



SITUATION UPDATE NO. 4 M 7.4 EARTHQUAKE & TSUNAMI Sulawesi, Indonesia

No. **4**

Tuesday, 2 October 2018, 17:30 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

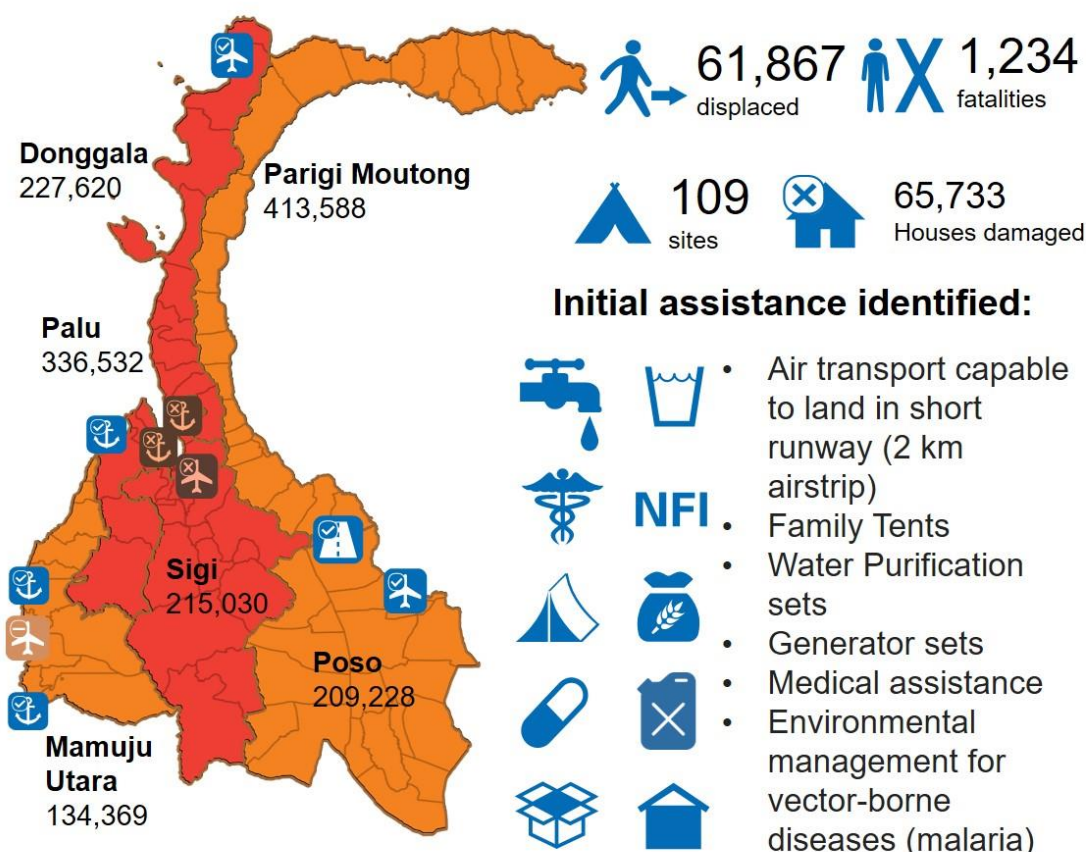
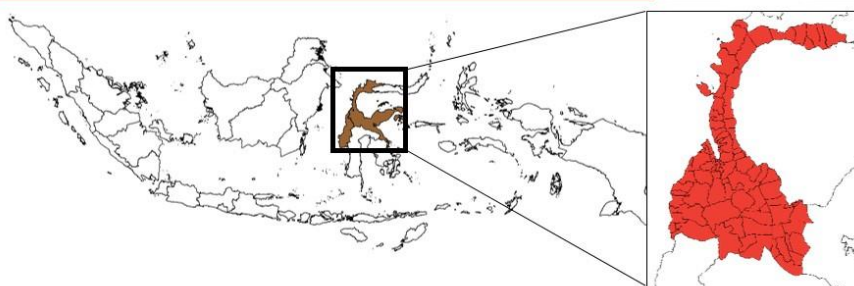
Correct as at 02 October 2018



ONE ASEAN
ONE RESPONSE

Most-Affected areas:

- Donggala
- Palu
- Sigi



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.



