

**Peculiarities of the distribution of special complex-climatic parameter in Georgia**

Liana Kartvelishvili<sup>†</sup>; Lia Megrelidze; Nino Shavishvili

<sup>†</sup> The National Environmental Agency, Georgia

Leading author: [lianakartvelishvili@yahoo.com](mailto:lianakartvelishvili@yahoo.com)

The building-climatic codes established according to the building guides and rules acting nowadays are defined on the basis of monitoring materials that reflect the climatic observation data from Georgian hydrometeorological network including 1960 year. In this guidelines document Georgia is placed in forth climatic zone together with Armenia and Azerbaijan. It is unacceptable due to important peculiarities characterizing climate of South Caucasus and especially of Georgia with its geographic location, large hypsometric factors and other climate generating factors. From the above-mentioned the assumption of homogeneity of South Caucasus and particularly, Georgian territory is wholly unacceptable from the point of view of identification of building codes. So it is necessary to consider climate conditions of separate regions in national building codes. This enables to protect building objects from the negative impact of local climate conditions what in future will promote essential economical profit (this differ from the current situation when all planned and started construction is realized without any consideration of risks connected with local climatic factors). Consideration of climatic parameters is especially important for current situation when transition to light constructions has been taken place, which are more sensible against the change of climate conditions. Sharp changes of air humidity and temperature, influence of heavy showers and winds damage building objects that cause decreasing of its exploitation level. For the correct projecting the different combinations of climate parameters and their calculated values have to be considered. For this purpose it has been identified special complex parameter, considering relation between the amount of precipitation during the warm period, the relative humidity of the warmest month, mean annual radiation arriving on horizontal surface and annual temperature range. Calculations of the mentioned parameter have been carried out on the basis of the last 50-years period regular meteorological observation data. Peculiarities of distribution of special complex climatic parameter in space and time have been studied by the research. On the base of obtained results the specification of building-climatic zoning has been conducted. The research results enables to make correct architectural-planning measures while projecting building objects and efficiently realized protection of building objects from the negative impact of local climate as well elaborate of recommendations for development of urbanization conditions, building infrastructure strategy and safety of investment environment for separate regions of Georgia