M 7.4 EARTHQUAKE & TSUNAMI, CENTRAL SULAWESI, INDONESIA
Correct as at 07 October 2018

Most-Affected areas:
- Donggala
- Palu city
- Sigi

1,763 fatalities
2,632 major injuries
62,659 displaced
265 missing
66,926 Houses damaged
147 Evac. sites

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)

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:
   i. Air transportations (preferably C-130 or alike).
   ii. Tents (shelter kits)
   iii. Water treatment
   iv. Electric generators
   v. Financial donation from the foreign governments and international organisations should be channelled through National Board for the Disaster Relief (BNPB, sic). It is suggested that the financial donations from the Red Cross, international and local NGOs to be addressed to the *Palang Merah Indonesia* (Indonesian Red Cross).

c. At the **Coordination Meeting for Diplomatic Missions and Humanitarian Partners on 5 October 2018** chaired by key representatives from National Disaster Management Authority (BNPB) and Ministry of Social Affairs. **Key summary from the coordination meeting is as follows:**
   i. BNPB stressed that offer of assistance can be made through MoFA or AHA Centre which will be put up for further deliberation by Task Force for International Assistance.
   ii. BNPB informed that all international assistance (teams and relief items) must be directed to Balikpapan Sepinggan Airport (BPN), with CIQP facilities and team’s presence there. AHA Centre and ASEAN-ERAT is also stationed at the BPN airport to support BNPB, Ministry of Health, Custom Office, Immigration Office, and National Agency of Drug and Food Control (BPOM) on facilitating the incoming international assistance. **Halim Perdana Kusuma Airport (Jakarta) and Sultan Hassanudin Airport (Makassar)** are used as logistic hubs strictly for domestic / in-country relief items and teams.
   iii. Operational contact points at Balikpapan and Palu will be shared to those who received acceptance from Government of Indonesia.
   iv. Humanitarian partners with in-country resources, capabilities, and equipment or procuring locally are advised to mobilise the relief items from Jakarta or Makassar. Partners are expected to shoulder all relief items mobilisation and extra costs.
   v. BNPB also 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            | BNIIDJA                     |
      | Branch                | Bank Negara Indonesia (BNI) KCU Harmoni |

vi. Humanitarian partners are requested to respect the decision of Government of Indonesia on limiting presence of foreign humanitarian workers in the affected areas. Permission will be given to operators / technicians of specific equipment brought from outside of the country, e.g. water treatment facilities, at a certain period of time. **International humanitarian partners with local partners out on**
The ground may mobilise surge capacity from outside the country only to be stationed at Jakarta (or headquarter) and not to the affected areas.

vii. 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 items or teams:
- Donation Certificate
- Packing list
- Invoice
- Manifest

viii. As per guidance from the BNPB, for the time being, AHA Centre will not hold a coordination meeting, hence humanitarian partners are requested to wait for the letter of acceptance made by BNPB as basis for their operations. For follow up on the offer of assistance, humanitarian partners are requested to link up with the AHA Centre to reduce the coordination burden to the BNPB.

d. **A Coordination Meeting with Defence Attaches of States dispatching their military assets to support the emergency response operations on 5 October 2018** was facilitated at AHA Centre Office, Graha BNPB 13th Floor, 1400-1500 hrs. Foreign militaries offering assistance have come to a consensus that they stand ready to support the relief efforts and will stand guided by Indonesian Armed Forces (TNI). Figure 1 below shows the snapshot of foreign military assets under the coordination of TNI.

e. As at 5 October 2018, Government of Indonesia had received offers of assistance from 29 countries and 102 international (non-government) organisations outside of Indonesia. The list of offers of assistance had been collated by MoFA and AHA Centre before forwarding to relevant authorities. The figure below indicate types of assistance offered and progress status of the offers. To date, the offer of assistance being kindly requested to stand down (around 33%) are mostly on the search and rescue capabilities, i.e. to this offering entity BNPB has issued a Letter.
B.077/BNPB/Pusdiklat PB/HK.10.05/10/2018 addressed to partners who are kindly requested to stand down.

