SITUATION UPDATE NO. 5
M 7.4 EARTHQUAKE & TSUNAMI
Sulawesi, Indonesia
Wednesday, 3 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, IIRC, NGOs and news agencies.

M 7.4 EARTHQUAKE & TSUNAMI, CENTRAL SULAWESI, INDONESIA
Correct as at 03 October 2018

Most Affected areas:
- Donggala
- Palu city
- Sigi

- 1,407 fatalities
- 2,549 major injuries
- 70,821 displaced
- 141 sites
- 65,733 Houses damaged

Priority Needs
(To be fulfilled with international assistance, other needs are to be fulfilled from in-country resources)
- Air transport capable to land in short runway (2 km airstrip)
- Family Tents
- Water Purification sets
- Generator sets
- Medical assistance
- Environmental management for vector-borne diseases (malaria)

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).

b. The AHA Centre highly consider the available analysis that from 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. From this caseload, around 191,000 people in urgent needs of humanitarian assistance due to their pre-disaster vulnerability. As alternative to the available analysis, the AHA Centre recalculated the humanitarian needs based on the ASEAN's Initial Needs Assessment Checklist (INAC) standard and threshold. This is available in Section 3.

c. As at 3 October, 1300 hrs local time, BNPB confirmed 1,407 fatalities with over 2,549 injuries, 113 missing persons, 152 are requiring immediately rescue efforts. There are currently over 70,821 evacuees being housed in 141 evacuation sites. In addition, around 65,733 houses damaged. Note that these figures may increase in due course as assessment continues.

d. As at 3 October 2018, Government of Indonesia had received offers of assistance from 29 countries, of which 17 countries offered a concrete type of assistance and match the prioritised support. The review process on offer of assistance from international non-government organisations is ongoing. A total of 55 offers of assistance had been collated and forwarded to relevant authorities. Based on the Letter D/01853/10/10/2018/16 from the Ministry of Foreign Affairs sent to the AHA Centre on 3 October 2018, it can be informed that Government of Indonesia has decided to receive, for the time being, assistance as follows:
   1. Air transportations (preferably C-130 or alike). It is strongly advised that prior to the departure of the aircrafts from the sending states, the Embassy concerned in Jakarta sends the Verbal Note providing flight manifest to the Ministry of the flight clearance approval. In addition to this, the entry point for the aircraft is Sepinggan Airport in Balikpapan. All operational and overhead costs shall be borne by the sending states.
   2. Tents (shelter kits)
   3. Water treatment
   4. Electric generators
   5. Any financial donation from the foreign government should be channelled through National Board for the Disaster Relief (BNPB, sic). It is suggested that the financial donation from the Red Cross and NGOs be addressed to the Palang Merah Indonesia (Indonesian Red Cross).

e. ASEAN Emergency Response and Assessment Team (ERAT) is in the most affected area of Palu City. ASEAN-ERAT has supported BNPB to setup a coordination centre for international assistance in the vicinity of Central Sulawesi Governor House at -0.90345, 119.88852. On-site coordination assessment meeting was held on 2 Oct 2018, 2100hrs led by BNPB and supported by ASEAN ERAT, with the participation from in country NGOs. During the meeting, it was reported that national partners have stated to collect data, hence a joint-analysis meeting is scheduled on 8 Oct 2018.

f. AHA Centre is mobilising 3 staffs on 4 October to standby in Balikpapan to support BNPB.
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). 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 308 aftershocks reported thus far.

![Figure 2 Anticipated risks due to aftershocks and potential landslide](image)

Regardles, due to recent compromised safety in North Sulawesi humanitarian partners may wish to internalise for their planning purposes. In addition, the AHA Centre will continue to monitor the situation in Indonesia with recent earthquakes in East Nusa Tenggara (NTT) and volcanic activities in Mount Soputan, Mount Anak Krakatau, and Mount Kerinci.
There are anticipated health risks that may pose more harm to vulnerable populations related to the health and epidemiologic situation in the affected areas. Among which are the proliferation of vectors such as mosquitoes and the diseases caused by these, unsafe water sources and endemic communicable diseases. Below are the anticipated health risks and recommended public health interventions for prevention and control:

