

# IMPACT

## Statistical Report on Catastrophic Event

### SEMERU ERUPTION - 4 December 2022

#### VOLCANO DETAILS

##### General Information

Volcano	: SEMERU
Type	: Stratovolcano
Crater	: Jonggring Seloko
Height	: Mahameru Summit (3.676 meter above sea level - asl)
	: Jonggring Seloko (3.744 m -asl)
Location	: Kabupaten Lumajang and Malang (- 8°06,5' S; 112°55' E)

##### Previous Events

1994	: February 1994
2002	: March to December 2002
2004	: January to December 2004
2005	: December 2002
2007	: November 2007
2008	: May 2008
2021	: December 2021

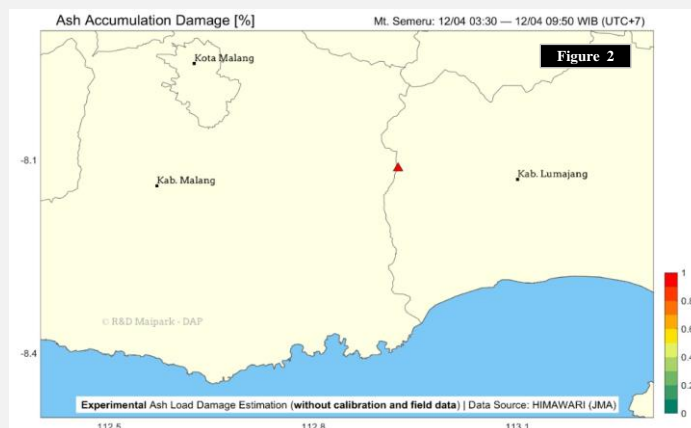
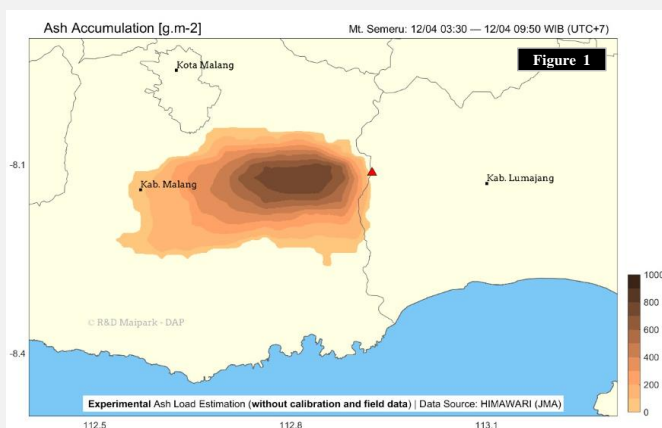
##### Material Erupted

Lahar, Pyroclastic gas/ cloud
Pyroclastic gas/ cloud
Pyroclastic gas/ cloud
Pyroclastic gas/ cloud
Pyroclastic gas/ cloud
Pyroclastic gas/ cloud
Pyroclastic gas/ cloud

Source: <http://vsi.esdm.go.id>

#### AFFECTED CITIES

MAIPARK's Research and Development Group - Raw satellite images from Himawari - Japan Meteorological Agency



**Figure 1.** The accumulation of volcanic ash distribution from the Semeru eruption on December 4, 2022, over duration of simulation. The color indicates the thickness of the ash deposited on the surface (the darker the color, the thicker the ash-deposit). Adopting the method in the ASHFALL model, the load distribution of the maximum ash deposit is obtained 800-1000 g/m<sup>2</sup> (before calibration).

**Figure 2.** The experimental damage estimation from the ash load accumulation. Based on these experimental, we expected minor or no lossess from this event.

#### ACCUMULATION SUMMARY - INDONESIA EQ INSURANCE on-risk as at 4 December 2022

CITIES & KABUPATEN	AGRICULTURE			COMMERCIAL			INDUSTRIAL			RESIDENTIAL			ALL OCCUPATION		
	Number of Risk (unit)	Premium (million IDR)	Exposure (million IDR)	Number of Risk (unit)	Premium (million IDR)	Exposure (million IDR)	Number of Risk (unit)	Premium (million IDR)	Exposure (million IDR)	Number of Risk (unit)	Premium (million IDR)	Exposure (million IDR)	Number of Risk (unit)	Premium (million IDR)	Exposure (million IDR)
KAB. LUMAJANG	8	2.3	2,300.6	181	340.9	338,356.7	179	975.2	982,348.9	89	52.5	47,508.6	457	1,370.9	1,370,514.8
KAB. MALANG	7	29.2	29,168.6	405	1,468.1	1,444,549.3	298	4,185.1	4,124,752.5	194	356.2	313,792.1	904	6,038.5	5,912,262.5
<b>TOTAL</b>	<b>15</b>	<b>31.5</b>	<b>31,469</b>	<b>586</b>	<b>1,809</b>	<b>1,782,906</b>	<b>477</b>	<b>5,160.3</b>	<b>5,107,101</b>	<b>283</b>	<b>408.7</b>	<b>361,301</b>	<b>1,361</b>	<b>7,409.4</b>	<b>7,282,777</b>

## IMPACT-Statistical Report on Catastrophic Event

SMVE 01 - Updated on 5th of December 2022

IMPACT is a statistical report on the occurrence of earthquakes, volcanic eruptions and other peril that are covered under the Indonesian Earthquake Insurance Standard Policy (PSAGBI). IMPACT was first created by MAIPARK in 2018 during the Lombok earthquake. In that year, there were two earthquakes with an intensity above VI on the Modified Mercalli Intensity (MMI). It represents the national insurance portfolio which is the earthquake insurance coverage number ceded to MAIPARK. The IMPACT for the Semeru Volcano Eruption will be updated periodically for the next 3 months, to anticipate changes in exposure numbers due to cession administration or to accommodate updates and changes in the modeling parameters.

For further information on IMPACT, please contact: Astufi Ika ([ika@maipark.com](mailto:ika@maipark.com)); Jyesta ([jyesta@maipark.com](mailto:jyesta@maipark.com)); Ken ([salindri@maipark.com](mailto:salindri@maipark.com)).

# IMPACT

## Statistical Report on Catastrophic Event

### Annex - Ash Dispersion Model of the Semeru Eruption - 4 December 2022