SITUATION UPDATE

1. HIGHLIGHTS

- a. 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).
- b. The AHA Centre highly consider the results of its partner initial analysis on earthquake impact analysis and potential needs (Pacific Disaster Centre), which suggests that out of the initial 1.5 million people affected (exposed to moderate and strong shaking), around 537,000 people were exposed to strong shaking as well as potentially directly affected by the following tsunami and liquefaction. Around 191,000 people in urgent needs of humanitarian assistance. Initial reports (as at 3 October, 1300 hrs Jakarta time) BNPB has confirmed 1,234 fatalities with over 632 injuries, 99 missing persons, 152 are requiring immediately rescue efforts. There are currently over 61,867 evacuees being housed in 109 evacuation sites. Note that these figures are still expected to rise.
- c. **On 1 October 2018. Government of Indonesia, through BNPB and Ministry of Foreign Affairs, welcomed offers for international assistance and will select based on the humanitarian needs.** Representative of BNPB has strongly stated that humanitarian partners should make concrete and written offers first, which will be reviewed to ensure the offer meet humanitarian needs, before granting access. Coordinating Ministry of Political, Law, and Security Affairs (Menkopolhukam), Ministry of Foreign Affairs (MoFA), and BNPB have stated that **their over-arching guidance on acceptance and selection of international assistance are:**
 - 1) selective acceptance, based on humanitarian needs; 2) meeting the six-urgent needs (see point below), especially for air transportation (e.g. C-130 usage); 3) implementation will be coordinated with related national ministries and agencies; 4) all assistance must be self-sufficient and not put additional burden to the affected countries. All consolidated list of offers have been passed on by AHA Centre to BNPB and related ministries.

The guidance above has been visualise as below by the AHA Centre and agreed during the coordination meeting at *Kemenkopolhukam's* office on 2 October 2018. Please refer to the chart below on the workflow:

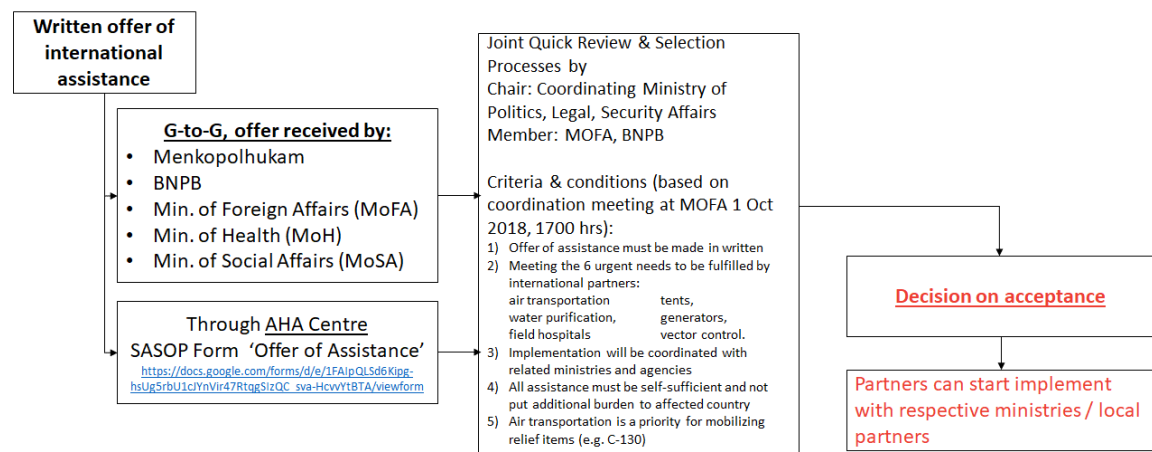


Figure 1 Visualization of International Assistance Review Process for M 7.4 Sulawesi Earthquake and Tsunami (black indicates ongoing activities as implications of statement on welcome of international assistance; red indicates pending issues/processes)



- d. For other type of assistance, AHA Centre is supporting BNPB in coordinating the offers of assistance. Humanitarian partners are encourage to use ASEAN's SASOP Form Offer of Assistance available here: <http://bit.ly/SASOP4Sulawesi>. Those who cannot access the form can use form available in Virtual-OSOCC and send it to ksibnpb@gmail.com and eoc@ahacentre.org.