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Proposed Interventions</th>
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</thead>
</table>
| For mosquito-borne diseases and risk of transmission:  
- Malaria  
- Dengue and Chikungunya, Zika | May include environmental management strategies to reduce or eliminate vector breeding grounds:  
- physical methods such as source reduction;  
- chemical methods of vector control - indoor residual sprays;  
- personal protection/preventive strategies that combine environmental management and chemical tools e.g. insecticide-treated nets (ITNs)  
For treatment, the WHO recommends artemisinin-based combination therapies (ACTs) for the treatment of uncomplicated malaria caused by *P. falciparum*. *P. vivax* is also prevalent and G6PD individuals should take note. Dengue and Chikungunya, Zika are self-limiting diseases but mosquito repellents are advised. Responders are to take note that mosquitoes transmitting malaria are night-biters with peak biting times between 10pm to 2am, while mosquitoes transmitting dengue, chikungunya and zika are dawn and dusk biters. |
<table>
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<tr>
<th>Diseases</th>
<th>Proposed Interventions</th>
</tr>
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</table>
| • Schistosomiasis  
People become infected when larval forms of the parasite – released by freshwater snails – penetrate the skin (open wound) during contact with infested water.  
Transmission occurs when people suffering from schistosomiasis contaminate freshwater sources with their excreta containing parasite eggs, which hatch in water.  
For treatment, the WHO strategy for schistosomiasis control focuses on reducing disease through periodic, targeted treatment with **Praziquantel** through the large-scale treatment (preventive chemotherapy) of affected populations. It involves regular treatment of all at-risk groups. Group targeted for treatment include entire communities living in highly endemic areas.  
Reference can be found [here](#). |  
• Long-term solution for water-borne diseases include access to safe drinking water and adequate sanitation, implementation of sustainable WASH interventions to ensure use of safe water, basic sanitation and good hygiene practices. Breastfeeding should also be promoted.  
• Treatment - Prompt administration of oral rehydration solution (ORS) to prevent dehydration. The WHO/UNICEF ORS standard sachet is dissolved in 1 litre (L) of clean water. Adult patients may require up to 6 L of ORS to treat moderate dehydration on the first day. With effective antibiotic therapy, clinical improvement occurs within 48 hours, resulting in a decreased risk of serious complications and death, shorter duration of symptoms, the elimination of Shigella from the stool and subsequently decreased transmission of infection.  
• WHO recommends vaccination to control endemic typhoid fever and for outbreak control. WHO further recommends that all typhoid fever vaccination programmes should be implemented in the context of other efforts to control the disease, including health education, water quality and sanitation improvements, and training of health professionals in diagnosis and treatment.  
• Zinc is an important adjunctive therapy for children under 5, which also reduces the duration of diarrhea and may prevent future episodes of other causes on acute watery diarrhea.  
• Reference can be found [here](#). |
| Water-borne infectious disease  
• Cholera  
• Dysentery  
• Typhoid  
These infectious diseases cause diarrhea which can lead to dehydration and even death if left untreated. Specifically, dysentery is characterized by diarrhea with blood, pus, and mucus and is usually accompanied by abdominal pain. Typhoid, on the other hand, as an acute illness is characterized by prolonged fever, headache and nausea, loss of appetite, and constipation or sometimes diarrhea. |  
| Air-borne infectious diseases  
• Diphtheria  
• Tuberculosis  
Both diseases are spread through air from person to person. Diphtheria particularly causes a thick covering in the back of the throat. It can lead to difficulty breathing, heart failure, paralysis, and even death.  
For Diphtheria: vaccination is recommended for infants, children, teens and adults to prevent diphtheria.  
For Tuberculosis  
• Mass evacuations and damage caused by major emergencies or disasters can make continuation of TB treatment very difficult. It is important that people who are receiving treatment for TB disease are able to continue their treatment, even if they are displaced temporarily or permanently by an emergency or disaster. |
### Diseases

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Proposed Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis (TB) symptoms</td>
<td>• Ensuring continuity of TB treatment during emergencies and disasters should be included as part of public health emergency preparedness planning.</td>
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<tr>
<td></td>
<td>• If possible, use respiratory control measures to reduce the risk of transmission in shelters.</td>
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<tr>
<td></td>
<td>o Encourage all shelter staff, volunteers, or individuals who are coughing to wear a mask.</td>
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<tr>
<td></td>
<td>o Provide disposable paper or cloth surgical masks to any symptomatic person.</td>
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<tr>
<td></td>
<td>o Separate those coughing until medically evaluated and found to be free of disease or are no longer contagious.</td>
</tr>
<tr>
<td></td>
<td>o Necessity of TB screening for staff and volunteers and clients</td>
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<tr>
<td>Leptospirosis (Leptospira)</td>
<td>Reference can be found here</td>
</tr>
</tbody>
</table>

Leptospirosis can be transmitted to humans through open wounds and abrasions of the skin, or through the mucous membranes of the eyes, nose and mouth with water contaminated with the urine of infected animals. Leptospirosis can occasionally also be transmitted through the drinking of water or ingestion of food contaminated with urine of infected animals, often rats. Human-to-human transmission occurs only very rarely.

