



## **Studies on Past Climate Variability and Impacts in two Austrian Inner-alpine Valleys**

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Living in Alpine regions is highly vulnerable and precarious in terms of climate variability and change. Recent studies have shown that the Alps are among the climate sensitive regions of the world. The temperature increase during the past 150 years for example has been roughly twice as strong as for the global mean. This increase will be studied in more detail: for the past 100 to 200 years, on regional to local scale, in monthly to daily resolution, for a multiple climate data set.

However, the study of climate change impacts necessarily has to deal with 3 aspects: Climate change, its impact on the ecosystem (e.g. glacier retreat, vegetation changes, etc.) and its impact on the socio-economic system (e.g. tourism, energy consumption etc.). To a large part, both valleys make their income by tourism, skiing tourism during the cold and snowy season, hiking and mountain climbing, rafting, recreation etc. during the warm season. Have natural snow conditions changed; has it become more often hot, what happened with precipitation frequencies and sunshine duration? These and some more questions are objects of the Austrian research programme “provision for nature and society” studied in the research project “a Tale of Two Valleys”. (<http://www.zamg.ac.at/a-tale-of-two-valleys>).