Based on BNPB as at 2 October 2018 there are six initial needs required:

- ✓ Air transport capable to land in short runway (2 km airstrip)
- ✓ Family Tents
- ✓ Water Purification sets
- ✓ Generator sets
- ✓ Medical assistance
- ✓ Environmental management for mosquito-borne diseases (malaria)

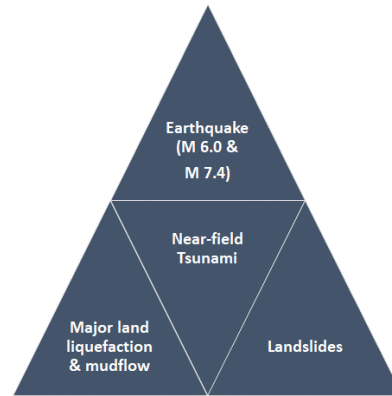
Based on the latest development:

- **International USAR teams are requested to stand down**
 - **The need for international EMTs will be re-assessed by relevant authorities.**
 - Body bags are urgently needs for cadaver management
 - Airlift and transport assets are in the process of deliberation and selection
 - On non-food items, ERAT will be recommending based on coordination meeting with BNPB to be held on 2 October 2018, 2100 hrs local time.
- e. ASEAN Emergency Response and Assessment Team (ERAT) has reached Palu on and establishing their base of operations and coordination setup with Coordinator of National Assisting Post (Pospenas) for incoming international assistance. A coordination centre for international humanitarian assistance led by ERAT will be established to support BNPB's Pospenas.
- f. Subsequent stage of coordinated assessment will be done led by BNPB with support of ERAT and other partners. A meeting of Information Management Working Group is scheduled on 3 October to deliberate coordinated assessment methodology.
- g. During the Coordination Meeting at AHA Centre Office, it has been informed that Balikpapan Airport is proposed as the staging area for incoming international assistance into Palu.
- h. Land/road lane from Palu-Poso and Palu-Mamuju are accessible now. The status of the nearest airports and seaports are:
- Airports updates:**
- a. Balikpapan airport: open
 - b. Palu airport: opened with limited operations
 - c. Mamuju airport: Tower building damaged but still functioning
 - d. Toli-toli airport: Normal
 - e. Poso airport: Normal
 - f. Luwuk Bangai airport: Shifting of tower but still functioning
- Ports updates:**
- g. Pantoloan Port (Kota Palu): most severely damaged compared to other ports
 - h. Wani port: Building and docks were damaged
 - i. 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. 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).



- b. Due to constant threat of strong aftershocks, there are possibilities of landslides in mountainous/hilly areas and liquefaction in urban areas. The figure below shows number of moderate earthquakes in Palu area from USGS (left) and forecast of ground movement for September from PVMBG (central and right).