Figure 2 Types of Assistance Offered by International Organisations and NGOs (left) and Status of Offers (right) (Consolidated by AHA Centre)

f. ASEAN Emergency Response and Assessment Team (ERAT) is currently in Palu City. ASEAN-ERAT has supported BNPB to setup a Joint Operations and Coordination Centre for International Assistance (JOCCIA) co-locate with BNPB’s National Assisting Post (Pospenas) at Rumah Jabatan Gubernur (-0.903385, 119.888468).

g. ASEAN-ERAT’s rapid assessment findings and recommendation (correct as at 7 October) are highlighted in Section 7.

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 3). Humanitarian partners may wish to exercise caution in purple zone areas. Access to potentially affected areas of Sigi and Parigi Moutong may be limited due to the high risk of landslide resulting from possible extensive ground movement arising from the 450 aftershocks reported thus far (6 Oct 2018, 0500hrs UTC+7).
c. According to ASEAN Specialised Meteorological Centre’s sub-seasonal forecast between 1 Oct and 15 Oct 2018, above-average rainfall is predicted to develop around the equator and is expected to persist until the end of the 1st fortnight in October. Slightly warmer temperatures are also forecasted which will favor the breeding conditions of mosquito vectors, greatly increasing the risk of vector-borne transmission (Figure 4). These wetter conditions may lead to increased risk of mudslides in large ground movements especially in areas indicated in Figure 2.

d.

e. 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 6 October 1100hrs, 451 aftershocks were recorded. The biggest magnitude is M 5.9 with 13 being felt on-site. The seismic activity is slowly decreasing but responders are advised to stay safe and watch out for potential large ground movements, landslides and liquefaction.
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 5 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 5 Updated Number of Population Exposed to Earthquake Intensity V MMI and above (Modified from BNPB)](image)

b. The number of schools damaged reported so far is 2,736 (correct as at 6 Oct 2018) 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.

c. 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.

Based on the damaged buildings in key tsunami and landslide areas identified through remote sensing as of 6 Oct 2018. A total of 20,378 houses was damaged. These are mostly situated along the coast line of the Gulf of Palu and Donggala (Figure 6).

Figure 6 below exhibits buildings/housing damages in Palu city observed by Copernicus EMS, whereas red points indicating those destroyed, orange points as damaged, while yellow points are potentially damaged. On the south-eastern of the image, the concentration of red points is pointing towards Balaroa Residential areas, which was totally destroyed. The ground observation can be seen from the AHA Centre Situation Update #4. In Palu city, BNPB stated that 2,403 buildings are
destroyed, and 2,010 houses partially damaged. The extent of liquefaction and landslide events could be seen in the analysis of the remotely sensed images in Figure 7.

**Figure 6** Damaged buildings identified in key tsunami and landslide areas through remote sensing as of 6 Oct 2018 (REACH)
Till date, Joint-Needs Assessment (JNA) is ongoing undertaken by members of Humanitarian Forum Indonesia (HFI) and ASEAN-ERAT. To date, data from villages
have been received and data collection process is ongoing. Currently, 91 villages have been assessed using the JNA methodology.

e. The AHA Centre highly considers the initial analysis on earthquake impact and potential needs, 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 due to their pre-disaster vulnerability. Accordingly, initial breakdown key needs can be seen below.

![Figure 8 Initial Earthquake Impact Analysis and Potential Needs calculated with Sphere Standard (left) and ASEAN’s INAC (right)](image)

