

IMPACT

Statistical Report on Catastrophic Event

PASAMAN EARTHQUAKE - 25 February 2022

EARTHQUAKE DETAILS

General Information

Seismic Source Zone:

Angkola Segment - Sumatra Fault

Date of Event

25 February 2022

08:39:27 Local Time



Magnitude

6.2 M

Depth

10 km

Epicenter

0.15°N; 99.98°E

Source: <https://www.bmkg.go.id/gempabumi/gempabumi-dirasakan.bmkg>



Magnitude

6.2 Mww

Depth

12.3 km

Epicenter

0.233°N; 100.106°E

Source: <https://earthquake.usgs.gov/earthquakes/eventpage/us6000zrvp/execute>



Magnitude

6.0 Mww

Depth

10 km

Epicenter

0.11°N; 99.97°E

Source: <http://geo.fon.gfz-potsdam.de/einfo/event.php?id=ef2022dwpy>

AFFECTED CITIES

as reported by USGS (accessed at <http://earthquake.usgs.gov> - latest update on 25 February 2022 at 08:58 AM Jakarta local time)



PASAMAN EARTHQUAKE - 25 FEBRUARY 2022

An earthquake with magnitude **6.2M** (BMKG) or **6.2mww** (USGS), occurred in West Sumatra area on Friday morning at 08.39 WIB, February 25th, 2022. The epicenter of the earthquake was 17 kilometers Northeast of Pasaman Barat at a depth of 10 kilometers. The earthquake resulted from the Angkola fault: a segment of the Great Sumatra Fault System.

Based on MCM¹ simulation, the areas affected with VI intensity (MMI) are Kab. Pasaman and Kab. Pasaman Barat. However, many areas across central part of Sumatra felt the earthquake at III - V MMI. The earthquake also significantly felt at Kuala Lumpur, likely due to seismic amplification from the sub-soil structure below the Capital of Malaysia.

Latest big earthquake from Angkola Segment occurred in 1800's. Since then, there is no significant seismic activity. According to the MAIPARK database (from the earthquake insurance policy cession), insurance exposure is considerably high. Total affected portfolio in the IV -- VI MMI is IDR 26.7 trillion rupiah (12.879 risks).

¹MCM (MAIPARK Catastrophe Model) Ver. 2.1.

ACCUMULATION SUMMARY - INDONESIA EQ INSURANCE

on-risk as at 25 February 2022

Earthquake intensity (MMI) simulated using Maipark Cat Model (MCM) ver. 2.1

Intensity (MMI)		II	III	IV	V	VI	VII	VIII	IX+
Perceived Shaking		Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
Potential Damage	Resistant Structure	None	None	Very Light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
	Vulnerable Structure	None	None	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy	Very Heavy
Number of Risk		~	~	9,384	3,211	284	-	-	-
Total Exposure (billion IDR)		~	~	19,997.63	6,224.43	469.89	-	-	-
Per Interest (billion IDR)		II	III	IV	V	VI	VII	VIII	IX+
Building		~	~	14,262.19	3,608.97	213.29	-	-	-
Machinery		~	~	1,492.55	1,175.79	140.86	-	-	-
Stock		~	~	2,760.55	850.79	53.49	-	-	-
Others		~	~	1,347.00	540.99	50.65	-	-	-
Business Interruption		~	~	135.35	57.89	11.60	-	-	-
Per Occupation (billion IDR)		II	III	IV	V	VI	VII	VIII	IX+
Agriculture		~	~	-	60.00	40.37	-	-	-
Commercial		~	~	7,768.14	1,406.57	92.29	-	-	-
Industrial		~	~	8,458.94	4,267.98	289.52	-	-	-
Residential		~	~	3,770.55	499.89	47.70	-	-	-

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Annex 1 - Affected Portfolio per Occupation