There is a particular danger of getting leptospirosis when flooding occurs because of exposure to contaminated water when wading in floodwaters.

Treatment with antibiotics should be given as early in the course of illness as possible. Measures to prevent transmission of leptospirosis include the following:

- Wear protective clothing (boots, gloves, spectacles, aprons, masks)
- Cover skin lesions with waterproof dressings
- Prevent access to or giving adequate warning about water bodies known or suspected to be contaminated (pools, ponds, rivers)
- Avoid wading or swimming in potentially contaminated water.
- Wash or shower after exposure to urine splashes or contaminated soil or water
- Avoid or prevent urine splashes and aerosols, avoid touching ill or dead animals
- Strictly maintain hygienic measures during care or handle all animals
- Where feasible, disinfect contaminated areas (scrubbing floors in stables, butcheries, abattoirs, etc.)
- Consume clean drinking-water

### 3. ASSESSMENT OF DAMAGE, IMPACT, AND HUMANITARIAN NEEDS

a. As at 3 October, 1300 hrs local time, BNPB has confirmed 1,407 fatalities with over 2,549 injuries, 113 missing persons, 152 are requiring immediately rescue efforts. There are currently over 70,821 evacuees being housed in 141 evacuation sites. Note that these figures are still expected to rise.

b. To update the information from Situation Update #4, the figure below exhibits available images of earthquake and tsunami impact in Palu City. BNPB has received the images and confirmed a total of 65,733 houses damaged.

As can be seen in the figure below red boxes are potentially destroyed, 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.
Figure 4 Earthquake Damage Observation as of 30 September (Copernicus)
c. The AHA Centre highly consider 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 5 Initial Impact Analysis and Potential Needs]

<table>
<thead>
<tr>
<th>Caseload</th>
<th>INAC Thresholds and Standards</th>
<th>Total Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>191,000 persons with urgent needs</td>
<td><strong>Food:</strong> 2100 calories/ person/ day</td>
<td>401.1 million calories/day</td>
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<tr>
<td></td>
<td><strong>Water:</strong> 15 liters/ person/ day (max)</td>
<td>2.87 million liters/day</td>
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<tr>
<td></td>
<td><strong>Shelter:</strong> 3.5 square meters/ person (min shelter space per person)</td>
<td>668,500 square meters</td>
</tr>
</tbody>
</table>

h. Based on the WHO Indonesia Situation Update as of 30 September 2018, the potential basic needs include food, water, sanitation and hygiene (WASH), primary healthcare including first aid and psycho-social support, nutrition needs, medicines, feminine hygiene kits and non-food items. In addition, due to the large percentage of the population exposed to the shaking and the increasing casualties and injuries, mental health and psychological support are needed. The health system has also been made
vulnerable as one (1) hospital was severely damaged and is unable to cater to the needs of the population. Rapid Health Assessment is being conducted by Provincial and District Health Officers of the Ministry of Health.

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 make 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-c.

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

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

g. 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/](http://pusfatja.lapan.go.id/simba/gr/earthquake/Layout_Gempa_Palu_Donggala/)

h. 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](https://cloud.big.go.id/index.php/s/sxb9TESToDYT276)

i. 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 buried)
   - 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

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. 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'
c. ASEAN Emergency Response and Assessment Team (ERAT) is in the most affected area of Palu City. ASEAN-ERAT has supported BNPB to setup a coordination centre for international assistance in the vicinity of Central Sulawesi Governor House at -0.90345, 119.88852. Telecom Sans Frontier has reached the coordination centre and supporting ERAT.

d. 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. Data collection has started since 3 Oct 2018 by the various Humanitarian partners. Meeting for joint analysis will be conducted on 8 Oct 2018. Minutes of the meeting has been sent out to the partners on the ground by ERAT.

