

S/N	Date	Country, Disaster Log and Key Updates
1	13 Dec 2018 - ongoing	<b>Malaysia, Flooding across 3 provinces</b> <a href="http://adinet.ahacentre.org/reports/view/1380">http://adinet.ahacentre.org/reports/view/1380</a>
2	18 Dec 2018	<b>Indonesia, Floods in North Sumatra</b> <a href="http://adinet.ahacentre.org/reports/view/1381">http://adinet.ahacentre.org/reports/view/1381</a>
3	18 Dec 2018	<b>Thailand, Flooding in Southern Provinces</b> <a href="http://adinet.ahacentre.org/reports/view/1382">http://adinet.ahacentre.org/reports/view/1382</a>
4	22 Dec 2018	<b>Indonesia, Tsunami in Sunda Strait</b> <a href="http://adinet.ahacentre.org/reports/view/1383">http://adinet.ahacentre.org/reports/view/1383</a>

## Regional Summary of Week 51, and Outlook for Week 52

- In Week 51, heavy rainfall had brought about flash floods affecting people and disrupting daily activities. On the other hand, geophysical hazards monitored included activity for Mt Anak Krakatau and Mt Soputan. A total of 6 earthquakes of M5.0 and above were reported this week ([BMKG](#) and [USGS](#)).
- Mt Soputan erupted on 16 Dec at 0540hrs (UTC+7) with a permanent danger zone of 4km radius and 6.5km for the southwest-west sector of the opening area of the crater to avoid the threat of lava flow and avalanche hot clouds.
- Mt Anak Krakatau have been experiencing increased activity since 14 Dec. Prior eruptions observed high smoke columns ranging from 300 - 1500 meters above the top of the crater. In seismicity, earthquake tremors were recorded continuously with overscale amplitude. Following the eruption on 2103hrs (UTC+7) on 22 Dec 2018, it is still under investigation if the tsunami is a direct result of the volcanic eruptions. BMKG and PVMBG are currently working together to carry out surveys to determine the cause.
- In the meantime, local and national authorities are carrying out search and rescue operations, collecting data on the affected and displaced people. Industrial estate in Cilegon area have been reported to be unaffected thus far.
- Public is urged to follow warnings and advisories from official sources.
  - BNPB – [Webpage](#), [Facebook page](#), [Twitter page](#), [Pak Sutopo's page](#)
  - BMKG – [Webpage](#), [Facebook page](#), [Twitter page](#),
  - PVMBG – [Webpage](#), [Facebook page](#), [Twitter page](#),
- Alert Level 2 status prevails over Mayon Volcano and Kanlaon Volcano, which means that the volcanoes are undergoing a moderate level of unrest. Permanent danger zones are 6km and 4km respectively.
- Travellers to volcanic areas are advised to take note of local government advisories before ascending and evacuation notices in high-risk areas.
- All reported disasters were within the coping capacity of the member states.

## REGIONAL TALLY



# Affected population: **788,466\*** # Affected families: **279,830\*** # Displaced: **522\***

\*AHA Centre's estimation based on total number of deaths, injuries and IDPs reported/confirmed by National Disaster Management Offices (NDMOs) of each ASEAN Member State and other verified sources.

### DISCLAIMER

The AHA Centre was established in November 2011 by the Association of Southeast Asian Nations (ASEAN) Member States to facilitate cooperation and coordination among Member States, relevant agencies of the United Nations and international organisations in disaster management and humanitarian assistance.

This update consists of significant natural disaster events that occur in ASEAN Member States, including Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia,

Myanmar, Philippines, Singapore, Thailand and Viet Nam. The disasters recorded include Drought, Flood, Earthquake, Tsunami, Volcano, Wind, Landslide and Storm.

The use of boundaries, geographic names, related information and potential considerations for response are for reference, not warranted to be error free or implying official endorsement from ASEAN Member States.

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### DATA SOURCE

Detailed information of each disaster and emergency situation are available at: <http://adinet.ahacentre.org/reports>

AHA Centre - Disaster Monitoring & Response System (DMRS); Pacific Disaster Center (PDC Global); ASEAN Specialized Meteorological Center (ASMC); Indonesia: BNPB, BPBDs of affected municipalities, BMKG, BPS, PVMBG-ESDM; Malaysia: NADMA, MetMalaysia; Philippines: NDRRMC, DSWD, PAGASA, PHIVOLCS; Viet Nam: NCHMF, VDMA  
Various news agencies



ONE ASEAN  
ONE RESPONSE

## HOW DO VOLCANIC ERUPTIONS

# GENERATE TSUNAMIS?



- |                              |   |  |
|------------------------------|---|--|
| 1 ORIGINAL SUMMIT OF VOLCANO | 4 LATERAL BLAST                                 | 6 TSUNAMI FORMS                          |
| 2 VOLCANO COLLAPSES          | 5 FAST-MOVING DEBRIS AVALANCHE CRASHES INTO SEA | 7 WAVE TRAVELS OUT TO DISTANT COASTLINES |
| 3 MAGMA BODY IS UNROOFED     |   |  |

