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Experience of compiling a complex geohazard map at 1: 200 000 scale for cross-border areas of Tajikistan and Afghanistan (under the TAPRI United Nations Development Programme)

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In 2012, complex geohazard assessment and compilation of a corresponding set of maps for the cross-border areas of Tajikistan (Khatlon Region) and Afghanistan (Kunduz and Takhar provinces) were performed for the total area of more than 10,000 thousand km².

The works were financed by the Japanese Government and implemented under the Tajik-Afghan *Poverty Reduction* Initiative (TAPRI) of the United Nations Development Program (UNDP). Methodical management, field investigations, and mapping were carried out by VSEGEI employees (international consultants); a large team of experts from Tajikistan and Afghanistan also took part in the work; organization and operation safety were ensured by UNDP-Tajikistan and UNDP-Afghanistan.

Works in the target area of more than 10,000 km² resulted in compilation of 7 geohazards maps at 1: 200 000 scale for processes – landslides, mudflows, floods, subsidence in loess, erosion, karst, earthquakes, with accompanying charts and tables.

The following products have been compiled:

- Map of Complex Assessment of Natural Hazards, scale 1: 200 000; 6 evaluation schemes of settlement exposure in the target area to danger of landslides, mudflows, floods, subsidence in loess, erosion, karst, scale 1: 600 000.
- Overall Map of Settlement Assessment on a Complex of Processes, scale 1: 400 000; a directory incorporating 271 settlements in cross-border area of Tajikistan and Afghanistan, containing for each settlement: total evaluation of the existing natural hazard in points and separate evaluation of each process in categories of risk.
- A report and a database of original materials (including remote sensing data, maps, charts, and catalogs in digital form), and the outputs generated in the form of ArcGIS projects have been prepared.

Prepared materials are currently being used during the second phase of studies in the area, under the

project “Livelihood Improvement in Tajik-Afghan Cross-border Areas (LITACA)”.

