

The role of synoptic situations on the formation of atmospheric processes

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In modern world and in Georgia too climate is changed globally. Tendency of climate amendment is noticed from the 70s of the last century when in the world and in Georgia too frequent climatic catastrophes happened. It was scientifically confirmed that climate amendment worldwide, in separate regions is expressed by increasing the temperature, increasing the intensity of precipitates and frequency of extreme phenomena. Synoptic processes determine the regime of weather and its amendment, that's why it is one of the climate producer factors in the world.

Concrete synoptic processes and scales are analyzed in the thesis (using high technologic radar METEOR735 CDP10-DOPPLER WEATHER RADER), namely: a) synoptic process causing natural calamity on June 13-14, 2015 in Tbilisi (caused by pouring rain); b) detailed analysis of synoptic process causing strong hail on the territory of Kakheti on May 19-20, 2019; c) analysis of the process (per data of << METEOR 735CDP10>> radar) causing mist (dusty cloud) in Tbilisi, on July 27, 2018 and results of monitoring.

A role of synoptic situations in the formation of atmospheric processes is appreciated in the thesis; causing results and its influence over adjacent eco-system are examined. There are presented synoptic processes and scales (using modern technologies) characteristic for concrete regions which are in direct connection with the development of the economics.

An important part of the territory of Georgia is occupied by cultivable lands and recreation zones; their development is significantly depended on atmospheric processes and especially on the frequency of extreme phenomena (meteorological forecast of pouring rains, hail and thundering, modification of the weather, evaluation of climate amendment and etc.).