Potential of Satellite SAR Interferometry for Assessment of Risk of Landslides - case study of Angren, Uzbekistan

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Angren region (Uzbekistan) is rich for mineral resources. Coal mining activities on the surface have caused largescale (over 100 m3) landslides – some of them seriously endanger an important highway connecting Tashkent with an agricultural area of Fergana – or encroach into a water reservoir. Slow creeping movements of the slope deformations are hard to detect by regular watch of the national landslide service. An application of satellite SAR interferometry in this region proved its potential to detect and monitor slope deformation processes – slight movements were detected well, field inspection has confirmed the detection.

A project involving this technique together with other remote sensing technologies (i.e. laser scanning) has been proposed and accepted within the framework of NATO: Science for Peace and Security programme in the end of 2012. In the scope of the project, relevant Uzbek institutions should achieve an appropriate knowledge and skills for independent research using these modern remote sensing technologies for landslide risk mapping and assessment. Early results of the project related to landslides in Angren are presented on the connected poster.

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