



ACTED
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Risk Assessment in the Khuroson Area

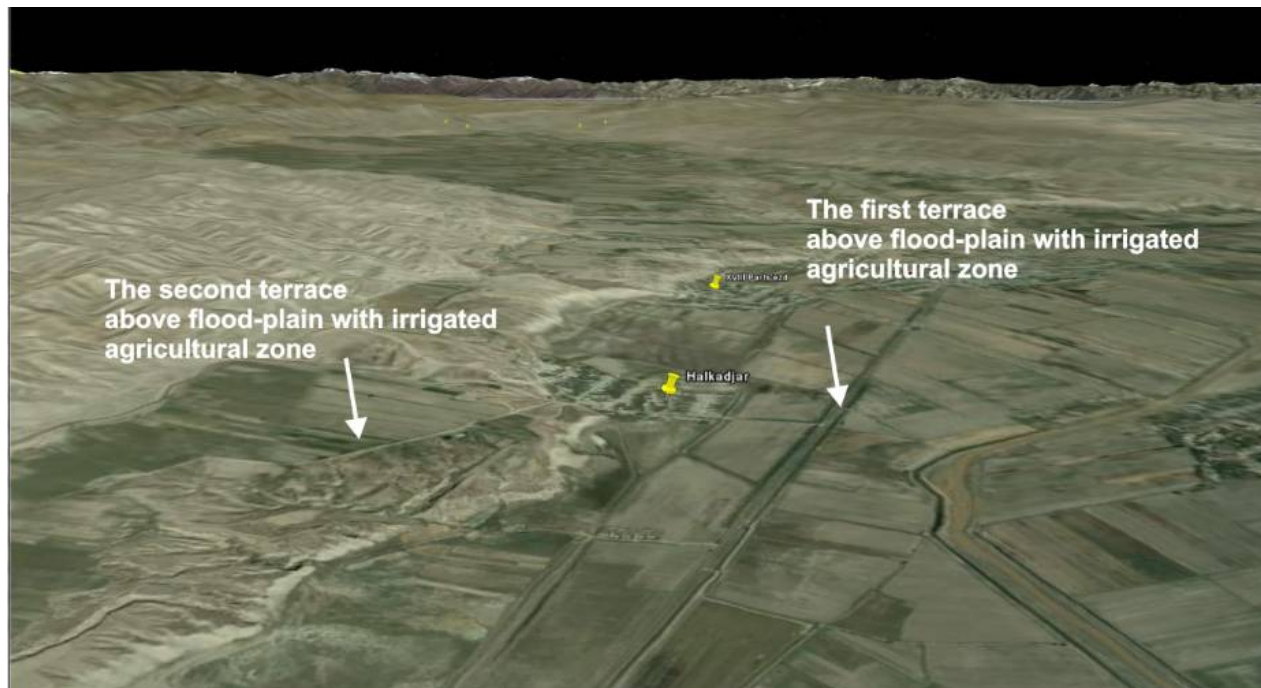
*The given project was financed by
United Nations Development program
and implemented by International NGO
ACTED*

Purpose of the project

- *It was planned to conduct risk assessment in the 6 villages of Khuroson that were selected with the participation Khuroson distirct Khukumat, heads of Jamoats, head of Khuroson district CoES and representatives of ACTED organization.*
- *Purpose of the project was to conduct comprehensive risk assessment, that will also include vulnerability and hazard assessment and development of recommendations and plans for mitigation and management of natural disasters.*

Brief information about selected villages

- The villages of Qizilkala, Khalkadjar, XVIII Parts'ezd, Hiloli and J.Huseynov are located along the foot of the Gardaniushty Ridge along the outskirts of Kasandag and Esamol. Hisorobod village is located on relatively flatland between Karshitay Ridge on the west and Djetymtay Ridge on the east.
- Basic hydro-meteorological and geological hazards such as debris flows (defined as coarse-grained processes with pebbles, stones and boulders) and mud flows (fine-grained flows often made up of stones and boulders of sand and silt = mud), erosion and landslides are exacerbated by direct exposure to surface water such as heavy rainfalls, breached landslide dams, excessive irrigation, and leakage from the irrigation canals.



