Earthquake Shaking **Green Alert**

M 5.3, 52 km E of Aras-asan, Philippines

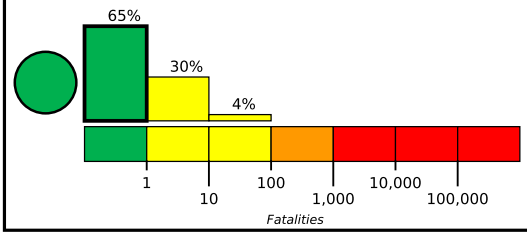
Origin Time: 2023-12-04 04:17:22 UTC (Mon 12:17:22 local)
Location: 8.8470° N 126.7838° E Depth: 33.1 km

PAGER Version 5

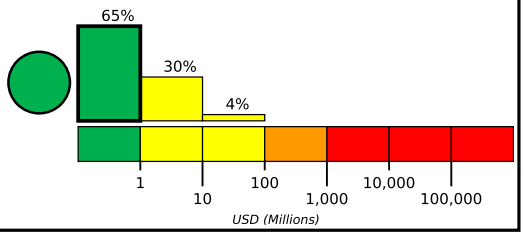
Created: 2 weeks, 6 days after earthquake

Estimated Fatalities

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



Estimated Economic Losses



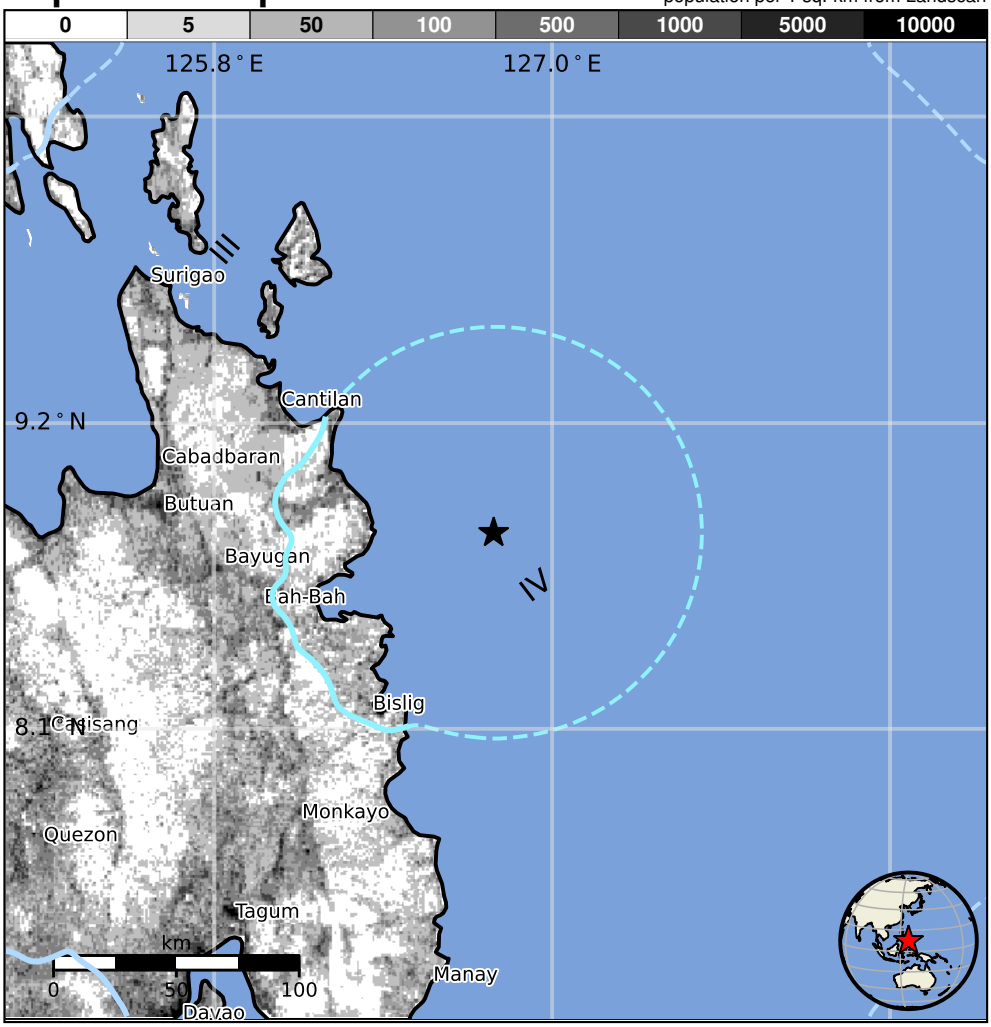
Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	7,682k	685k	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 a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1999-12-15	368	4.8	VI(34k)	1
1987-05-23	170	5.7	VII(70k)	1
1989-12-15	54	7.5	VIII(1k)	2

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	Bayabas	<1k
IV	Marihatag	4k
IV	Cagwait	<1k
IV	Aras-asan	5k
IV	Tago	6k
IV	La Paz	2k
III	**Butuan**	**310k**
III	Libertad	250k
III	Magugpo	233k
III	**Surigao**	**88k**
III	**Davao**	**1,213k**

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/us7000lg1b#pager

Event ID: us7000lg1b