

SITUATION UPDATE No. 1 M 7.4 EARTHQUAKE & TSUNAMI Sulawesi, Indonesia

No. **1**

Saturday, 29 September 2018, 17:00 hrs (UTC+7)

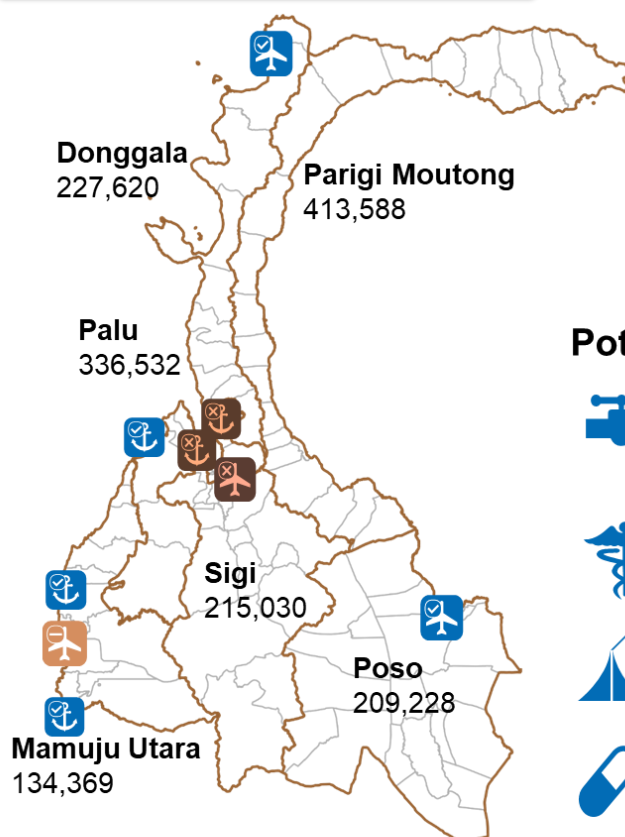
This Situation Update is provided by the AHA Centre for use by the ASEAN Member States and relevant stakeholders. The information presented is collected from various sources, including but not limited to, ASEAN Member States' government agencies, UN, IFRC, NGOs and news agencies.

M 7.4 EARTHQUAKE & TSUNAMI IN SULAWESI, INDONESIA

Correct as at 29 September 2018



Population census (2010)



1,536,367
potentially affected



384
fatalities



≥ 300
injuries



Underway

Potential needs identified:



NFI



- Food
- WASH
- Medicines
- Primary health care
- Psycho-social support
- Nutrition
- Feminine hygiene kits
- Non-food items

1. HIGHLIGHTS

- a. On Friday (28/09) at 13.59 hrs, an earthquake with a strength of 5.9 SR and updated to 6.0 SR Lok: 0.35 LS, 119.82 BT (The epicenter was at land 61 km north of Palu), Depth: 10 km shook the Kab. Donggala, Prov. Central Sulawesi
- b. Earthquake with magnitude 7.7 magnitude strength which is then updated by BMKG to magnitude 7.4 shook the Palu City and Donggala, Central Sulawesi at 17:02 hrs. Earthquake epicentre was recorded at 10 km depth, 27 km northeast of Donggala, Central Sulawesi.
- c. BMKG has activated tsunami early warning with alert status on the beach Donggala west, and alert status (high tsunami potential is less than 0.5 meters) on the north coast of Donggala, Mamuju in the north and in the Palu City west (refer to Figure 2). BMKG then terminated the tsunami early warning since 28/9/2018 at 18.36 pm.
- d. Tsunami struck Talise beach in Palu City and beaches in Donggala and some settlements and buildings on the beach. Assessment and data collection on the number of victims are still underway.
- e. According to the population census data of 2010, **1,536,367 are potentially affected** by this event across 6 regencies and 85 districts. Initial reports have estimated 384 casualties with over 300 injuries. Rapid assessment is currently underway.
- f. Based on the ASEAN's Joint Disaster Response Plan (AJDRP), the potential basic needs identified are:
 - Food (ready-to-eat meals) which are halal certified
 - Water, Sanitation and Hygiene (WASH)
 - Primary healthcare including first aid and psycho-social support
 - Nutrition needs
 - Medicines
 - Feminine hygiene kits
 - Non-food items
- g. Logistical access from Poso to Palu is unavailable due to landslide. The status of the nearest airports and seaports are:
Airports updates:
 - 1) Palu airport: Just opened for commercial and humanitarian cargoes. Priority will be given to humanitarian cargoes. Current runway can be used is 2,000m.
 - 2) Mamuju airport: Tower building damaged but still functioning.
 - 3) Toli-toli airport: Normal
 - 4) Poso airport: Normal
 - 5) Luwuk Banggai airport: Shifting of tower but still functioning
Ports updates:
 - 6) Pantoloan Port (Kota Palu): Severely damaged
 - 7) Wani port: Building and docks were damaged
 - 8) Ampana Port, Luwuk Port, Belang-belang Port, Majene Port: In good condition with no damage reported