Implemented activity

- *Collection of social and economical information of Khuroson district from all relevant agencies and Committee of Emergency situations*
- *Conduction of Participatory Rural Appraisal*
- *Filling of MECO formats for analyzing of existing hazards in all target villages.*
- *Conduction of seminars on Integrated Local Risk Management.*
- *Preparation and printing out of Hazard maps for all 6 target villages.*

Result of the assessment and recommendations for the village Qizil Qala

Vulnerability and hazard assessment			
Present hazards:	Mudflow, Bank erosion		
Type of Hazard	Number of houses concerned	potential magnitude	% of total village
Mud flow	85	medium	13%
River bank erosion	35	low	5%
Vulnerability indicators			
% of population in hazard area:	13%		
% of infrastructure in hazard area:	38.5%		

Structural measures:

Cleaning and construction of a mudflow flume at the intersection of the two sairs on the west side of the village.

Construction of structures to protect the river on the east side of the village. Structures such as gabions, concrete blocks and so on.

Reconstruction and regular maintenance of irrigation and overflow pipes

Non-structural measures

Community based disaster management activities: awareness raising information campaigns on DRR (disaster risk reduction) among local population and schoolchildren; establishment and capacity building of Village Disaster Preparedness Committees (VDPCs) on the basis of existing CBOs (community based organizations); development of better linkages between communities, jamoats and CoES through the VDPCs to strengthen disaster conscious planning.

Mainstreaming of Integrated Natural Resources Management (INRM) and DRR into local planning and enforcement of INRM measures at all levels (household, community, jamoat and district). For example: the management of watershed areas through tree planting, reforestation, maintenance of naturally growing vegetation. Controlled animal grazing in the pastures above the village.

Result of the assessment and recommendations for the village Khalqajar

Vulnerability and hazard assessment			
Present hazards:	Mudflow		
Type of Hazard	Number of houses concerned	potential magnitude	% of total village
Mud flow	85	medium	44%
Vulnerability indicators			
% of population in hazard area:	46%		
% of infrastructure in hazard area:	50,0%		

Structural measures:

Cleaning the concrete dive culvert and increasing the slope of the stream bed at the bottom of the ravine from the road to the gas pipe;

Non-structural measures

Regular cleaning/maintenance of irrigation canals and pipes; rational irrigation techniques; avoid excessive irrigation in areas of higher elevation.

Community based disaster management activities: awareness raising information campaigns on DRR (disaster risk reduction) among population and schoolchildren ; establishment and capacity building of Village Disaster Preparedness Committees (VDPCs) on the basis of existing CBOs (community based organizations); development of better linkages between communities, jamoats and CoES through the VDPCs to strengthen disaster conscious planning.

Result of the assessment and recommendations for the village 18 Partsezd

Vulnerability and hazard assessment			
Present hazards:	Mudflow		
Type of Hazard	Number of houses concerned	potential magnitude	% of total village
Mud flow	24	Medium	15%
Vulnerability indicators			
% of population in hazard area:	15%		
% of infrastructure in hazard area:	6,5%		

Structural measures: ;

Construction of protective dam at the mouth of the sai in the middle of the village

Cleaning and rehabilitation of the destroyed sections of irrigation canals

Non-structural measures

Regular cleaning/maintenance of irrigation canals and pipes; rational irrigation techniques; avoid excessive irrigation in areas of higher elevation;

Community based disaster management activities: awareness raising information campaigns on DRR among the local population and schoolchildren on DRR; establishment and capacity building of Village Disaster Preparedness Committees (VDPCs) on the basis of existing CBOs (community based organizations); development of better linkages between communities, jamoats and CoES through the VDPCs to strengthen disaster conscious planning;

Mainstreaming of Integrated Natural Resources Management (INRM) and DRR into local planning and enforcement of INRM measures at all levels (household, community, jamoat and district). Controlled animal grazing in the pastures above the village.

