

This situation update is provided by AHA Centre for the use of ASEAN Member States and relevant parties among ASEAN Member States. The information presented is collected from various sources including but not limited to ASEAN Member States, UN, IFRC, INGOs, & News Agencies.

1. HIGHLIGHTS

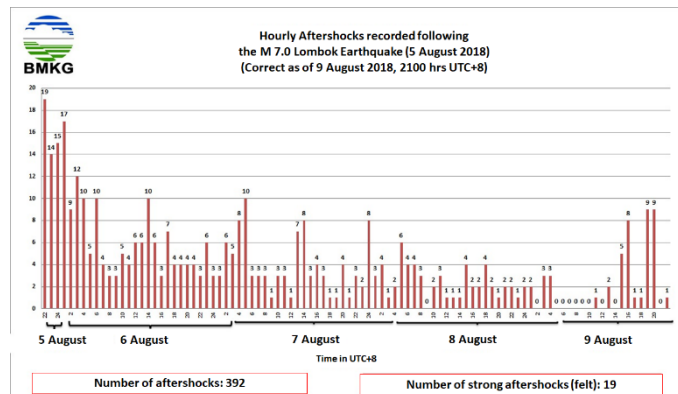
- a. A Magnitude 7.0 earthquake occurred on 5 August 2018 18:46 hrs (UTC +7), with epicenter at a depth of 10 km and located at 8°22'12.0" S & 116°28'48.00" E (inland), in the area of West Nusa Tenggara Province, Indonesia ([BMKG](#)). The earthquake was felt in Lombok, Bali and Sumbawa Island. A tsunami warning was triggered, which was cancelled after two hours since only minor tsunami was observed (BMKG).
- b. A strong aftershock, measured M 6.2, with epicenter located 8.36 S and 116.22 E, 12 km below ground surface. The intensity felt in North Lombok Regency (most affected area) was around III-VI MMI ([BMKG](#)).
- c. According to the latest government figure (9 August 2018), there are 259 recorded fatalities, 1,033 injuries, 270,168 internally-displaced people (IDPs), 64,534 damaged houses, and 429 damaged public facilities ([BNPB](#)).
- d. **The Government of Indonesia through the National Disaster Management Authority (BNPB) has strongly stated that international assistance is not required at this point of time.** BNPB has encouraged all line ministries to support monitoring of international stakeholders' activities. BNPB has also encouraged all national/local NGOs based in Indonesia not to invite their international partners. Those who already arrived will be put on hold and cannot implement any of their activities until further notice. Current emergency response period is until 11 August 2018.
- e. Initial sectoral damage and impact assessment activities are being undertaken by various national government agencies and organizations. Several crowd-source efforts to support assessment of damages and humanitarian needs are also available, which will be verified by BNPB and partners on-site.
- f. The AHA Centre is in close coordination with the BNPB of Indonesia and providing support on information management and dissemination of information to regional and international stakeholders both at headquarter and field levels. This includes inclusion of official National Disaster Management Authority (BNPB) statement into the AHA Centre Situation Update.
- g. The AHA Centre In-Country Liaison Team (ICLT) arrived on 6 August 2018 to establish communication on-site with BNPB and provide coordination support. All ASEAN Emergency Response and Assessment Team (ERAT) members arrived on 8 and 9 August 2018. While BNPB has welcomed ASEAN-ERAT, their primary deployment purpose is to learn from Indonesia on its experience in managing the disaster and get exposure on the ongoing emergency response operation.
- h. The AHA Centre flash updates on this disaster can be found here: <https://ahacentre.org/flash-updates/> while series of situation updates can be found here: <https://ahacentre.org/situation-updates/>

2. SUMMARY OF EVENTS, FORECAST, AND ANTICIPATED RISK

- a. Indonesian Meteorology, Climatology and Geophysics Agency (BMKG) provides an infographic for general public (as can be seen below, in *Bahasa Indonesia*) on the characteristics of earthquakes in Lombok. The phenomena observed is a set of series of foreshocks, main shock, and aftershocks occurred along one back arc system, with similar mechanism and relatively near epicentre location. BMKG estimated that according to aftershocks recorded until 8 August 2019 processed with Mogi 1 equation, the trend of tremors in Lombok will decrease in 3-4 weeks' time. Accordingly, responders on the ground must maintain their preparedness to strong aftershock and BMKG's recommendation is provided in Section 5 of this Situation Update.