Intensity Scale MMI	City / Kabupaten	Number of Risk	Premium (million IDR)	Exposure per Occupation (billion IDR)				
				Agriculture	Commercial	Industrial	Residential	Total
VI	KAB. PASAMAN	69	336,61	40,37	12,95	105,91	17,55	176,78
	KAB. PASAMAN BARAT	215	555,26	-	79,35	183,61	30,15	293,11
V	KAB. AGAM	361	1.083,57	60,00	230,11	143,95	79,86	513,92
	KAB. LIMA PULUH KOTA	454	442,27	-	61,43	156,86	8,73	227,02
	KAB. PADANG PARIAMAN	836	6.529,31	-	122,01	3.018,22	60,99	3.201,23
	KAB. ROKAN HULU	262	1.533,42	-	45,80	918,88	15,41	980,08
	KAB. TANAH DATAR	163	323,37	-	112,25	12,24	43,82	168,32
	KOTA BUKITTINGGI	506	1.661,11	-	561,63	4,03	180,83	746,48
	KOTA PADANG PANJANG	117	210,72	-	76,17	-	25,54	101,70
	KOTA PARIAMAN	244	325,99	-	94,24	9,24	32,32	135,80
	KOTA PAYAKUMBUH	268	244,19	-	102,94	4,56	52,39	159,88
	IV	KAB. MANDAILING NATAL	104	750,27	-	10,38	394,20	4,05
KAB. SIJUNJUNG		148	96,37	-	13,06	39,53	12,85	65,44
KAB. SOLOK		265	288,08	-	62,00	20,89	35,59	118,48
KOTA PADANG		8.585	30.431,85	-	7.520,67	4.592,29	3.504,37	15.617,33
KOTA SAWAH LUNTO		84	6.375,33	-	10,01	3.410,78	4,59	3.425,39
KOTA SOLOK		198	611,40	-	152,03	1,23	209,10	362,36
	TOTAL	12.879	51.799,13	100,37	9.267,00	13.016,44	4.318,14	26.701,95

* on risk as at 25 February 2022

Earthquake intensity (MMI) simulated using Maipark Cat Model (MCM) ver. 2.1

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Annex 2 - Affected Portfolio per Interest

Intensity Scale MMI	City / Kabupaten	Number of Risk	Exposure per Interest (billion IDR)					Total
			Building	Machinery	Stock	Others	BI	
VI	KAB. PASAMAN	69	78,77	75,62	13,27	9,11	-	176,78
	KAB. PASAMAN BARAT	215	134,52	65,24	40,22	41,53	11,60	293,11
V	KAB. AGAM	361	338,26	32,88	58,47	79,81	4,49	513,92
	KAB. LIMA PULUH KOTA	454	64,49	25,43	32,07	105,03	-	227,02
	KAB. PADANG PARIAMAN	836	2.044,05	573,44	497,54	86,21	-	3.201,23
	KAB. ROKAN HULU	262	239,42	526,00	73,31	130,36	11,00	980,08
	KAB. TANAH DATAR	163	143,67	3,14	11,20	10,32	-	168,32
	KOTA BUKITTINGGI	506	499,24	2,37	120,67	81,79	42,40	746,48
	KOTA PADANG PANJANG	117	72,73	1,44	21,26	6,27	-	101,70
	KOTA PARIAMAN	244	106,06	4,96	10,13	14,65	-	135,80
	KOTA PAYAKUMBUH	268	101,03	6,14	26,14	26,57	-	159,88
IV	KAB. MANDAILING NATAL	104	76,82	268,90	13,00	49,91	-	408,63
	KAB. SIJUNJUNG	148	30,95	6,35	8,21	18,48	1,45	65,44
	KAB. SOLOK	265	88,65	5,16	15,25	9,43	-	118,48
	KOTA PADANG	8.585	10.339,17	1.209,09	2.703,61	1.231,55	133,90	15.617,33
	KOTA SAWAH LUNTO	84	3.418,89	0,53	3,24	2,73	-	3.425,39
	KOTA SOLOK	198	307,69	2,53	17,24	34,90	-	362,36
	TOTAL	12.879	18.084	2.809,20	3.664,83	1.938,64	204,84	26.701,95

* on risk as at 25 February 2022

Earthquake intensity (MMI) simulated using Maipark Cat Model (MCM) ver. 2.1

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