

# Papua New Guinea: Highlands Earthquake

## Situation Report No. 9

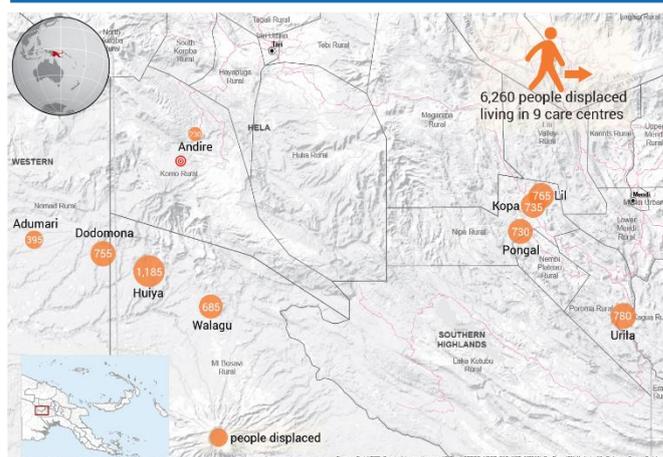
7 May 2018

This report is produced by the National Disaster Centre and the Office of the Resident Coordinator in collaboration with humanitarian partners. It was issued by the Disaster Management Team Secretariat and covers the period from 17 to 30 April 2018. The next report will be issued on or around 15 May 2018.

## Background

- 270 000 people in need of assistance across four provinces of Papua New Guinea's highlands.
- 42,557 people (11,041 households) remain displaced in nine care centres and affected communities.
- From 21-22 April, 32.5 MT of food were distributed by humanitarian partners in Urila, Lil, Kopa, Ponga/Merep in Southern Highlands Province.
- 4,055 people reached with shelter kits in Southern Highlands, Hela and Western provinces, and 28,217 people reached to date with shelter related non-food items in the three provinces.
- 71 community mobilizers trained on providing psychosocial support.
- Total estimated cost of rehabilitating damaged social infrastructure – primarily health and education facilities in three provinces – is US\$105 million.

### INTERNALLY DISPLACED PEOPLE



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.  
Source: NSO, IOM  
Creation date: 4 May 2018

**270,000**

people in need of assistance

**\$62 M**

funding required

**32.5 MT**

metric tons of food assistance distributed

**28,217**

people reached with shelter-related NFI support

**683**

hygiene kits distributed

## Situation Overview

On 26 February 2018, a 7.5 magnitude earthquake hit the Highlands Region of Papua New Guinea (PNG), affecting an estimated 544,000 people in five provinces – Enga, Gulf, Hela, Southern Highlands and Western provinces, with Hela and Southern Highlands the most affected. More than 270,000 people, including 125,000 children, have been left in immediate need of life-saving assistance. Since the initial 26 February earthquake, at least 202 aftershocks have occurred, of which six were of a 6.0 or greater magnitude.

A partial assessment of key social infrastructure (primarily focusing on health and education facilities) in Hela, Southern Highlands and Western provinces was commissioned by the Australian Government on behalf of the National Department of Works. The completed assessment concluded that total estimated cost of rehabilitating assessed social infrastructure across the three provinces is approximately AUD 140 million (USD 105 million). The assessment does not include rehabilitation of road infrastructure, which is estimated by the Government to cost approximately PGK 100 million for earthquake-affected sections of the Highlands Highway.

A mobile Vulnerability Assessment Mapping (mVAM) survey was conducted from 22 March to 12 April 2018. The results indicate that 14 per cent of 1,534 households contacted in affected areas were displaced in the wake of the 7.5 M earthquake. The survey further showed that households in nine of 31 Local Level Governments (LLGs) surveyed experienced high or extreme food shortages, with the destruction of food gardens in these areas removing the main livelihood and food supply source for the majority of people.

+ For more information, see “background on the crisis” at the end of the report

The latest tracking figures available from the Displacement Tracking Matrix (DTM) implemented as part of the Shelter/CCCM Cluster response, indicate that 11,041 households (42,577 people) remain displaced due to the earthquake, of which 1,252 households (24 per cent) are displaced in nine care centres while 9,789 households remain within their communities. The number of people registered as staying in care centres continues to fluctuate, and the overall number of affected communities may rise as new assessments are carried out.

