



The value of snow cover

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Snow is the natural resource, like soil and water. It has specific properties which allow its use not just for skiing but also for houses cooling in summer (Swedish experience), for air fields construction (Arctic and Antarctic), for dams (north of Russia), for buildings (not only snow-houses of some Polar peoples but artistic hotel attracting tourists in Sweden), and as art material (Sapporo snow festival, Finnish events), etc.

“Adjustment” of snow distribution and amount is not only rather common practice (avalanche-protection constructions keeping snow on slopes) but also the practice with long history. So-called “snow irrigation” was used in Russia since XIX century to protect winter crop.

What is now named “artificial snow production”, is part of much larger pattern. What makes it special—it is unavoidable in present climate and economy situation. 5% of national income in Austria is winter tourism. 50% of the economy in Savoy relay on winter tourism. In terms of money this can be less, but in terms of jobs and income involved this would be even more considerable in Switzerland. As an example—the population of Davos is 14000 in Summer and 50000 in Winter. Skiing is growing business. In present time you can find ski slopes in Turkey and Lebanon. To keep a cite suitable for attracting tourists you need certain amount of sunny days and certain amount of snow. The snow cannons are often the only way to keep a place running. On the other hand, more artificial snow does not necessary attract more tourists, while heavy natural snowfall does attract them.

Artificial snow making is costly and requires infrastructure (ponds and electric lines) with very narrow range of weather conditions. Related companies are searching for alternatives and one of them can be “weather regulation” by distribution of some chemical components in clouds. It did not happen yet, but can happen soon. The consequences of such interference in Nature is hardly known.

The ski tourism is not the only and not even the main outcome from snow cover use. The value of snow cover for agriculture, water resources, industry and transportation is so naturally inside the activities that is not often quantified. However, any considerations of adaptation strategies for climate change with changing snow conditions need such quantification.