



SITUATION UPDATE NO. 9 M 7.4 EARTHQUAKE & TSUNAMI Sulawesi, Indonesia

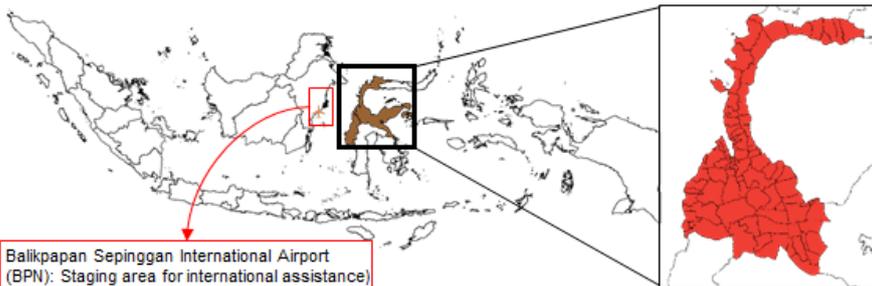
No. **9**

<http://adinet.ahacentre.org/reports/view/1319> | Glide: EQ-2018-000156-IDN
Monday, 8 October 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.

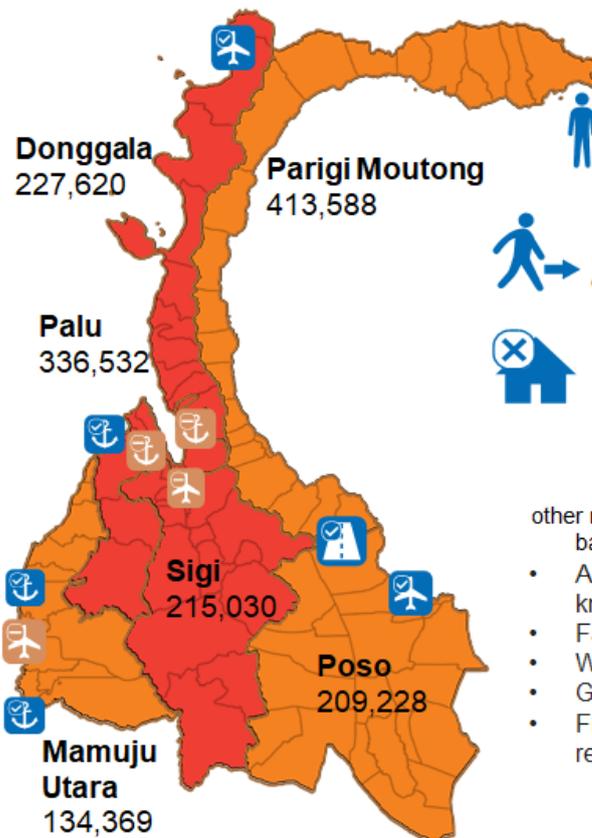
M 7.4 EARTHQUAKE & TSUNAMI, CENTRAL SULAWESI, INDONESIA

Correct as at 08 October 2018



Most-Affected areas:

- Donggala
- Palu city
- Sigi



1,948 fatalities **10,679** injuries

74,444 displaced **835** missing

65,733 Houses damaged **2,736** Schools damaged

Priority Needs

(To be fulfilled with international assistance, other needs are to be fulfilled from in-country resources; based on MOFA Letter D/01853/10/10/2018/16)

- Air transport capable to land in short runway (2 km airstrip)
- Family Tents / shelter kits
- Water treatment
- Generator sets
- Financial condition (MoFA has specific recommendation)



| | | |
|--------|----------------------------|------|
| Closed | Limited operating capacity | Open |
| Closed | Limited operating capacity | Open |

Disclaimer: AHA Centre's Situation Update for this event will be released daily at around 1700 hrs (UTC+7). All partners who would like to share their information must do so by 1500 hrs (UTC+7). All key statistics quoted by AHA Centre are those received from the National Disaster Management Authority (BNPB) of Indonesia.



1. HIGHLIGHTS

- a. The cascading events on 28 September 2018 are characteristic of a catastrophic disaster scenario where major earthquakes triggered near-field tsunami, major liquefaction, and landslides, which resulted in direct damages, impacts, and constrained humanitarian access (AHA Centre). Updated information on disaster damages and impacts are available in **Section 3**.
- b. Based on the Letter D/01853/10/10/2018/16 from the Ministry of Foreign Affairs (MoFA) sent to the AHA Centre on 3 October 2018, it had informed all that Government of Indonesia has decided to receive, for the time being, assistance as follows:
- Air transportations (preferably C-130 or alike);
 - Tents (shelter kits);
 - Water treatment;
 - Electric generators; and
 - Financial donation, i.e. from the foreign governments and international organisations preferably to National Disaster Management Authority (BNPB) and Indonesian Red Cross (PMI).
- c. BNPB informed that a USD bank account has been opened to receive international donations, as can be found below. BNPB advised partners who have donated to inform Ministry of Foreign Affairs (Mr. Ronny P. Yuliantoro at kantorsahli@kemlu.go.id).
- | | |
|----------------|---|
| Bank | : Bank Negara Indonesia (BNI) |
| Bank account | : RPL 175 BNPB PDHLN PALU |
| Account number | : 75520903-8 |
| SWIFT Code | : BNINIDJA |
| Branch | : Bank Negara Indonesia (BNI) KCU Harmoni |
- d. BNPB stresses that humanitarian partners must send the following documents, together with a cover letter regarding the mobilization of relief items, to BNPB (ksibnpb@gmail.com and cc to eoc@ahacentre.org) before mobilising any relief items:
- Donation Certificate,
 - Packing list,
 - Invoice, and
 - Manifest
- e. Humanitarian partners are encouraged to take note on the conditions set by BNPB for INGOs supporting emergency response of Central Sulawesi Earthquake and Tsunami (Figure 1).
- f. Humanitarian partners may also wish to take note on the information management flow of the Joint Operations and Coordination Centre for International Assistance (Figure 2) as well as logistics support plan for international assistance (Figure 3). For more information and operational contact point, please contact AHA Centre and ASEAN-ERAT on the ground. For ensuring effectiveness of support ASEAN-ERAT has moved the **Joint Operations and Coordination Centre for International Assistance (JOCCIA)** to a new location at -0.890777, 119.87149.



