

M 5.4, PAKISTAN

Origin Time: Thu 2013-12-19 19:28:40 UTC (00:28:40 local)

Location: 27.52°N 67.45°E Depth: 10 km

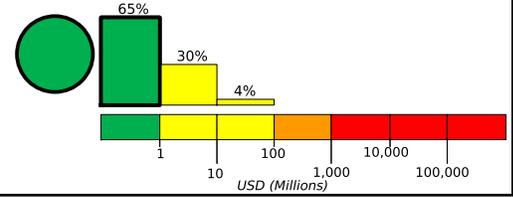
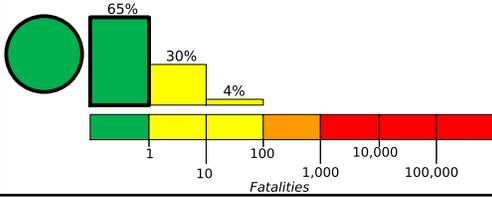
PAGER
Version 6

Created: 10 weeks, 0 days 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



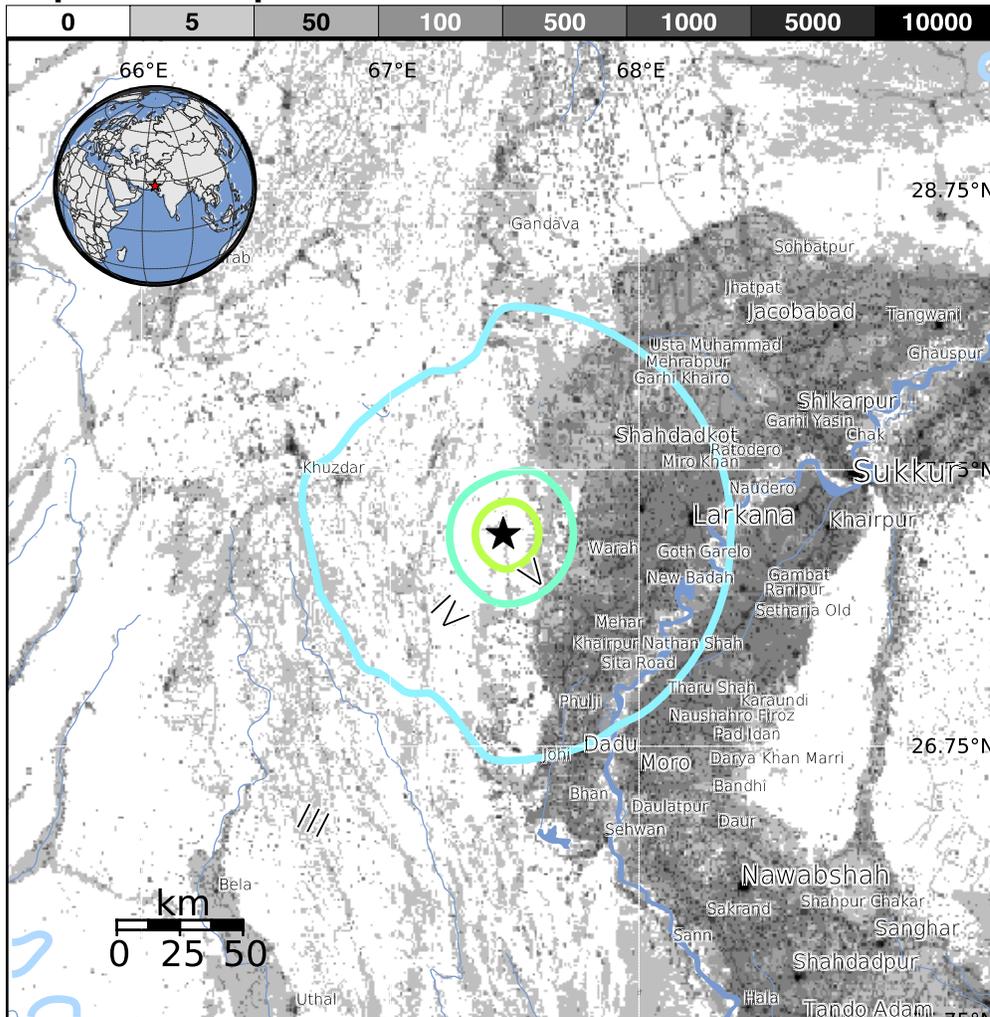
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)	- -*	14,606k	4,566k	37k	2k	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	Moderate/Heavy	Heavy	V. Heavy
	Vulnerable Structures	none	none	none	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per ~1 sq. km from Landsat



Structures:

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist.

Historical Earthquakes (with MMI levels):

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1977-07-13	263	5.5	VII(967)	0
1992-08-28	201	5.5	VII(4k)	4
1997-02-27	281	7.1	VIII(139k)	60

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI City	Population
IV Warah	19k
IV Nasirabad	28k
IV Mehar	30k
IV Kambar	77k
IV Shahdadkot	75k
IV Larkana	364k
III Shikarpur	157k
III Jacobabad	171k
III Sukkur	418k
III Nawabshah	230k

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.

<http://earthquake.usgs.gov/pager>

Event ID: usc000Inge