing of the skiers and there is a decreasing interest of the prospective young skiers.

Effects of climatic and demographic change on the future demand of skiers and their economic consequences using the example of Sudelfeld (DE)

Paper: Impacts of climate and demographic change on future skier demand and its economic consequences – Evidence from a ski resort in the German Alps

authors: Maximilian Witting, Jürgen Schmude
published: 2019
methodology: qualitative (expert interviews)

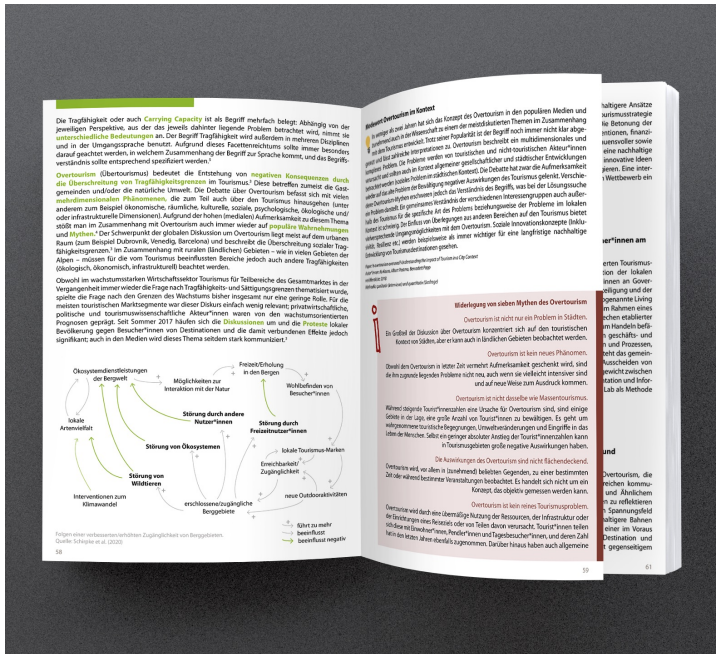
Last-chance tourism is paradoxical in itself: the trips to visit the endangered elements contribute to the threat status of those very objects due to their harmful emissions.

29 Salim, Emmanuel; Ravanel, Ludovic (2020): Last chance to see the ice: visitor motivation at Montenvers-Mer-de-Glace, French Alps. In: Tourism Geographies, S. 1–23. DOI: 10.1080/14616688.2020.1833971.

30 Salim, Emmanuel; Mayer, Marius; Sacher, Philipp; Ravanel, Ludovic (2022): Visitors' motivations to engage in glacier tourism in the European Alps: comparison of six sites in France, Switzerland, and Austria. In: Journal of Sustainable Tourism, S. 1–21. DOI: 10.1080/09669582.2022.2044833.

31 Abrahams, Z.; Hoogendoorn, G.; Fitchett, J. M. (2022): Glacier tourism and tourist reviews: an experiential engagement with the concept of „Last Chance Tourism". In: Scandinavian Journal of Hospitality and Tourism 22 (1), S. 1–14. DOI: 10.1080/15022250.2021.1974545.

DOSSIER FACTS4TOURISM



THANK YOU FOR LISTENING!

Available online under
www.cipra.de/publikationen

henriette.adolf@cipra.org

+49 89 / 23 23 98 41

For print copies (German),
please approach me.

CIPRA