For the severely affected municipalities such as Palu City, Donggola, Sigi and Parigi Moutong, food, shelter, water and sanitation requirements for approximate number of vulnerable groups needing immediate assistance were estimated based on the National Statistical Agency (BPS) 2016 Population Data disaggregated by Age per Municipality. For the total number of vulnerable groups, comprised of elderly (65+ y/o) and children (0-14 y/o) per municipality, were computed based on 2016 Population Baseline Data. For the Municipality of Donggola, since age disaggregated data was not available, number of elderly and children were computed based on the percentage of children and elderly in the Initial Impact Analysis and Potential Needs as proxy. The Initial Needs Assessment (INAC) Thresholds and Standards of ASEAN used to estimate the food, shelter, water and sanitation requirements. These threshold and standards include the following:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>2,100 Kcal/ person / day</td>
</tr>
<tr>
<td>Water</td>
<td>15 liters / person / day</td>
</tr>
<tr>
<td>Drinking water</td>
<td>3 liters / person / day</td>
</tr>
<tr>
<td>Shelter</td>
<td>Minimum shelter space per person = 3.5 square meters</td>
</tr>
<tr>
<td>Tents</td>
<td>Recommended ASEAN Tent space = 16 square meters</td>
</tr>
</tbody>
</table>

Caseloads for the following regencies or districts affected by this event are available here: Donggala, Palu City, Sigi. The result and distribution of this humanitarian needs estimation is available in the figure below.
f. A total of 1,575 potential Internally Displaced Persons (IDPs) sites had been identified via satellite imagery as of 6 October 2018. This would provide stakeholders on the ground carrying out rapid assessment to better plan and conduct baseline assessments while validating if these are the IDP sites (Figure 10).
g. On 5 October 2018, AHA Centre’s partner Yayasan Mission Aviation Fellowship (MAF) assessed using aerial surveillance in Sigi Regency. As can be seen from the map and images below, in Sigi Regency the challenges are humanitarian access due to landslides.
Based on BMKG’s data, MapAction had carried out an estimated tsunami inundation and modelled liquefaction hazard. This map is intended to identify potential areas for assessment based on these hazards. The highest risk is still in Palu City especially areas along the gulf. Responders and local government are urged to take note of should there be a need to relocate IDP sites away from these hazards.
SITUATION UPDATE

Central Sulawesi Estimated Tsunami Inundation and Modelled Liquefaction Hazard.

Figure 12 Estimated tsunami inundation and modelled liquefaction hazard (MapAction)
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 make a statement regarding international assistance. Government of Indonesia, through BNPB and Ministry of Foreign Affairs, have welcomed offer of international assistance as of 1 October 2018.

b. A task-force has been established for reviewing offers of international assistance, which include Coordinating Ministry for Political, Law, and Security Affairs (Kemenkopolhukam), Ministry of Foreign Affairs, and BNPB. As at 3 October 2018, Government of Indonesia has received offers of assistance from 29 countries, of which 17 countries offered a concrete type of assistance and match the prioritised support. BNPB has also received the consolidated offers of assistance from 55 international NGOs from the AHA Centre.

c. A letter from Ministry of Foreign Affairs to the AHA Centre indicating the acceptance of selected assistance can be seen in point 1-B.

d. 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.

e. National Search and Rescue Agency (Basarnas) until to date has mobilised SAR team from Palu, Banjarmasin, Gorontalo, national office, and Makassar with SAR Palu team as the lead agency for the on-site operations. Including coordinating the movement of personnel from police, volunteers, etc. The SAR operations managed to rescue 86 people and retrieve 422 people as of 3 Oct 2018. According to Basarnas, the challenges are the wide coverage of the affected areas, roadblocks due to landslides and infrastructure damages, electricity is still limited. Basarnas assured that the survival chance for earthquake victims is up to 7 days. Thus, evacuation and search ops will remain a priority.

f. On 5 October 2018, Vice President Jusuf Kalla visited affected are in Palu city. During his visit, he outlined the following priorities for emergency response:
   i. Quick reactivation of market in Palu city with security support from the police
   ii. Balikpapan International Airport as staging area and logistic hub is operating 24 hours
   iii. Continue efforts on evacuation, search, rescue, and victims retrieval
   iv. Continue medical services, strengthen field hospitals, and mass burial
   v. Accelerate distribution of foods and relief items to IDPs
   vi. Infrastructure rehabilitation: roads, electricity, seaport, airport, telecommunication and fuel supplies

g. BNPB has setup National Assisting Post (Pospenas) at the vicinity of Central Sulawesi Governor Office (−0.890633, 119.871074).