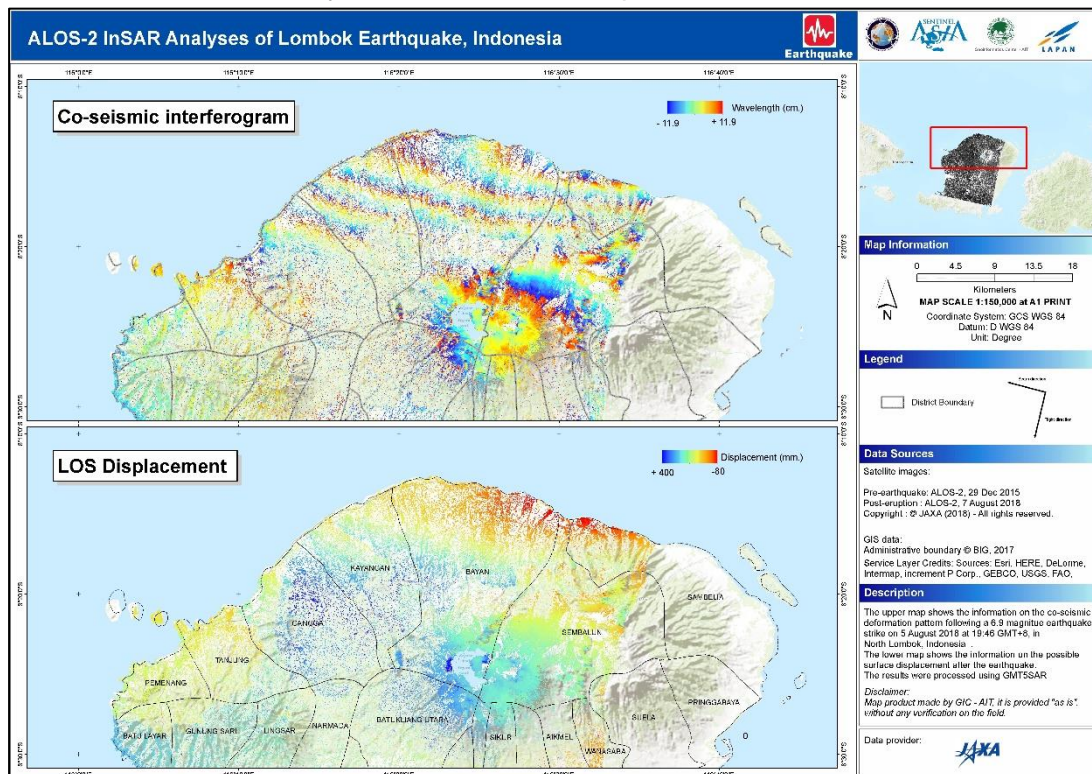
- b. As can be seen on the right figure, until 9 Aug 2018 (2100 hrs UTC+8), [BMKG](#) recorded 392 aftershocks following the M 7.0 earthquake on 5 August 2018, 1846 hrs (UTC+7), with 19 of them were felt due to moderate shaking ($\geq M$ 4.5). These aftershocks may become additional risk to crippled buildings, responders, affected population houses and infrastructures. The latest one was M 6.2 earthquake, with epicenter located 8.36 S and 116.22 E, 12 km below ground surface. The intensity felt in North Lombok Regency (most affected area) was around III-IV MMI ([BMKG](#)).



- c. It is currently hot and dry in Lombok, Bali and Sumba islands. A drought occurrence has been identified in Lombok and Sumbawa islands of West Nusa Tenggara (NTB) Province since rainfall record is only around 0-20 mm. The total needs of clean water for affected population should be projected by considering the rainfall pattern. Figure on the right showcases the rainfall accumulation across the affected areas ([AHA Centre DMRS](#)).



- d. Upon activation of Emergency Observation through Sentinel Asia Platform through AHA Centre, InSAR analyses of Lombok Earthquake is now available, below.



3. ASSESSMENT OF DAMAGE, IMPACT, AND HUMANITARIAN NEEDS

- a. As of 9 August 2018, BNPB's casualties and damage information can be found in the table and infographic below. There are 259 fatalities confirmed, 1,033 injuries, 270,168 people injured. In addition, 64,534 damaged houses and 429 damaged facilities are confirmed. Focus of operations remains in West, North and East Lombok.