More than 80 per cent of health facilities in Hela and Southern Highlands (69 of 86) are open and functional, but 13 of these health facilities sustained severe structural damage that continues to pose serious occupational threats to all users. Refurbishment of earthquake related structural damages remains a challenge. In particular, 55 per cent of health facilities urgently need access to safe water sources.

To date, the local health system has handled 6,608 consultations. Among them, 42 cases were triggered by disease alerts reported through the Early Warning Alert and Response System (EWARS) and provincial health emergency operations centres, of which 26 per cent were verified. In addition, a total of 181 cases of gastrointestinal and diarrheal diseases were reported from nine health facilities in Hela and SHP. The recent mVAM findings indicated 70 per cent of respondents reported children suffering illness in their community. The most frequently reported illness was diarrhoea / dysentery / vomiting / stomach problems. Other highly reported illness types included coughing / tuberculosis / respiratory problems, suspected malaria and fainting / dizziness. A mass vaccination campaign will be launched on 7 May covering all children under five years of age in five districts of Southern Highlands Province: Lalibu Pangia, Imboggu, Kagua Erave, Mendi Munihu, and Nipa Kutubu.

On 30 April, the DMT endorsed the Code of Conduct for Humanitarian Workers and agreed that it should be implemented across the DMT membership.

Since 28 March, most humanitarian programmes in and around Tari, the provincial capital of Hela province, have been suspended due to increased tension and inter-communal fighting. Many partners have temporarily relocated humanitarian staff to other locations, including to the Southern Highlands provincial capital, Mendi, in view of the situation. Humanitarian partners are planning to reassess the security situation in Hela with a view to recommence implementation of relief activities.

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## Funding

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On 28 March, the Disaster Management Team (DMT) issued the Highlands Earthquake Response Plan, which seeks US\$ 62 million to provide life-saving assistance and help re-establish basic services for 270,000 people in need of immediate assistance due to the 26 February 2018 earthquake and subsequent aftershocks and landslides. It also aims to help restore livelihoods of affected people and ensure protection services for the most vulnerable.

As of 30 April 2018, humanitarian funding for the Highlands Earthquake response was \$15 million, according to OCHA's Financial Tracking Service (FTS), including \$9.2 million mobilized from the UN Central Emergency Response Fund (CERF), of which some \$3.2 million is for food assistance; \$1.3 million for health; \$1.3 million for nutrition; \$1.25 million for WASH; \$1 million for shelter; \$605,000 for protection; and \$485,000 for coordination of logistics and security.

The International Federation of Red Cross and Red Crescent Societies (IFRC) also released a Disaster Response Emergency Fund (DREF) plan that mobilized CHF 209,398 (approximately US\$ 220,000) to support 3,000 people affected by the earthquake with life-saving assistance in the areas of shelter, health and WASH. On 23 April, the Japan-Papua New Guinea Association donated PGK21,370 (approximately \$6,450) to the Papua New Guinea Red Cross Society.

Overall, funding and in-kind contributions for the earthquake response reached over \$61.5 million through bilateral and multilateral channels as of 30 April, according to various sources including media reports. Key donors include eight UN Member States – Australia, Canada, China, France, Israel, Japan, New Zealand, and the United States – as well as the European Union. The majority of contributions to date, however, have come from the private sector (approximately \$43 million) directly to support Government response efforts, with large commitments from Bank South Pacific Group, ExxonMobil, Kumul Petroleum Holdings, Oil Search, Ok Tedi Mining Limited (OTML), and Porgera Joint Venture.

# Humanitarian Response



## Early Recovery

### Needs:

- Rehabilitation of damaged social infrastructure in earthquake-affected provinces.

### Response:

- The partial assessment of social infrastructure (primarily focusing on health and education facilities) in Hela, Southern Highlands and Western provinces was commissioned by the Australian Government on behalf of the National Department of Works. The completed assessment concluded that total estimated cost of rehabilitating assessed social infrastructure across the three provinces is approximately AUD140m (USD105m).
- To enable longer term recovery and inclusion in provincial development planning, the UN is planning to support the development of provincial recovery plans for SHP and Hela.
- Key private sector companies operating in the earthquake-impacted locations are developing recovery planning for the areas they have pledged to assist. Efforts are underway to coordinate these plans with other parties.

