



The Chuya earthquake of 2003 (SE Altai, Russia) the basis for collaboration among the Science, the Public and the Government

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Today about the half of the humanity lives in seismic regions and a lot of people perish from earthquakes and other accompany nature disasters, such as tsunamis, seismically induced landslides, mudflows etc. (For example just only one seismic event January 24th, 1956 in China killed about 850000 people).

The Gornny Altai is the northern part of the Altai neotectonic uplift that belongs to the Central Asian mountain belt. The Altai region is an active seismic area, and its seismicity was in the best way confirmed by the Chuya earthquake ($M_S=7.3$) of 2003. Fortunately there are no victims (due to extremely low density of population in this mountain region) but the Beltir village, which was established in 1922, was destroyed. This earthquake has offered a unique opportunity to collect a great amount of data and to check the models of current seismicity and tectonics of the Altai. Moreover it forces ones again to draw attention to the problem of seismic safety. As a result there was the rightful solution of local authorities not to reconstruct the Beltir village.

We have mapped seismically induced landslides and ground failures in Chagan-Uzun basin. Some giant paleolandslides are situated directly in the epicenter of Chuya earthquake and argue for repeated Holocene seismic events here. By the example of SE Altai we have also shown the possibility of using the largest seismically induced landslides for paleoseismological and for morphogeodynamical researches. The magnitudes of ancient earthquakes obtained with this new approach are of a satisfactory accuracy. The estimates spanning magnitudes from 6.9 to largest possible indicate high seismic activity of the area through the Holocene and its seismotectonic identity

with the Mongolian Altai.

The Chua earthquake has offered vast collection of different fore-runners (animal's behavior, slope mass movement pre activity, chemical composition and level of underground water etc.) which are waiting for their analysis and comprehension.

So the knowledge about the geological, geomorphological and social effects caused by Chuya earthquake of 2003 has offered a unique basis not only for scientific researches, but also for teaching of natural hazards to University students and for collaboration between scientists, the public and local authorities.

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