Figure 6 ASEAN-ERAT is in Palu – Coordination activities with Airport Authority and National Assisting Post (Pospenas) and preliminary ground assessment
Response by ASEAN Member States
Singapore
The Singapore Armed Forces (SAF) C-130 aircrafts have reach Balikpapan (BPN airport) as designated staging area for international assistance on 2 October 2018 late night. It brought humanitarian supplies and equipment, including tents, meal rations and medical supplies via two Republic of Singapore Air Force C-130 aircraft. Thereafter, the aircraft will continue to assist Indonesia with disaster relief efforts, such as the evacuation of civilians from the affected areas.

The Singapore Civil Defence Force (SCDF) has deployed two SCDF officers as part of the ASEAN-ERAT. The Singapore Government will also make a contribution of US$100,000 as seed money to kick start the public fundraising appeal by the Singapore Red Cross. The Singapore Government will continue work closely with the Indonesian Government in the delivery of our humanitarian assistance, and will be guided by the needs and priorities outlined by the Indonesian Government.

Response by ASEAN Dialogue Partner(s) (in alphabetical order)
The Government of Spain allocated EUR 300,000 for the response to the earthquake and tsunami in Palu, through the Spanish Agency for International Development Cooperation (AECID). The AECID would allocate EUR 200,000 to the emergency appeal made by the International Federation of the Red Cross (IFRC) through the Emergency Fund set up for this purpose, which would help to ensure the provision of basic needs and livelihoods of 160,000 people for six months. Another EUR 100,000 would be channelled through Save the Children International to assist the population affected by the disaster through the distribution of non-food materials and with measures aimed at the protection of children. The Government of Spain has also offered to the Indonesian authorities the shipment of humanitarian relief items from the Torrejón de Ardoz airbase.

Response by the United Nations and 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. Daily Press Briefing by the Office of the Spokesperson for the UN Secretary-General mentioned regarding the request from the Indonesian Ministry of Social Affairs for UNICEF to deploy social workers to the affected area to support separated and unaccompanied children. The briefing also mentioned that the World Food Programme (WFP) is supporting the Government in distributing emergency supplies and the WFP-operated United Nations Humanitarian Response Depot in Subang Jaya, Malaysia, is on standby for aid partners who wish to release their stocks.

c. United Nations, Emergency Relief Coordinator and Under-Secretary-General for Humanitarian Affairs, Mark Lowcock, announced on 2 October 2018 that UN has allocated USD 15 million from the Central Emergency Response Fund (CERF) to provide relief assistance for the affected communities in Palu.

d. International Organization of Migration (IOM) has allocated USD 200,000 from its emergency funds to kickstart an emergency response operation in Palu. On 2 October 2018, IOM Jakarta convened a meeting of the IOM-supported Indonesian National Cluster on Protection and Displaced Persons to further discuss the best ways forward in response to the disaster.
a. Direct Relief is in close contact with the AHA Centre with regards to their pre-positioned earthquake 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 also offered the Indonesian National Board for Disaster Relief (BNPB) an additional USD 30 million of medicine and health supplies from its available inventory.

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 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.

e. 12 members of Humanitarian Forum Indonesia (HFI), comprises of 136 people, are on the ground. The members include Muhammadiyah Disaster Management Centre (MDMC), Dompet Dhuafa (DD), Wahana Visi Indonesia (WVI), Yakkum Emergency Unit (YEU), PKPU Human Initiative (PKPU HI), Rumah Zakat (RZ), Lembaga Penanggulangan Bencana-Nahdathul Ulama (LPBI NU), Baznas, Rebana Indonesia, Habitat for Humanity Indonesina (HHI), Church World Service (CWS), Church World Service (CWS), and KARINA. Based on the Situation Report from HFI, the current response include preparation for rapid assessment and joint-needs assessment, medical services, WASH, foods, and non-food items distribution. The AHA Centre and OCHA are in contact HFI to explore possibility for sharing and consolidating data.

f. The Rapid Need Assessment by Yayasan Plan International Indonesia (YPII) is ongoing and the team have visited at least 3 affected location: Palu, Sigi and Parigi Montong. The RNA will be completed tomorrow. In addition, Plan will also share the result of RNA especially analysis on Child Protection and Gender component to the JNA lead by CRS and the other peer agencies. YPII will mobilise Non food items from Jakarta warehouse, at least 1,000 shelter kits (tarpaulin, rope, mat and blanket) and 1,000 hygiene kits to meet the sanitation needs of the affected people. The NFIs expected to arrive in Palu by next week. YPII also exploring potential partnership with other agencies for joint response and YPII will be focusing the response to meet and address the needs of girls, boys, young women, women including pregnant and lactating mother.

