Snow information from the world's mountain regions - relevance and need for improvement

Wolfgang Schöner [1]

1 Department of Geography and Regional Sciences, University of Graz

Snow is a key element for mountain regions worldwide with quite different relevance, e.g. for tourism, water management, agriculture, etc. However, snow data (snow depth, depth of snowfall, water equivalent of snow cover) for many mountain regions around the world vary spatially and are usually very sparse. While satellite data for lowland areas have brought significant improvements over the last 2 decades or so, mountain regions still suffer from a lack of methods to interpret satellite data and from sparse in situ networks. In this presentation, snow information will be discussed using the European Alps and Greenland as examples. While snow information for the Alps is temporally and spatially dense, snow information for all of Greenland is extremely sparse, which means that the changes forced by climate change are rather unknown and it is also difficult to provide info-services for the public. The presentation will highlight ways to improve snow information for such data-poor mountain regions and show examples of its importance to humans.