

2017 International Summer School on Rockslides and Related Phenomena in the Kokomeran River Valley (Kyrgyzstan)

Rockslides (bedrock landslides) are among the most hazardous natural phenomena in mountainous regions. Though relatively rare, in comparison with landslides in non-lithified soils, they threaten large areas due to the enormous amount of material involved (sometimes up to billions of cubic meters), high mobility of debris and ability to create large natural dams, which result in inundation of the valleys upstream and catastrophic outburst-floods downstream. Similar rock-slope failures occur sometimes in large open-cast mines. The aim of the International Summer School is to demonstrate rockslides of different types – long-runout rock avalanches, intact and eroded rockslide dams, along with various methods of their identification, mapping, dating, as well as of the detailed examination and analysis of internal structures and grain-size composition of rockslide deposits to students and young landslide researchers.

Numerous rockslides and rock avalanches of different types ranging from a few millions to more than 1 billion cubic meters in volume are concentrated in the Kokomeran River valley (Central Tien Shan) within a limited area of about 30×60 km at a one-day trip distance from Bishkek – capital city of Kyrgyzstan (Fig. 1). Most sites are located near a road along the Kokomeran River and require only a few hours of hiking to reach them.

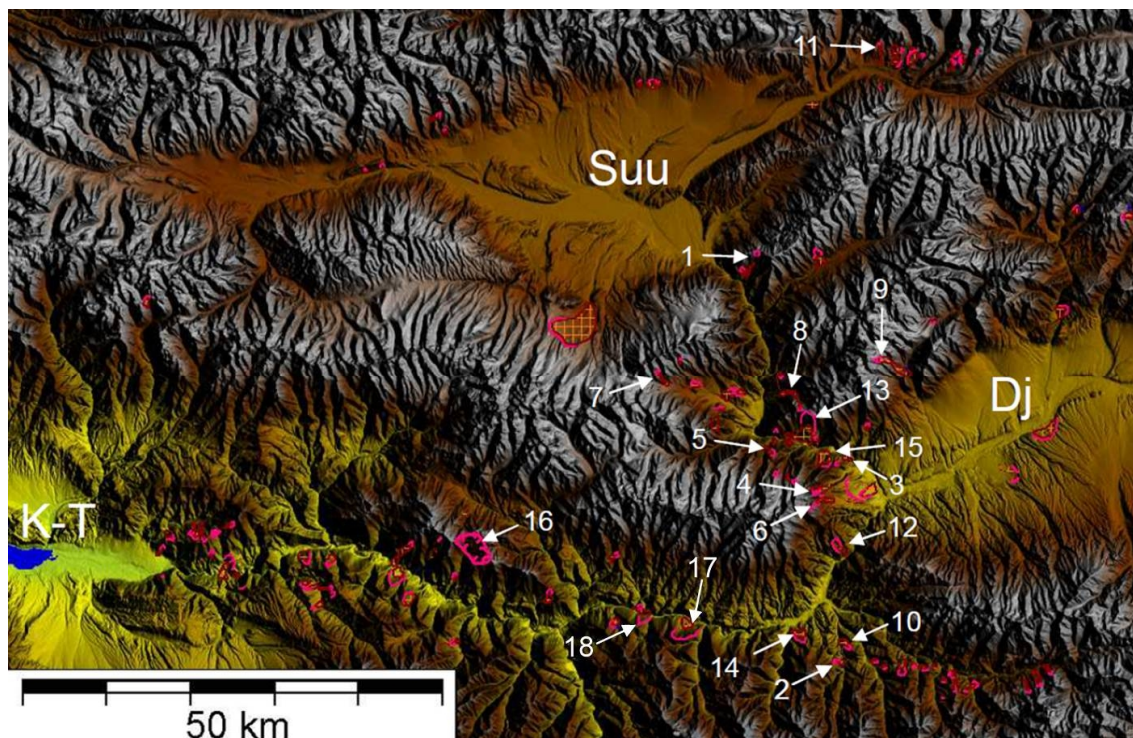


Figure 1 Large landslides, rock avalanches and caldera-like collapses in the Kokomeran River basin and adjacent part of the Naryn River basin. Suu, Dj and K-T – the Suusamyr, the Djungal and the Ketmen-Tiube intermountain depressions. Selected features most of which are demonstrated during the training course: 1 – Seit; 2 – Ak-Kiol; 3 – Mini-Köfels; 4 – Kashkasu; 5 – Northern Karakungey; 6 – Southern Karakungey; 7 – Chongsu; 8 – Sarysu; 9 – Ming-Teke; 10 – Lower Ak-Kiol; 11 – Snake-Head; 12 – Lower-Aral; 13 – Kokomeran; 14 – Ornok; 15 – Displaced Peneplain; 16 – Kyzylkiol; 17 – Karachauli; 18 – Lower Kokomeran

Due to the arid climate and sparse vegetation, rockslide morphologies are well preserved and easily seen. Some rockslide deposits up to 400-m thick are deeply dissected by erosion which opens their internal structure to detailed study. Evidence of valley inundation caused by rockslide damming and of associated outburst floods could be found in the valley as well. Along with the bedrock slope failures several very large landslides in weakly lithified Neogene and Quaternary deposits can be found in the adjacent neotectonic depressions. Besides providing an exceptional learning experience, it is a very beautiful mountainous area (Fig. 2).

