

Features of snow cover distribution in the southern Ukraine

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ABSTRACT

Snow is one of the most common natural phenomenon that actively affects the society and economy in many parts of the world. Influence of snow on society multifaceted and includes complex physical, social, economic and psychological aspects. Thickness, density, moisture content and strength of snow cover are the main physical parameters that are taken into account when using snow and deal with it. The thickness of snow cover and duration of its occurrence have social and economic significance and impact on the environment. Various domains of economics are in the highest degree of vulnerability when a strong wind, low temperatures and freezing rain accompanied or followed by heavy snowfalls. In addition, it is important to time broke out snowstorm. For example, the most unpleasant consequences of a storm can result in peak hours or during harvest. Processing and analysis of source data made it enable to characterize the distribution of snow cover in the Odessa region. Maximum number of cases of snow cover observed at stations Lyubashivka (887) and Rozdilna (634). Minimum number of cases with snow cover falls to the station Vilkove (345), which is located in the southern area in question. Snow cover height often reaches to 5cm on all rails. The height of snow cover > 35 cm is observed at stations of Zatyshya, Lyubashivka and Serbka, i.e. those stations located in the north of Odessa region and away from the coastline. The degree of snow coating of station is usually 10 points for all stations in question. The maximum number of cases has the nature of occurrence of snow cover "uniform snow cover on frozen ground" (digit 0) and "uneven snow cover on frozen ground" (digit 3). From the analysis of temporal distribution of the number of days with snow cover at the stations of the Odessa region can conclude that the longest winters are observed in 1996 and 2002 - 2003. Shortest winters occurred in 2001 and 2007. The coefficients of asymmetry and excess are positive values at all stations of the Odessa region, suggesting an increase in the height of snow cover from the beginning to the end of the study period. For the longest winter the typical synoptic situations - southern cyclones and north-western and western anticyclones. In general, for the period under review 109 observed synoptic situations that contributed to the formation and storage of snow cover in the Odessa area, including the cyclone 64 and 45 anticyclones. Most of the synoptic processes observed in the winter of