2. SUMMARY OF EVENTS, FORECAST AND ANTICIPATED RISK

a. Earthquake source, mechanism, and intensity information

A powerful M 7.4 earthquake occurred on 28 September 2018, 17.02 hrs UTC+7 in Central Sulawesi Indonesia. The earthquake epicentre was located at 0.18 South and 119.85 East, 26 km north to the Donggala Regency, at a depth of 10 km (BMKG). Based on the location of the epicentre and depth of hypocentre, the earthquake was resulted due to Palu Koro fault. According to the observed fault movement, the earthquake was generated due to deformation with a strike-slip mechanism (BMKG).

- b. Until 29 September 2018, 02.55 hrs UTC+7, BMKG recorded 76 aftershocks ranging from M 2.9 to M 6.3. The earthquake exposed more than 310,000 people Donggala Regency (VII-VIII MMI), more than 350,000 people in Palu and Mapaga (VI-VII MMI), Gorontalo and Poso (III-IV MMI). Figure 1 below exhibits earthquake source, fault lines across Sulawesi, and seismic intensity generated (BMKG).

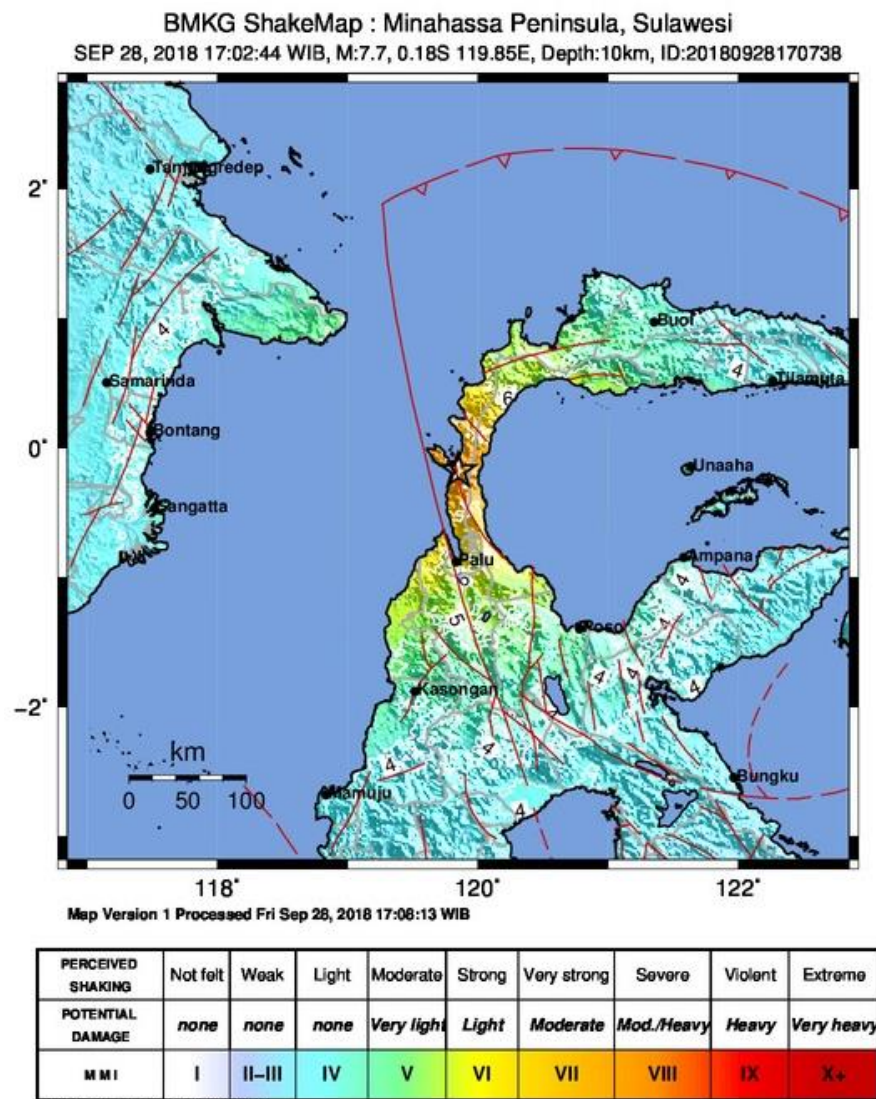


Figure 1: BMKG Shakemap for Minahassa Peninsula, Sulawesi

c. Tsunami warning, evacuation, tsunami height, and inundation area.