Regulations for International NGOs aim to provide assistance in Central Sulawesi

1. Foreign NGOs are not allowed to go directly to the field. All activities must be conducted in partnership with local partners.
2. Foreign citizens who are working with foreign NGOs are not allowed to conduct any activity on the sites affected by disasters
3. Foreign NGOs who already procured/prepared relief items in Indonesia need to register their assistance with the relevant ministries/agencies & mandated to work with local partners in distributing the aid.

If the respective NGOs have not registered their assistance with the relevant ministries/agencies, they are asked to register with BNPB for the distribution to the affected population on the field.
4. ministries/agencies, they are asked to register with BNPB for the distribution to the affected population on the field.
5. Foreign NGOs wishing to provide aid can do so through the Indonesian Red Cross (PM) or PMI's - with the guidance of the related ministries/agencies or local partners.
6. Foreign NGOs who have deployed its foreign personnel are advised to recall their personnel immediately.
7. A monitoring of foreign volunteers is required.
8. The delivery of relief items are being coordinated temporarily by BNPB through Balikpapan.

National Disaster Management Authority **BNPB**



Figure 1 Conditions for International NGOs providing assistance in Central Sulawesi

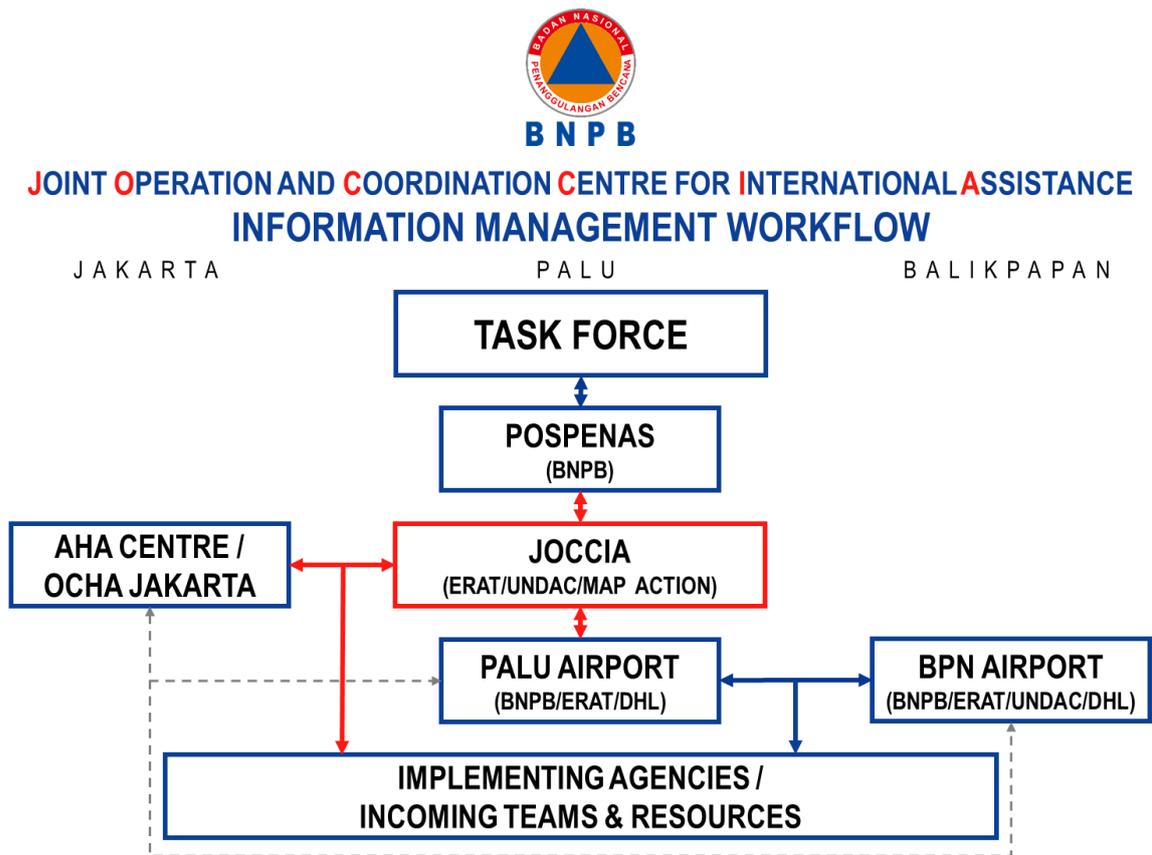


Figure 2 Information management workflow across three locations (JOCCIA, staging area and EOC)





LOGISTICS SUPPORT PLAN FOR INTERNATIONAL AID

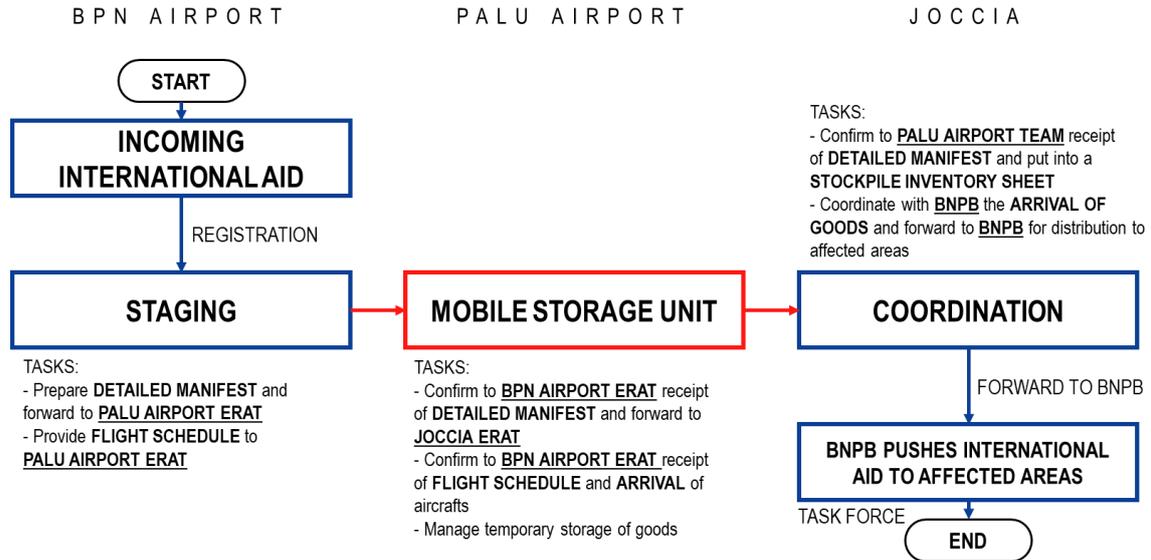
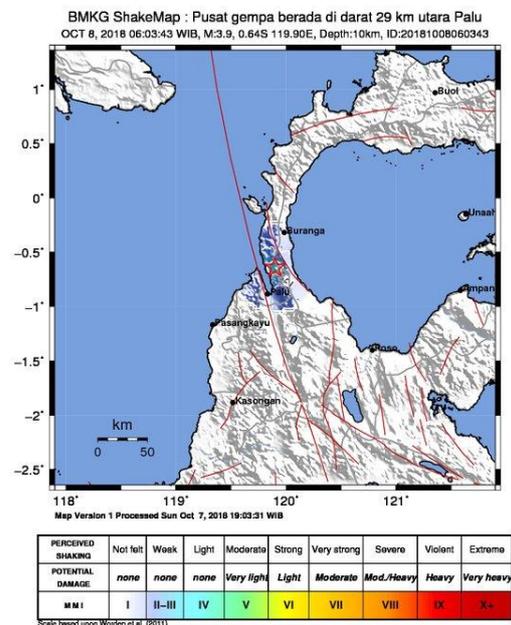


