

## عنوان مقاله:

(Seismic Hazards and risk assessment of Badakhshan region (northeast Afghanistan)

## محل انتشار:

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## خلاصه مقاله:

The Badakhshan region in the northeast of Afghanistan has a complex geology that was created as a result of the collision of the Indian and Eurasian blocks. Using EMME seismographic catalogue data, with updates (years ۲۰۱۱-۲۰۲۱), from the website of Harvard University, International Seismic Research Centre (ISC) and USGS, a catalogue of earthquake epicentres. A device has been prepared. Then, according to the last earthquake of magnitude ۷.۲ in ۲۰۱۵, coefficients a and b have been calculated at the surface and depth. This value for b value is ۱.۰ in the northern half and a value is ۷.۹ in the southern half. The numerical increase of a and b in the central and southern half after the ۲۰۱۵ event has been quite evident. Earthquake prediction in the southern half of Badakhshan will increase in the future. According to the trend of earthquakes, the results indicate that contrary to the direction of the main fault in North Badakhshan (North-South), the highest frequency of earthquakes is  $F \leq$  at a depth of ۷۰-۱۵۰ km, earthquakes are  $5 \leq$ , and the depth of ۱۵۰-۳۰۰ km from the earth and finally  $F \leq$  at the depth of ۳۰۰-۷۰۰ km in the east-west direction. This area is exactly where the Pamir Corridor plate subducts due to the pressure of the Indian plate in the west and southwest of Badakhshan. The tectonic situation of the region subducts to the south and southwest and causes compression and bending in the south of Badakhshan.

## کلمات کلیدی:

Himalayan Alpine belt, Pamir and the Hindu Kush, seismicity, Badakhshan, Afghanistan

## لینک ثابت مقاله در پایگاه سیویلیکا:

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