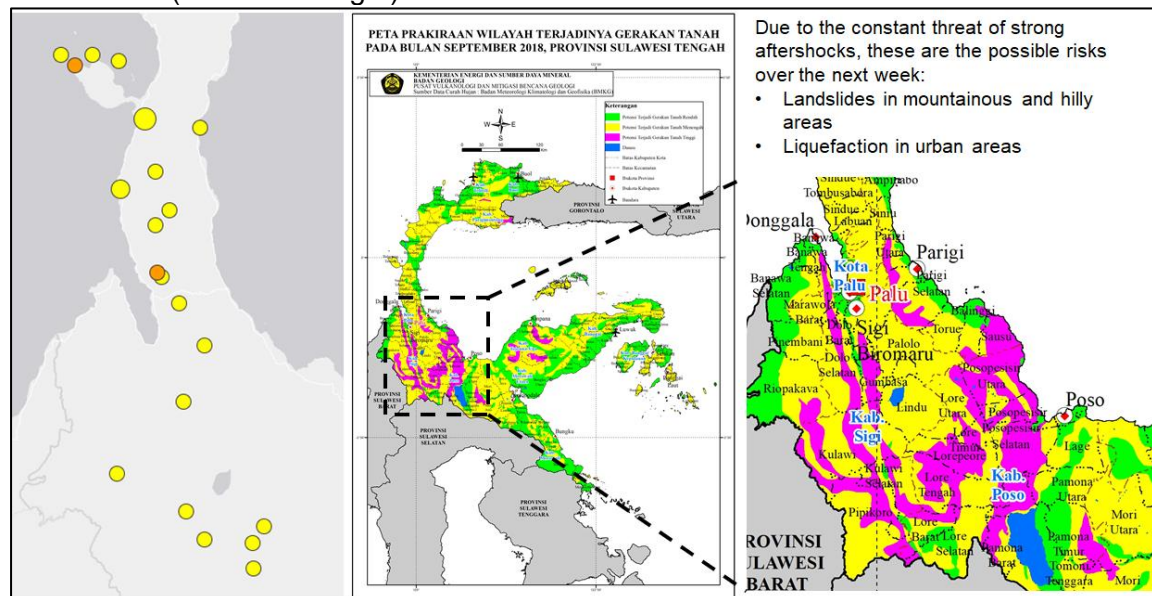


Figure 2 Anticipated risks due to aftershocks and potential landslide

- c. Sulawesi is considered to have medium level of malaria transmission to malaria. Health authorities have identified that the risk of transmission may increase as environmental management is disrupted due to the disaster. In Indonesia, malaria is resistant to traditional treatments such as chloroquine and sulphadoxine-pyrimethamine. A more effective therapy, artemisinin-containing combination therapy (ACTs), costs 10 times more at 1 USD per adult dosage. (Source: [UNICEF](#), [WHO SEARO](#)).

Schistosomiasis is specifically endemic in three neighbouring areas: Napu, Lindu and Bada valleys, all located in the highlands of Central Sulawesi province. The disease, which is better known as snail fever, had been identified in 28 villages, in the two districts where the valleys are located. The distribution of the disease is limited to the villages due to limited location where the transmitting agents of the parasite. As earthquakes and landslides were reported in these areas, access to provide clean water and basic medical services will be disrupted hence the risk of disease transmission will increase. In addition, other anticipated health risks are as follow:

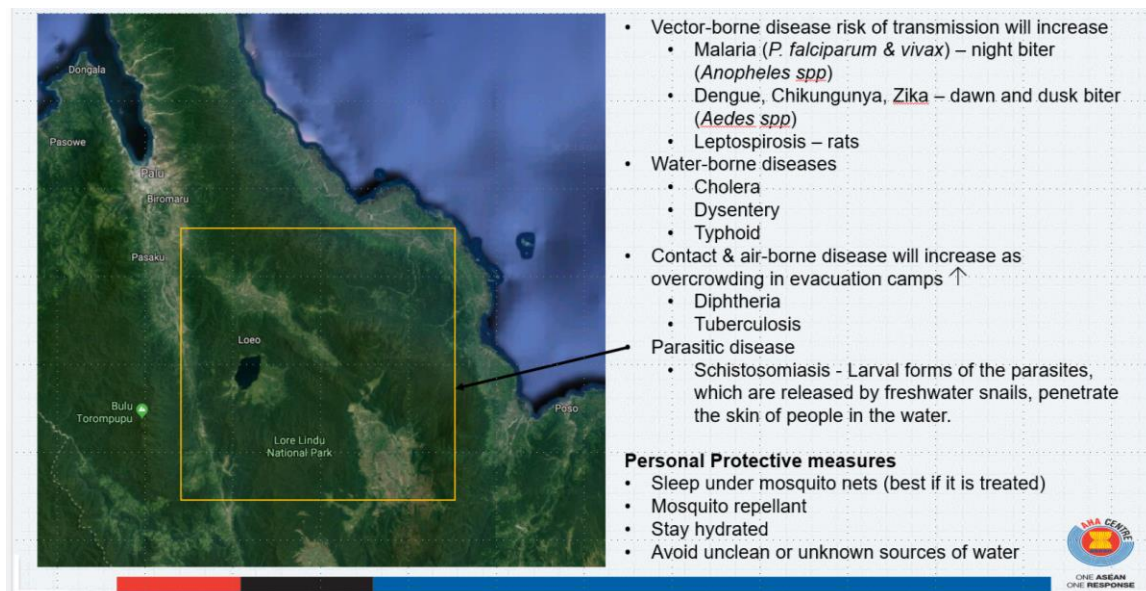


Figure 3 Anticipated health risks in the area (AHA Centre, consolidated from various sources)

3. ASSESSMENT OF DAMAGE, IMPACT, AND HUMANITARIAN NEEDS

- Initial reports (as at 3 October, 1300 hrs Jakarta time) BNPB has confirmed 1,234 fatalities with over 632 injuries, 99 missing persons, 152 are requiring immediately rescue efforts. There are currently over 61,867 evacuees being housed in 109 evacuation sites. Note that these figures are still expected to rise.
- BNPB has received images from Copernicus EMS Rapid Mapping as can be seen below.