Result of the assessment and recommendations for the village Hiloli

Vulnerability and hazard assessment			
Present hazards:	Mudflow, landslide		
Type of Hazard	Number of houses concerned	potential magnitude	% of total village
Landslide	5	Low	6%
Mudflow	25	medium	30%
Vulnerability indicators			
% of population in hazard area:	30%		
% of infrastructure in hazard area:	37,5%		

Structural measures:

Cleaning of mudflow canals and drainage sites;

Construction of additional canals for mudflow torrents in the south-west of the village;

To prevent the widening and deepening of the sai, small-scale channel work and bio-engineering should be implemented at the beginning of the sai.

Non-structural measures

Regular cleaning/maintenance of irrigation canals and pipes; rational irrigation techniques; avoid excessive irrigation in areas of higher elevation;

Community based disaster management activities: awareness raising information campaigns on DRR among the local population and schoolchildren on DRR; establishment and capacity building of Village Disaster Preparedness Committees (VDPCs) on the basis of existing CBOs (community based organizations); development of better linkages between communities, jamoats and CoES through the VDPCs;

Mainstreaming of Integrated Natural Resources Management (INRM) and DRR into local planning and the enforcement of INRM measures at all levels (household, community, jamoat and district

Result of the assessment and recommendations for the village Hisirobod

Vulnerability and hazard assessment			
Present hazards:	Mudflow		
Type of Hazard	Number of houses concerned	potential magnitude	% of total village
Mudflow	17	Medium	12%
Vulnerability indicators			
% of population in hazard area:	12%		
% of infrastructure in hazard area:	14,3%		

Structural measures:

Cleaning of mudflow canals and drainage sites;

Construction of mudflow protection dam in the north-east side of the village;

Non structural measures:

Regular cleaning/maintenance of irrigation canals and pipes; rational irrigation techniques; avoid excessive irrigation in the uphill area from the village.

Community based disaster management activities: awareness raising information campaigns on DRR among the local population and schoolchildren on DRR, establishment and capacity building of Village Disaster Preparedness Committees (VDPCs) on the basis of existing CBOs (community based organizations), development of better linkages between communities, jamoats and CoES through the VDPCs;

Mainstreaming of Integrated Natural Resources Management (INRM) and DRR into local planning and the enforcement of INRM measures at all levels (household, community, jamoat and district).

Result of the assessment and recommendations for the village J. Huseynov

Vulnerability and hazard assessment			
Present hazards:	Debris flow		
Type of Hazard	Number of houses concerned	potential magnitude	% of total village
Debris flow	21	Medium	38%
Vulnerability indicators			
% of population in hazard area:	38%		
% of infrastructure in hazard area:	50%		

Structural measures:

Cleaning the mudflow canal and drainage sites that run along the main road through the village;

Non-structural measures:

Regular cleaning/maintenance of irrigation canals and pipes; rational irrigation techniques; avoid excessive of irrigation in areas of higher elevation;