- b. Following the activation of Sentinel Asia platform and Disaster Charter, at least three remote damage assessment activities through aerial survey and satellite observation have been completed: 1) by Indonesian agencies (BNPB, BIG, BPPT, and PVMBG) following the M 6.4 earthquake (upper-left figure); and 2) by UNITAR-UNOSAT following the M 7.0 earthquake (upper-right); and 3) Regional Service of Image Processing and Remote Sensing (SERTIT) (bottom). Higher resolution images are available in the attachment. Until 9 August 2018, UNITAR-UNOSAT managed to add additional one imagery from the Gili Trawangan, Gili Meno and Gili Air, where tourists are concentrated. In addition, SERTIT managed to analyze additional imagery for Salangan Village, Kayangan District, North Lombok Regency. Both additional images can be found below (upper side, UNITAR-UNOSAT; lower side, SERTIT), while the previous ones can be found in [AHA Centre Situation Update No. 2](#).

Accordingly, 9 out of total 52 villages affected have been assessed remotely with around 2,788 buildings potentially damaged. Accordingly, scaling up assessment areas and ground verification efforts are required. Those villages (except for Gili Indah) were also identified by BNPB as isolated areas and requiring immediate assistance.

Remote Assessment activities	Observed areas	Results
Aerial survey by BNPB, BIG, BPPT, and PVMBG	Regency: East Lombok District: Sambalia Village: Mentareng, Obel-obel	129 damaged buildings, out of total 287 (44.9%)
	Regency: East Lombok District: Sambalia Village: Pemadekan, Obel-obel	34 damaged buildings, out of total 165 (20.06%)
	Regency: East Lombok District: Sambalia Village: Obel-obel, Obel-obel	18 damaged buildings, out of total 116 buildings (15.5%)
Damaged assessment based on Satellite-observation UNITAR-UNOSAT	Regency: North Lombok District: Kagayan Villages: Gumantar and Dangi	UNITAR-UNOSAT analysis identified 1,274 potentially damaged structures in the area.
	Regency: North Lombok District: Pemenang Village: Gili Indah (three Gili islands)	UNITAR-UNOSAT analysis identified 15 potentially damaged buildings and 6 potentially gathering sites in Gili Indah village
Government of France, Regional Service of Image Processing and Remote Sensing (SERTIT)	Regency: North Lombok District: Salangan Villages: Bagek Gembar, Lokok Sutrang	1,033 damaged buildings detected, with additional 268 buildings potentially damaged
	Regency: North Lombok District: Kayangan Villages: Salangan	Approximately 70 'very affected' buildings and 230 'affected' buildings. The imagery also managed to identify 'spontaneous gathering area' that may be indicates an evacuation site





- c. In education sector, according to the data received from the Ministry of Education and Culture (MoEC) on 9 August 2018, three fatalities of students are confirmed; along with 56 students injured, and 3,639 students and teachers displaced. A total of 263 schools were damaged; i.e. 55 in West Lombok Regency, 81 in North Lombok Regency, 123 in Central Lombok, 53 in East Lombok Regency, 42 in Mataram City, 2 in West Sumbawa, and 5 in Karangasem, Bali. MoEC infographic available below.





4. ACTIONS TAKEN AND RESOURCES MOBILISED

Response by Government of Indonesia

- Incident Command Post(s) have been established by the local disaster management organisations (BPBDs) on scene. BNPB has established National Assisting Post (Pospenas) in Tanjung District, North Lombok Regency, (8°22'12.0" South & 116°28'48.00" East). Indonesian Armed Forces is opening a post in Halim Perdanakusuma Airport for receiving relief items and resources, and sending them to Lombok.
- BNPB, related BPBDs, Indonesian Armed Forces, Indonesian Police, and other line ministries continue search and rescue activities, and basic emergency support. In total BNPB has sent 21 tons of relief items to the affected areas.
- The Ministry of Education and Culture has distributed 61 temporary school tents (22 constructed), 63 boxes of school packages, 60 recreational packages, 10 boxes school kits, and 1,000 uniforms. Education Agency of West Nusa Tenggara Province (NTB) released circular letter of the resumption of school activities starting from 9 August 2018. The agency provides guideline on the activities, including trauma healing.
- [The Indonesian postal office](#) announces that it is offering free shipping service for relief items for the victims of Lombok earthquake. Users can send up to 20kg per shipment and can send multiple shipment. Users can send the relief items to the address KP Mataram or to "Posko".
- Ministry of Communication and Information has provided additional VSAT connectivity in West Lombok Regency Command Post (source: AHA Centre ICLT).