Figure 4 Initial building damages assessment in Palu city (Copernicus)

- c. In addition, a specific onsite comparison of pre and post earthquake are also available from Indonesian Space and Aeronautical Agency (LAPAN) for Balaroa Residential Area, Palu City. Initial estimate suggests around 1,747 houses totally destroyed.

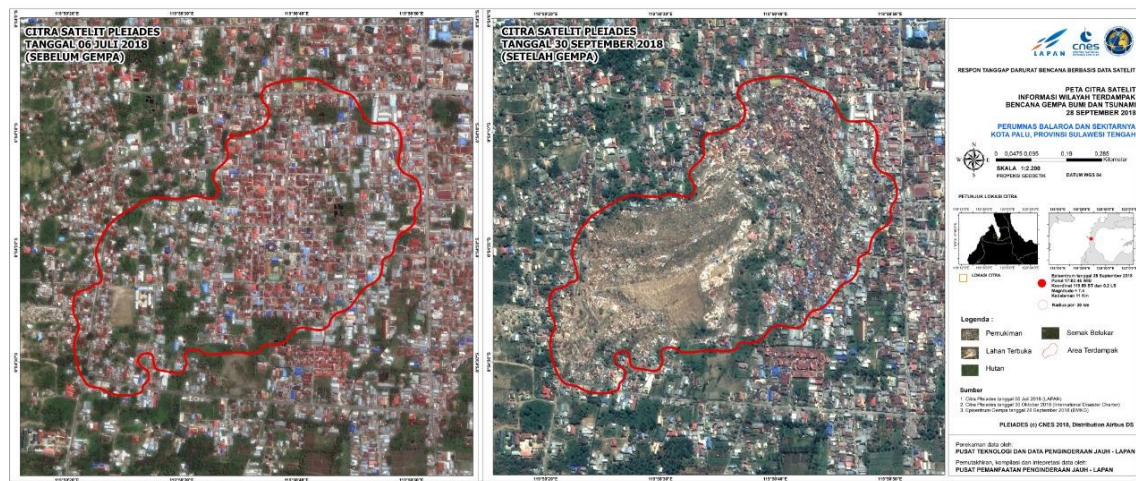


Figure 5 Pre and Post Earthquake comparison of Balaroa Residential Area

- d. The AHA Centre highly consider the results of its partner initial analysis on earthquake impact analysis and potential needs (Pacific Disaster Centre), which suggests that out of the initial 1.5 million people affected (exposed to moderate and strong shaking), around 537,000 people were exposed to strong shaking as well as potentially directly affected by the following tsunami and liquefaction. Around 191,000 people in urgent needs of humanitarian assistance.