g. ACTED has deployed their regional emergency response experts to the affected area to provide advanced needs assessment and deliver vital assistance to the affected populations.

h. On 1 October 2018, four Action Against Hunger team members based in Indonesia has been deployed to Palu. Their primary focus was to support the local partner organisation to provide the most urgent needs required in the affected area.

i. Airlink has been actively working with the humanitarian relief organisations, namely ADRA International and NetHope in deploying their first wave of responders. Airlink covered the flight for the deployment of the responders using Cathay Pacific, Emirates, and Qatar Airways utilising the Airlink’s Disaster Response Fund. Airlink’s
Signature Lead Partner United Airlines also supported the vital response efforts through their MileagePlus program.

j. Association of Medical Doctors of Asia (AMDA), in correspondence with AMDA Indonesia, initiated relief activities as a joint effort between AMDA, the University of Muslim Indonesia and Hasanuddin University. On 1 October 2018, two doctors and two medical students from the aforementioned universities were deployed to Palu by boat to provide medical assistance.

k. Convoy of Hope has deployed a team to Palu on 1 October 2018. The team brought relief items such as water filters, solar lanterns and camping gear and if necessary, would purchase further relief items in Indonesia.

l. Malteser International has released a sum of EUR 100,000 for first relief measures to help people affected by earthquake and tsunami. On 2 October 2018, a team of three experts was deployed to Indonesia to discuss plans for emergency aid measures with the national authorities and the network of local humanitarian organisations in the country.

m. Muslim Aid UK has sent its Head of Mission and Humanitarian Coordinator to Palu, Indonesia to join three local partners (PKPU, Global Medic and Rumah Zakat) to assess the needs on the ground and to enable a rapid and effective response to the affected areas. Muslim Aid UK has been working through Yayasan Kemanusiaan Muslim Indonesia (YKMI) to support Global Medic in its response and has allocated GBP 50,000 for immediate use in the response.

n. On 1 October 2018, Peace Winds Japan (PWJ) staffs were deployed to the island of Sulawesi, Indonesia to begin the assessment on the situation and to identify the relief assistance required on the ground.

o. Telecoms Sans Frontieres (TSF) has continued their progression towards Palu and Donggala. The TSF’s vehicles transported satellite equipment that would provide Internet connections to support relief teams.

5. RECOMMENDATIONS AND PLAN OF ACTIONS

Recommendations on anticipated health risks
Recommendation on health emergency response, based on the latest and projected development in reference to past disaster experience:

a. To address, particularly the needs of the vulnerable groups on a daily basis, the basic needs such as food, water and shelter were computed, as an alternative, using the ASEAN ERAT INAC threshold and standards

b. Reinforcement of the health system to promote the prevention and control of communicable diseases in vulnerable areas and shelters

c. Promote the reinforcement of trauma healing support (psychological/ mental health support) especially in evacuation/ relocation sites

d. Given the increasing number of displaced or affected people that may be referred to shelters or evacuation/ relocation sites, provision of clean drinking water, food/ nutrition and water and sanitation facilities in evacuation/ relocation sites should be sustained. Close monitoring of public health and health indicators in these sites is necessary to prevent the occurrence of disease outbreaks.

e. On the increasing casualties, the inclusion of the management of the deceased in the response plan is essential. Cultural practices and needs of the family should also be given priority. Reinforcement of coordination among diverse teams of personnel (e.g. rescue personnel, forensic medicine experts, prosecutors, police, administrative personnel, psychologists, support teams) to manage the deceased will be necessary; reference can be found here.

f. Supplementation of the proper management may include international references to take into consideration the soil condition, water table level and available space. Among which, graveyards should be located at least 50 meters from the ground water sources used for drinking water, at least 500 meters from the nearest habitable
building or structure and in an area of at least 1,500 meters per 10,000 population. References can be found [here](#) and [here](#).
g. Indonesian 3M Plus approach to cut the life cycle of mosquito is also recommended, which includes to clean and brush water container/water storage once a week; to cover all domestic water storage; to reused or recycle the garbage such as: discarded food and beverage containers, used tires, plastic, bottle, can, etc.

**AHA Centre’s plans**
a. AHA Centre is dispatching staff to Balikpapan to support BNPB in managing logistics and incoming international assistance.
b. AHA Centre is mobilising reinforcement to the first-batch of ERAT on 4 October 2018. In addition, a second team being prepared for the following week.
c. AHA Centre will issue further situation update once information becomes available.

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**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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