Figure 3 Logistics Support Plan for international aid (JOCCIA, staging area and EOC)

2. SUMMARY OF EVENTS, FORECAST AND ANTICIPATED RISK

- The cascading events on 28 September 2018 are catastrophic disaster scenario when major earthquakes triggered near-field tsunami, major liquefaction, and landslides, which resulted in direct damages, impacts, and constrained humanitarian access (AHA Centre).
- According to the Agency for Meteorology, Climatology and Geophysics (BMKG) the Palu Koro Fault is the biggest in Sulawesi. It spans across Sulawesi and divide the island into the east and west blocks. The event on 28 September was four times stronger than the fault movements in Sumatera (the inland fault). Since 1900s, Sulawesi have been hit by tsunami 19 times, the latest one brings the number up to 20 times. BMKG stated that until 8 October, 494 aftershocks were recorded. A M 3.9 earthquake occurred on 8 October, 0603 hrs UTC+7 with epicentre located inland at a depth of 10 km below ground surface in the north of Palu city. Palu city and some part of Donggala Regency felt an intensity III MMI.



- c. One of the Data Analysis Node of Sentinel Asia has provided the observation results of satellite ALOS-2 on the potential overall damaged area in Central Sulawesi. Data from this observation has also made available for other partners to analyse.

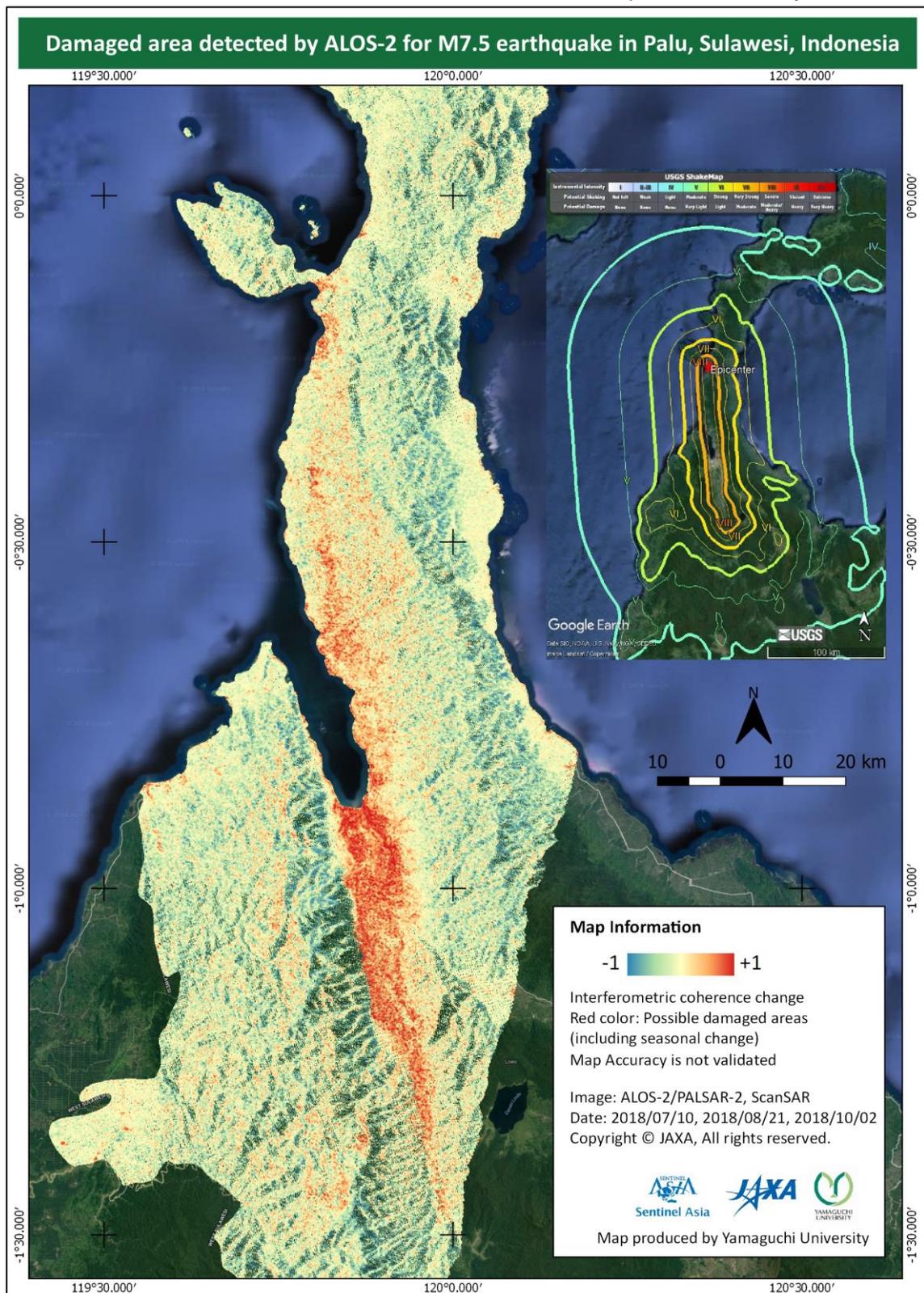


Figure 4 Damaged Area Detected by ALOS-2 (Sentinel Asia)

- d. Due to constant threat of strong aftershocks, there are possibilities of landslides in mountainous/hilly areas and liquefaction in urban areas. The Figure 5 below exhibits a potential landslide areas across Central Sulawesi based on USGS preferred model overlay with number of population by number of people in the area.