h. The Bulog Public Corporation has also distributed Government Rice Reserves (CBP) which are ready to be distributed at least 200 tons per province and 100 tons per city / district.

i. Currently, PLN had succeeded in repairing 100% of sub-stations and they had mobilised 1,141 personnel. They are expecting that the electrical network to be restored to at least 90%.

j. Telecommunications network is improving with partial restoration of 2G to 4G services (up to 60%). Telkomsel had gradually succeeded in recovering most of the network in the area of Palu City, Donggala, and surrounding areas. Currently SMS and voice communication services are gradually recovering at several strategic points in Palu city that are prioritized for the government and agencies that are in dire need and the
4G network that has returned to operations in several areas such as Toli-toli, Poso and Luwuk. While for Donggala City, voice and internet service devices have also recovered. Telkom has also activated free wifi access in the Donggala Telkom office area.

k. Minister of Communications and Information Technology had appointed Director General of DPD for the responsibility of speeding up the recovery of infrastructure and services of the Ministry of Communications and Earthquake and tsunami in the region of Central Sulawesi and the region affected through the Ministerial Decree No. 773 of 2014.

l. The fulfillment of fuel needs to gas stations (BBM) is currently at 75%, and expected to be completed in the future. Pertamina has recovered fuel disbursement at 32 gas stations or 88% of total gas stations affected in Central Sulawesi.

m. Himbara (Association of State-Owned Banks) has tried optimally to restore banking services.

n. A web portal on BNPB’s page has been prepared for sharing maps, providing updates and information to public and media.

o. 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/

p. 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. 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. 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 on 4 November, to support BNPB and related authorities in facilitating incoming international assistance and coordinated the dispatch of items.

Figure 13 Ambassador of the UK with BNPB and AHA Centre at the Balikpapan Airport staging area (left) and air traffic controller in Palu Airport (right)

d. ASEAN Emergency Response and Assessment Team (ERAT) is in the most affected area of Palu City. 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 location of JOCCIA is at -0.903385, 119.888468. Telecom Sans Frontier supporting ERAT at the JOCCIA.

e. A second batch of ASEAN-ERAT will be deployed next week to take over the current operations and continue supporting the Government of Indonesia’s relief efforts on the ground.

f. On-site coordination assessment meeting was held on 2 Oct 2018, 2100hrs led by BNPB and supported by ASEAN ERAT, with the participation of Save the Children, WFP, Plan International, CRS, MDMC and WVI. Initial assessment has been agreed with the Joint-Needs Assessment (JNA) methodology, with data collection scheduled for 3-7 October and will be followed with joint analysis meeting on 8 October 2018.

g. The agreed initial data from 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.

Figure 14 Field Level Coordination Activities at Joint Operations and Coordination Center for International Assistance (JOCCIA)

h. The first batch of DELSA relief items have been delivered to Palu via Australian C130. 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 15 DELSA relief items to be delivered via Australian C130 aircraft

**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 Partners**

a. **Government of Switzerland** is in close contact with AHA Centre on their activities of dispatching team and relief items for Sulawesi. Expert teams from Swiss Humanitarian Aid are in Palu and the first cargo with WASH equipment, including water treatment and tents (total 900kg) arrived on 5 October 2018 in Palu, using the Swiss Federal council's jet. A second cargo with 300 family tents, equipped and more WASH equipment, total 30 tonnes are expected to arrive on 10 October.

b. **Government of Japan** deployed the Japan Disaster Relief (JDR) Team (Japan Self-Defense Force Units) to Indonesia and dispatched relief items such as tents, purification and generator sets through the Japan International Cooperation Agency (JICA). The SDF Units are expected to conduct activities including field assessment and mobilise relief items supplies in the affected area.

c. USAID/OFDA has shared with the AHA Centre that they are in the process of mobilising relief items and funds to be received and distributed by the IFRC and Indonesian Red Cross (PMI). The relief items include 1,750 rolls of shelter material and funding from shelter programs up to USD 750,000.