Response by the AHA Centre

- a. The AHA Centre is in close coordination with the BNPB of Indonesia and providing support on information management and dissemination of information to regional and international stakeholders both at headquarter and field levels. This includes inclusion of official BNPB products and information into the AHA Centre Situation Update. The AHA Centre ICLT was dispatched by the AHA Centre to Lombok Island on 6 August 2018 for supporting on-site coordination.
- b. All ERAT members have arrived on-site 9 August 2018. While BNPB has welcomed ASEAN-ERAT, their primary deployment purpose is to learn from Indonesia on its experience in managing the disaster and get exposure on the ongoing emergency response operation.



ASEAN-Emergency Response and Assessment Team (ERAT) is on the ground and observing the operations coordinated by BNPB

Response by National Humanitarian Partners

- a. Based on the data received on 9 August 2018, there have been several additions of assistance from the following humanitarian partners:
 - Aksara has provided WASH support at Gangga District



- Arbeiter Samariter Bund (ASB) Indonesia has conducted needs assessment for person with disabilities at Gunung Sari District
 - Islamic Relief has dispatched food, non-food items, drinking water at Tanjung District, North Lombok Regency
 - Nahdlatul Ulama Disaster Management and Climate Change Adaptation Organisation (LPBI NU) has conducted assessment, dispatched medical assistance, food, shelter and drinking water at Sambelia district, Sembalun district, Pemenang district, Gangga district, Lingsar district and Gunungsari district
 - Mercy Corps Indonesia has conducted assessment at Suela district, Sembalun district and Sambalia district.
- b. Accordingly, until 9 August 2018 there are 17 Indonesian-based national/local NGOs: Indonesian Red Cross (PMI), Plan Indonesia, Yakum Emergency Unit (YEU), Dompot Dhuaafa, ADRA, Muslim Aid, Oxfam, Baznas, Yayasan Sayangi Tunas Cilik (YTSC / Save the Children), Wahana Visi Indonesia (WVI), PKPU Human Initiative, Muhammadiyah Disaster Management Centre (MDMC), Aksara, Islamic Relief Indonesia, ASB, LPBI-NU, and Mercy Crops Indonesia. As shared during national cluster on protection coordination meeting their activities ranging from assessment, distribution of food, non-food-items, WASH assistance, etc. Overall, the assistance able to reach 25 villages (out of 52) in North Lombok and East Lombok Regency.
- c. The AHA Centre is providing initial 3W Map of the national NGOs movement that can be found in the attachment part.

5. RECOMMENDATIONS AND PLANNED ACTIONS

Recommendations to be considered by humanitarian partners

- a. Due to seismic hazard characteristics in the affected areas, as described in Section 2, humanitarian partners and responders should exercise cautions during their operations, prepare and implement a security plan, and be alerted to potential collateral disasters.
- b. BMKG advised the general public on the possibility of additional collapsed building due to its condition after series of strong tremors. It may best not to stay in crippled houses and buildings for time being.
- c. Safety of humanitarian workers has to be ensured due to identified security risk of looting on the ground.
- d. Disaster responders and humanitarian workers have to ensure safe evacuation sites, preferably outdoor in a solid ground, in anticipation of aftershocks or landslides.
- e. With the current and near-future availability of satellite imageries and aerial survey, it can be used for on the ground validation and assessment of building damages and need of rehabilitation and reconstruction. Please also refer to planned actions by AHA Centre and ASEAN-ERAT, for reference by other humanitarian partners.
- f. Local/national humanitarian organisations may wish to maintain information sharing and assistance tracking available in [this page](#).
- g. Recommendation on health emergency response, based on the latest and projected development in reference to past disaster experience.
 - Promote the reinforcement of trauma healing support (psychological/ mental health support) especially in evacuation/ relocation sites
 - 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.
 - 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. Further:



- 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: [here](#).
- 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. Reference can be found [here](#) and [here](#).