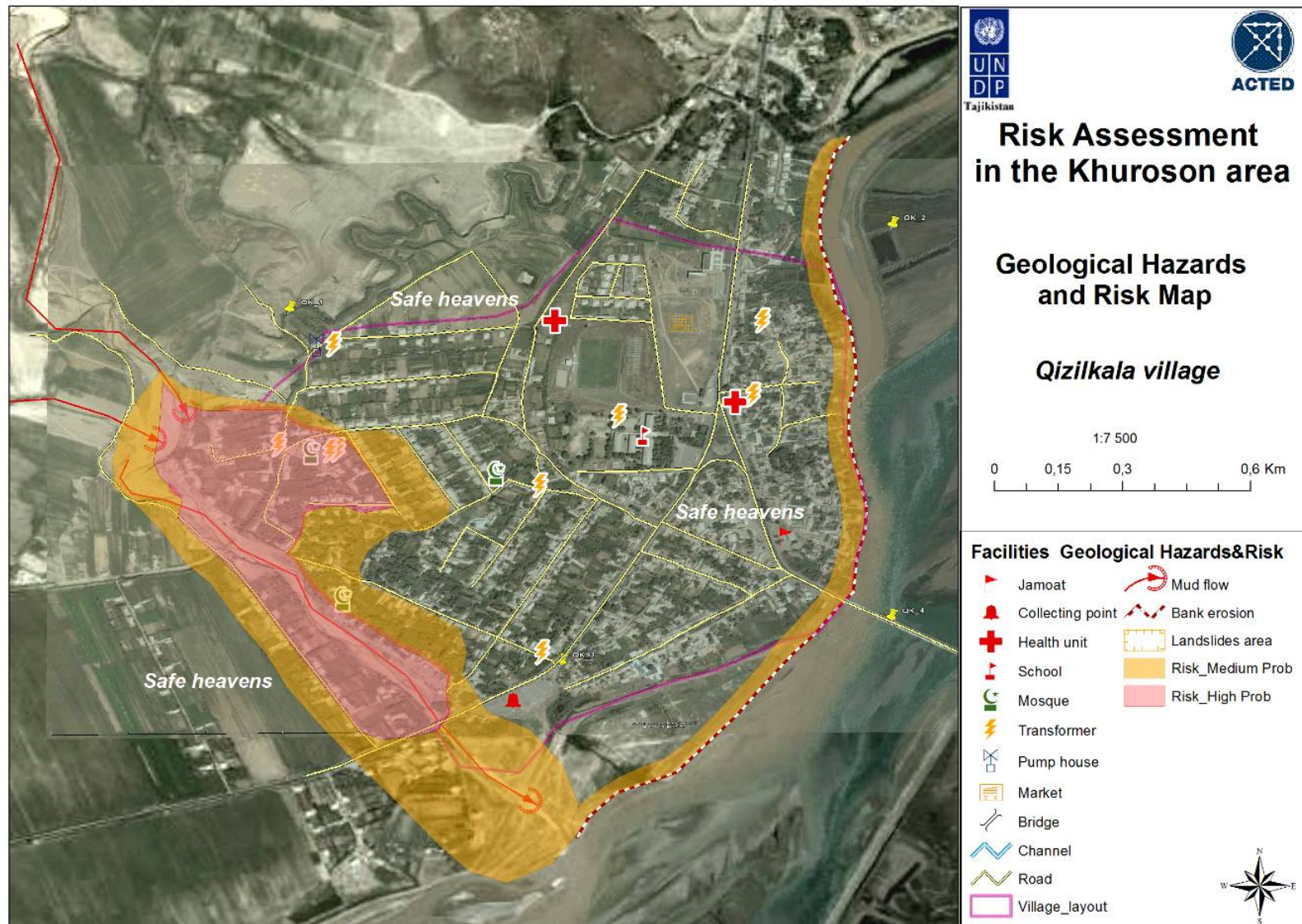
Community based disaster management activities: awareness raising information campaigns on DRR among the local population and schoolchildren; establishment and capacity building of Village Disaster Preparedness Committees (VDPCs) on the basis of existing CBOs (community based organizations); development of better linkages between communities, jamoats and CoES through the VDPCs;

Mainstreaming of Integrated Natural Resources Management (INRM) and DRR into local planning and the enforcement of INRM measures at all levels (household, community, jamoat and district).