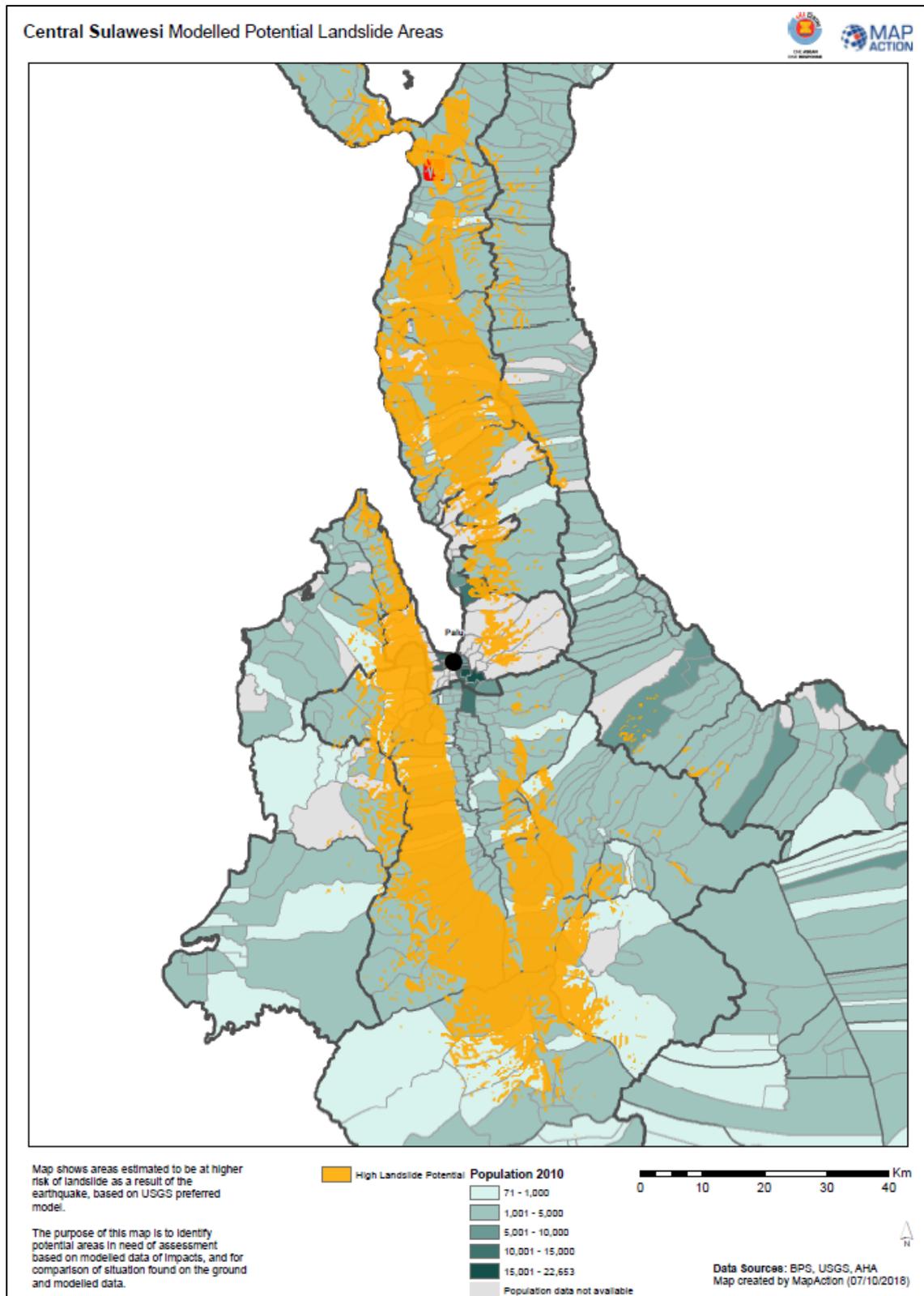


Figure 5 Modelled Potential Landslide Areas in Central Sulawesi



3. ASSESSMENT OF DAMAGE, IMPACT, AND HUMANITARIAN NEEDS

- a. A revised estimation from the National Disaster Management Authority (BNPB) suggest that in total around 2.4 million people were exposed to earthquake intensity V MMI and above in nine cities/regencies in Central Sulawesi, i.e. in Banggai, Banggai Kepulauan, Donggala, Morowali, Palu, Parigi Moutong, Posos, Tojo Una-una, and Toli-toli. The estimation has taken into consideration the 2018 population projection by National Statistical Agency (BPS), see Figure 6 below. From this updated figure, the total population that exposed to earthquake intensity VI and above is around 616,684 in Palu city, Donggala, and Sigi regencies.

