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Using Web GIS "Climate" for Adaptation to Climate Change

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A work is devoted to the application of an information-computational Web GIS "Climate" developed by joint team of the Institute of Monitoring of Climatic and Ecological Systems SB RAS and Tomsk State University to raise awareness about current and future climate change as a basis for further adaptation.

Web-GIS "Climate» (http://climate.scert.ru/) based on modern concepts of Web 2.0 provides opportunities to study regional climate change and its consequences by 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 the joint development of software applications by distributed research teams, research based on these applications and 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.

Basic information course on climate change is placed in the public domain and is aimed at local population. Basic concepts and problems of modern climate change and its possible consequences are set out and illustrated in accessible language. Particular attention is paid to regional climate changes. In addition to the information part, the course also includes a selection of links to popular science network resources on current issues in Earth Sciences and a number of practical tasks to consolidate the material. These tasks are performed for a particular territory.

Within the tasks users need to analyze the prepared within the "Climate" map layers and answer questions of direct interest to the public: "How did the minimum value of winter temperatures change in your area?", "What are the dynamics of maximum summer temperatures?", etc.

Carrying out the analysis of the dynamics of climate change contributes to a better understanding of climate processes and further adaptation.

Passing this course raises awareness of the general public, as well as prepares the user for subsequent registration in the system and work with its tools in conducting independent research.

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