



REPUBLIC OF THE PHILIPPINES
NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL

National Disaster Risk Reduction and Management Center, Camp Aguinaldo, Quezon City, Philippines

NDRRMC UPDATE

Final Report re Magnitude 6.0 Earthquake in Wao, Lanao del Sur (12 April 2017)

Releasing Officer:

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Executive Director, NDRRMC and
Administrator, OCD

Sources: DOST-PHIVOLCS, DSWD, DPWH, OCDROs X and ARMM

I. SITUATION OVERVIEW:

1. On **12 April 2017, 5:21 AM**, an earthquake with a **magnitude 6.0** and **depth of 1 km**, hit **Wao, Lanao del Sur**. The epicenter was located 13 km northwest of Wao, Lanao del Sur. The earthquake was generated by the movement of a northwest trending active fault in the area.



Reported Intensities

- **Intensity VII** – Wao, Lanao del Sur; Kalilangan, Bukidnon
- **Intensity VI** - Amai Manabilang, Lanao del Sur
- **Intensity V** - Banisilan, Cotabato; Pangantukan, Bukidnon
- **Intensity IV** - Cagayan de Oro City; Davao City; Cotabato City; Iligan City; Ginoog City, Misamis Oriental; Matalam, North Cotabato; Valencia and Maramag, Bukidnon
- **Intensity III** - Kabacan and Arakan, North Cotabato; Lebak, Sultan Kudarat; Pikit, Cotabato; Quezon and Don Carlos, Bukidnon
- **Intensity II** - Kidapawan City; Koronadal City; Tagum City; Antipas and Carmen, Cotabato; Pres. Roxas, North Cotabato; Camiguin

Instrumental Intensities

- **Intensity III** - Cagayan de Oro City; Kidapawan City
- **Intensity I** - General Santos City

2. The following aftershocks with at least Magnitude 4.0 were reported which occurred in the municipality since 12 April 2017:

| Magnitude | Origin | Date/Time | Depth |
|-----------|----------|---------------------------|-------|
| Ms 4.6 | Tectonic | 12 Apr 2017 - 01:01:58 PM | 12 km |
| Ms 5.3 | Tectonic | 13 Apr 2017 - 04:01:04 AM | 6 km |
| Ms 4.7 | Tectonic | 14 Apr 2017 - 07:20:02 PM | 1 km |
| Ms 4.7 | Tectonic | 14 Apr 2017 - 10:02:51 PM | 1 km |
| Ms 4.4 | Tectonic | 16 Apr 2017 - 04:37:05 AM | 1 km |
| Ms 5.3 | Tectonic | 16 Apr 2017 - 04:40:55 AM | 1 km |

3. As of 18 April 2017, 6:00 AM, a total of 471 aftershocks was recorded by PHIVOLCS seismic monitoring network.

II. EFFECTS:

A. INCIDENTS MONITORED

Landslides were reported in the vicinity of Brgy. Sumugot, Municipality of Amai Manabilang, Lanao del Sur.

B. AFFECTED POPULATION

- A total of **1,777 families / 7,953 persons were affected** in the Provinces of Lanao del Sur and Bukidnon.
 - 1,326 families / 6,074 persons were affected in the 16 barangays of Wao, Lanao del Sur
 - 451 families / 1,879 persons were affected in the 9 barangays of Kalilangan, Bukidnon:

| PROVINCE / MUNICIPALITY | BARANGAY | NO. OF FAMILIES | NO. OF PERSONS |
|-------------------------|------------|-------------------|----------------|
| ARMM | | 1,326 | 6,074 |
| Lanao del Sur | Wao | East Kili-Kili | 128 |
| | | West Kili-Kili | 147 |
| | | Buntongan | 61 |
| | | Panang | 77 |
| | | Serran | 174 |
| | | Park Area | 230 |
| | | Balatin | 19 |
| | | Banga | 13 |
| | | Western | 56 |
| | | Manila Group | 71 |
| | | Extension | 126 |
| | | Muslim Village | 73 |
| | | Mimbuaya | 51 |
| | | Christian Village | 31 |
| | | Eastern | 51 |
| | | Malaigang | 18 |
| REGION X | | 451 | 1,879 |
| Bukidnon | Kalilangan | Central Poblacion | 154 |
| | | Kinura | 7 |
| | | Macaopao | 154 |
| | | Malinao | 20 |
| | | Ninoy Aquino | 31 |
| | | Pamotolon | 9 |
| | | Public | 20 |

| | | | |
|--|--------------------|--------------|--------------|
| | West Poblacion | 28 | 133 |
| | Canituan | 28 | 131 |
| | GRAND TOTAL | 1,777 | 7,953 |

2. A total of **53 families / 231 persons** were served in the six (6) evacuation centers in Kalilangan, Bukidnon.

| BARANGAY | EVACUATED POPULATION | | NAME OF EVACUATION CENTERS |
|-------------------|----------------------|------------|----------------------------|
| | Families | Persons | |
| Central Poblacion | 6 | 34 | - KCES Oval Ground |
| | 5 | 15 | - Municipal Covered Court |
| Public | 5 | 21 | - Relative's Houses |
| Macaopao | 23 | 137 | - Brgy. Plaza |
| Malinao | 12 | 7 | - Relative's Houses |
| Pamotolon | 2 | 17 | - Central School |
| TOTAL | 53 | 231 | |