Source:

Geoscience  
Australia

- Although relatively infrequent, violent volcanic eruptions represent also impulsive disturbances, which can displace a great volume of water and generate extremely destructive tsunami waves in the immediate source area.
- According to this mechanism, waves may be generated by the sudden displacement of water caused by a volcanic explosion, by a volcano's slope failure, or more likely by a phreatomagmatic explosion and collapse/engulfment of the volcanic magmatic chambers.
- One of the largest and most destructive tsunamis ever recorded was generated in August 26, 1883 after the explosion and collapse of the volcano of Krakatoa (Krakatau), in Indonesia.
- This explosion generated waves that reached 135 feet, destroyed coastal towns and villages along the Sunda Strait in both the islands of Java and Sumatra, killing 36,417 people.
- It is also believed that the destruction of the Minoan civilization in Greece was caused in 1490 B.C. by the explosion/collapse of the volcano of Santorin in the Aegean Sea.

*Excerpt above taken from International Tsunami Information Center*

- Based on visual data and instrumental potential hazards and increased activity of Mt Anak Krakatau which includes ejection of incandescent material within a radius of 2 km from the center of the eruption. Nonetheless, the distribution of volcanic ash and effluent depends on the direction and speed of the wind. Based on the results of observations and analysis of visual and instrumental data until December 23, 2018, the level of activity of Mt Anak Krakatau maintains at Level II (Alert) which recommends that the community should not be allowed to approach Mount Krakatau within a 2 km radius of the Crater.