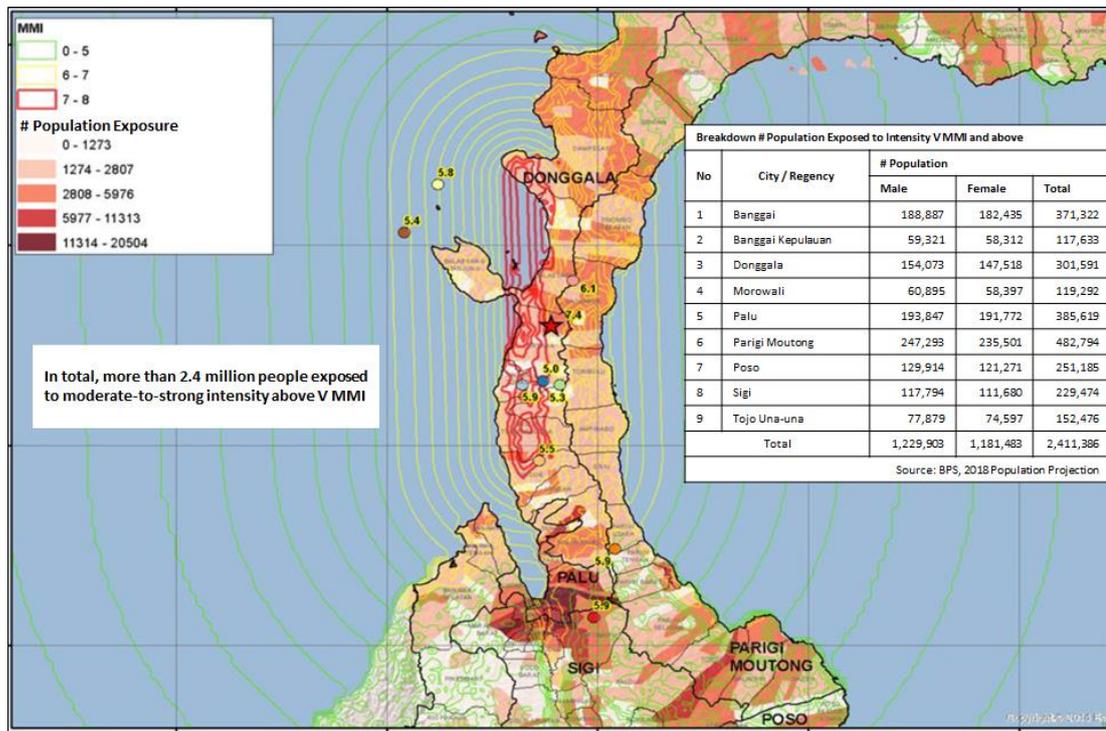


Figure 6 Updated Number of Population Exposed to Earthquake Intensity V MMI and above (Modified from BNPB)

- b. Table below summarises BNPB's information on the disaster human impacts in most affected areas in Central Sulawesi (as of 8 October). In total, 1,948 fatalities were confirmed (1 fatality in West Sulawesi).

| City/Regency | Palu city | Donggala Regency | Sigi Regency | Parigi Moutong Regency |
|-------------------------|---|------------------|--------------|------------------------|
| Human casualties | | | | |
| Fatalities | 1,539 | 171 | 222 | 15 |
| Injuries | Severe injuries: 2,549; Light injuries: 8,130 | | | |
| IDPs | 38,621 | 20,223 | 15,600 | <i>t.b.a.</i> |

- c. The number of schools damaged reported so far is 2,736 (correct until 8 October) as assessed by Ministry of Education and Culture in Palu, Sigi and Donggala. Ensuring resumption of education and recreational activities of children and adolescent is crucial in the next few weeks of the emergency.

- d. At this point, BNPB indicated that around 66,926 houses may have been damaged, with 98.9% (66,238) of them located in Central Sulawesi Province. BNPB also confirmed 688 houses damaged in West Sulawesi. There is no disaggregated data yet on the severity of the house damage. Note that these figures may increase once the ground verification is available.
- e. The pictures show the areas affected by liquefaction. The areas affected are 1) Balaroo (Palu Barat District), 2) Petobo (Palu Selatan District), and 3) Biromaru (Sigi Biromaru District). Initial calculations made by BNPB indicated that a total of 430.7 hectares of land area had been inundated due to liquefaction. This had resulted in 3,773 buildings being affected; i.e. including 2 pharmacies, 1 hospital, 1 health centre, 1 village office, 1 orphanage, 1 junior high school, 1 elementary school, and 1 supermarket (Figure 7 to 9).

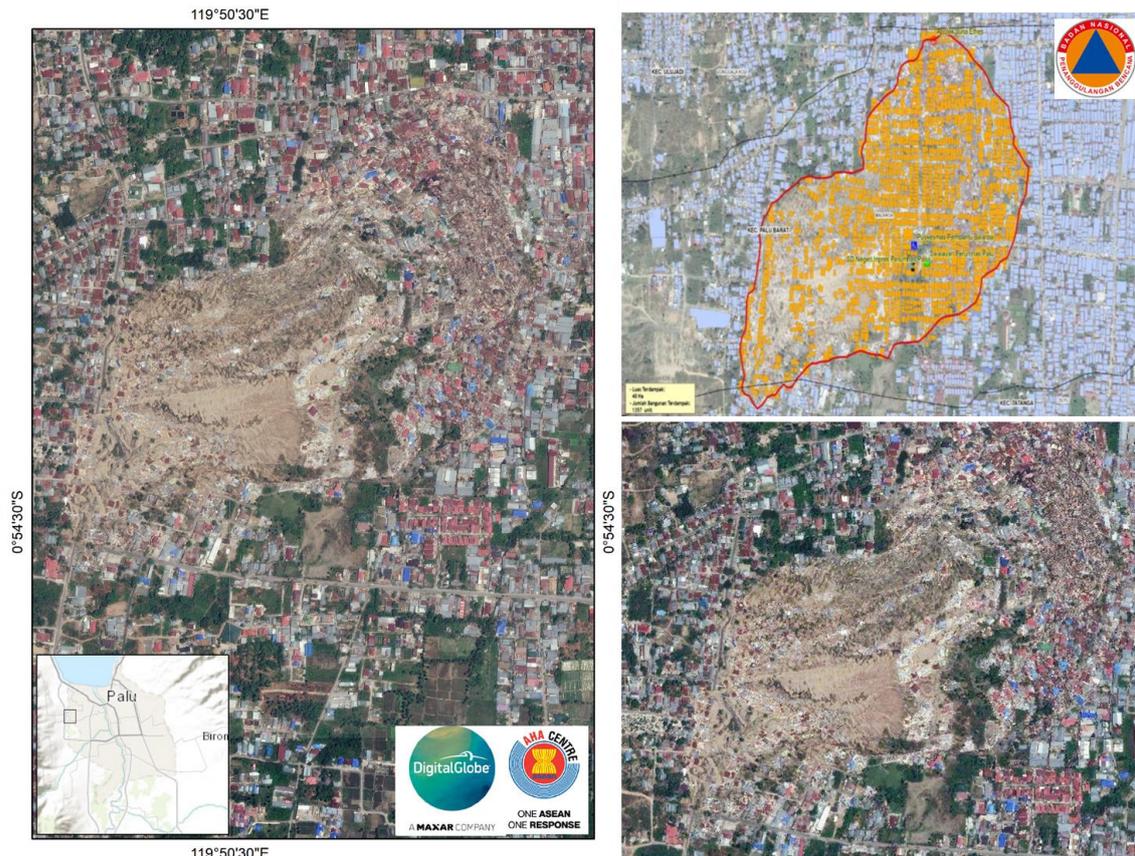


Figure 7 Balaroo area affected by liquefaction (satellite images courtesy of DigitalGlobe)