**\$105 M**

assessed cost to rehabilitate damaged social infrastructure

### Gaps & Constraints:

- A government-led recovery-focused coordinating mechanism has yet to be established with government recovery and restoration plans are yet to be made available.
- Data from the health sector on the status of health facilities and gaps in health service provision needs to be integrated with findings from the social infrastructure assessment to provide a more complete picture of health facilities in the affected provinces.
- Recovery programming will require inclusion of government housing as the current shelter recovery approach is focused on affected community housing. This has implications on critical government workers within the health and education sector.
- A recovery-specific intervention may be required to support communities displaced by conflict.



## Education

### Needs:

- According to the National Department of Education (NDoE), 15,726 students in 105 assessed schools have had their access to education affected by the earthquake, with five of the affected schools completely damaged and 100 partially damaged.
- The DMT response plan targets 10,000 children whose access to schooling has been affected by the earthquake.
- Priority response activities include:
  - Setting up safe temporary learning spaces (STLS), and ensuring water and sanitation facilities in them;
  - Providing psycho-social support to school children and teachers;
  - Raising awareness on earthquake preparedness, sanitation and hygiene;
  - Providing teaching and learning materials, as well as recreational kits.

**60**

schools-in-a-box ready for distribution

### Response:

- 60 schools-in-a-box arrived in Mendi on 21 April 2018 for which a distribution plan for 46 affected schools has been developed.
- To date, 17 schools in Southern Highlands have been supported with education materials and training for teachers on psychosocial aspect and use of distributed school-in-a-box.
- Identification of more sites for establishment of STLS and Child-Friendly Spaces (CFS) is ongoing.

### Gaps & Constraints:

- Planning and coordination with the NDoE and the Provincial Departments of Education in Hela and Southern Highlands needs to be strengthened, and their response plans shared with supporting partners.
- The situation in Hela continues to limit the movement of partners and staff to deliver services in affected schools.
- Training and implementation of STLS and CFS is dependent on pipeline of required supplies.



## Food Security & Livelihoods

### Needs:

- An estimated 153,000 people will require food assistance due to loss of staple food crops following damage to gardens, while damaged roads have reduced access to markets.
- The latest mobile Vulnerability Assessment Mapping (mVAM) report indicates that up to 64,000 people were experiencing conditions of extreme food insecurity before the earthquake event, with reports of children eating one meal a day (mainly “kaukau” or sweet potato).
- Priority response activities include:
  - Supplying relief food;
  - Providing farming supplies, seeds and planting materials;
  - Training for farmers and households

**32.5MT**

food assistance  
distributed

### Response:

- From 21-22 April, humanitarian partners distributed 32.5 MT of food including to 2,970 people (1,550 males and 1,420 females) in Urila, Lil, Kopa, Ponga/Merep in the Nipa Kutubu District, Southern Highlands Province. The food distributed consisted of food baskets (1-month supply of rice and tinned fish) and initial rapid response rations of high energy biscuits (1 weeks' worth),
- Additional distributions have been planned for households in Huiya, Walagu and Dodomona in Southern Highlands province.
- WFP conducted a mobile Vulnerability Assessment Mapping (mVAM) survey from 22 March and 12 April 2018. The results indicate that 14 per cent of 1,534 households contacted in affected areas had been displaced in the wake of the 7.5M earthquake. The mVAM further showed that households in nine of 31 Local Level Governments (LLGs) surveyed experienced high or extreme food shortages, with the destruction of food gardens in these areas removing the main livelihood and food supply source for the majority of people. Recovery efforts should prioritize re-establishment of food gardens to minimize detrimental effects on food security.
- Plans are being developed to provide seeds/cutting and tools to earthquake-affected families to agriculture recovery.

### Gaps & Constraints:

- Some partners report that most of the affected people at the care centres and communal hubs are there because of fear and not for food.
- Generally, earthquake-displaced people report that they want to move back to their villages but need early maturing crop seeds and planting materials and tools to restart their gardens.
- Tracking and targeting of food assistance distributions needs to be strengthened, and the protection needs of girls, women, boys and men need to be considered in planning and implementing food distributions. To prevent conflict between community members, there needs to be strengthened community engagement with community leaders, so they can support the coordination of distributions.



