Development of an interactive tool to raise climate change awareness of public, policy makers, and practitioners

*Evgeny P Gordov[1,2,3], Yulia Gordova[1], Igor Okladnikov[1,2], Alexander Titov[1,2]

1. Institute of Monitoring of Climatic and Ecological Systems SB RAS, 2. Institute of Atmospheric Optics SB RAS, 3. Tomsk State University

In the framework of adaptation to climate change and mitigation of its consequences it is necessary to promote and support activities aimed at reducing possible risks. But there is a problem of insufficient awareness among decision-makers, as well a lack of scientific background. Those responsible for making decisions, stakeholders and the public do not have the skills and knowledge to work with the accumulated climate data to development an adaptation and sustainable development strategy. The goal is to provide these groups with tools, skills, thematic information for understanding climate processes occurring in the region.

We believe that the preparation of both the persons responsible for decision-making, and the future specialist in environmental sciences shouldn't be realized in artificial learning environment, but on the basis of actual operating computational and information systems used in climate research. Such kind of a system was developed by a team of the Institute of Monitoring of Climatic and Ecological Systems SB RAS. The information-computational Web GIS "Climate" (http://climate.climate.scert.ru) provides opportunities to study regional climate change and its consequences providing access to climate and weather models, a large set of geophysical data and means of processing and visualization. Also, the system is used for undergraduate and graduate students training. In addition, the system capabilities allow creating information resources to raise public awareness about climate change, its causes and consequences, which is a necessary step for the subsequent adaptation to these changes. Currently, an interactive System User Manual as a tool for decision-makers is under development. It contains not only the information needed to use the system and perform practical tasks, but also the basic concepts explained in detail. The knowledge necessary for understanding the causes and possible consequences of the processes is given. The results of implementation of practical tasks are available not only in the form of color surface maps, but also in the form of accessible in the Internet cartographic layers that can be consequently used in usual desktop GIS. The manual will help to prepare qualified users, which in the future will be able to determine the policy of the region to adapt to climate change impacts and hazards. The work is supported by Russian Science Foundation grant 16-19-10257.

Keywords: climate change , Web-GIS , awarness raising