

PREFACE

Among the atmospheric phenomenon snow is one of the most impressive with easy recognizable impacts on the nature and on all the structures. Being atmospheric water vapor frozen into six arms ice crystals precipitating from the atmosphere in form of light white flakes or lying on the ground as a white layer is easy detectable and measurable climate element. Though the ice crystals grow under the same randomly changing conditions, all of them end up with seemingly similar shapes. Nevertheless, the majority of the snow crystals are not perfectly symmetrical and they occur under variable conditions. Snow transport process shapes the snow cover, which is normally heterogeneously distributed due to the influence of wind, snowfall intensity and terrain features. Thus, snow is a baffling phenomenon in its essence and occurrence, as well.

The variability of snow cover over European territory is enormous as well as the variability of its impacts as different geographical conditions experience different amount of snow during the season and as different sectors in different regions react differently on the snow and snow cover. Further to that, the snow cover impacts on some sectors either directly or indirectly far behind its geographical occurrence. So that, snow has to be taken as a global ecological phenomena interacting and impacting on the whole globe and in Europe in particular as many parts of Europe can experience the snow events practically over the whole year. Snow events do occur even in Mediterranean where could their impact quite severely. Regarding the biosphere, prominent feature of the snow cover is in its ability to act as an effective insulator during the low temperature periods. This feature depends on the character of the snow cover and varies over the whole snow season and snow cover occurrence plays an important role in the living cycles of both plant and animal communities. The parallel impact is going on at the abiotic sector, in hydrosphere where snow and snow cover forms a big part of hydrological cycle. Wide range of human activities, starting with agriculture and forestry on one hand and ending with transport and tourism on the second hand enjoy the positive and in some cases healing effect of snow and snow cover while extreme snow events in the form of snowstorms, big snow drifts and quick melting are bringing disasters t practically all sectors.

Thus, the deep knowledge of the snow and the snow cover features, occurrence and their behavior and prediction are the essential for the human activities in terms of different type of management as well as for our behavior towards the existing ecosystems and the environment in the whole. This conference should bring some points to this knowledge.

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