



Data for disaster risk assessment

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The first stage in disaster risk reduction is loss estimation due to expected (“scenario”) events or just occurred ones. The reliability of loss computations strongly depends on the mathematical models used for simulation of consequences as well as on input data about hazard characteristics, built environment and population distribution. By creating knowledgebase on hazards’ peculiarities and consequences it is possible to achieve more reliable results in loss computations.

The paper investigates the risk assessment practice with GIS technology application at different levels. Examples of scenario earthquakes loss computations at urban level taking into account secondary hazards are given. Knowledgebase on natural hazards, which contains the information about earthquakes, landslides, mud flows, floods, storms and avalanches as well as information about these natural hazards’ consequences for the last 20 years in the Russian Federation is analyzed and results of integrated natural risk assessment at the country are presented. The paper also contains the examples of loss computations due to strong earthquakes occurred worldwide recently and analyses the influence of the input data on the reliability of loss computations.