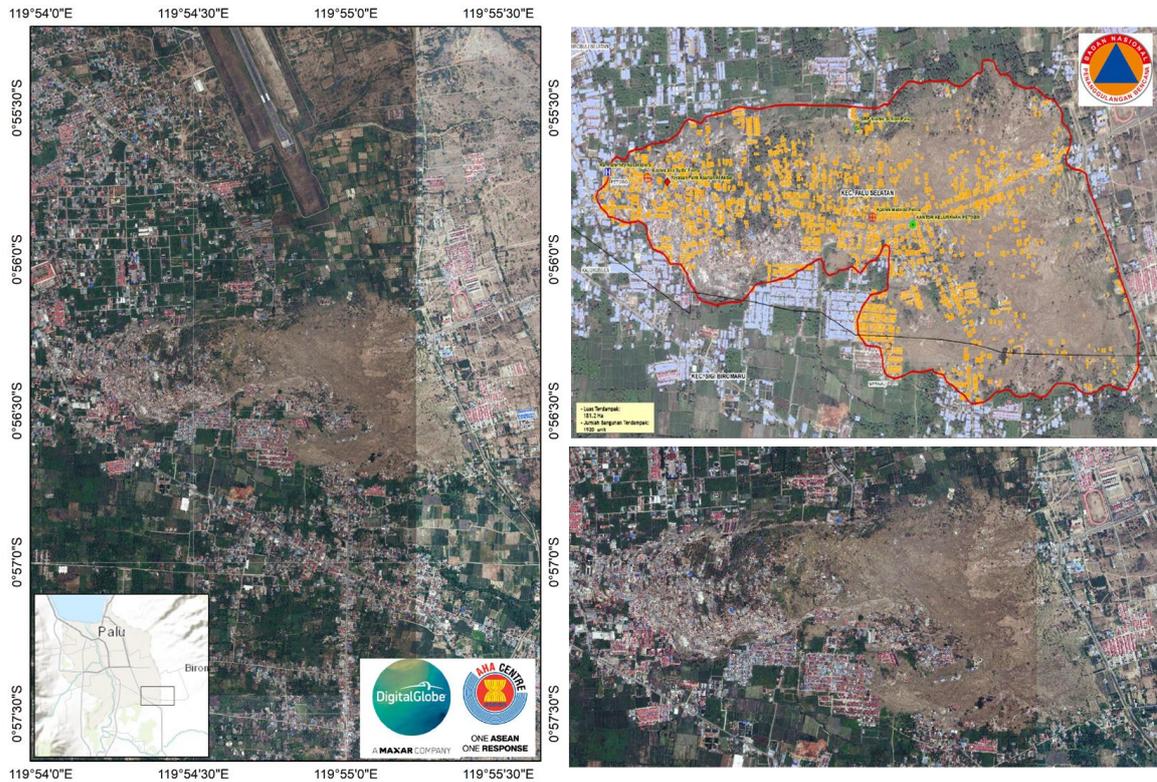


Figure 8 Petobo area affected by liquefaction (satellite images courtesy of DigitalGlobe)

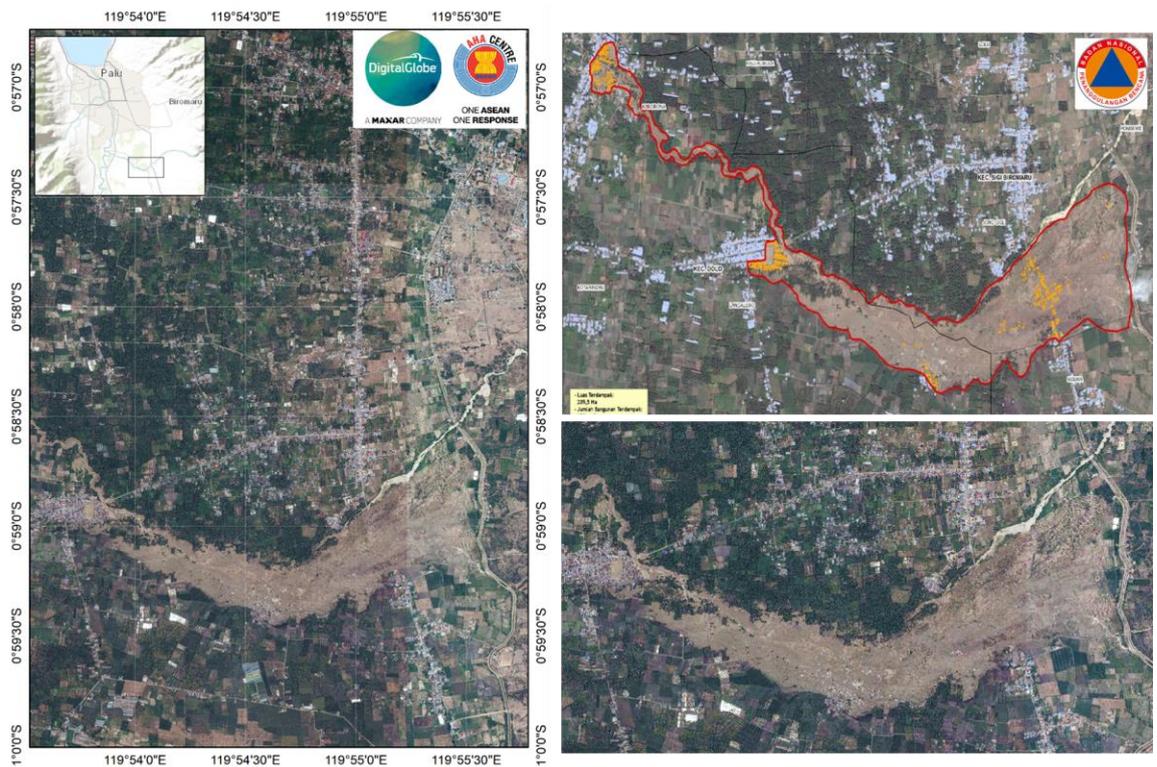


Figure 9 Biromaru area affected by liquefaction (satellite images courtesy of DigitalGlobe)

