

## The Checkout and Separation of Environmental Hazards of the Range Overlooking the Meshkin City

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**Abstract :** Natural environments have always been affected by one of the most important natural hazards, which is called, the mass movements that cause instability. Identifying the unstable regions and separating them so as to detect and determine the risk of environmental factors is one of the important issues in mountainous areas development. In this study, the northwest of Sabalan hillsides overlooking the Meshkin city and the surrounding area of that have been delimited, in order to analyze the range processes such as landslides and debris flows based on structural and geomorphological conditions, by means of using GIS. This area due to the high slope of the hillsides and height of the region and the poor localization of roads and so because of them destabilizing the ranges own an inappropriate situation. This study is done with the purpose of identifying the effective factors in the range motion and determining the areas with high potential for zoning these movements by using GIS. The results showed that the most common range movements in the area, are debris flows, rocks falling and landslides. The effective factors in each one of the mass movements, considering a small amount of weight for each factor, the weight map of each factor and finally, the map of risk zoning for the range movements were provided. Based on the zoning map resulted in the study area, the risking level of damaging has specified into the four zones of very high risk, high risk, medium risk, low risk, in which areas with very high and high risk are settled near the road and along the Khyav river and in the mountainous district.

**Keywords :** debris flow, environmental hazards, GIS, landslide

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