Along with numerous rockslides and landslides, the study area provides expressive manifestations of the Neotectonics and Quaternary tectonics such as active faults, one of which had

surface rupture during the 1992 M7.3 Suusamyр earthquake, and numerous examples of tilted and folded pre-Neogene planation surfaces. One of the topics of the training course is to describe the paleoseismology of the region, paleoseismological interpretation of rockslides in particular.

The annual International Summer School supported by ICL (<http://www.iclhq.org>) has been organized since 2006. Previous field training courses were attended by participants from Argentina, Austria, Belgium, China (including Hong Kong), Czech Republic, France, Germany, Great Britain, Italy, Japan, Kyrgyzstan, New Zealand, Russia, Switzerland, Spain, Taiwan, Tajikistan and USA.



Figure 2 Beautiful cliff in the lower part of the Kokomerен River valley

The 2017 training course will be carried out on August 5-20. The participation fee is EURO 500 (or equivalent amount in US dollars or Russian roubles), which includes all costs at the site: camping (in tents; though some tents can be provided by the organizers, participants are asked to bring their own tents and sleeping bags), food, local transportation, detailed full-color guidebook. Fee should be paid in cash at the participants' arrival. Cash receipt vouchers and certificates confirming attendance at the ICL field training course will be provided.

Organizers will provide help obtaining visas if necessary. Please check if you need visa or not. List of countries which citizens do not need visas to visit Kyrgyzstan is available at <http://www.centralasia-travel.com/en/countries/kirgistan/visas>. Those who have to apply for visa should send the copy of his/her passport to Prof. Kanatbek Abdrakhmatov not later than June 15.

Participants should arrive to Bishkek not later than August 5 (early morning). They will be picked up at the arrival desk of the Bishkek airport. Bishkek is connected with Moscow, Istanbul, Urumchi, Dubai, Ulan-Bator by direct flights. Arrival via Almaty airport is possible as well.

The detailed full-color Summer School guidebook can be downloaded from the ICL homepage: <http://icl.iplhq.org/category/icl/leaflet-and-publications/> (Summer_School_Guidebook-2016.pdf). The latest updated version can be provided upon request by Dr. Alexander Strom.

Those who are interested, please contact:

Dr. Alexander Strom,
Chief expert of the Geodynamics Research Centre –
branch of JSC “Hydroproject Institute”
Volokolamskoe Shosse, 2, 125080, Moscow, Russia
e-mail: strom.alexandr@yandex.ru
tel: +7 910 4553405

Prof. Kanatbek Abdrakhmatov
Director of Institute of Seismology, National
Academy of Science,
Asanbay 52/1, Bishkek 720060, Kyrgyzstan
e-mail: kanab53@yandex.ru
tel: +996 777 403480