Example of temporary burial of dead bodies in Thailand following the tsunami disaster on 26 December 2004

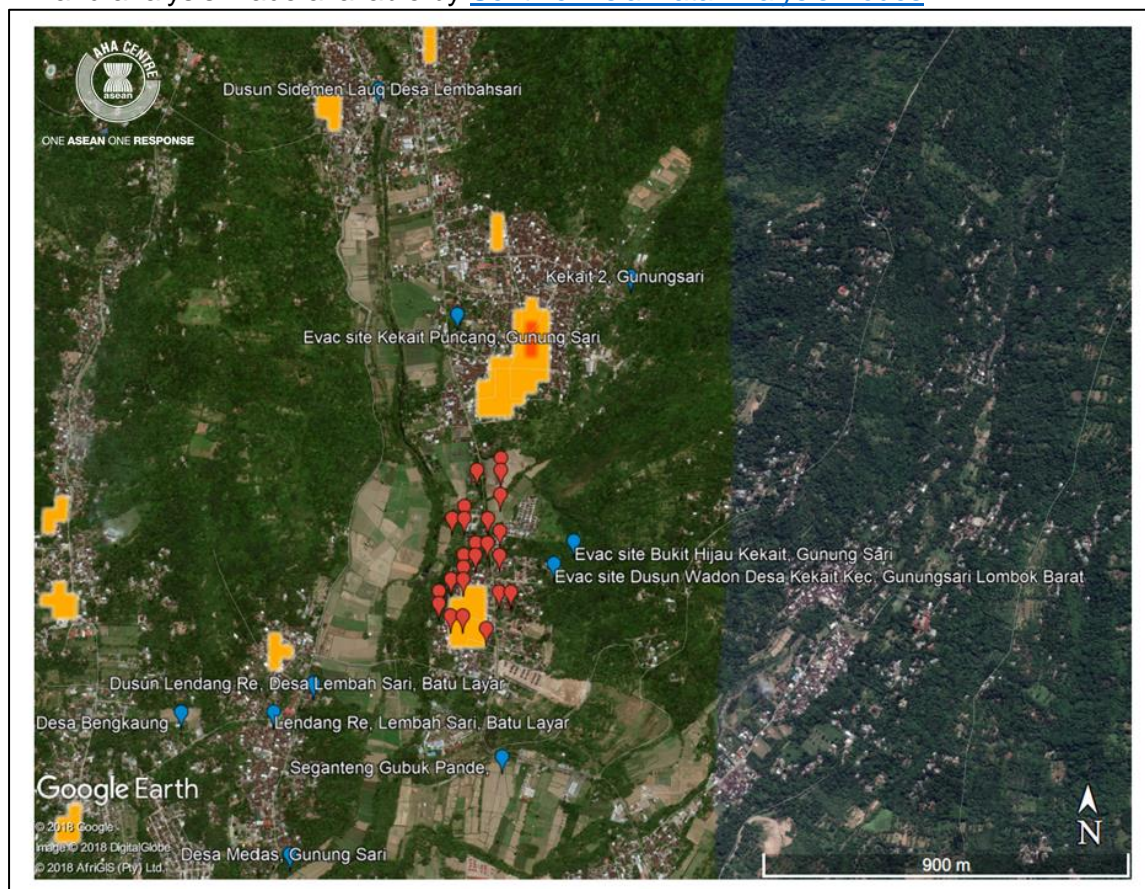
- As reported on the potential risk of exposure to asbestos, damage to material containing asbestos can result in the release of small asbestos fibres that become airborne and are readily inhaled. Although asbestos is not acutely hazardous to health, the asbestos fibers can remain in the lungs for a long period of time causing diseases such as asbestosis and lung cancer. Reference can be found [here](#). Preventive measures can be taken are as follow:
 - As a minimum measure, provide workers with gloves, goggles, disposable clothing or replacement clothing and disposable dust masks. Contaminated clothing and protective equipment should be disposed of in the same way as other asbestos-containing materials. Provide washing facilities for workers and ensure that they are aware of the need to wash before eating, drinking or smoking and before returning home to minimise the risk of spreading asbestos fibres.
 - In the communities, do restrict access to sites where there are piles of building debris including demolition sites and waste sites. Clean surfaces contaminated with asbestos-containing materials using wet methods. Do not dust or sweep because this will propel fibres and dust into the air. Keep piles of asbestos-containing materials covered such as tarpaulins or sheets of plastic until they can be safely stored or disposed of. Wet thoroughly before moving the materials. Reference can be found [here](#).

