Geophysical Research Abstracts, Vol. 9, 00423, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-00423

The hazard zonation of rockfall along Chalus road in north of Iran

N.Ghazipour (1,2), A. Orumiey(3), I. Entezam Soltani (2), M. Pirouz(4)

(1) Azad University-Ulum Tahghighat Branch, Tehran, Iran (2) Engineering Geology Department, Geological Survey of Iran , Tehran, Iran (3) Teacher Training University, Tehran, Iran (4) Tehran University, Faculty of Earth Science

(neda_ghazipour@yahoo.co.in / Fax: +982166021176 / Tel: +989111834921)

Chalus road is one of the major lifelines between Tehran and north area of Iran which pass through central part of Alborz Mountains. Due to its location in mountainous part of country we witness rock fall and landslide occurrence across the road. In this paper we study the section between Zangole Bridge to Marzanabad city with 45 km length and a cover of 780 km^2. In the first step of study we mapped the location of rockfall along the Road and consequently prepared an inventory map of rockfall location along the road after that, engineering geology properties of formations in and adjacent to road are investigated. The main causative factors have been identified and among them 5 factors have been chosen and modeled. They include, slope angles, aspects, distance from fault, drainages and seismic intensity. The final model for preparation of rockfall hazard map has been suggested and a final map has been prepared by using of Arc GIS software.