

## **SOME METHODOLOGICAL QUESTIONS ABOUT INFLUENCE OF CLIMATE CHANGE ON THE MAIN AGRICULTURAL LANDSCAPE ZONE OF GEORGIA**

***Robert Maghlakelidze, Dali Nikolaishvili, Neli Jamaspashvili, Maia Tskhvaradze, Nino Paichadze, Tengiz Dekanoidze, Manana Sharashenidze***

**e-mail: [robert.maghlakelidze@tsu.ge](mailto:robert.maghlakelidze@tsu.ge)**

Department of Geography, Iv.Javakishvili Tbilisi State University, 0179, Tbilisi, I.Chavchavadze #3

Among global ecological problems one of the acute is a climate change. The efforts of scientists, international and national organization are directed to develop scientifically proved and methodology of current environmental condition and tendencies determination. Landscape approach gives possibility to reveal causes and reasons of mosaic changes; it is very important to use landscape approach for countries like Georgia, because it is characterized by a great diversity of natural conditions.

It's very important to create spatial-temporal model of the main agrozone landscapes of Georgia and to reveal expected changes in productivity of particular agricultural crops. To achieve this purpose should be fulfilled new methodological approaches in order to evaluate landscape seasonal dynamics and influences in climate changes, Analyse the seasonal dynamics of landscapes and reveal the main tendencies in landscape, such as humidization, aridization, etc.

In recent years, in Georgia strongly reduced number of meteorological stations, which caused difficulties in climate change studies. Conception of spatial-temporal analyze and syntheses of NTC, gained experience of landscape studies and specific way of research which should base, give us opportunity even in data's deficit condition to determine precisely expected changes and tendencies in landscape.

Main Expected Results of the Research are:

- Methodological base of climate change influence on landscapes, which might be model for Georgia and other territories;
  - The basic database of Georgian agri-landscape zone and updated spacial-temporal model;
  - Identifying specifics of climate change scale and intensity of territorial distribution on different classification level of landscapes (landscape type, sub-type, genus, NTC);
  - Specific landscape parameters (phytomass, humus, etc.) prognoses of expected changes;
  - Evaluation map of Georgian agrolandscape zone to the climate change;
- Recommendations for climate changes adaptation and for landscape planning