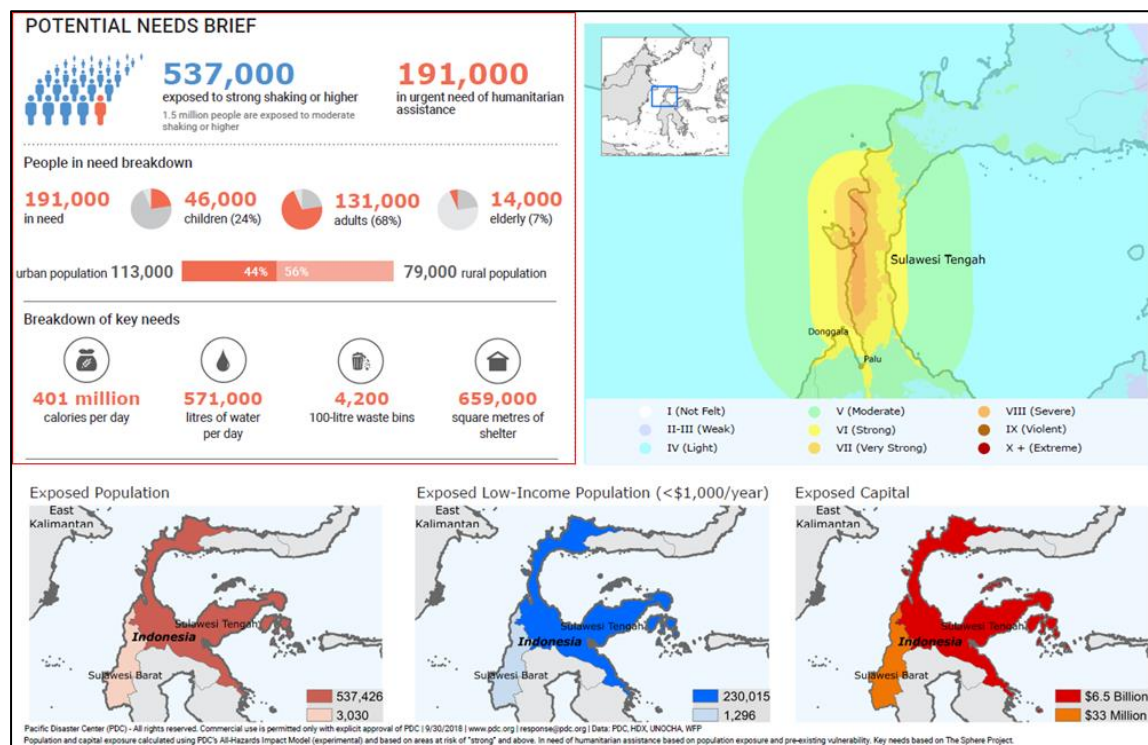


Figure 6 Earthquake Impact Analysis and Potential Needs (PDC)

4. ACTIONS TAKEN AND RESOURCES MOBILISED

Response by Government of Indonesia

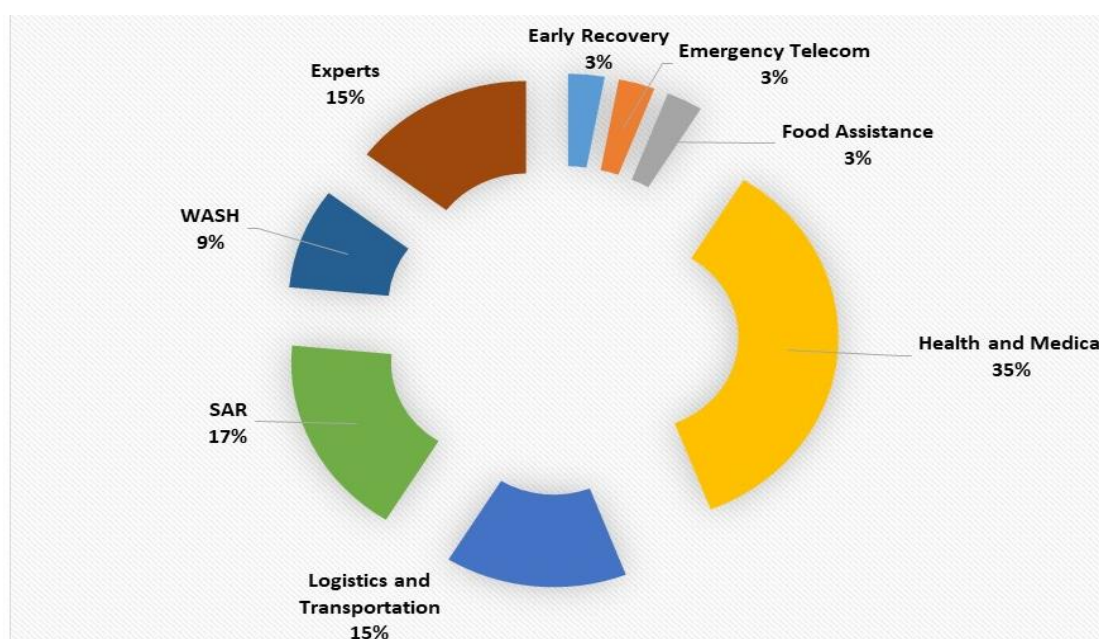
- a. President Joko Widodo had visited the affected areas on 30 September 2018 and subsequently provided clearance to Ministry of Foreign Affairs to made statement regarding international assistance.
- b. Government of Indonesia, through BNPB and Ministry of Foreign Affairs, have welcomed offer of international assistance as of 1 October 2018. This statement was also delivered by BNPB during Emergency Briefing and Coordination Meeting Partners at AHA Centre Emergency Operations Centre on 1 October, 10.00 hrs. And repeated during BNPB's Press Conference at 1300 hrs.
- c. Governor of Central Sulawesi has announced an initial 14 days of emergency response period dated 28 September to 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.
- d. BNPB has setup National Assisting Post (*Pospenas*) at the vicinity of Central Sulawesi Governor Office (-0.890633°, 119.871074°).
- 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/qr/earthquake/Layout_Gempa_Palu_Donggala/
- g. Basarnas and supporting organizations for the joint search and rescue efforts divided 6 (six) operational areas:
 - ✓ Hotel Roa-roa; -0.902946°, 119.868549° (anticipated 50-60 people burried)
 - ✓ Ramayana Mall; -0.908270°, 119.876543°
 - ✓ Dunia Baru Restaurant; -0.909587°, 119.875826°
 - ✓ Collapsed buildings across Talise beach
 - ✓ Balaroa residential area; -0.904885°, 119.842509°
 - ✓ Others
- h. BMKG has dispatched a team immediately to Palu to conduct microseismic, macroseismic, microzonation and post-tsunami surveys:
 - ✓ Microseismic survey is a monitoring of a small earthquake after an earthquake for the prediction of aftershocks to end
 - ✓ Macroseismic survey is monitoring damage on the post-earthquake field
 - ✓ Microzonation survey to review the earthquake-prone areas, which are divided into certain areas
 - ✓ Post-tsunami survey to review of the traces of the tsunami wave starting from the coast to the mainland