4. ACTIONS TAKEN AND RESOURCES MOBILISED

Response by Government of Indonesia & State-owned Companies

- a. It is currently the second week from the initial decision of Governor of Central Sulawesi on the 14 days of emergency response period dated 28 September to 11 October 2018. At this stage, SAR operations will be completed by 11 October 2018. In addition, the governor elected Commander of Military Resort 132/Tadulako as Incident Commander with the Incident Command Post located at Makorem 132/Tadulako (-0.897464°, 119.877599°), Palu city.
- b. Until 8 October, government has enable medical services in 15 hospitals and 50 health centres across the most affected areas. In total 1,175 medical professionals are on the ground. Some patients have also been transferred to 11 hospitals in Makassar for intensive care (168 patients).

| City/Regency | Palu city | Donggala Regency | Sigi Regency | Parigi Moutong Regency |
|------------------------------------|-----------|------------------------------------|--------------|------------------------|
| Medical facilities open | | | | |
| Hospital | 12 | 2 (incl Airlangga Vessel hospital) | 1 | <i>t.b.a.</i> |
| Health Centre (<i>Puskesmas</i>) | 13 | 19 | 18 | <i>t.b.a.</i> |

According to BNPB release, some of the technical difficulties in medical services include:

- Access problems to Sigi Regency
 - Additional medical personnel required, particularly to be stationed at local health centre
 - Proper medical waste management required.
- c. As per information shared by Ministry of Energy and Mineral Resources (ESDM), the ministry has provided the following logistical support:

| | |
|--|--|
| Access to energy supplied through air | <ul style="list-style-type: none"> • 12,000 lit fuel sent • 100 portable fuel points sent • 6 PTO tanks (power take-off tank) |
| Access to energy supplied through sea | <ul style="list-style-type: none"> • 11.2 million fuel mobilised • 2,000 LPG tanks sent • 13 fuel trucks mobilised |
| Access to energy supplied through land | <ul style="list-style-type: none"> • 500,000 fuel mobilised • 10 fuel terminals operational • Main Fuel Terminal (TBBM) Donggala normalised |

- d. PT Telkom Indonesia has managed to restore 80% sites of Base Transceiver Station (BTS) across Central Sulawesi, with 100% completion in Palu-Donggala-Makassar and Palu-Parigi Moutong-Manado.
- e. A [web portal on BNPB's page](#) has been prepared for sharing maps, providing updates and information to public and media.
- f. Indonesian Space and Aeronautical Agency (LAPAN) provided high resolution pre earthquake and tsunami images, accessible here: http://pusfatja.lapan.go.id/simba/gr/earthquake/Layout_Gempa_Palu_Donggala/
- g. Geospatial Information Agency (BIG) provided relevant layers for mapping and operations planning purposes at the following address: <https://cloud.big.go.id/index.php/s/sxb9TEStoDYT276>



Response by the AHA Centre and ASEAN-ERAT

- a. ASEAN-ERAT has supported BNPB and Ministry of Foreign Affairs to setup the Joint Operations and Coordination Center for International Assistance (JOCCIA) co-locate with BNPB's National Assisting Post (Pospenas) at Rumah Jabatan Gubernur. The JOCCIA has been moved to new location at -0.890777, 119.87149. UNDAC team, MapAction, and Telecom Sans Frontier supporting ERAT at the JOCCIA. On 8 October, ERAT also assessed the Palu Bridge IV and identify locations for the incoming Mobile Storage Unit (MSU).
- b. To further strengthen coordination among organisations, the AHA Centre Emergency Operations Centre is currently housing the joint-efforts for assessment and information management. Humanitarian partners including OCHA, MapAction, International Federation of Red Cross (IFRC), and others are co-locate at the AHA Centre EOC.
- c. The AHA Centre has mobilised staffs and ASEAN-ERAT to Balikpapan Airport to support BNPB and related authorities in facilitating incoming international assistance and coordinated the dispatch of items. First sortie of stockpiles from Disaster Emergency Logistics System for ASEAN (DELSA) has reached Palu. It is part of the first batch DELSA, the items include 2 warehouse tents and 200 family tents. 2 generators locally procured will also be delivered to Palu City. The AHA Centre will also be delivering 300 family tents in the next batch of items.



Figure 10 First sortie of relief items from DELSA stockpiles have reached Palu

- d. The agreed initial data from Joint-Needs Assessment (JNA) will be linked with the assessment methodology agreed by BNPB and Ministry of Social Affairs, a similar one with Displacement Tracking Matrix (DTM), which will be consolidated by the Information Management Working Group comprises of representatives AHA Centre, OCHA, IOM, MapAction, and Humanitarian Forum Indonesia. A joint analysis meeting to the JNA results has been postponed to 9 October 2018.





Figure 11 New location of JOCCIA & ERAT activities in Balikpapan and Palu

Response by ASEAN Member States

- a. Armed Forces of the Philippines (AFP) will dispatch one of its C-130 aircraft to support the humanitarian assistance and disaster response activity.
- b. [The Singapore Armed Forces \(SAF\)](#) would deliver humanitarian supplies and equipment, including tents, meal rations and medical supplies via two Republic of Singapore Air Force C-130 aircraft that would continue to help the evacuation of civilians from the affected areas. The Singapore Government will also make a contribution of USD 100,000 as seed money to kick start the public fundraising appeal by the Singapore Red Cross.
- c. [The Government of Thailand](#) contributed THB 5 million (approximately USD 155,000) to the Government of Indonesia in response to the powerful earthquake and subsequent tsunami that struck Central Sulawesi on 28 September 2018.