Following the earthquake, BMKG activated tsunami early warning with Warning / Siaga alert status (anticipated tsunami height 0.5 - 3 meters) for western part of



Donggala Regency and Advisory / *Waspada* (anticipated tsunami height around 0 - 0.5 meters) for northern part of DoOnggala Regency, Mamuju Regency and Palu City, with anticipated tsunami arrival time at 17.22 UTC+7. Based on tide gauge observation in Mamuju station, tsunami was confirmed at 17.27 UTC +7 and BMKG cancelled / elevated tsunami warning at 17.36 hrs UTC+7. Based on the circulated photos and videos in the media originated from Palu City, it seems the tsunami height is higher than the anticipated model. Hence, it is a possible scenario since the shoreline shape of Palu Gulf may amplify the wave and resulted in a higher tsunami height. Figure 2 below exhibits the tsunami warning generated in the Indonesian Tsunami Early Warning System ([BMKG-InaTEWS](#)).

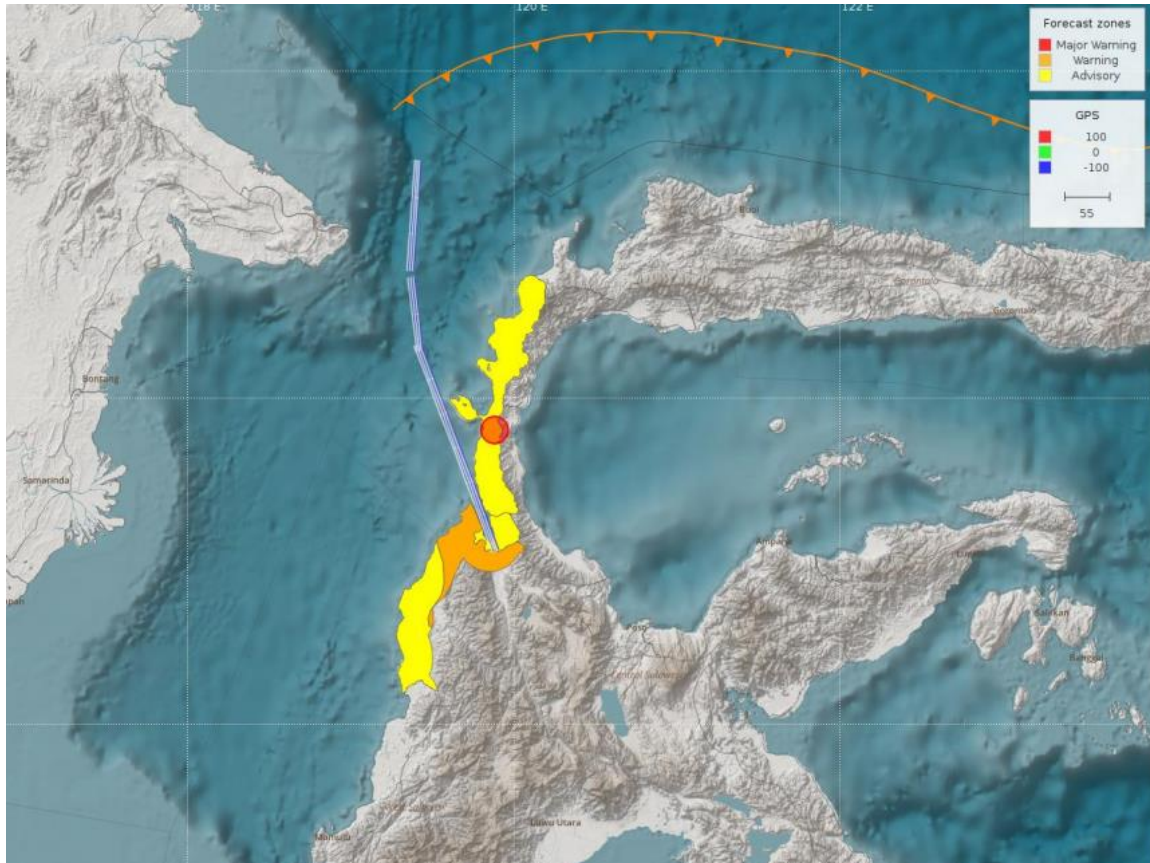


Figure 2: Tsunami warning generated in Indonesian Tsunami Early warning System

3. ASSESSMENT OF DAMAGE, IMPACT, AND HUMANITARIAN NEEDS

- a. Based on the ASEAN's Joint Disaster Response Plan (AJDRP), the potential basic needs identified are:
 - Food (ready-to-eat meals) which are halal certified
 - Water, Sanitation and Hygiene (WASH)
 - Primary healthcare including first aid and psycho-social support
 - Nutrition needs
 - Medicines
 - Feminine hygiene kits
 - Non-food items
- b. Aftershocks are still recorded and it has advised that operational teams are to take note of their safety and security on the ground.

- c. According to the population census data of 2010, **1,536,367** are **potentially affected** by this event across 6 regencies and 85 districts. Initial reports have estimated 486 casualties with over 300 injuries. Rapid assessment is currently underway.

