USGS science for a changing world

Earthquake Shaking Green Alert

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M 5.4, PHILIPPINE ISLANDS REGION

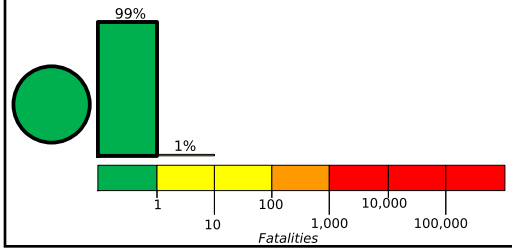
Origin Time: Mon 2014-04-21 20:45:21 UTC (04:45:21 local)

Location: 17.38°N 119.95°E Depth: 9 km

PAGER Version 6

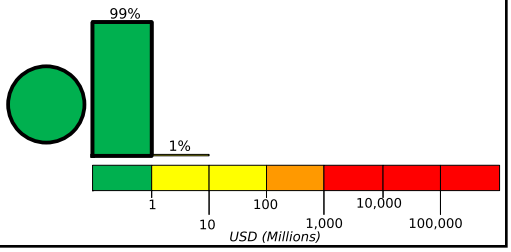
Created: 6 weeks, 1 day after earthquake

Estimated Fatalities



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

Estimated Economic Losses



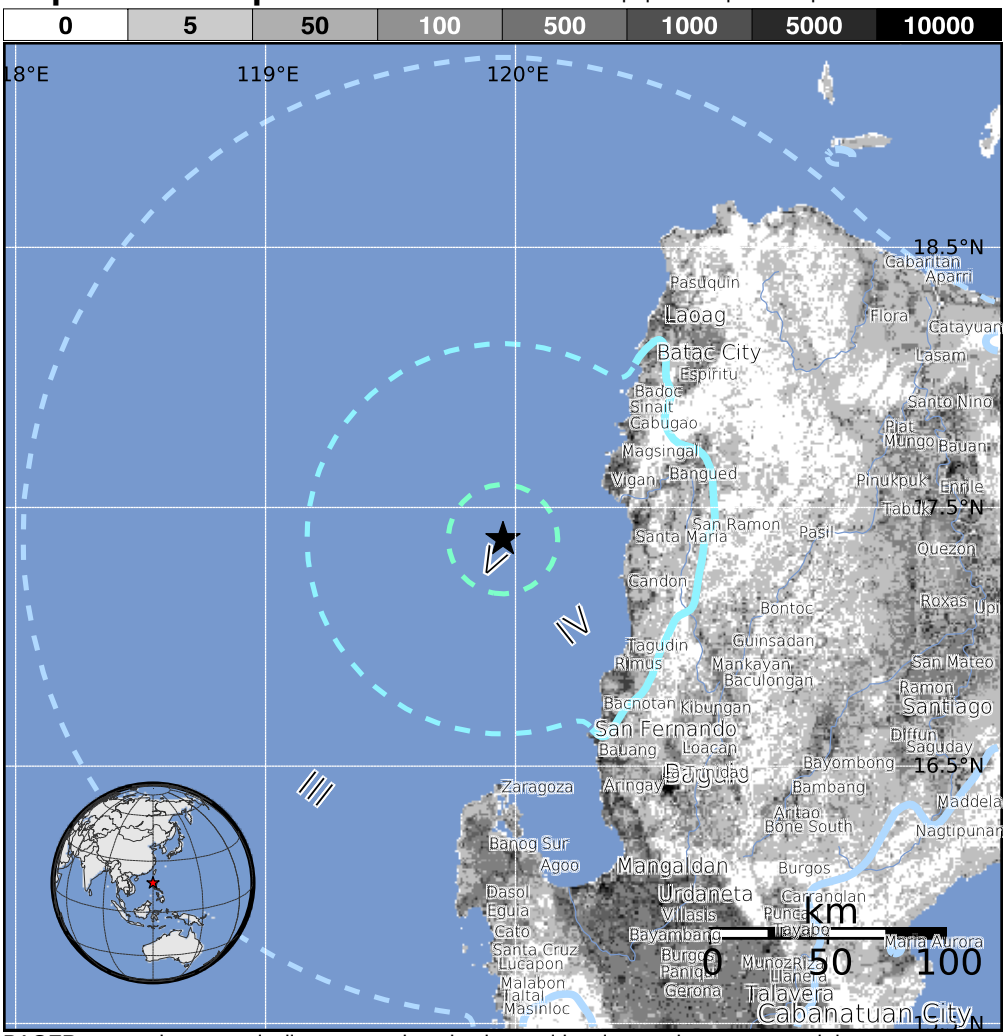
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k = x1000)		- -*	12,229k	1,909k	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	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 Landscan



Structures:
Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction.

Historical Earthquakes (with MMI levels):

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1987-06-07	366	6.2	V(10k)	0
1977-03-18	265	7.2	VIII(7)	1
1990-07-16	235	7.7	IX(893k)	2k

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

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Fuerte	3k
IV	Cabittaogan	2k
IV	**Vigan**	**49k**
IV	San Vicente	< 1k
IV	Santa Catalina	< 1k
IV	Pudoc North	2k
IV	**San Fernando**	**83k**
III	**Baguio**	**273k**
III	Tuguegarao City	115k
III	**Cabanatuan City**	**220k**
III	Tarlac City	184k

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: usb000pt1q