**THE DYNAMICS CHANGE OF AVERAGE ANNUAL VALUES OF AIR TEMPERATURE IN INSTRUMENTAL PERIOD (ON THE PATTERN OF MOUNTAINOUS TERRITORY OF THE REPUBLIC OF ARMENIA)**

*Margaryan Varduhi*

*Yerevan State University, Department of Physical Geography and Hydrometeorology, Faculty of Geography and Geology, Yerevan, Armenia, Alek Manoukian Street,1, 0025, Tel: (+ 374 98) 868740, Fax: (+ 374 10) 554641, Email:* *vmargaryan@ysu.am*

Air temperature is characteristics of situation on of links of climatic system (atmosphere). So, clarifying and estimation of regularities of temporal distribution of air temperature has importance, especially for more accurate definition of thermal balance, for productive using of thermal resources.

Today the effects of climate change are felt around the world and Armenia is not an exception. Armenia is characterized by vulnerable mountainous ecosystems, arid climate, an active process of desertification and natural disasters are often observed, which makes the country more vulnerable the impacts of climate change.

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Given the above, the purpose of the work was to identify, analyze and assess the patterns of change in the dynamics of air temperature in the Republic of Armenia.

For solving of suggested problems as a theoretical base have been used appropriate researches, as a raw material - actual data of long-term observations of air temperatures the meteorological station of the territory of republic for last 100 years, which are kept in the fond of Armstatehydromet of the Ministry of Territorial Management and Emergency Situations. As a methodological base in the work have been applied methods: mathematic-statistical, geographical, extrapolation, analysis, correlation, complex.

In study area the values of average annual air temperature are within 14.3 ºC (Meghri) and -2.6 ºC (Aragats). During the year the warmest months are July-August, with average monthly temperature 9.0…27.0 ºC, and the coldest month are January with average monthly temperature –12.7…1.5 ºC.

After researches became clear, that observes a tendency of increase of average annual values of air temperature in the territory the Republic of Armenia. And changes of air temperature in the different regions of Armenia in different seasons have different tendencies. So, for future prevention or decrease of air temperature is very important planting of greenery and creation of little basins. On the other hand it have to monitor the realization and care these works.

The change of air temperature will its inevitable consequence on change of components of hydrothermal balance study area, on a violation of the ecological balance of natural ecosystems, as well as the social, environmental and economic development of study area. Therefore, to adapt to changing temperature needs an ecosystem approach, for mitigation – implementation of complex measures for adaptation.

In Armenia air temperature changes have been estimated for different periods, and results have been used in first and second national messages of Climate Change of RA. The results show, that during last ten-years period in Armenia observes increasing of air temperature. During 1935-96 period for comparison to basic period (1961-1990) average annual temperature increased on 0.4 ºC, in 1935-2007 period – 0.85 ºC, in 1935-2012 period - on 1.03 ºC. It means that the temps of temperature increasing increased. Since 1994 the deviations of average annual temperature in comparison with average temperature in 1961-1990 were only positive.

By the forecasts of ECHAMS, GFDL, GISSER, HadCM3 models in Armenia predicts annual increase of air temperature for 1.1-1.5 ºC in 2011-2040, 2.0-3.0 ºC in 2041-2070, and 3.5-5.5 ºC – in 2071-2100.

So, in the results of studies we have the following conclusions and suggestions:

- In perennial observations notes a tendency of increase of annual average values of air temperature;

- have been made many researches, but there are not studies systemized of reasons of air temperature change yet, and existed are just for some sides of it. So, is better to continue studies and to develop future forecasts, using new models;

- estimation of problems of air temperature dynamics change will get right solving, when will be known the relations, which it have with other components of nature area complex in conditions of direct influence of human.

Is necessary:

- providing of meteorological stations with modern equipments (especially automatic);

- developing of notification of population about the climate change;

- evaluation of the vulnerability of ecosystems as a result of changes in air temperature;

- realization legal-organization, institutional, technical arrangements for adaptation of economy to new natural conditions and soften of climate change consequences;

- strengthening of scientific studies of climatic problems and implementation of new technologies;

- working out of real climatic scenarios;

- working out of the programs for softening the negative effects of air temperature change;

- financial satisfy support from government and other donor organizations made implementations must be visible for society, directed for realization of specific programs and have control by some organs;

- providing of modern ways of availability and outspread of information;

- working out and implementation of qualification programs, organization of studying processes, development of specialists’ qualification;

- realization and providing international scientific-educational cooperation, strengthening of inter-agency cooperation.