d. **The Government of Australia** will provide a further $4.5 million to assist those affected by this disaster, bringing the total assistance to the relief effort to $10.25 million. This support will provide additional humanitarian supplies, health and logistical assistance responding to immediate needs and assisting with recovery efforts. This builds on support already provided by Australia through the Indonesian Red Cross (PMI) and Australian NGOs, which is assisting over 80,000 people with access to shelter, sanitation and clean water. The Australian Defence Force continues to support the Indonesian Government in their response efforts, including by providing vital airlift capacity for moving humanitarian supplies.

e. **The Government of New Zealand** deployed A New Zealand Defence Force C-130 Hercules aircraft, loaded with emergency relief supplies including generators, water containers, and tarpaulins to Indonesia. The aircraft would also join the air bridge effort to mobilise supplies and personnel to the affected area. New Zealand put additional USD 1.5 million on standby to support the humanitarian effort, taking the total contribution from the country to this response to USD 5 million.

f. **The UK Government** will double the first GBP 2 million of donations from the British public to the Disasters Emergency Committee’s Indonesia Tsunami Appeal. It is in addition to the initial support in total of GBP 3 million that has been provided directly. Some of these funds will be channelled into early recovery and rehabilitation efforts. **An A400M Atlas from the UK Government** has also arrived in Balikpapan bringing in 1,280 much-needed shelter kits and 288 hygiene kits. The aircraft was also carrying 3 tonnes of Indonesian supplies, in addition to the 17.5 tonnes of UK aid.

g. **The Government of France** deployed humanitarian cargo and personnel to the disaster area, including 43 emergency firefighters from the Civil Security and Ministry of Europe and Foreign Affairs of France on 6 October 2018. This humanitarian cargo includes a heavy water treatment unit to be deployed to Palu region to provide drinking water to 80,000 people a day. The cargo also include 18 generators supplied by Electricians Without Borders and the Crisis and Support Center of the Ministry of Europe and Foreign Affairs, as well as water purification units provided by the Veolia Foundation and the Suez-Aquassistance Foundation. Water purification tablets given
by the NGO Secours islamique France completed the shipment of this humanitarian cargo.

h. The Government of India has launched 'Operation Samudra Maitri' to assist victims of earthquake and tsunami in Central Sulawesi. India has deployed two Indian Air Force aircrafts, C-130J and C-17 on 3 October 2018. The C-130J aircraft carried a medical team on-board along with tents and equipment for a field hospital. The C-17 aircraft carried medicines, generators, tents and water. Three Indian Naval Ships – INS Tir, INS Sujatha and INS Shardul – have also been mobilised to carry out humanitarian assistance and disaster relief (HADR). These ships are likely to reach the Central Sulawesi Province of Indonesia on 6 October 2018.

i. The Republic of Korea has pledged additional assistance of 2 military transport aircraft and relief goods (130 tents) on top of the USD 1 million. They had in consultation with the Government of Indonesia dispatched 31 military personnel to facilitate and assist with the airlifting requirements

Response from other foreign government
a. The Government of Venezuela approved financial resources, valued at USD 10 million, to help the emergency response generated by the earthquake and tsunami in Central Sulawesi. The measure, announced by the Chancellor of the Republic, Jorge Arreaza, will support mechanisms to help the affected population in Central Sulawesi.

Response by the United Nations and Humanitarian Country Team
a. One week after the devastating earthquake and tsunami in Central Sulawesi, the Humanitarian Country Team (HCT) launched a Response Plan, seeking USD 50.5 million for immediate relief activities. Released on 5 October 2018 by the Humanitarian Country Team, the Plan outlines the support that the international humanitarian community is aiming to provide to 191,000 people over the next three months.

b. UN Central Emergency Response Fund (CERF) has allocated USD 15 million to the response in Central Sulawesi.

c. World Food Program and Logistic Clusters have also released the map on the overall access constraints which is impeding the relief efforts.

