

Urban Seismic Risk Evaluation for Georgia

Seismic hazard and risk assessment directly link to sustainable development of country. Here we are presenting the main elements of the newly developed seismic hazard model of Georgia. The starting point in seismic hazard assessment is the updating of the regionally harmonized datasets with focus on data that become available within the recent years. From this point of view international seismic monitoring systems playing greater role to solve indicated task One of the biggest advantage of global monitoring network is that, the data are available freely without any barriers. National agencies are often focused on their own interests and do not freely sharing data, or the data are limited by national boundaries. This is why networks like International Monitoring System (CTBTO/IMS) extremely important for future development of science. Based on this data earthquake catalog for Caucasus updated up to 2017. That allow parameterization of newly developed seismic sources and probabilistic seismic hazard assessment for the entire region. Detail investigation of Building inventory allowed us to investigate intensity based vulnerability for city-museum Mtscheta in Georgia. Finally seismic risk in terms of damage and economic losses were estimated for this city. The results were delivered to scientific community and local end users.

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