



About human impacts in geological hazards

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In our days the intensive human invasion on the Earth surface is related to large man-made construction, production, waste accumulation and other expression of activities. The human impacts have considerable role for the definition of the recent geological situation in the superficial crust and for the appearance of new manifested geological phenomena. A part of them represents geological hazard. For example, the human impacts during and after the creation of heavy constructions could provoke land subsidence or landslides or abnormal exploration of the groundwater, also man-made earthquakes and considerable changes in the geoenvironment. The large and deep excavations for mines (Maritsa E coal mines, SE Bulgaria) corrected the geological characteristics of the region. The mines provoked landslides, man-made earthquakes etc. The construction and the filling of several large and deep dams ("Iskar" near Sofia City, "Studen Kladenets" & "Kardzhali", both of them near the town of Kardzhali, E Bulgaria) caused the increase of the regional seismicity. The construction of the subway (Sofia City, W Bulgaria), of new high buildings with numerous underground floors (town of Bourgas, SE Bulgaria) could have a potential to provoke man-induced geological hazards - land subsidence, earthquakes etc. The human impacts take place in the peace- and in the war- time. Their influence over the geological hazards needs special investigations. The studies of the human impacts over the geological hazards could be made from competent multidisciplinary author collectives.