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. As part of operationalisation of One ASEAN One Response and to fulfill the requested services by BNPB, AHA Centre has setup an online form for 'offer of assistance' accessible at <http://bit.ly/SASOP4Sulawesi>. At Jakarta, AHA Centre also conducted the following activities:
- Emergency Briefing & Coordination Meeting with diplomatic missions and humanitarian partners on 2 Oct 2018. It will be held on a daily basis at 1400hrs at AHA Centre EOC.
 - Coordination meeting with Ministry of Foreign Affairs, diplomatic missions, and UN RC/HC & HCT
 - Participation at national-level clusters coordination meeting (SAR, protection & IDPs, health)
- c. All consolidated list of offers will be or have been passed on by AHA Centre to BNPB and related ministries, i.e. type of the offer as can be seen below.



As of 2 October 2018, 08:00

Total humanitarian partners: 35

Figure 7 Types of assistance by sector offered by humanitarian partners (under deliberation)

- d. ASEAN Emergency Response and Assessment Team (ERAT) has reached Palu with Indonesian Airforce's C130. They have established coordination with Mutiara Palu Airport Authority and establishing their base of operations and coordination setup with Coordinator of National Assisting Post (Pospenas) for incoming international assistance. Establishment of Joint Onsite Coordination Centre for ASEAN (JOCCA) and Reception Departure Centre have been offered to BNPB's Pospenas.



Figure 8 ASEAN-ERAT is in Palu – Coordination activities with Airport Authority and National Assisting Post (Pospenas) and preliminary ground assessment observation

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

- a. European Union has allocated cash assistance to support the response in Sulawesi and would provide additional fund, as necessary. EU is currently discussing whether they could cover any of the six required support from the Government of Indonesia, either in in-kind or additional cash support.
- b. Government of Korea through Korea International Cooperation Agency (KOICA) has transferred funds amounting USD 1 million through the Indonesian Red Cross (PMI). KOICA also has on standby Korea Disaster Response Team (KDRT) and relief supplies including a field hospital and water treatment equipment. The KDRT tentatively will be deployed tomorrow afternoon.
- c. The Government of Australia has on standby Emergency Medical Team (EMT) type 2 with medical professionals, 60 beds capacity and tents. In addition to that, the Government of Australia has also prepared relief supplies such as shelter kits and hygiene kits, C-130 aircraft for airlift, and cash funding.

- d. Swiss Development Cooperation (SDC) has signified availability to provide aid and teams to assist through AHA Centre's coordination.
- e. Department for International Development (DFID) UK has allocated GBP 2 million of fund donation and has communicated with MOFA and BNPB on the fund handover. Besides that, DFID also has relief items ready to be deployed and two personnel coming from London to assist the DFID team in Jakarta.