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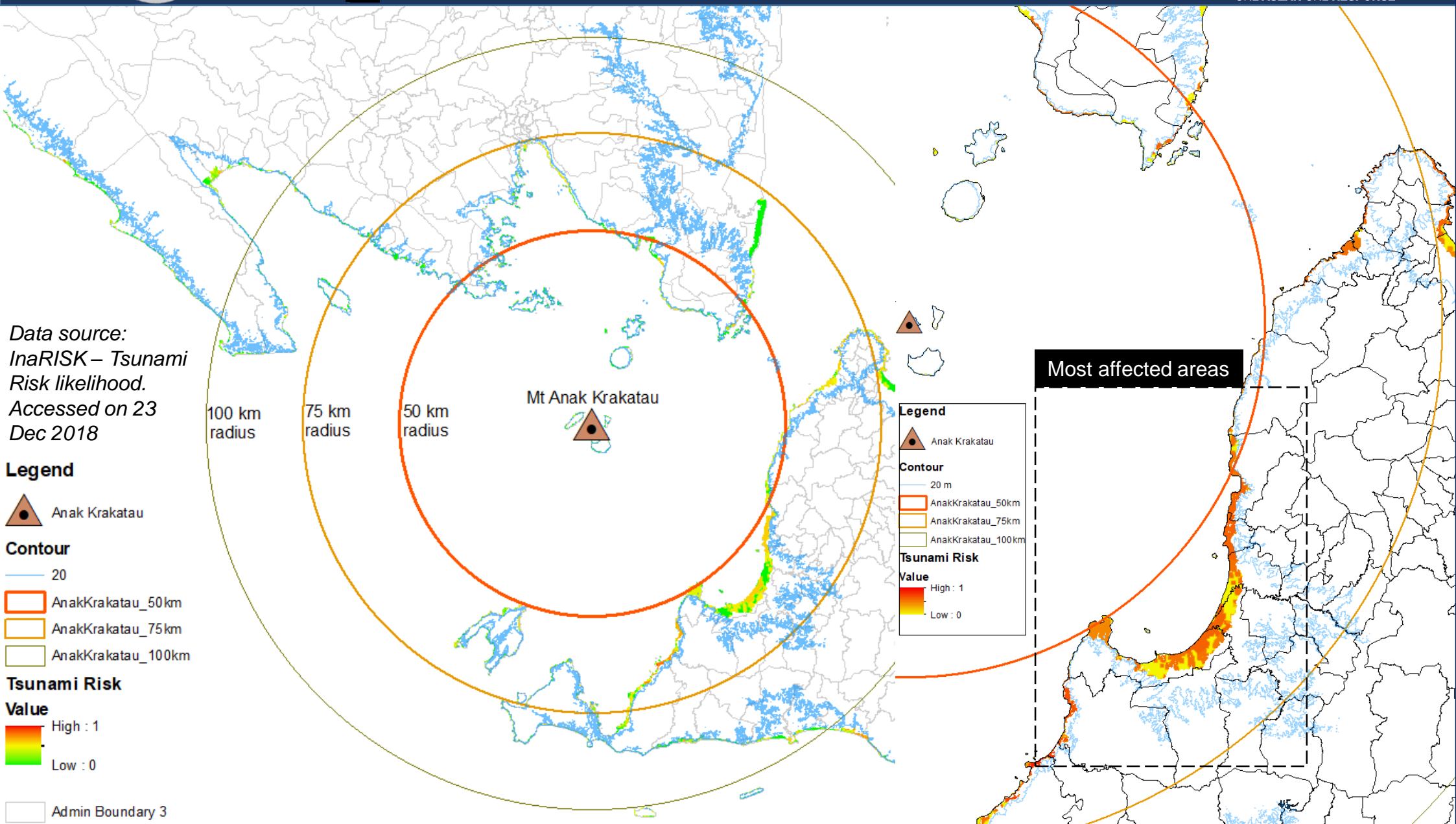
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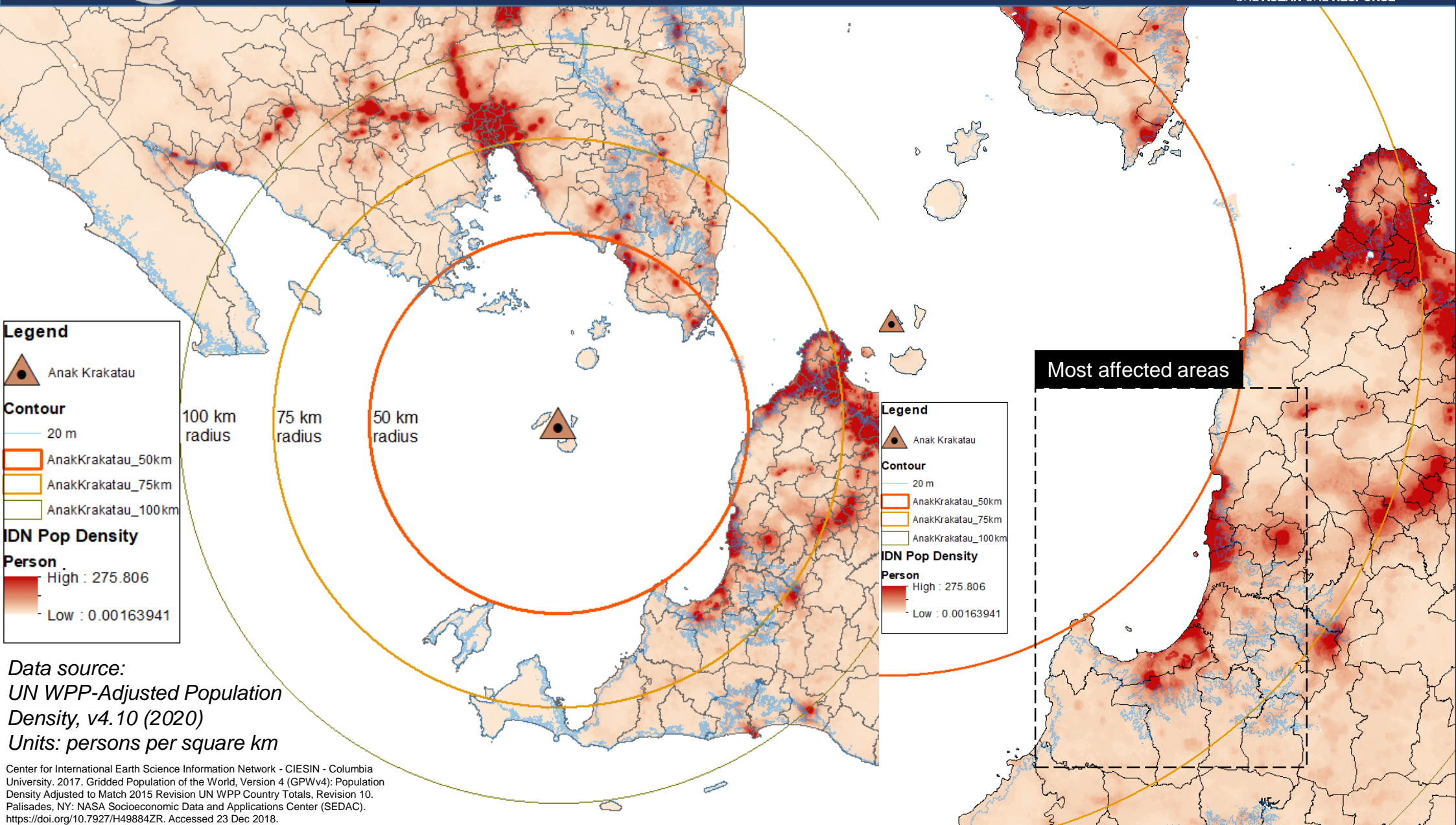
Week  
51

# WEEKLY DISASTER UPDATE

17 – 23 December 2018



ONE ASEAN ONE RESPONSE



**Data source:**  
*UN WPP-Adjusted Population Density, v4.10 (2020)*  
*Units: persons per square km*

Center for International Earth Science Information Network - CIESIN - Columbia University, 2017. Gridded Population of the World, Version 4 (GPWv4): Population Density Adjusted to Match 2015 Revision UN WPP Country Totals, Revision 10. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <https://doi.org/10.7927/H49884ZR>. Accessed 23 Dec 2018.

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