Planned actions by AHA Centre and ASEAN-ERAT

- a. The AHA Centre is seconding staff to BNPB's Data and Information Centre (*Pusdatin*) for supporting dissemination of official information to international stakeholders.
- b. According to latest coordination with BNPB's post in West Lombok Regency, ASEAN-ERAT will observe assessment and verification of damages and evacuation sites in Batu Layar and Gunung Sari districts. The suggested process of verification can be combine the available [crowd-source report](#), on-site verification to areas with potential damages as analysed through satellite observation, and combined with ground verification by responders. This can be done through the following steps and illustration below, which will be conducted by ASEAN-ERAT:
 1. Verify location and situation of evacuation sites in both districts (blue points)
 2. Verify reported damages (red points) that already triangulated with satellite observations (orange / red areas)

3. Visit and onsite verification of areas identified with potential damages (according to satellite imagery analysis); and contribute ground photos / observation

ASEAN-ERAT will conduct verification to sites identified through satellite-imageries and analysis made available by [Sentinel Asia-Data Analysis Nodes](#).



- c. The AHA Centre will provide further updates as situation progresses and more information is available.

Prepared by:

AHA Centre - Emergency Operations Centre (EOC) in collaboration with BNPB's Data and Information Centre (*Pusdatin*)

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ABOUT THE AHA CENTRE

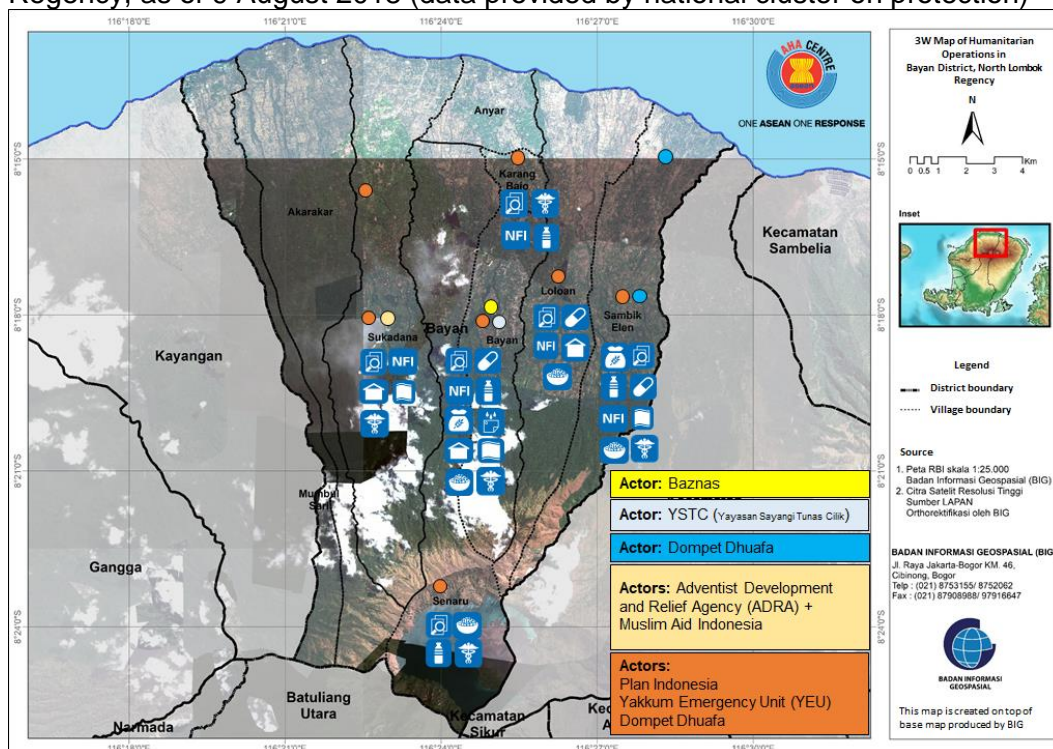
The AHA Centre - ASEAN Coordinating Centre for Humanitarian Assistance on disaster management - is an inter-governmental organisation established by 10 ASEAN Member States – Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam - to facilitate 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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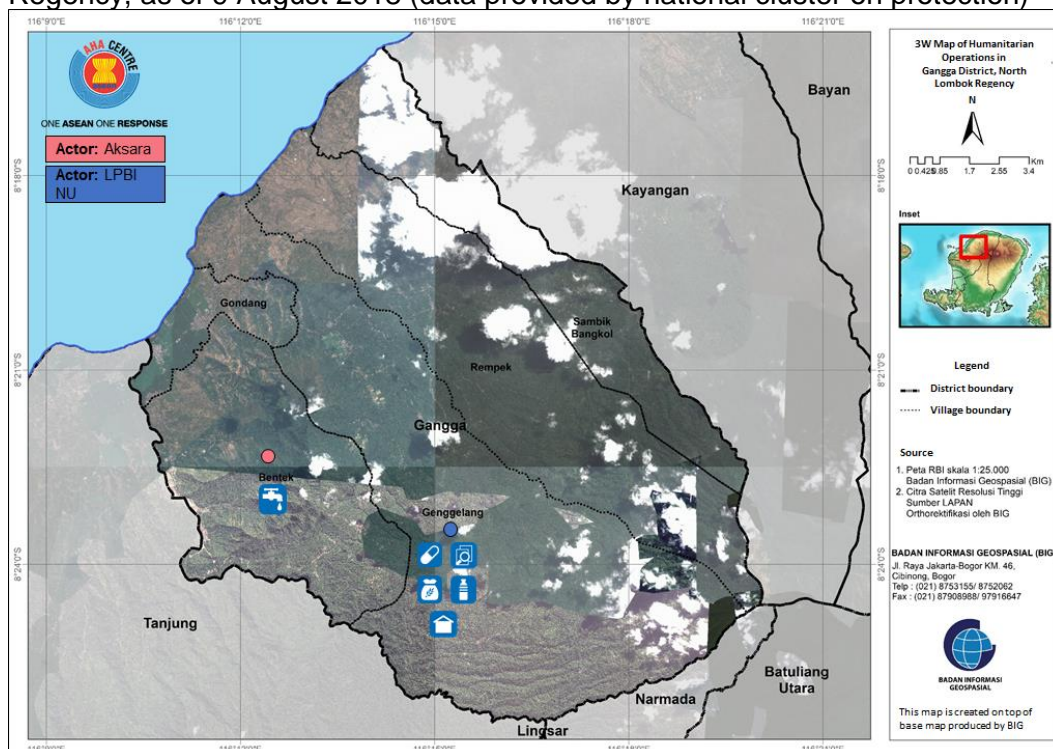