Response by Other Humanitarian Partners and others
a. Direct Relief is in close contact with the AHA Centre with regards to their prepositioned relief items in Southeast Asia made available for people in need following the earthquake and tsunami in Sulawesi. Supplies from Direct Relief are currently staged at and ready for deployment from the UN Humanitarian Response Depot in Subang, Malaysia. In addition to the stockpile, Direct Relief has offered the government of Indonesia USD $30 million of medicine and health supplies from its available inventory, as well as 50 medical grade tents and 2000 body bags. Direct Relief also has funds available and stands ready to support the government, the Muhammadiyah Disaster Management Centre (MDMC), and other local NGOs however it can.

b. Yayasan Plan International Indonesia (YPII) shared that they will be conducting their rapid need assessment in Sigi, Palu and Parigi Moutong and the result will be shared with the JNA team especially on the findings on protection and gender aspect.
   - During the assessment YPII have distribute drinking water, biscuits and 4 unit tarpaulin 9x15 meter in 3 IDP camps (Universitas Muhamadiyah, Masjid Raya, Besusu Timur to be used as recreational activity/community centre and protection of bathing space where girls and women will feel secure and safe when doing their sanitation activity. In additional shipment of 1,000 Shelter kits and 1,000 Hygiene kits will be expected to arrive next week.
• YPII had decided to focus the response in 4 sectors: Child Protection, Education, Shelter, WASH and emphasizing the component of gender and accountability at least for the coming 6 months. They will be prioritizing child chil
• Preparations for mobile recreational activities for children and adolescent girls in at least 10-15 IDP camps located within Palu, Sigi and Donggala district are underway. Through the recreational activities, key messages and awareness on hygiene practice and promotion, child protection, disaster preparedness and behavior will be delivered.

c. 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
d. ICRC released a link https://familylinks.icrc.org/indonesia dedicated for people to track their lost family members.
e. 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.
f. CARE is in the process of purchasing life-saving items such as blankets, tarpaulins, water buckets and water purification kits locally from their base in Makassar and currently looking for options to mobilise the items to Palu. CARE intend to assist around 100,000 people - mainly in Donggala district - with life-saving water, sanitation, shelter and livelihood support. In order to so do, CARE is appealing for USD 15 million in funding to be used over a four-year period.
g. Hong Kong Red Cross has mobilised HKD 200,000 to support the immediate relief effort in Indonesia for the earthquake and tsunami in Central Sulawesi, through the International Red Cross.
h. A team of three personnel from Map Action is stationed at the AHA Centre to help the coordination of international assistance. The team is ensuring that the rescue and recovery workers equipped with continually updated and reliable situation maps. The team is providing remote support since the earthquake struck creating maps detailing essential information such as health and transport infrastructure.
i. Oxfam mobilised water purification units to the affected area and would scale up its response to reach 500,000 people with clean water and essential aid supplies, like hygiene kits, water purification kit, shelter packs and livelihood support.
j. Along with the Government of Indonesia, PKPU Human Initiative and local volunteers have provided medical services with 12 personnel for the community affected around PKPU Human Initiative Post, Jl. Eboni No. 8, Kel. Kabunga Kecil, Kec. Banawa, Donggala, since 2 October 2018.
k. A RedR team has arrived in Indonesia to carry out an initial emergency needs assessment. A team of RedR trainers also available on the ground to provide trainings and skills transfer to the humanitarian actors with limited training or experience.
l. Save the Children’s national entity has a team of staff on the ground distributing aid, including shelter kits and hygiene items, as well as setting up child-friendly spaces, child protection systems, and reporting mechanisms. Save the Children also in coordination with other agencies to establish family tracing and reunification procedures to help reunite children with their families.
m. Turkish Red Crescent teams have been deployed to the region and in close coordination with the Host National Society. TRC disaster response team has donated
USD 10,000 in cash to PMI. TRC would also dispatch 30 tons of humanitarian relief materials with 2 aircrafts on upcoming days loaded with humanitarian relief materials consisting of 200 family tents, 200 family hygiene kits, 200 baby kits, 200 kitchen sets, 2,000 sleeping bags, 2,000 blankets and 5,000 boxes containing various medicine.

