Natural-technological risk assessment and management

Valentina Burova (1) and Nina Frolova (2)
(1) Institute of Environmental Geoscience, Russian Academy of Sciences, Moscow, Russian Federation (risk@geoenv.ru), (2) Institute of Environmental Geoscience, Russian Academy of Sciences, Moscow, Russian Federation

EM-DAT statistical data on human impact and economic damages in the 1st semester 2015 are the highest since 2011: 41% of disasters were floods, responsible for 39% of economic damage and 7% of events were earthquakes responsible for 59% of total death toll. This suggests that disaster risk assessment and management still need to be improved and stay the principle issue in national and international related programs.

The paper investigates the risk assessment and management practice in the Russian Federation at different levels. The method is proposed to identify the territories characterized by integrated natural-technological hazard. The maps of the Russian Federation zoning according to the integrated natural-technological hazard level are presented, as well as the procedure of updating the integrated hazard level taking into account the activity of separate processes. Special attention is paid to data bases on past natural and technological processes consequences, which are used for verification of current hazard estimation.

The examples of natural-technological risk zoning for the country and some regions territory are presented. Different output risk indexes: both social and economic, are estimated taking into account requirements of end-users.

In order to increase the safety of population of the Russian Federation the trans-boundaries hazards are also taken into account.