Geophysical Research Abstracts
Vol. 15, EGU2013-7062-1, 2013
EGU General Assembly 2013

Reality of Risk of Natural Disasters in Georgia and a Management Policy

George Gaprindashvili (1), Emil Tsereteli (1), Ramin Gobejishvili (2), Lorenz King (3), and Merab Gaprindashvili (1)

(1) The National Environmental Agency of Georgia (gaprinda1609@yahoo.com), (2) Ivane Javakhishvili Tbilisi State University, Georgia (goberamin@hotmail.com), (3) Justus Liebig University (JLU), Giessen, Germany (lorenz.king@geogr.uni-giessen.de)

In the last decades of the 20th century, the protection of the population from natural disasters, the preservation of land resources and the safe operation of a complex infrastructure and costly engineering facilities have become the primary socio-economic, demographic, political and environmental problems worldwide. This problem has become more acute in recent years when the natural cataclysms in terms of a population increase, progressive urbanization and use of vulnerable technologies have acquired even larger scales.

This holds true especially for mountainous countries as Georgia, too. Natural-catastrophic processes as landslides, mudflows, rockfalls and erosion, and their frequent reoccurrence with harmful impacts to population, agricultural lands and engineering objects form a demanding challenge for the responsible authorities. Thousands of settlements, roads, oil and gas pipelines, high-voltage power transmission lines and other infrastructure may be severely damaged. Respective studies prove that the origin and activation of landslide-gravitational and mudflow processes increase year by year, and this holds true for almost all landscapes and geomorphological zones of Georgia.

Catastrophic events may be triggered by (1) intense earthquakes, (2) extreme hydro-meteorological events, probably on the background of global climatic changes (3) large-scale human impacts on the environment. Societies with a low level of preparedness concerning these hazards are especially hit hard. In view of this urgent task, many departmental and research institutions have increased their efforts within the limits of their competence. First of all, it is the activity of the Geological Survey of Georgia (at present included in the National Environmental Agency of the Ministry of Environment Protection of Georgia) which mapped, identified and catalogued the hazardous processes on the territory of the country and identified the spatial limits and occurrences of hazardous processes for tens of years. Moreover, the scientific research institutes of geography, geophysics at several universities and at the Georgian Academy of Sciences have accomplished other significant studies on natural hazards.

In Georgia, an increased risk of catastrophes is caused by insufficient information between society and the authorities and persons responsible for mitigation. Urgent research tasks are the basic assessment of natural disasters level, the identification of events, the determination of their cause, and the development of special risk maps in GIS systems. This forms the base for developing a sustainable functioning monitoring and early warning system by the respective authorities.