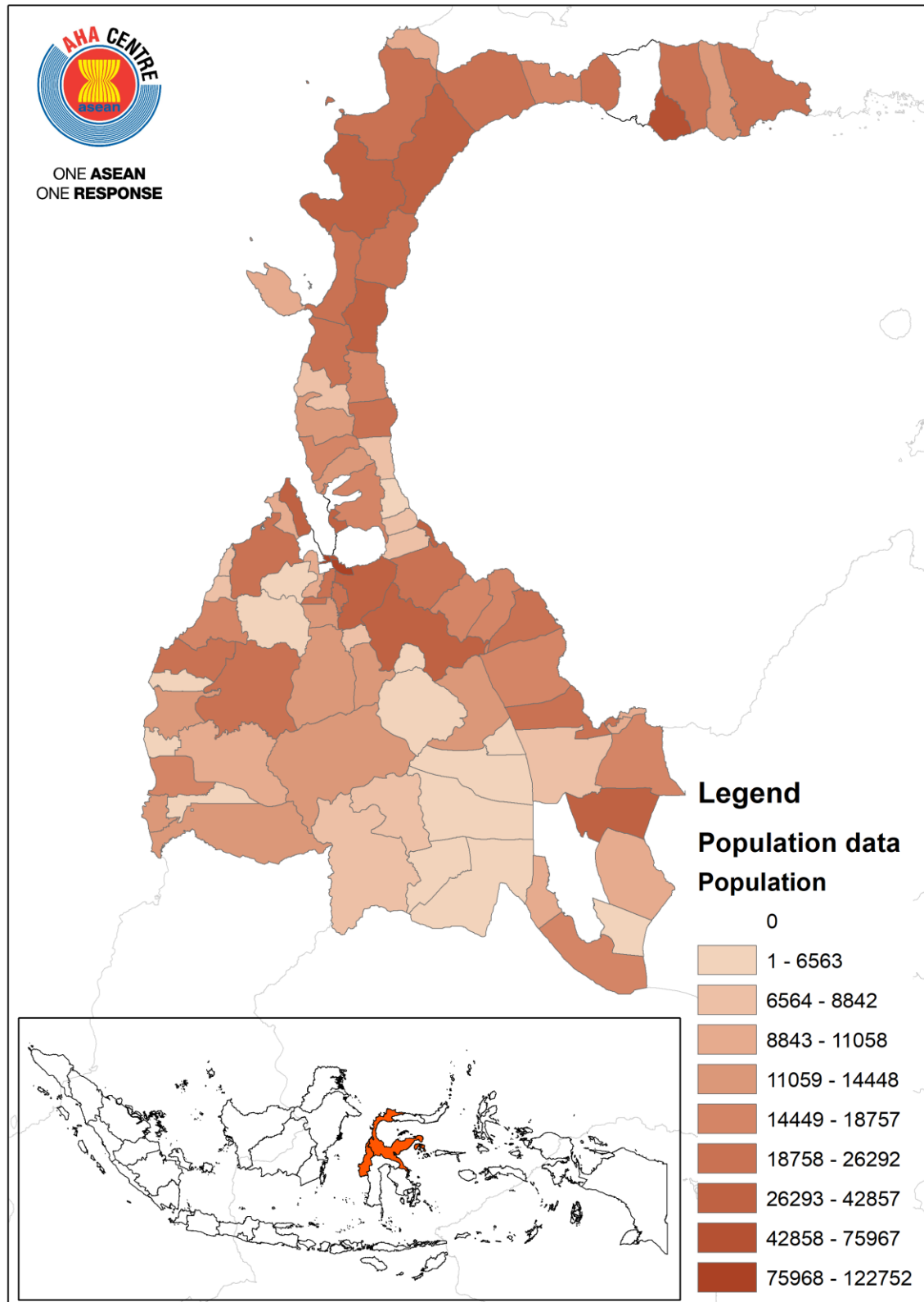


Figure 3: Population census data (2010) of potentially affected areas

- d. Logistical access is challenging and there is report that trans lane Palu-Poso-Makassar is closed due to the landslide occurrence following the earthquake.

4. ACTIONS TAKEN AND RESOURCES MOBILISED

Response by Government of Indonesia

- a. Indonesian National Board for Disaster Management (BNPB) is coordinating with related ministries/agencies and NGO; conducting rapid impact assessment and quick emergency response.
- b. Head of BNPB, Senior officials of BNPB and Rapid Response team of BNPB have been mobilised to Palu & Donggala via special aircraft and helicopter.
- c. A [web portal on BNPB's page](#) has been prepared for sharing maps, providing updates and information to public and media
- d. Indonesian National Armed Forces (TNI) has mobilised forces to support the emergency response in Palu and Donggala. TNI mobilised 7 SSK from Yonkes, Yonzipur, Yonif, and Yonzikon using 2 C-130s. TNI has also mobilised Air Force Super Puma helicopter from Makassar carrying portable navigation devices
- e. Indonesian Police also mobilised personnel, logistic, equipments and medical to provide emergency response operation.
- f. Ministry of Energy and Mineral Resources (ESDM) is carrying out Impact mapping (building damages, land displacement and fractures, including landslide); identifying soil characteristic, provide technical recommendation, and socialisation.
- g. Ministry of Communication and Information is carrying out restoration of communication network with relevant telecommunication providers.
- h. Ministry of Transportation have mobilised personnel and equipment to repair runway and airport infrastructure.
- i. Ministry of Health has mobilised a medical team and standing by the community health center in the area. Deployed team from MoH is mobilising along with Provincial team from Sulawesi Barat and Selatan to Palu.
- j. Indonesia electricity company (PLN) has mobilised regional Sulawesi team and logistics (material, food and drinking water). Due to the access, the possible alternatives are coming from Manado, Gorontalo and Mamuju. They will be starting on the investigation of sub-stations and electrical transmission.