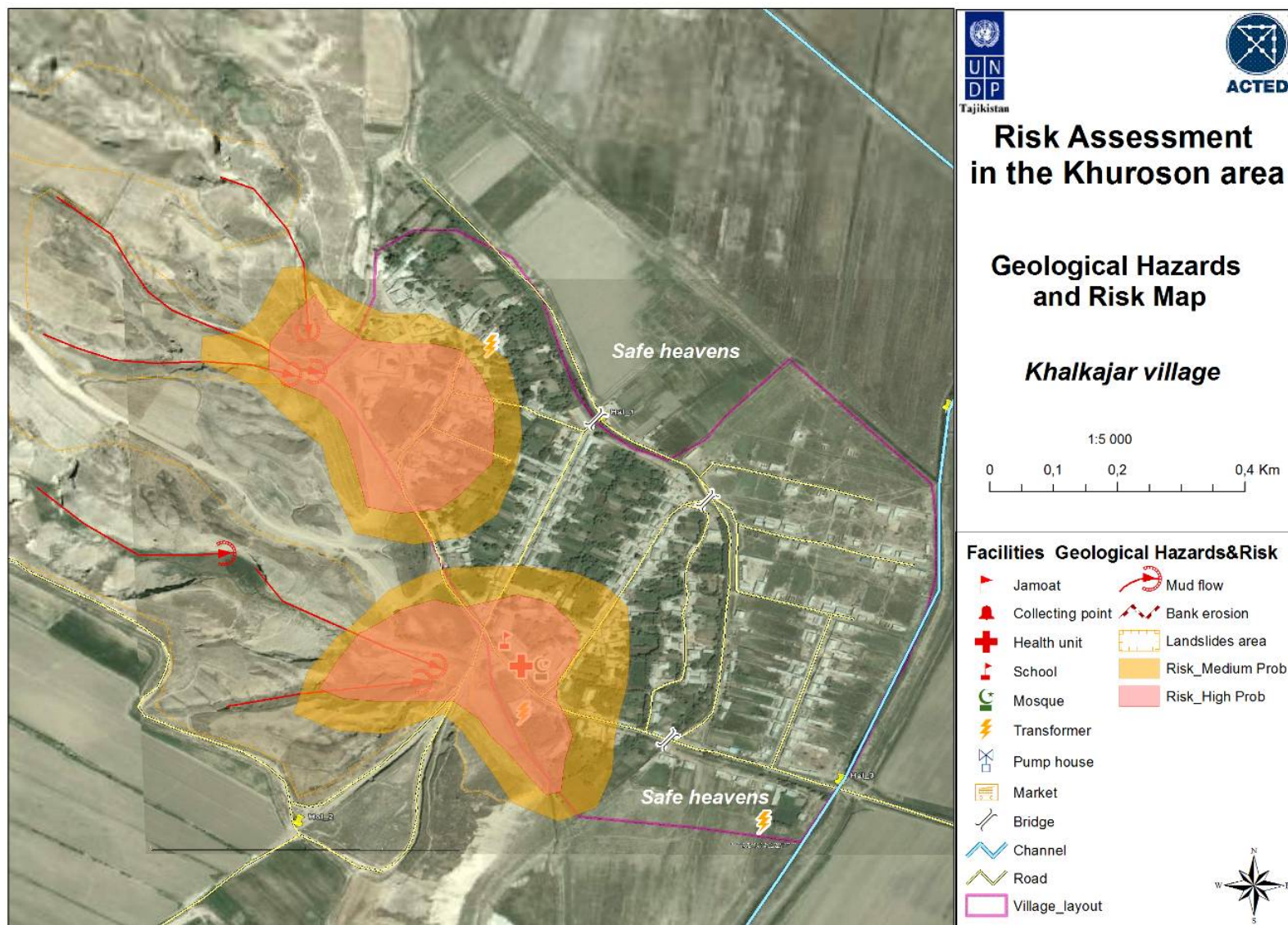
General recommendations

- *Facilitate and support the target communities in the construction, maintenance, and rehabilitation of existing disaster mitigation structures (canals, dams, retention walls, drainages etc.).*
- *To prioritise the Integrated Natural Resources Management (INRM) particularly in regards to the management of watershed areas. This involves the mainstreaming of soil, water, pasture, reforestation management and into local planning, and the enforcement of INRM measures at all levels (household, community, jamoat and district). This is a key long-term issue as the management of watersheds and the vegetation in these areas has a significant effect on slope instability.*
- *To increase the awareness of community members regarding existing hazards, and actions they may take to decrease the amount of risk they are exposed to while increasing their disaster preparedness and implementing proper coping strategies to deal with potential geological hazards.*