n. **The Taiwan Red Cross** donated important materials such as 300 tents and 2,000 sleeping bags, sleeping mats, and quilts for the affected population.

o. **World Renew**'s International Disaster Response (IDR) staff and partners are in Sulawesi to distribute lifesaving food, water, and emergency kits

p. **ASEAN Women's Circle (AWC)** of Jakarta along with AWC friends from various groups such as spouses from the Ministry of Foreign Affairs and Indonesian Women Association donated goods and cash to the Indonesian Red Cross (Palang Merah Indonesia) on 4 October. AWC Executive Committee turned over the donation, which included tarpaulins with ropes, blankets, towels, hygiene kits consisting of toothpaste, shampoo, bath soap, sanitary pads, and food items. Additionally, a cash donation of over USD 2,000 was handed over through representatives of the Indonesian Red Cross (PMI).

q. **Malteser International** is supporting its Indonesian partner, YAKKUM with the repair and rehabilitation of damaged health centres. They have also made emergency funds available to deliver essential relief materials to the surrounding communities.

r.

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. Pantoloan Port in Palu is operated by PELINDO (Indonesian Port Service). Road access to the port is passable but restricted by debris. The dock is able to provide limited operations. Ships that can be accommodated are roll-on/roll-off, ferry or general cargo ships with an onboard crane. Travel time by sea from Balikpapan is estimated at around 24-30 hours. There appear to be 3 forklifts at the port that are not currently operational due to lack of fuel.

d. The road from Poso to Palu is relatively accessible but does have a high risk of landslides in some areas, especially around Kebon Kopi, due to its topography. It currently takes approximately 3 hours from central Palu to Parigi.

e. Fuel supply remain limited hampering emergency response activities. According to HFI (5 Oct) 10 fuel stations have operated, i.e. 6 out of 17 fuel stations in Palu city, 3 out 4 fuel stations in Donggala Regency, and 1 out of 2 fuel stations in Sigi Regency.

f. On power and electricity, it is slowly being restored but many areas continue to be without supply.

7. ASEAN-ERAT’S RAPID ASSESSMENT

a. Till 6 Oct 2018, the Joint Needs Assessment Team had conducted rapid assessments in 70 villages of 26 sub-districts in Palu, Donggala, Sigi and Parigi Moutong.
b. MOFA Indonesia, BNPB and ASEAN-ERAT had set up a Joint Operation and Coordination Centre for International Assistance (JOCCIA) co-located with BNPB’s National Assisting Post (POSPENAS) at Rumah Jabatan Gubernur (-0.903385, 119.888468).

c. At the field level in Palu, POSPENAS is leading the response and coordination with support from the TNI and all the relevant line ministries, including local NGOs. Regular coordination meetings are being conducted on a daily basis with the relevant stakeholders on the ground. This ensures a more effective and coordinated response.

d. Currently, the immediate unmet needs are 1) water, 2) food, 3) sanitation and hygiene, 4) family shelters and construction materials, 5) family kits, 6) fuel (petrol and diesel), 7) generator sets and 8) water treatment units.

e. Beside the general needs identified by the government, disaster logistics poses as one of the main challenges in providing assistance to the affected populace. The warehousing, transportation, ground handling equipment and fuel for distribution are some of the largest contributors to the challenges faced. Following the event, the infrastructure was severely affected and the sudden influx of relief goods without proper and safe storage spaces poses a huge challenge in cataloguing, prioritising and distribution.

f. Displacement management is another aspect which had contributed to the chaos following the event. The need for pre-identifying safe evacuation sites is crucial and should have been incorporated as part of the disaster risk reduction measures for the city. Given that highly urbanised sites run the highest risk of liquefaction, contingency plans and orderly evacuation plans should be instituted to ensure that risk is mitigated and reduced to the minimum. The emergency had depicted that despite the forewarning, evacuation was not being conducted in an orderly fashion throughout Palu City, Donggala and Sigi Regency.