Response by the Humanitarian Country Team

- a. UN OCHA has been working closely with the AHA Centre and BNPB. OCHA is currently working on (i) conducting an assessment on the ground and collect secondary data, (ii) examining the six required support from the government and deciding what support could be provided, (iii) OCHA will deploy staff and potentially UNDAC members to support ASEAN-ERAT.
- b. World Food Programme (WFP) has a team already on the ground in Palu and another assessment team will arrive tomorrow. WFP aims at supporting: (i) to strengthen the logistics coordination; (ii) maintaining the logistics capacity; and (iii) to provide a humanitarian hub and airlift services.

Response by Other Humanitarian Partners

- a. 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>
- b. ICRC released a link <https://familylinks.icrc.org/indonesia> dedicated for people to track their lost family members.
- c. DHL already has two personnel in Balikpapan and a local team currently on the way from Mamuju to Palu. As Balikpapan has been appointed as the entry point for international assistance, DHL team in Sulawesi would be mobilised to Balikpapan to assist the ground handling of the incoming relief items.
- d. NetHope ready to support in the form of telecommunications equipment and has an assessment team of three persons ready to be deployed.
- e. Arbeiter-Samariter-Bund (ASB) has a team coming from Yogyakarta to Palu to assess the needs of and provide support for the affected population with disabilities.
- f. PERUATI (Religious Group) offer trauma healing assistance for the affected population.
- g. Project Hope is ready to supply medicine and doctors.
- h. Plan International has a team already on the ground through Mamuju and will stay overnight at Pasang Kayu today. The team was escorted by Police and will stay to assess the situation for the next three days. The team is already in contact with The AHA Centre's In-Country Liaison Team.
- i. Gugah Nurani Indonesia already has a team doing an assessment in Palu in coordination with BPBD and was advised by BPBD to set up a shelter in Donggala.
- j. Mission Aviation Fellowship (MAF) has a team already in Palu. MAF also has 3 aircraft available to mobilise aid and 1 helicopter available to mobilise people. The aircraft



was landed in a private hangar. MAF also advised that fuel could be purchased in Luwuk and Manado.

- k. International Medical Corps has a team in Palu and three personnel available in Jakarta. The organisation offer a field hospital with full service including radiology that could cover 66 patients, 12 minor surgery, and up to 12 major surgery.
- l. HOPE International has teams arriving from Manado and Makassar to distribute tarps and clean water. HOPE would also deploy an additional Hercules aircraft carrying clean water. In addition to that, they have doctors on the ground that work in coordination with the National Armed Forces Hospital.

5. RECOMMENDATIONS AND PLAN OF ACTIONS

AHA Centre's plans

- a. AHA Centre had 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. The AHA Centre will organise an Emergency Briefing and Coordination Meeting tomorrow, 3 October, at the Emergency Operations Centre of the AHA Centre. The briefing will apprise participants about the latest situation update, provide overview of the response of the Government of Indonesia and humanitarian partners.
- c. The AHA Centre will be coordinating offers of assistance as requested by Government of Indonesia. Humanitarian partners are encourage to use ASEAN's SASOP Form Offer of Assistance available here: <http://bit.ly/SASOP4Sulawesi>. A consolidated list will be forwarded to BNPB for their deliberation.
- d. The ASEAN-ERAT will lead the coordination on the ground to support BNPB. ASEAN-ERAT will offer to establish the Joint Operations Coordination Centre of ASEAN (JOCCA) and Reception and Departure Centre (RDC).

Prepared by:

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

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.

The ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre), Graha BNPB 13th Floor, JL Raya Pramuka Kav 38, East Jakarta, 13210, Indonesia
Phone: +62-21-210-12278 | www.ahacentre.org | email: info@ahacentre.org
Facebook: [fb.com/ahacentre](https://www.facebook.com/ahacentre) | Twitter and Instagram: @ahacentre

Contact:

- 1) Qingyuan Pang, Asst. Director, Disaster Monitoring & Analysis, qing.pang@ahacentre.org
- 2) Mizan B. F. Bisri, Disaster Monitoring & Analysis Officer, mizan.bisri@ahacentre.org
- 3) Grace Endina, Mutual Aid Unit of AHA Centre for M 7.4 Central Earthquake and Tsunami, grace.endina@ahacentre.org