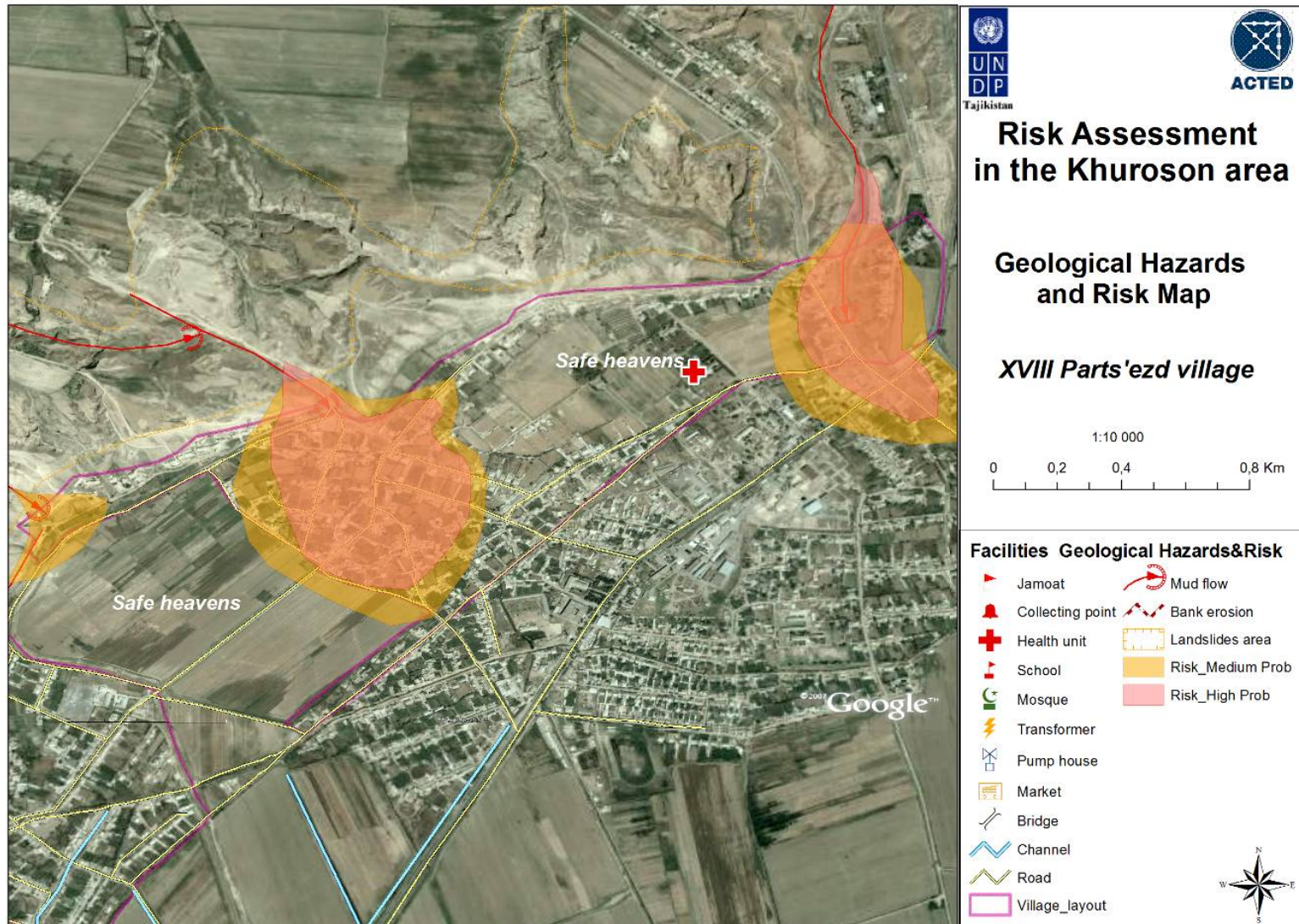
Hazard maps developed for the villages