Attachment

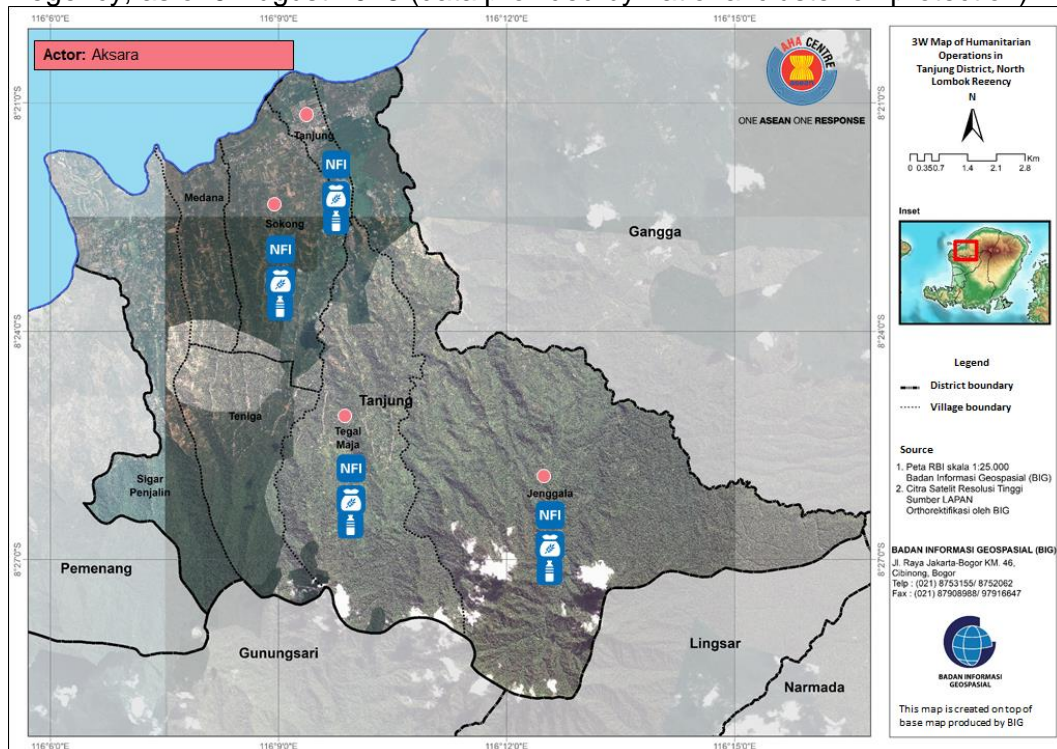
- a. National NGOs humanitarian operations / 3W Map in Bayan District, North Lombok Regency, as of 9 August 2018 (data provided by national cluster on protection)