Response by ASEAN Dialogue & Development Partners

- a. Ambassador of Korea visited the staging area at Balikpapan Airport on 8 October 2018 to monitor the mobilisation of support from Republic of Korea.
- b. [The Government of Norway](#) is increasing its support from NOK 10 million (around USD 1.2 million), to NOK 24 million (around USD 3 million) for the emergency response to the Central Sulawesi Earthquake, to be channelled through the UN Central Emergency Response Fund (CERF) and Red Cross emergency funds.

Response by the United Nations and Humanitarian Country Team

- a. World Food Program ([WFP](#)) staff are currently assessing transportation, possible Mobile Storage Unit locations, and local markets in Sulawesi.
- b. World Health Organization (WHO) country office has arrived in Palu city to support health cluster coordination in the field.

Response by Other Humanitarian Partners and others

- a. Direct Relief has further support the operations on the ground by donating USD 100,000 to Muhammadiyah Disaster Management Centre (MDMC) and Yayasan Bumi Sehat to support their response to the earthquake and tsunami. Direct Relief is also in the preparation to mobilise medical-grade tents to support MDMC's health team.
- b. Open Street Map data for Palu City and Donggala Regency are available at Humanitarian Data Exchange and updated on daily basis at 2300 hrs UTC+7. The datasets include buildings, road, point of interest, waterways. OSM tasking managers are available here,
 - OSM Tasking Managers for Donggala Regency available here: <http://tasks.openstreetmap.id/project/45>



- OSM Tasking Managers for Palu city available here: <http://tasks.openstreetmap.id/project/78>
- c. ICRC released a link <https://familylinks.icrc.org/indonesia> dedicated for people to track their lost family members.
- d. DHL have a team established at the Balikpapan airport, and another at the Palu airport to help with ground handling and warehouse management, with the following details

| Location | Balikpapan | Palu |
|-----------------------------------|--|---|
| Capacity | | |
| Warehouse | 5000 sq m warehouse | Assisting in warehouse management for BNPB's Palu warehouse |
| Material handling equipment (MHE) | 1. Forklifts: 2 (one 3-ton, another 8-ton) 2. Pallet jacks: 2 3. Wooden Pallets: 100 | 1. Forklifts: 2 (both 3.8 ton, all terrain) 2. Pallet jack (on the way from Jakarta from BNPB) 3. Medium sized trucks: 3 4. Wooden pallets |
| Other supplies | Shrink wrap, tape | |
| Manpower | 6 people | 7 people |

6. UPDATE ON HUMANITARIAN ACCESS

- a. CIQP facilities and process for international assistance can only be done at Balikpapan International Airport. Other point of entry at Halim Perdanakusuma Airport (Jakarta) and Makassar Airport are only designated for domestic / in-country relief items.
- b. On 5 October 2018, BNPB informed humanitarian partners that ground handling capabilities in Palu Airport is limited. DHL will provide support, meanwhile BNPB will increase trucks and manpower to speed-up relief items mobilisation. In addition, PT Pos Indonesia (Indonesian Post Company) will also support the process.
- c. According to document from [Logistic Cluster](#), fuel supply in the affected area is improving in currently covering 70% of local demand. BNPB's press conference on 8 October further confirms that the fuel stock is sufficient for the next 1 week.
- d. The Pantoloan Sea Port in the outskirts of Palu is still damaged, but can receive RO-ROs and vessels with cranes for offloading.

Recommended actions

- a. Logistical planning is highly recommended to ensure that bottlenecks are reduced to the minimum. For international donors who have been given the green light, it would be prepare all relevant document prior to landing and after obtaining the clearance from the government. Instead of just trying to prioritise the items and flying them out at whim. It would be best to consult the ASEAN-ERAT or teams on the ground.
- b. In relation to this point, a tracking database would be highly desirable to support tracking needs, responses and gaps, including encouraging partners to report their activities. This is an ongoing initiative which is worked out by the ASEAN-ERAT team and other relevant stakeholders. Given that the staging area will face logistical constraints as aid starts pouring in, this would better work out if there is an integrated distribution mechanism attached to the tracking database. Such initiative will circumvent fuel availability and transportation constraints. Furthermore, better scheduling of flights can be done.
- c. Linked to the point above is the availability of fuel to support all operations. Having a steady fuel supply pipeline as offered by Fuel Relief Fund would greatly ease the



constraints and allow responders to move into areas desperately in need. Deliberation of the utmost priority should be made in consideration to field operations.

- d. Auxiliary to the sending of the relief items, it is prudent practice to consider the temporary storage and distribution challenges. Having a smart schedule in consideration of the availability of space at the affected site would greatly reduce bottlenecks, risk of tampering or theft of goods.
- e. It is also essential to support the local government (including technical support from partners if needed) in developing sound and sustainable IDP management plans and structures. The plan should focus on providing temporary shelter while the PDNA process is complete and housing reconstruction is carried out. This should be coupled with recovery plans ensuring the return to normalcy for the affected populace.
- f. As the hazards are still present despite signs may be suggesting that it is slowing down, it would be crucial to re-establish public information communications channels to disseminate information on available assistance via SMS, television programmes or radio broadcast. The main identified communication channels are: 1) mobile phones, 2) CCM staff, 3) friends, 4) radio broadcast, 5) printed materials.
- g. Following such a disastrous event, special protection needs of children, women, elderly and vulnerable should be taken into account. This development of focused response plans to meet the immediate needs should include the needs of the vulnerable and disadvantaged populace so that it is inclusive.

7. PLAN OF ACTIONS

AHA Centre's plans

- a. AHA Centre will not hold a coordination meeting until further notice, hence humanitarian partners are requested to wait for the letter of acceptance made by BNPB as basis for their operations. In addition, the Information Management Working Group has been setup comprises national and international humanitarian partners, thus flow of information has been sustained and following the in Section 1. Meanwhile, on-site coordination at JOCCIA is maintained and facilitated by ASEAN-ERAT.
- b. AHA Centre continue to support dissemination of BNPB's information for regional and international stakeholder through inclusion to its Situation Update.
- c. A second batch of ASEAN-ERAT will be deployed this week to take over the current operations and continue supporting the Government of Indonesia's relief efforts on the ground.

Prepared by:

AHA Centre - Emergency Operations Centre (EOC) in cooperation with National Disaster Management Authority (BNPB; Data & Information Centre, National Assisting Post)

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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