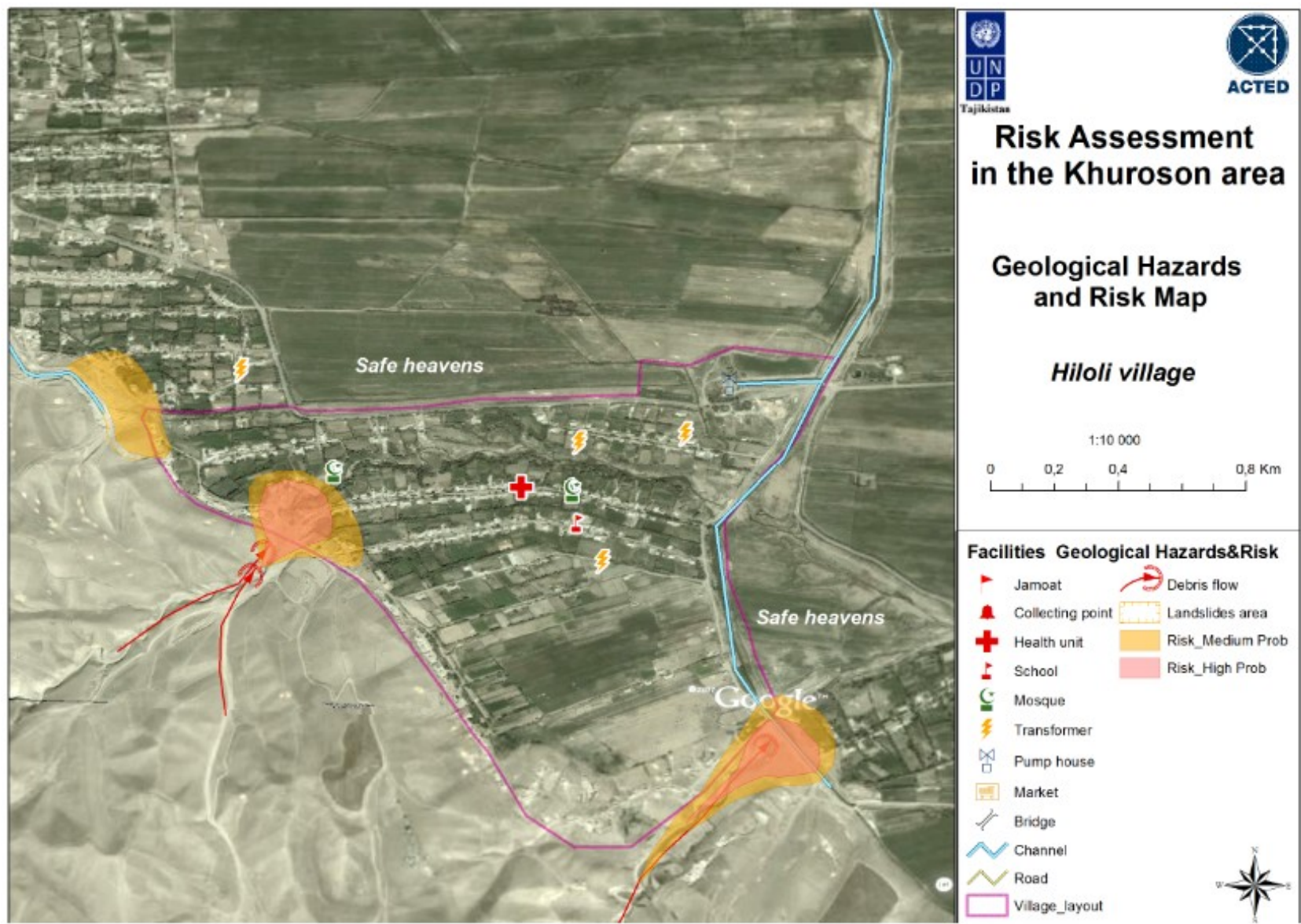
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