- k. Tourism Ministry has activated the Tourism Crisis Center which will monitor the situation around the clock and coordinate with all disaster management boards, the office of tourism in Central Sulawesi, various tourist stakeholders and relevant parties in neighboring provinces to gather information on the impacted tourist sectors.
- l. Ministry of Social Affairs of the Republic of Indonesia (Kemensos) is sending logistics from the Kemensos Warehouse in Bekasi and Makassar in the form of 1,000 fast food cardboard, 2,100 belts, 25 multipurpose tents, 3,100 rolling tents, 2 parcel kitchens, 1,000 mattresses, and 1,500 mattresses. 2 multifunctional family tents, 1,500 mattresses, 3,000 blankets, 200 families kit, 200 kids ware, 345 food ware and 100 packets. Besides that too deploy 100 disaster alert youth volunteers (TAGANA). This



morning it is preparing 3,000 ready-to-eat meals and government rice reserve of 300 tons with Indonesian Bureau of Logistics (BULOG).

Response by the AHA Centre

- a. AHA Centre has expressed condolence to Indonesia through BNPB Indonesia and offered support from regional resources, including mobilising ASEAN Emergency Response and Assessment Team (ASEAN-ERAT), providing relief items from the Disaster Emergency Logistic System for ASEAN (DELSA) regional stockpile, and facilitating the deployment of capacities available in the region, such as from the ASEAN Standby Arrangements.
- b. AHA Centre has mobilised its In-Country Liaison Team (ICLT) to establish direct communication with BNPB on the ground and liaising with them on further support required from ASEAN.
- c. Following consultation with BNPB, ASEAN-ERAT is currently being mobilised to gather information on the impact of the earthquake and assess the needs, in support of BNPB and BPBD's ground assessment efforts.

Response by ASEAN Dialogue Partner(s) (in alphabetical order)

- a. Swiss Development Cooperation (SDC) has signified availability to provide aid and teams to assist through AHA Centre's coordination.

