

# IMPACT

## Statistical Report on Catastrophic Event

### MALUKU EARTHQUAKE - 10 January 2023

#### EARTHQUAKE DETAILS

##### General Information

Seismic Source Zone:  
**Megathrust Busur Banda**  
 Date of Event  
**10 January 2023**  
 00:47:34 Local Time



**Magnitude**  
7.9 M  
**Depth**  
131 km  
**Epicenter**  
7.25°S; 130.18°E  
<https://www.bmkg.go.id/gempabumi/gempabumi-dirasakan.bmkg>



**Magnitude**  
7.6 Mww  
**Depth**  
105.1 km  
**Epicenter**  
7.049°S 130.038°E  
<https://earthquake.usgs.gov/earthquakes/eventpage/us7000j3gj/executive>



**Magnitude**  
7.6 Mw  
**Depth**  
108 km  
**Epicenter**  
7.11°S 129.98°E  
<https://geofon.gfz-potsdam.de/old/eqinfo/event.php?id=gfz2023apzg>

#### AFFECTED CITIES

as reported by USGS (accessed at <http://earthquake.usgs.gov> - latest update on 10 January 2023 at 00:47 AM Jakarta local time)



MALUKU EARTHQUAKE - 10 January 2023

An earthquake with magnitude 7.9 M (BMKG) or 7.6Mww (USGS), occurred in Maluku on Tuesday morning, January 10, 2023. The epicenter of the earthquake was 148 kilometers on the northwest of SE-W Maluku with 131 kilometers depth and occurred at 00.47 WIB. The earthquake impacted as far as ± 452 kilometers radius to the southeast west part of Maluku.

Based on MCM<sup>1</sup> simulation ver. 2.1 (MAIPARK catastrophe modeling), the areas affected with high intensity are Kab. Maluku Tenggara Barat, Kab. Maluku Tengah & Kab. Maluku Barat Daya (VII MMI). Meanwhile, Greater Maluku were impacted by the earthquake at intensity of IV - V MMI.

According to MAIPARK database (from the earthquake insurance policy cession), total affected portfolio in the IV - VII intensity area is **IDR 2.8 trillion (1,190 risks)**. Majority (> 84%) of these portfolio were expected to experience under-deductible damages. Meanwhile, the other 16% of portfolio (IDR 592.37 billion with 191 risks), which located in the VII intensity area, have a potential moderate damages or claim amount.

<sup>1</sup>MCM (MAIPARK Catastrophe Model) Ver. 2.1.

#### ACCUMULATION SUMMARY - INDONESIA EQ INSURANCE on-risk as at 10 January 2023

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		~	~	310	689	~	191	~	~
Total Exposure (billion IDR)		~	~	514.92	1,672.17	~	592.37	~	~

Per Interest (billion IDR)	II	III	IV	V	VI	VII	VIII	IX+
Building	~	~	170.44	999.03	~	108.27	~	~
Machinery	~	~	28.16	57.54	~	180.32	~	~
Stock	~	~	254.19	333.08	~	23.47	~	~
Others	~	~	62.13	229.24	~	212.70	~	~
Business Interruption	~	~	0.00	53.28	~	67.61	~	~

Per Occupation (billion IDR)	II	III	IV	V	VI	VII	VIII	IX+
Agriculture	~	~	~	~	~	~	~	~
Commercial	~	~	307.03	1,349.73	~	193.49	~	~
Industrial	~	~	154.38	56.98	~	370.90	~	~
Residential	~	~	53.51	265.46	~	27.98	~	~

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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
VII	KAB. MALUKU BARAT DAYA	72	483.89	-	54.05	266.26	10.97	331.27
	KAB. MALUKU TENGAH	84	489.51	-	131.83	104.64	15.40	251.88
	KAB. MALUKU TENGGARA BARAT	35	17.72	-	7.61	-	1.61	9.22
VI	-	-	-	-	-	-	-	-
V	KAB. BURU	65	81.99	-	32.20	-	9.38	41.58
	KAB. MALUKU TENGGARA	20	0.04	-	13.76	-	5.81	19.57
	KAB. SERAM BAGIAN TIMUR	5	0.01	-	1.02	-	2.00	3.02
	KOTA AMBON	588	3.09	-	1,297.84	56.98	246.92	1,601.74
	KOTA TUAL	11	0.01	-	4.91	-	1.35	6.26
IV	KAB. BURU SELATAN	57	0.13	-	78.22	14.16	1.93	94.31
	KAB. FAKFAK	63	0.17	-	92.07	-	15.64	107.71
	KAB. KAIMANA	43	0.21	-	36.80	56.73	11.99	105.52
	KAB. KEPULAUAN ARU	33	0.14	-	11.32	82.45	9.41	103.18
	KAB. SERAM BAGIAN BARAT	58	0.09	-	35.46	-	3.25	38.71
	KAB. TELUK BINTUNI	56	0.08	-	53.16	1.04	11.29	65.49
	<b>TOTAL</b>	<b>1,190</b>	<b>5,032.07</b>	-	<b>1,850.25</b>	<b>582.26</b>	<b>346.95</b>	<b>2,779.46</b>

\* on risk as at 10 January 2023  
 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	
VII	KAB. MALUKU BARAT DAYA	72	11.69	57.86	3.90	204.72	53.11	331.27
	KAB. MALUKU TENGAH	84	92.64	121.89	19.24	3.60	14.50	251.88
	KAB. MALUKU TENGGARA BARAT	35	3.94	0.56	0.33	4.39	-	9.22
VI	-	-	-	-	-	-	-	-
V	KAB. BURU	65	12.40	0.04	27.64	1.49	-	41.58
	KAB. MALUKU TENGGARA	20	13.25	2.03	3.32	0.97	-	19.57
	KAB. SERAM BAGIAN TIMUR	5	2.07	0.10	-	0.85	-	3.02
	KOTA AMBON	588	969.37	55.10	300.78	223.21	53.28	1,601.74
	KOTA TUAL	11	1.94	0.28	1.34	2.70	-	6.26
IV	KAB. BURU SELATAN	57	2.38	0.52	77.27	14.14	-	94.31
	KAB. FAKFAK	63	63.98	4.77	19.05	19.91	-	107.71
	KAB. KAIMANA	43	37.74	8.83	51.24	7.72	-	105.52
	KAB. KEPULAUAN ARU	33	27.50	0.00	73.70	1.98	-	103.18
	KAB. SERAM BAGIAN BARAT	58	4.91	0.30	19.76	13.74	-	38.71
	KAB. TELUK BINTUNI	56	33.94	13.75	13.17	4.64	-	65.49
	<b>TOTAL</b>	<b>1,190</b>	<b>1,277.75</b>	<b>266.02</b>	<b>610.74</b>	<b>504.07</b>	<b>120.89</b>	<b>2,779.46</b>

\* on risk as at 10 January 2023

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

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