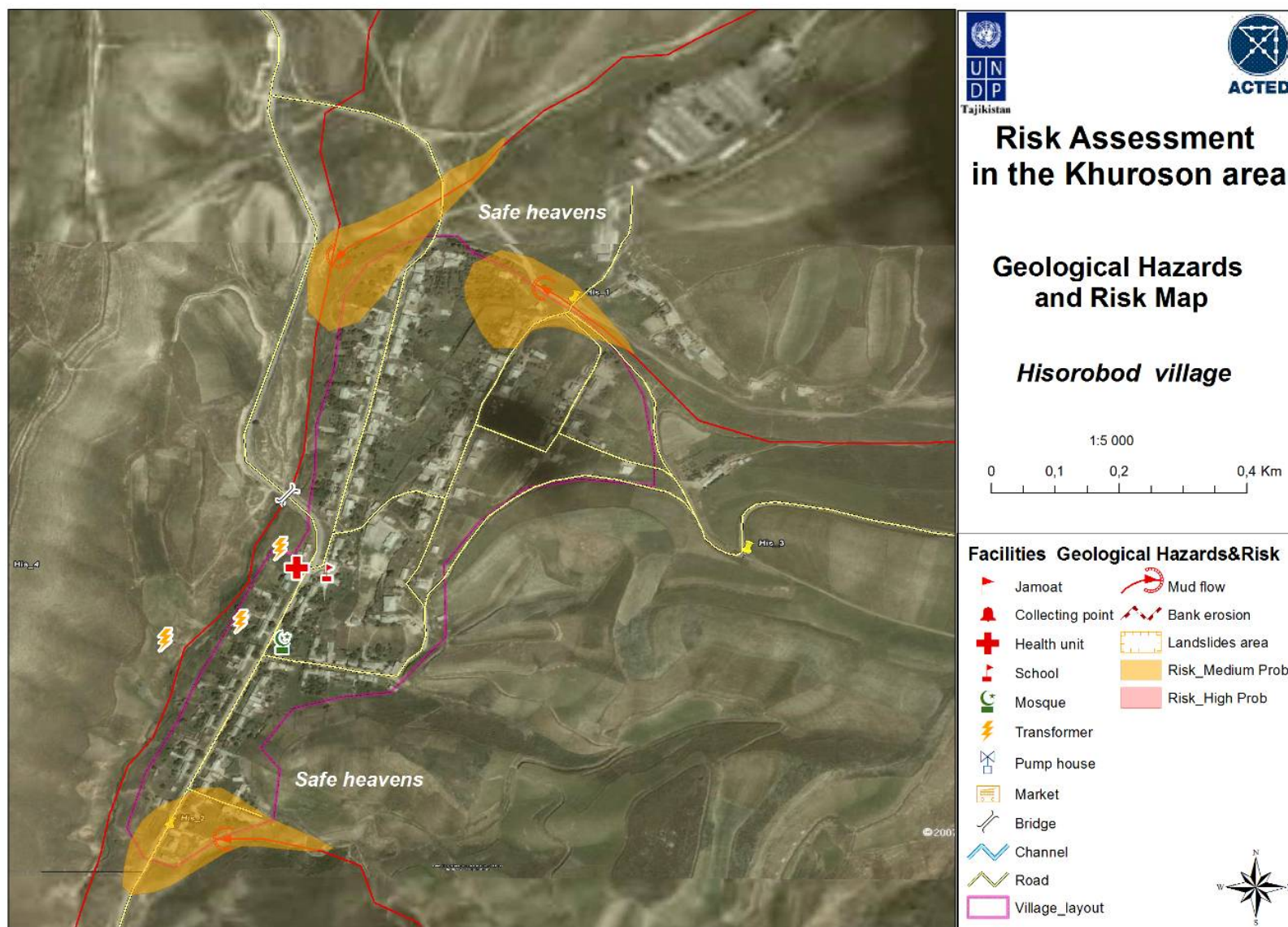
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