Response by the Humanitarian Country Team

- a. The Humanitarian Country Team (HCT) convened today, 29 September in Jakarta to discuss how to achieve a coherent, structured, coordinated assessment that would inform government and partners;
- b. Fifty INSARAG-certified teams are monitoring the situation;
- c. The HCT is hoping to have a more enhanced engagement with the Indonesian military;
- d. An HCT meeting is scheduled tomorrow, 30 September to discuss common tools for assessment.

Response by Other Humanitarian Partners

- a. Télécoms Sans Frontières (TSF) is deploying emergency telecommunications equipment to support the communications requirements.
- b. Direct Relief stands ready to provide support, i.e. medical supplies and equipment, through AHA Centre's coordination.
- c. MapAction is also on standby to provide remote mapping support through AHA Centre.
- d. Médecins Sans Frontières (MSF) is mobilising team to support assessment and will be supporting mental health needs.
- e. World Vision Indonesia (WVI) is supporting evacuation efforts and assessment of affected areas
- f. PKPU is mobilising team from Makassar to support assessment.
- g. MDMC is establishing post at PWM Sulawesi Tengah office and providing medical services.
- h. LPBI NU has deployed a medical team.

Response by Private Sector Partners

- a. AHA Centre has requested activation of Sentinel Asia's Emergency Observation Request (EOR) and received access from DigitalGlobe on satellite-based observation. AHA Centre and LAPAN recommended to Sentinel Asia to escalate the observation to International Disaster Charter.



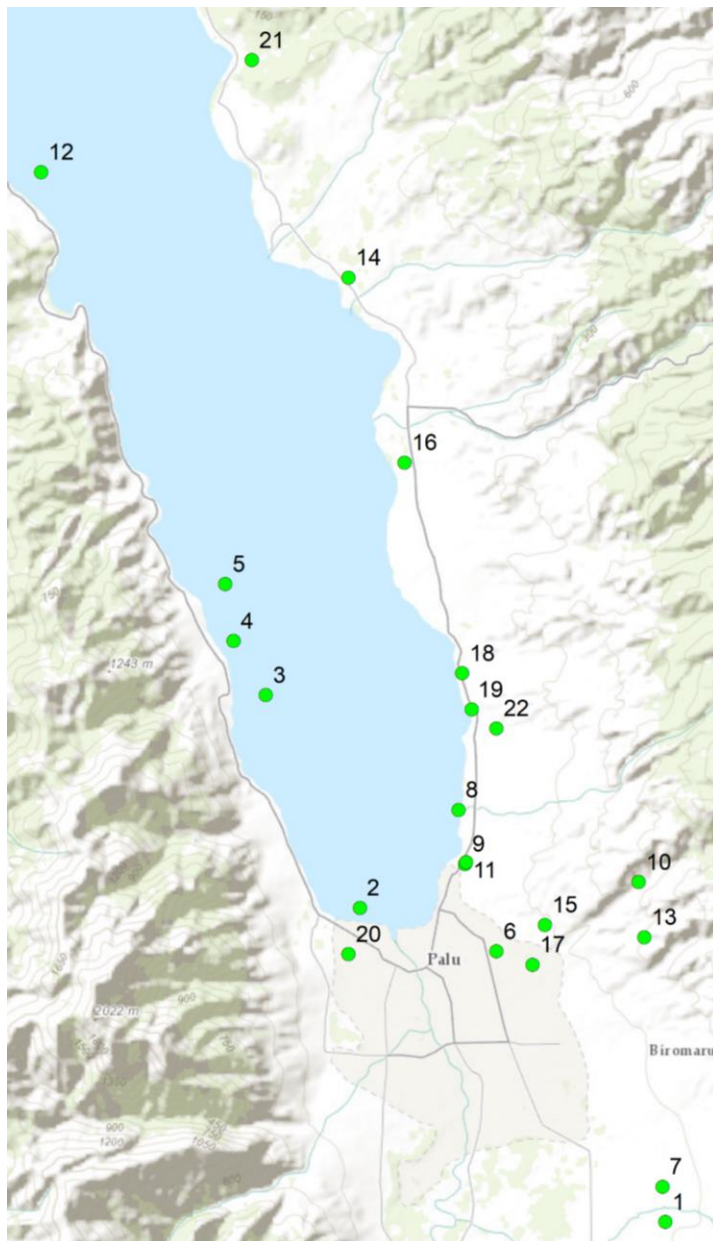
- b. Temasek Holdings is currently in contact with the AHA Centre to provide potential assistance.

