

M 6.8, Morocco

Origin Time: 2023-09-08 22:11:01 UTC (Fri 23:11:01 local)
Location: 31.1095° N 8.4404° W Depth: 18.5 km

PAGER Version 4

Created: 4 hours, 58 minutes after earthquake

Estimated Fatalities

Estimated fatalities by shaking intensity level:

Intensity	Percentage
I	4%
II	18%
III	34%
IV	29%
V	11%

Red alert for economic losses. Extensive damage is probable and the disaster is likely widespread. Estimated economic losses are 0-2% GDP of Morocco. Past events with this alert level have required a national or international level response.

Orange alert for shaking-related fatalities. Significant casualties are likely.

Estimated Economic Losses

Estimated economic losses by shaking intensity level:

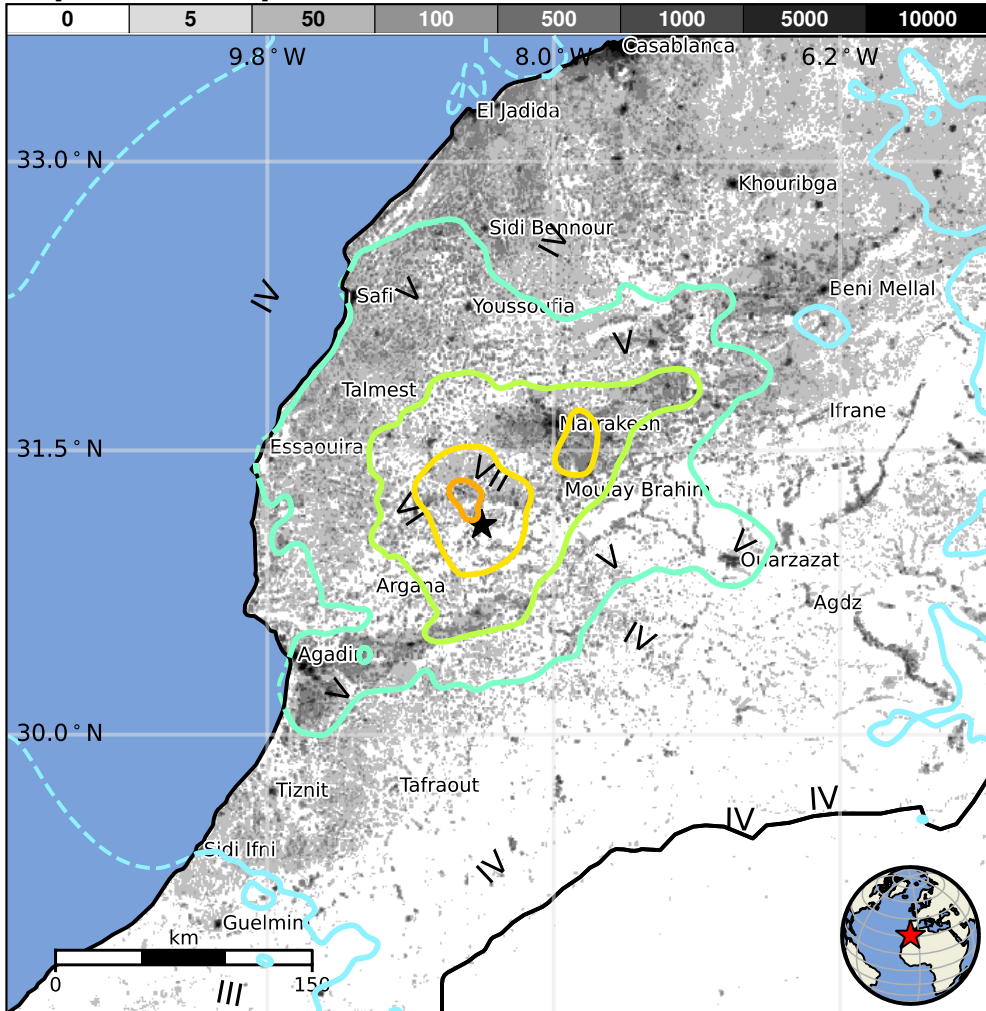
Intensity	Percentage
I	14%
II	33%
III	34%
IV	14%

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	—*	550k*	11,163k*	4,369k	2,800k	403k	49k	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



Structures

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some 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
1960-02-29	121	6.8	IX(607k)	0
1992-10-23	395	5.5	V(72k)	2
1960-02-29	121	6.8	IX(607k)	13k

Selected City Exposure

from GeoNames.org

MMI	City	Population
VIII	Adassil	<1k
VII	Azgour	<1k
VII	Sidi Abdallah Ghiat	<1k
VII	Amizmiz	<1k
VII	Tizguine	<1k
VI	Chichaoua	<1k
VI	Marrakesh	839k
V	Agadir	698k
IV	Beni Mellal	166k
IV	Casablanca	3,145k
III	Guelmim	98k

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.

bold cities appear on map.

(k=x1000)