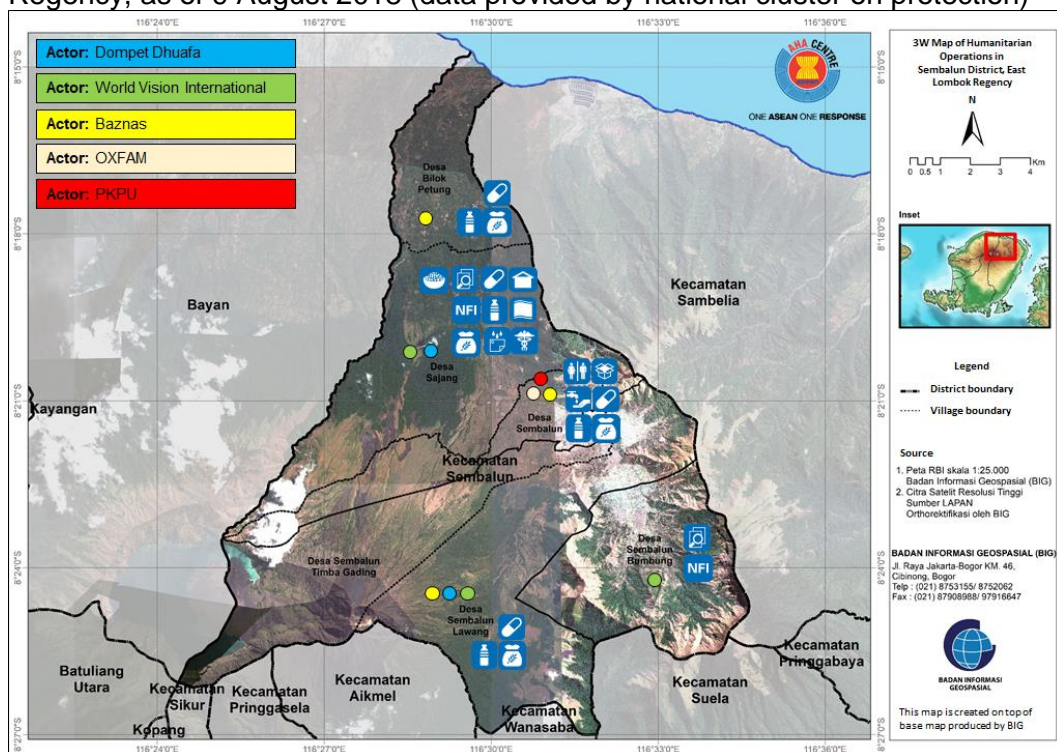
- b. National NGOs humanitarian operations / 3W Map in Gangga District, North Lombok Regency, as of 9 August 2018 (data provided by national cluster on protection)



- c. National NGOs humanitarian operations / 3W Map in Tanjung District, North Lombok Regency, as of 9 August 2018 (data provided by national cluster on protection)



- d. National NGOs humanitarian operations / 3W Map in Sembalun District, East Lombok Regency, as of 9 August 2018 (data provided by national cluster on protection)



- e. National NGOs humanitarian operations / 3W Map in Sambelia District, East Lombok Regency, as of 9 August 2018 (data provided by national cluster on protection)

