

## Geocryological Hazards' List

<b>Land Use Style</b>	<b>Source of the Hazard</b>	<b>“Trouble Spot” in Landscape</b>	<b>Permafrost Hazards</b>	<b>Consequences</b>
Urban	Human induced change of ground heat balance.	Ice-bearing ground,  Underground water.	Thaw settlement, Frost heave,  Frost fissuring,  Cryopegs' evolution.	Loss of construction stability, Road destruction,  Corrosion of foundations, Change of the surface and underground water regime.
Mining	Human induced change of heat balance,  Climate change.	Ice-bearing ground, Underground water,  Natural and artificial slopes.	Thaw settlement, Thermoerosion, Underground water flow processes due to thawing of permafrost,  Landslides.	Loss of construction stability, Open pits' and mines' flooding, Change of the underground and surface water regime, Destruction of the infrastructure.
Natural gas and Petroleum production	Human induced change of heat balance, Climate change.	Ice-bearing ground.	Thaw settlement and thermokarst, Frost heave, Thermoerosion.	Loss of construction stability, Change of the surface water regime.
Farming and Lumbering	Climate change,  Natural and human induced surface vegetation's disturbance (including fire).	Peat soil and Ice-bearing ground,  Natural slopes with ice-bearing ground.	Thaw settlement and thermokarst, Thermoerosion,  Solifluction and landslides.	Change of the surface water regime,  Badland forming, Destruction of the infrastructure.
Water-management systems	Human induced amplification of convective heat transfer	Ice-bearing ground and fissured rock,  Natural and	Underground water flow processes due to thawing of permafrost,	Loss of construction stability, Waste of water from storage

Transport systems	Climate change.  Human induced change of heat exchange conditions,  Climate change.	artificial slopes.  Ice-bearing ground.	Landslides,  Coastal erosion.  Thaw settlement, Frost heave, Thermoerosion, Icing, Frost fissuring.	reservoirs, Change of the underground and surface water regime. Destruction of the infrastructure,  Change of the surface water regime.
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