## Health and Nutrition

### Needs:

- Access to healthcare for 544,000 earthquake-affected people needs strengthening due to damage to health facilities.
- Over 31,008 children aged 6-59 months require screening for Severe Acute Malnutrition (SAM).
- Priority response activities include:
  - Strengthening health sector coordination at national and provincial levels;
  - Restoring primary health services by repairing damaged health facilities, replenishing medical supplies, and conducting integrated community health outreach;
  - Restoring maternal and new-born health services;
  - Restoring the cold chain and integrated outreach for immunizations to prevent the spread of vaccine preventable illness;
  - Activating an emergency surveillance and response system;
  - Addressing post-disaster mental health and providing post-trauma counselling and psychosocial support.
  - Community-level malnutrition screening for early case identification and referral;
  - Procuring and distributing therapeutic foods and associated equipment for targeted management of severe acute malnutrition (SAM) cases;

**6,608**

health consultations  
received

- Training service providers and volunteers on SAM and infant and young child feeding.

#### Response:

- Reporting and remote monitoring of health events and potential disease outbreaks in Hela and Southern Highlands provinces is ongoing via the Early Warning Alert and Response System (EWARS) and provincial health emergency operations centres (EOCs). As of Week 16, 6,608 consultations were received through the health system. Among them, 42 alerts of diseases were reported by the EWARS of which 26.2% were verified.
- To date, 1,416 children under 5 years have been vaccinated against Measles-Rubella (MR) while 724 infants have received Pentavalent vaccinations, and 580 infants received PCV across Southern Highlands and Hela provinces.
- Accelerated vaccination is due to begin on 7 May covering all children under 5 years in all five districts in Southern Highlands province (Mendi, Nipa Kutubu, Lalibu Pangia, Imboggu, Kagua Erave). This includes increased vaccination and immunization coverage for 543 children (from 6-59 months) who will receive MR vaccination.
- 41 vaccine refrigerators (Solar Direct Drive for H/F's and Electric for Provincial vaccine store) have been procured by various partners to replace damaged cold chain equipment (CCE) in Southern Highlands Province.
- To date, 62 children (6-59 months) have been screened of which two were treated for Severe Acute Malnutrition (SAM) while 855 children (6-59 months) have been provided with vitamin A supplements since the response.
- 56 community health workers received orientation on screening and management of SAM during the reporting period.

#### Gaps & Constraints:

- Delivery of relief supplies and medicines to affected areas and care centres, as well as health workers reaching emergency shelters to provide health services, remains logistically challenging, including due to the security situation.
- Displaced local health workers require support to rebuild homes and families.
- To date, children in Hela province have not been able to access nutritional services due to the security situation.



## Logistics

#### Needs:

- Repair and rehabilitation of earthquake-damaged transportation infrastructure, including airfields, bridges and access roads.
- Sustainable last-mile transport arrangements to hard-to-reach and remote locations.
- Strengthened coordination to facilitate access to humanitarian logistics capacities provided by the Government, bilateral donors (including foreign military assets) and private sector companies.
- Priority common logistics services to be provided include:
  - Logistics assessments and planning to improve access to the affected population;
  - Technical assistance to establish a humanitarian supply chain;
  - Logistics coordination and information management support.

80

flight hours donated

#### Response:

- An in-kind donation of 80 flight hours for over six weeks period in Hela province and other affected provinces for humanitarian community will be coordinated by Logistics Working Group.
- Coordination support has been extended to handle IFRC cargo in Moro with the local supplier for distribution in Benaria as well as coordination of joint UN conveys from Mt. Hagen to Mendi with support of PNGDF.
- A proposal for the management of the UN and NGO interface of donated 'in-kind' logistics services is being finalized.
- The Logistics Working Group continues to support requests through the established RFA mechanism and endorsed by respective clusters. Information on planned and dispatched humanitarian cargo can be found at: <https://tinyurl.com/ybf624a7>.

#### Gaps & Constraints:

- Access constraints continue to slow the delivery of aid to remote earthquake-affected areas, many of which can only be reached via helicopter.
- The road connecting Mendi to Moro remains unpassable.
- Lack of appetite amongst some transport providers to provide logistics for services to Tari and Mendi due to the perceived security situation.



