Eleventh International Lecture on Hazard and Risk

ENGAGE Geomorphological Systems & Risk Research

universität wien

EINLADUNG ZUM ONLINE-VORTRAG

am DIENSTAG, 16. JUNI 2020, 16:30 UHR

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NATIONAL MULTI-HAZARD RISK ASSESSMENT IN DATA-POOR COUNTRIES: THE CASE OF TAJIKISTAN

Multi-hazard Risk Assessment is carried out as a basis the prioritization of administrative units for risk reduction planning. In the framework of a UNDP project a national scale risk assessment was done at the municipal and district level for earthquakes, floods, drought, windstorms, landslides, mudflows, and snow avalanches. National-scale hazard maps were generated for these hazards, some of which resulted in intensity/frequency maps and others only in susceptibility maps, with estimated spatial probability for different return periods. National-scale elements at risk maps were generated from high resolution satellite images, OpenStreetMap, and collaborative mapping for roads, agricultural areas and build-up areas, and the number of buildings and population was derived from samples and census data. Physical vulnerability matrices were derived for the combinations of hazard type and element-at-risk type, and integrated with the exposure and spatial probability data to estimate the losses. The results were organized in a web-based platform (http://tajirisk.ait.ac.th/). The presentation will focus on the challenges to carry out such a work in a data-poor environment and discusses various issues that could be addressed in future work.

Cees van Westen is Professor in Multi-Hazard Risk Dynamics at the faculty of Geo-Information Science and Earth Observation (ITC) of the Uni8versity of Twente (the Netherlands). He has carried out research on different hazard and risk related aspects: landslide hazard and risk (e.g. Austria, Switzerland, Italy, Romania, India, China, Vietnam, Colombia, Central America, Caribbean), volcanic hazard and risk assessment (Colombia, Philippines, Central America, South America) and technological risk assessment (India). He worked on national scale risk assessment projects in Central America, Caribbean, Caucasus, and Tajikistan. His current research interest is to develop methods for the analysis of changing multi-hazard risk. These changes can be abrupt, e.g. after major disasters (e.g. earthquakes, tropical storms, volcanic eruptions), or gradual (e.g. analysing how future scenarios of climate change, land use change and population change have impact on risk) or as decision support tool for the planning of risk reduction measures.

Organisiert von
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