



## **Strategies of Adapting Winter Tourism and Recreation to Climate Changes – the Case of Slovenia**

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Climate changes already influence winter-sport tourism in the Alps, which is why adaptation has already started. Due to the lie on the SE edge of the Alps, the winter-sport centres in Slovenia are especially sensitive and the influences of climate changes are already noticeable.

The aim of this research was to study the possible adaptation strategies of alpine tourism to climate changes and thus to do a survey and an estimate of strategies which could be used by the ski industry in Slovenia to adapt to climate changes. Winter-sport centres need to start adapting. Namely, acting in the last moment will be incomparably less efficient and above all more expensive than it would be now.

The most widespread form of adapting to 'green' winters in winter-sport centres in Slovenia and elsewhere is snow-making. From the point of view of maintaining ski tourism it is definitely necessary, but it does not represent a universal, permanent and sustainable solution for ski tourism in Slovenia.

Another technological adaptation strategy which is already used is the levelling of ski areas, whereas the strategies of moving to higher altitudes and to north facing slopes are very limited. Besides, the strategy of retreating to glaciers, which could be used in other Alpine countries, is actually impossible.

The strategies acting in the direction of maintaining ski tourism are also the changes in the operativity of activity, which have already started to take place in Slovenia, whereas the solving of ski tourism with indoor ski areas is due to enormous costs and

a too small critical mass of skiers, who would be interested in such a form of skiing, impossible.

The maintenance of ski tourism will be helped also by different financial instruments but it will be probably just the biggest ski centres that these financial initiatives will be assigned to. On the other hand, a strategy that has proved as very efficient is the cooperation between individual railway/ski companies.

Due to low altitudes of Slovene ski centres the best way of adapting to climate changes is the search for alternatives to ski tourism. One of the options is offered by the spreading of winter activities which do not depend on snow (for example, congress, business, spa and health tourism). An adaptation strategy that has proved as very good is also the connection of ski tourism with spa tourism and wellness programmes.

Despite the negative influences climate changes bring to mountain tourist resorts also new opportunities or market niches. Greater aridity in summer and more pleasant temperatures than in cities and at the seaside namely represent an opportunity for more intense development of summer tourism.

An important market niche in mountain tourist resorts in Slovenia is represented also by eco-environmental, experiential and educational tourism. Namely, the great variety of the landscape and the relative intactness of nature represent a big tourist potential.

Most ski centres which have enough financial sources and which are not limited by environmental legislation have either already started to adapt to climate changes or adaptation strategies are included into their developmental plans. The majority of small ski centres of local importance, which have rather limited financial sources and focus mostly on ski supply, will be threatened in the future by a decline. This might happen also to middle size winter-sport centres which will not diversify their supply in an adequate amount and to which the winter tourism will still represent priority. Thus in a longer term the most successful mountain tourist resorts in Slovenia will be the ones which will not be strictly dependent on snow but will try to develop whole-year tourism.