### Needs:

- Within the earthquake-affected population of 544,000 people, there are an estimated 35,782 women of reproductive age of which 4,938 may be pregnant. Based on national averages, 895 pregnant women may be at risk of miscarriage or unsafe abortions in the next nine months, while 716 women and girls are at risk of sexual violence.
- Cluster partners will target 270,000 people with protection assistance and services, particularly marginalized and vulnerable groups including women (especially single, pregnant and lactating women), adolescent girls, female-headed households, persons living with disabilities, older persons, and children (especially those who are unaccompanied and/or separated).
- There is large scale of psychological trauma occurring in Hela and Southern Highlands provinces with no access to mental health services or support services for those in need.
- Priority response activities include:
  - Providing emergency psychosocial support, first aid and referral services for the most marginalized and vulnerable people;
  - Providing dignity kits containing essential protection and hygiene supplies to women and girls;
  - Strengthening services and promoting inclusion of persons with disabilities in response activities;
  - Providing gender-based violence (GBV), child protection and sorcery-related violence prevention and response services, including strengthened referral pathways and service providers, community mobilization and messaging;
  - Establishing safe centres for women and children;
  - Preventing sexual exploitation and abuse of affected people through the coordination and reporting mechanism and sensitizing armed forces and humanitarian workers;
  - Promoting accountability to affected people by establishing a common service to receive and monitor feedback, complaints and rumours on the humanitarian response.

71

community mobilizers trained on providing psychosocial support

### Response:

- The 1tok Kaunselin hotline is sending out promotional SMS blasts to 3,000 people each week and receiving about 30 calls per day from affected areas.
- An additional psychosocial specialist has been deployed to strengthen the existing team of one psychosocial specialist and one child protection officer currently posted in Hela and Southern Highlands Provinces for assessment, training and mentoring of implementing partners in delivery of psychosocial support services and undertaking an end violence against children campaign.
- An additional 23 male and female of community mobilizers were recruited to strengthen current efforts in community access and site selection for safe spaces for women and children.
- To date, a total of 71 community mobilizers have been trained on providing psychosocial support.

### Gaps & Constraints:

- Lack of capacity and resources of health workers to deliver sexual reproductive health services especially in the Lake Kutubu area and Bosavi.
- There is a great barrier for women and girls living in remote areas to access healthcare services due to the lack of mobile clinic and outreach services.
- Referral pathways and support services for victims of gender-based violence and sexual exploitation and abuse remain limited and current capacity is overburdened by the influx of referrals, training needs, publications, communication and other emergency relief services.



## Shelter / Camp Coordination and Camp Management

### Needs:

- An estimated 60,000 people (10,000 households) in Southern Highlands and Hela provinces require shelter assistance, a large proportion of whom have been displaced.
- According to the most recent update, 11,041 households (approximately 55,205 people) remain displaced, of which 1,250 households are staying in nine care centres while the remainder are staying with host communities.
- Priority response activities include:
  - Providing shelter, shelter tools and non-food items;
  - Improving sites in identified care centres;

28,217

people reached with shelter-related NFI support

- Creating safe, dignified and protected temporary living conditions for the displaced population through care centre management;
- Rolling out the Displacement Tracking Matrix;
- Sharing safe shelter messages related to landslides, site selection and shelter technical design.

**Response:**

- The cluster has developed two shelter response options and recommended packages: (1) IDP household Shelter-NFI return kit; (2) Community reconstruction toolkit. Partners will establish a pipeline of 800 community reconstruction kits and 2,000 displaced family kits to cover need for 6,000 households (approximately 30,000 people).
- To date, 4,055 people (811 households) have been reached with shelter kits assistance in Southern Highlands, Hela and Western provinces with 28,217 people (5,643 households) reached with shelter related NFI support across the three provinces.
- Shelter training has been delivered to 145 people.
- 38 communities (18 in SHP province, 18 in Hela province and 2 in Western province) have been assessed in the first round of completed displacement tracking.

**Gaps & Constraints:**

- Displaced populations living with host populations are not receiving sufficient assistance.
- For partners planning longer-term shelter recovery interventions, the issue of land use and resettlement will require further attention.
- Households away from airstrips and care centres are less likely to receive assistance due to limited visibility and accessibility.

**Water, Sanitation and Hygiene****Needs:**

- Some 312,000 people are estimated to require WASH assistance to prevent and reduce the incidence of waterborne disease outbreaks due to contamination, damage or destruction of surface and rainwater collection systems
- Priority response activities include:
  - Providing safe drinking water through restoration of rainwater collection systems, water trucking, installation of water treatment and distribution of storage tanks;
  - Distributing jerrycans for water storage;
  - Providing emergency latrines that are gender-segregated and disability-friendly, including regular desludging and maintenance;
  - Distributing hygiene kits and disseminating basic life-saving hygiene promotion messages.

