Changes in precipitation and flood patterns as well as rising sea level can affect not only the territories under buildings but also the availability and quality of groundwater resources. The cities located in the Baltic Sea coast already have been preparing to live under the changing climate conditions. The BaltCICA project involving 24 partners from 8 countries (Finland, Estonia, Latvia, Lithuania, Denmark, Sweden, Norway, and Germany) was launched in search of effective solutions. The project joined the efforts of researchers, public relations professionals and local authorities. The project partners in Lithuania are: Vilnius University, Lithuanian Geological Survey, ECAT, and municipalities of Klaipėda and Klaipėda District.

Thirteen testing sites were selected in seven countries for a series of studies to find out specific measures for adaptation. Involvement of the public and stakeholders into the process of planning the adaptation measures and dissemination of available information are a very important part of the project. Test areas face very different challenges: from the supply of good quality drinking water to the complex restructuring of the territories. Development of specific measures to be incorporated into the future urban development plans is a common goal for the countries participating in the project. The municipalities the Klaipeda city and district were chosen as test sites in Lithuania.

The project uses a common A1B and B1 emission scenarios for precipitation, temperature and sea level change estimates. The project task for the Lithuanian Geological Survey is to assess the problem of climate changes on groundwater resources in the Klaipėda region. For this purpose, a network of groundwater monitoring was established, onetime measurements in wells and boreholes were made and a hydrodynamic model for the Veiviržas River basin, which covers the greater part of the Klaipeda District, is due to be developed. The obtained results will serve as a basis for recommendations on the use and conservation of underground water resources.

The Karklė settlement, where the Klaipėda District Municipality has planned to prepare a detailed plan for beaches is another test site. Karklė not only is specific for the local coastline but also has objects of cultural and natural heritage. The beach of Karklė settlement is surrounded by protected areas which are an object additional concern for the local planners. The project provides for all-round geological and hydrogeological investigations and development of recommendations for the planning area bearing in mind the trends of climate change. Introduction of possible development scenarios to local residents and involvement of various groups of interest into the project are important tasks of the project.

Project information. The BaltCICA Project is partly financed by the EU Baltic Sea Region Programme 2007–2013. The leading partner of the project is the Geological Survey of Finland (GTK). The project duration is from February, 2009, to January, 2012.
A photo exhibition within the BaltCICA project was prepared by Aldona Damušytė for commemoration of the Earth Day on March 20 in the Lithuanian Geological Survey. The exhibition was organized under the title “Karklė” All artistic photos of the Karklė area were designed to contribute to development of a plan for beaches. In the photos: participants of the BaltCICA project: J. Satkūnas, A. Damušytė, J. Kriukaitė, L. Gontienė & some pictures of the exhibition