5. RECOMMENDATIONS AND PLAN OF ACTIONS

AHA Centre's plans

- a. AHA Centre has expressed condolence to Indonesia through BNPB Indonesia and offered support from regional resources, including mobilising ASEAN Emergency Response and Assessment Team (ASEAN-ERAT), providing relief items from the Disaster Emergency Logistic System for ASEAN (DELSA) regional stockpile, and facilitating the deployment of capacities available in the region, such as from the ASEAN Standby Arrangements.

6. IMAGERY



a. Images were obtained from BNPB and Disaster Education Consortium / National Secretariat for Safe School. Images acquisition points are displayed in Figure 4.

b. Comparison is done with satellite images acquired through WorldView on 19 August 2018.

Figure 4: Image acquisition points

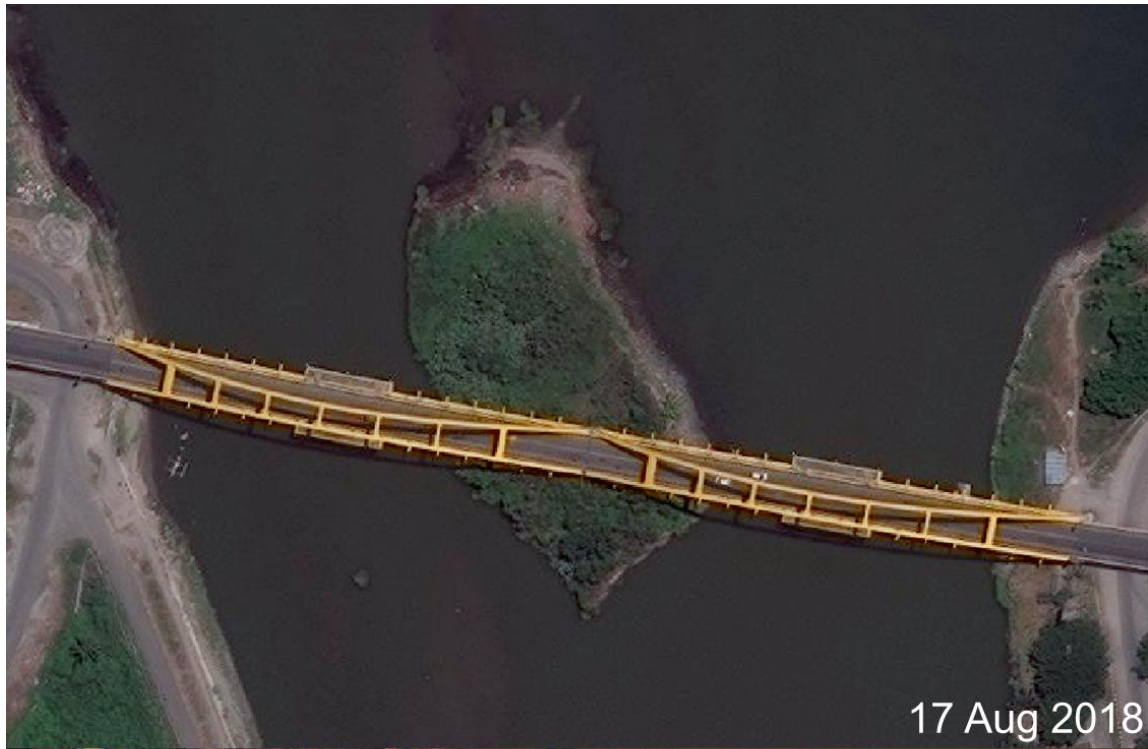




