Distribution of building types in the earthquake affected regions of Iran

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Data from Iran Census 2011 and USGS– Statistical Center of Iran (https://www.amar.org.ir/english/Population-and-Housing-Censuses)

Figure 1 – Source USGS (https://earthquake.usgs.gov/earthquakes/eventpage/us2000bmcg#map)

A magnitude 7.3 earthquake near Ezgeleh, Iran and 32 killometes south of Halabjah, Iraq, struck Iran-Iraq border on November 12th, 2017 (Figure 1). Following maps depict the distribution of major building types in the affected region of Kermanshah province counties and the neighboring counties in Iran (Based on quartiles from total buildings across Iran). On average, the majority of buildings (47.5%) in this region are brick and steel buildings (Figure 2) with a maximum of 67% in Sar-Pol-e-Zahab County. The initial reports indicate highest number of fatalities in this county in Pol-e-Zahab city (Source: https://www.nytimes.com/2017/11/13/world/middleeast/iran-iraq-earthquake.html).

The other prevalent building types in the region are steel frame building (average 17%), brick and wood building (average 13.8%), concrete buildings (average 8%), adobe and wood buildings (average 7%).

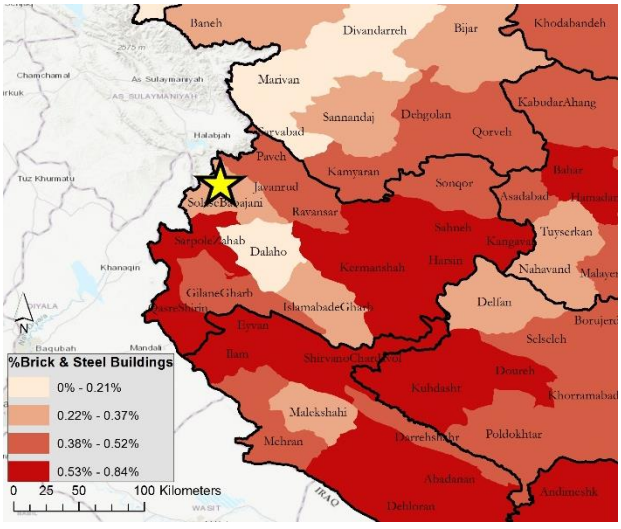

Figure 2- Brick and steel buildings

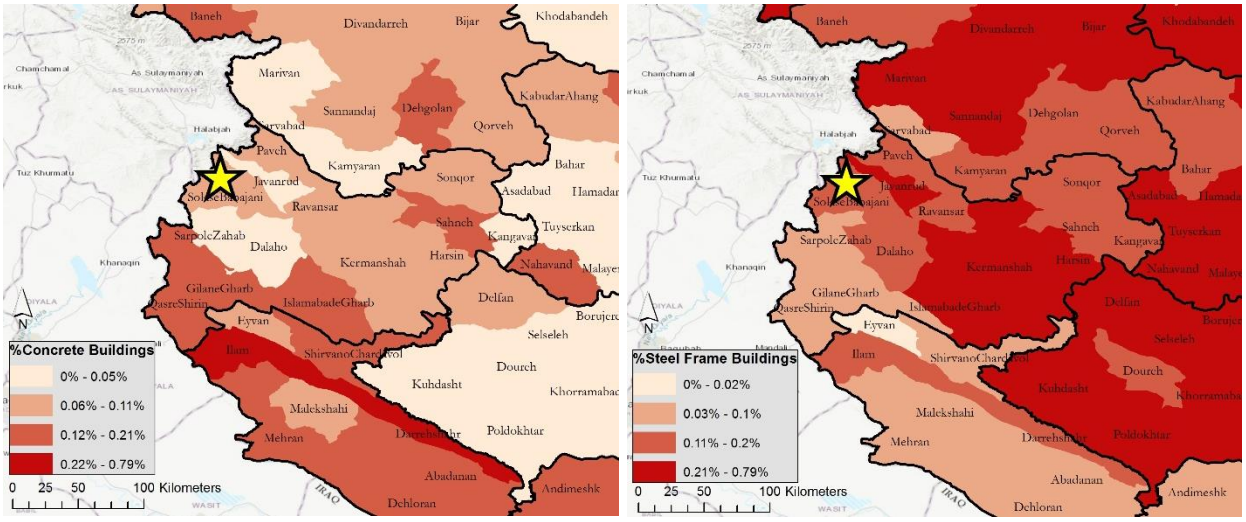

Figure 3- Concrete buildings (Left) and Steel frame buildings (Right)

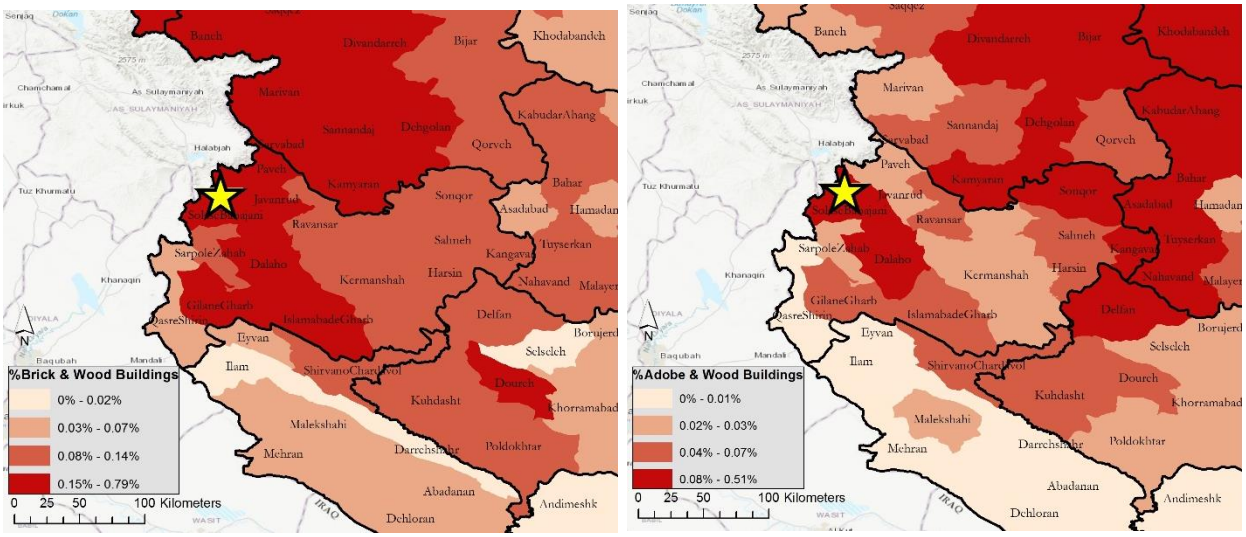

Figure 4- Brick and wood buildings (Left) and Adobe and wood buildings (Right)