g. Due to the logistical challenges present, information and verification of damages in Donggala and Sigi are proving to be slow. This is largely contributed by the lack of petrol for transport to areas further away from Palu City.

h. Coordination is of utmost importance to ensure surgical precision of assistance rendered. Partners operating on the ground are urged to link up with the coordination centre and inform authorities on the plan of action so as to avoid duplication.

i. Due to the nature, complexity and extensive impact of the damage sustained, there is a likelihood that the emergency response phase may be extended. This is subjected to the government’s assessment and partners are advised to stand guided by the government.

j. The following information management workflow (Figure 16) is as shown for the JOCCIA, staging area and EOC as guided by BNPB. The Logistics Support Plan is also as shown in Figure 17 and partners are urged to adhere to these workflows to facilitate smooth delivery of information and assistance.
Figure 16 Information management workflow across 3 localities (JOCCIA, staging area and EOC)

Figure 17 Logistics Support Plan for international aid (JOCCIA, staging area and EOC)
Figure 18 Joint Needs Assessment Status as of 6 Oct 2018
Table of summary on ASEAN-ERAT’s rapid assessment

| Access to information and assistance | 1. In Palu and Donggala, cellular networks function but occasionally unstable for Telkomsel and XL Axiata. There is no information about Indosat. In general, Telkomsel are stronger networks. 
2. 61% of residents report that access to assistance is difficult as they cannot move freely because of limited transportation 
3. 56% of residents had lost their legal documents which is also a challenge to access the assistance |
| Shelter and essential non-food items | 1. The type of population visited consisted of 105 (71%) displaced persons, 25 (17%) mixed, and 17 (12%) non-displaced person. 
2. 65 points (44%) live in camps, 49 (33%) around the house, 10 (7%) in formal settlements, and 17 (16%) live in other dwellings. 
3. 21% of respondents said they had not received assistance and 69% of respondents had received assistance 
4. 85% of respondents stated that the house was damaged and displaced 
5. 45% heavily damaged, 22% moderately damaged and 21% slightly damaged |
| Water, Sanitation and Hygiene (WASH) | 1. 63% have clean water, 37% have no water 
2. The main water sources before the disaster was bore holes. 75 respondents could access the bore holes before the disaster but only 41 respondents could access this water source now. The main reason is because electricity cannot be used and the well is damaged. |
| Health | 1. 68% of health facilities do not work 
2. Current health problems ranging from the most to the least are injuries, diarrhoea, acute respiratory infections (ARI), other health ailments, skin diseases, difficult safe deliveries. |
| Food and Nutrition | 1. Food is one of the main problems. 56 respondents did not have food, and 26 quickly ran out of food, only 10 have access to food, with 2 experiencing normal consumption. 
2. The supply of food is limited, it is also plagued with poor quality and high prices as a result of high demand. |
| Livelihoods | 1. The three highest needs of children after a disaster are proper shelter, health and resumption of education. 
2. Most residents said that power outages limits their ability to obtain information on the assistance and event. The availability of emergency assistance services have been reflected as some of the most needed information, followed by health-related information. 
3. Elderly and children are the most vulnerable group after a disaster. |
Access to education
1. Many schools have been closed as the educational facilities were damaged by the earthquake and tsunami.
2. Schools were expected to resume classes on Monday (08 Oct 2018) but there is a need to ensure safe infrastructure and learning spaces before this could proceed.

Safety, Security and Protection
3. At the initial stage after the incident occurred, there are reports of looting particularly in the minimart and shops. There are also reports on looting from the vehicle convoy that transport food.
4. The situation had improved with increased presence of the police and military forces in the affected areas.

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 as it has grave implications on the 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 and reconstruction 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) camp coordination management 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.

8. PLAN OF ACTIONS

AHA Centre’s plans
a. As per guidance from BNPB, for the time being AHA Centre will not hold a coordination meeting, hence humanitarian partners are requested to wait for the letter of acceptance made by BNPB as basis for their operations.
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 next 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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