**683**

hygiene kits distributed

**Response:**

- Clean water has been provided to 74 villages, and 56 villages have been provided with WASH NFIs, including 2,045 water containers, as well as water purification supplies and soap.
- 683 additional hygiene kits have been distributed in the Mt Bosavi area, and 235 hygiene kits in Komo, Magarima District.
- Existing water supply systems in one aid post, one secondary school, and one district hospital have been rehabilitated, and partners have installed rainwater harvesting systems in four care centres in Southern Highlands Province.
- Partners have conducted awareness and education campaigns in nine locations.
- The Government and partners are conducting water quality testing in Southern Highlands, prioritizing water points that are reported to be contaminated.
- Two WASH technical specialists have been deployed to support the Provincial Health Authorities of Hela and Southern Highlands to help facilitate assessments and gather information for the WASH cluster.

**Gaps & Constraints:**

- There is a lack of verified information on water quality at remaining water sources.
- Provincial Health Authorities require technical assistance on WASH provision and additional response capacity on the ground.

# General Coordination

The Government is leading the response operation and has welcomed the support of humanitarian partners. The National Disaster Committee (NDCComm) and relevant sub-committees have been mobilized to develop the national response strategy. The National Disaster Centre (NDC) coordinates assessments and relief operations. On 1 March, the Government appointed an Emergency Controller to lead the National Emergency Disaster Restoration Team in overseeing relief and recovery efforts. On 27 March, the Parliament adopted the two bills on the declaration of a State of Emergency in the earthquake-affected provinces and establishing the WESH Restoration Authority.

The Government has established two Forward Operating Bases (FOBs), one in Mt. Hagen led by the Western Highlands Provincial Disaster Coordinator, and one in Moro led by the Southern Highlands Provincial Administrator. The Government also established Emergency Operations Centres (EOCs) in the capitals of Hela and Southern Highlands provinces, Tari and Mendi respectively. Provincial Administrators have assumed leadership in coordinating provincial responses.

The National Department of Health (NDOH) is leading the integrated health and nutrition response for the earthquake affected areas with support from the humanitarian Health Cluster. Health Emergency Operation Centres have been established in the NDC and in Mendi and Tari.

The inter-agency PNG Disaster Management Team (DMT) is coordinating relief efforts among humanitarian partners and with private sector companies, in support of the Government-led response. Six informal clusters (Education, Food Security, Health and Nutrition, Protection, Shelter, and WASH) and three working groups (Communication with Communities, Early Recovery and Logistics), as well as the Inter-Cluster Coordination Group support the work of the Disaster Management Team.

An inter-agency field coordination team is based in Mendi, the Southern Highlands provincial capital, to support information exchange, response planning and other coordination initiatives among partners and with provincial authorities and security forces. A similar field coordination presence is planned for Tari when the security situation allows. Logistics coordination specialists have been deployed in Port Moresby and Mt. Hagen to provide supply chain coordination support to the Government and the PNG-DF.

The Government has tasked the PNG Defence Forces (PNGDF) to enhance security in affected areas, and to assist local partners in the distribution of relief items.

Humanitarian partners are encouraged to register on [www.humanitarian.id](http://www.humanitarian.id) and actively use the dedicated earthquake response window on [www.humanitarianresponse.info/en/operations/papua-new-guinea](http://www.humanitarianresponse.info/en/operations/papua-new-guinea).

## Background on the crisis

On 26 February 2018, at 03:44 local time, a magnitude 7.5 earthquake hit the Highlands region of Papua New Guinea (PNG), with the epicentre located 30 km south of Tari town, Hela Province. The tremor was the largest earthquake recorded in the region since a similar event in 1922. A series of strong aftershocks, including a 6.7 M tremor on 8 March in the same area, caused widespread panic amongst the communities. According to preliminary estimates and based on latest earthquake intensity mapping, around 544,000 people in five provinces were affected and more than 270,000 people are in immediate need of assistance. Of those in need of assistance, more than 125,000 are children, 55,000 aged less than five years.

## For further information, please contact:

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For more information, please visit <http://pngndc.gov.pg/> or <https://www.humanitarianresponse.info/en/operations/papua-new-guinea>.

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