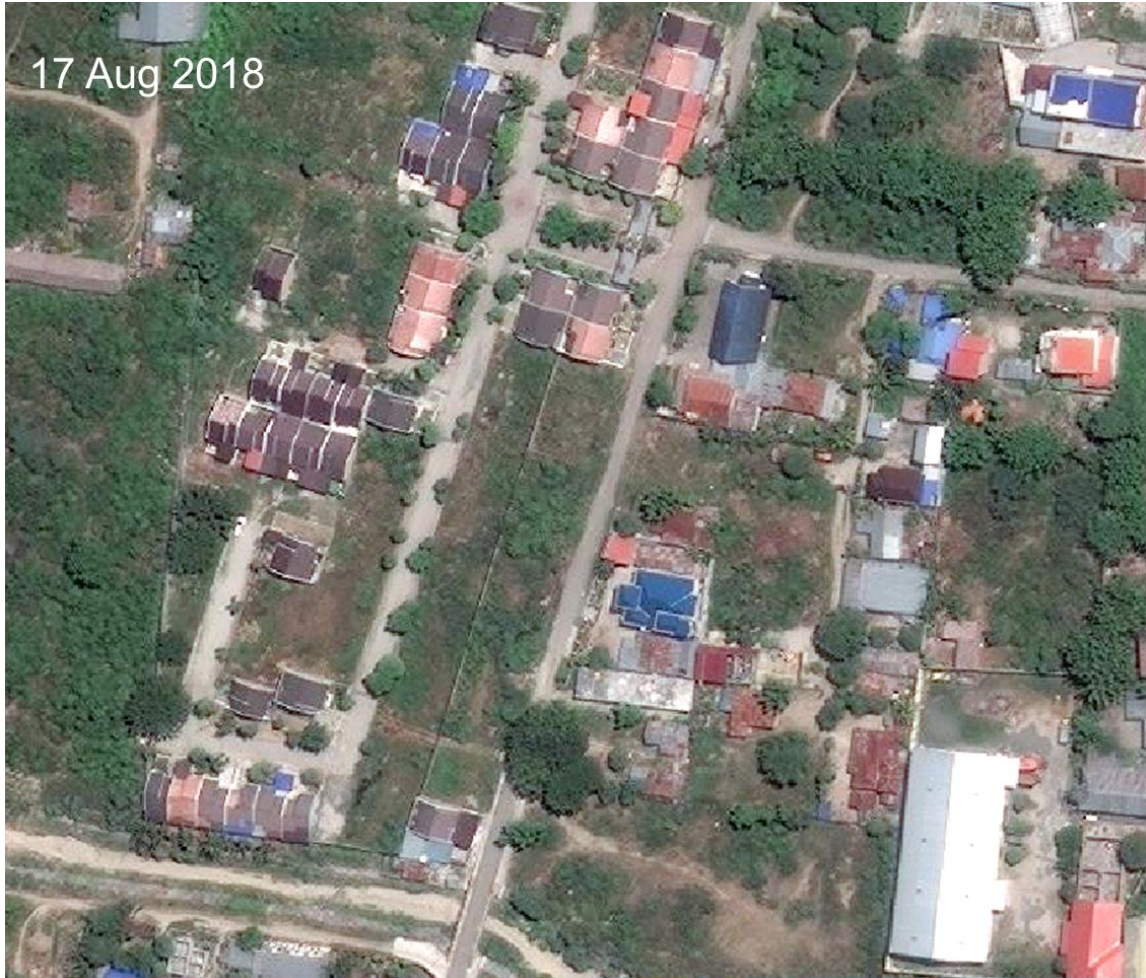


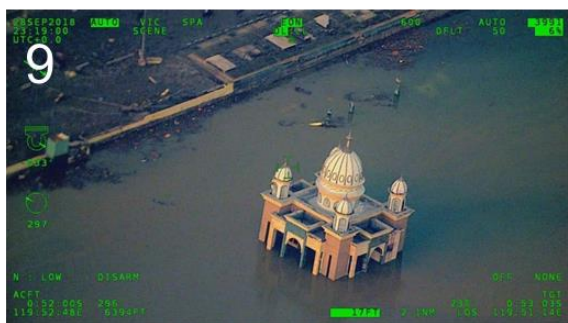
SITUATION UPDATE

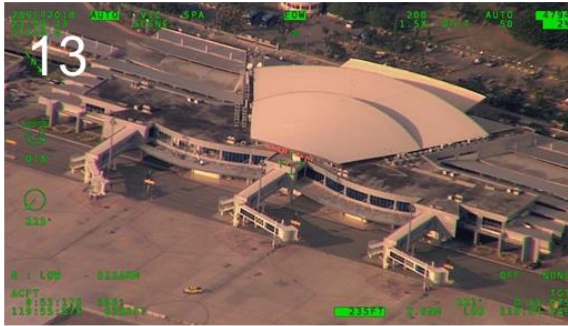














Prepared by:

AHA Centre - Emergency Operations Centre (EOC) and ASEAN-ERAT Information Management Team in cooperation with MapAction.

ABOUT THE AHA CENTRE

The AHA Centre - ASEAN Coordinating Centre for Humanitarian Assistance on disaster management - is an inter-governmental organisation established by 10 ASEAN Member States – Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam - to facilitate the cooperation and coordination among ASEAN Member States and with the United Nations and international organisations for disaster management and emergency response in the region.

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