Earthquake Shaking Green Alert

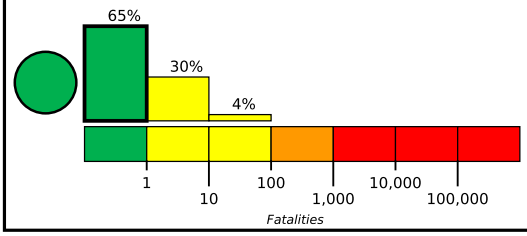
# M 5.4, Southern Qinghai, China

Origin Time: 2021-08-13 04:21:37 UTC (Fri 10:21:37 local)
Location: 34.5982° N 97.4276° E Depth: 8.4 km

**PAGER Version 2**

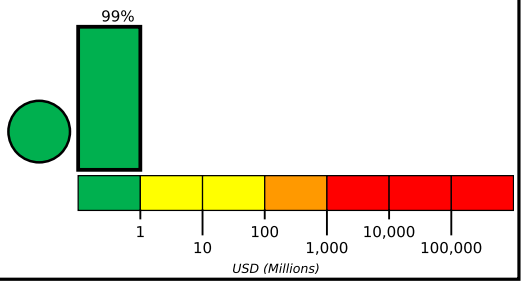
Created: 2 hours, 3 minutes after earthquake

## Estimated Fatalities




Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses



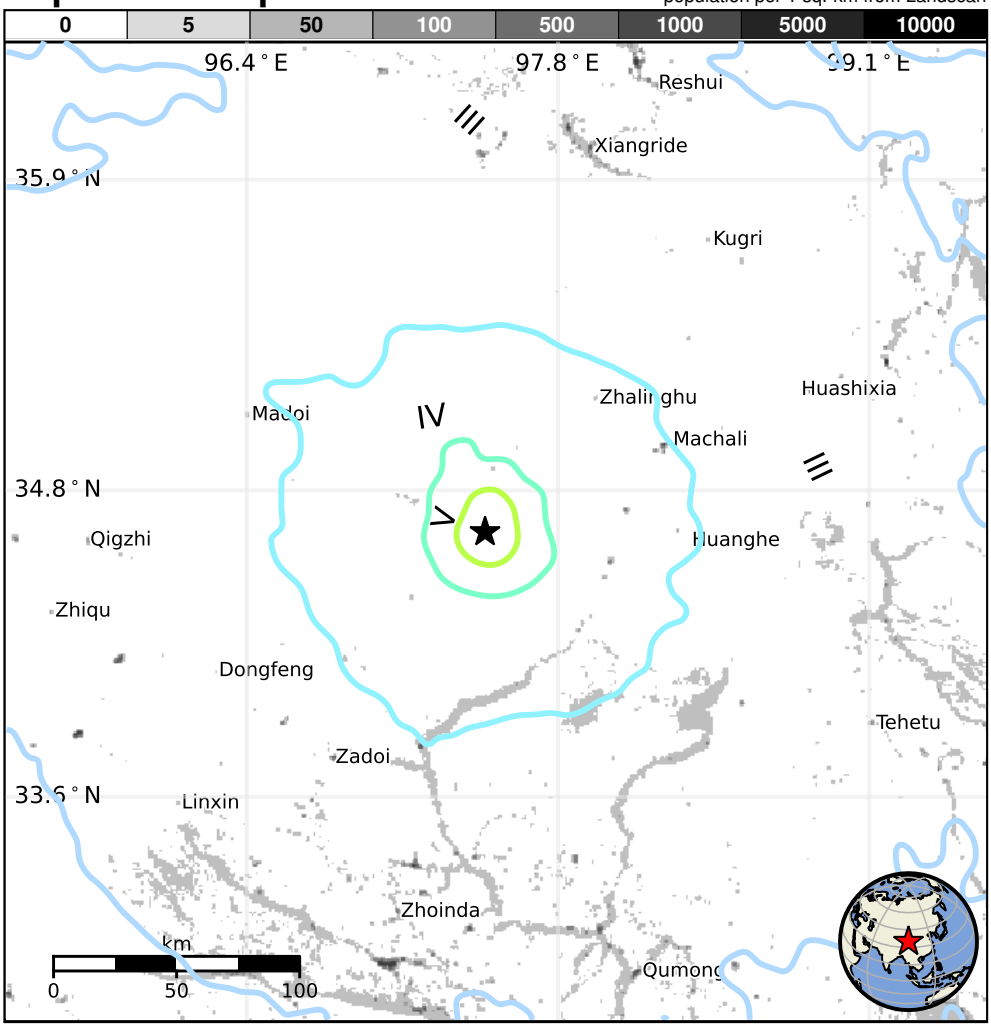

## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 370k* | 37k | 0 | 0 | 0 | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure

population per 1 sq. km from Landscan




## Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are adobe block and unreinforced brick with mud construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1982-06-15 | 378 | 5.6 | VI(2k) | 11 |
| 1994-01-03 | 298 | 5.7 | VII(5k) | 0 |
| 1990-04-26 | 302 | 6.2 | IX(6k) | 119 |

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| **IV** | **Huanghe** | **<1k** |
| IV | Qingshuihe | <1k |
| IV | Heihe | <1k |
| **IV** | **Zhalinghu** | **<1k** |
| **III** | **Machali** | **<1k** |
| **III** | **Madoi** | **<1k** |
| **III** | **Zadoi** | **<1k** |
| III | Xiangjia | <1k |
| **III** | **Xiangride** | **<1k** |
| III | Youyun | <1k |
| III | Bagan | <1k |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us6000f58r#pager**

**Event ID: us6000f58r**