Source: DSWD DROMIC Terminal Report as of 16 May 2017, 10:00 PM; Corrected Final Report of OCDRO X as of 03 May 2017, 9:00 AM; and Final Report of OCD BARMM as of 14 July 2020

C. CASUALTIES

A total of **22 injured persons** were reported in the Provinces of Kalilangan, Bukidnon and Wao, Lanao del Sur with details as follows:

| | Name | Age | Sex | Address | Diagnosis |
|----|-----------------------|-------------|-----|--------------------------------------|------------------------------|
| 1 | Angeles Cerbo Caturay | 95 | F | West Poblacion, Kalilangan, Bukidnon | Injury due to falling object |
| 2 | Pao Pao Bangcula | TBD (Child) | M | Pamotolan, Kalilangan, Bukidnon | Injury due to falling object |
| 3 | Emelda Velasco Capada | 47 | F | Brgy. Public, Kalilangan, Bukidnon | Loss of consciousness |
| 4 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 5 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 6 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 7 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 8 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 9 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 10 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 11 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 12 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 13 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |
| 14 | Unidentified Person | | F | Park Area, Wao, Lanao del Sur | Minor injuries |

| | Name | Age | Sex | Address | Diagnosis |
|----|---------------------|-----|-----|-------------------------------|----------------|
| 15 | Unidentified Person | | M | Park Area, Wao, Lanao del Sur | Minor injuries |
| 16 | Unidentified Person | | M | Park Area, Wao, Lanao del Sur | Minor injuries |
| 17 | Unidentified Person | | M | Park Area, Wao, Lanao del Sur | Minor injuries |
| 18 | Unidentified Person | | F | Panang, Wao, Lanao del Sur | Minor injuries |
| 19 | Unidentified Person | | F | Panang, Wao, Lanao del Sur | Minor injuries |
| 20 | Unidentified Person | | F | Kili-Kili, Wao, Lanao del Sur | Minor injuries |
| 21 | Unidentified Person | | F | Kili-Kili, Wao, Lanao del Sur | Minor injuries |
| 22 | Unidentified Person | | M | Kili-Kili, Wao, Lanao del Sur | Minor injuries |

Source: Corrected Final Report of OCDRO X as of 03 May 2017, 9:00 AM and Final Report of OCD BARMM as of 14 July 2020

D. STATUS OF LIFELINES

1. POWER AND WATER SUPPLY

On 12 April 2017, 5:21 AM, power and water supply in the Municipality was interrupted of which, at 3:00 PM and 12:00 PM both were resumed, respectively.

2. ROADS AND BRIDGES

a. The following roads and bridges incurred damage due to the earthquake:

| AREA / ROAD / BRIDGE | | STATUS | REMARKS |
|--------------------------------|--|--------------------------------|--|
| Lanao del Sur | | | |
| Wao | National Highway in Brgy. Panang | Passable | Partially damaged (cracks) |
| Amai | National Highway in Brgy. Francfort | Passable | Partially damaged (cracks) |
| Bukidnon | | | |
| Cogo, Macaopao | Kalilanga-Lampanusan Road Section | Passable | Damage of Portland Cement Concrete pavement (both lanes) |
| | Malatipay Bridge | Passable | Hairline cracks along abutment |
| Ulayan, Malinao | Junction Maradugao-Camp Kibaritan-Dominorog Road Section | Passable | Soil failure at shoulder side |
| Brgy. Ninoy Aquino, Kalilangan | Local road near Kalilangan National Highschool | Passable | landslide |
| | Ninoy Aquino Bridge | Passable | Minor cracks at bottom girder |
| Brgy. Public, Kalilangan | Road in Purok 8 | Not passable to heavy vehicles | With cracks (2 to 6 inches) |

Source: Corrected Final Report of OCDRO X as of 03 May 2017, 9:00 AM and Final Report of OCD BARMM as of 14 July 2020

E. DAMAGE TO INFRASTRUCTURES

1. A total of **43 structures/buildings** in Bukidnon and Lanao del Sur sustained damage due to the earthquake:

| PROVINCE | MUNICIPALITY / BARANGAY | STRUCTURE | REMARKS |
|---------------------------|---|------------------------|-------------------|
| Lanao del Sur | Brgy. Balatin, Wao | 2 Masjid | Partially damaged |
| | | Barangay Hall | |
| | | Health Center | |
| | Brgy. Banga, Wao | Church | Partially damaged |
| | | Warehouse | |
| | | Swimming Pool | |
| | Brgy. Buntongan, Wao | Masjid | Partially damaged |
| | | Church | |
| | Brgy. Christian Village, Wao | Church | Partially damaged |
| | Brgy. East Kili-kili, Wao | 3-storey Pension House | Partially damaged |
| | Brgy. Eastern, Wao | Church | Partially damaged |
| | | Nutri-post | |
| | | Market Stall | |
| | Brgy. Extension, Wao | Coop Building | Partially damaged |
| | | Brgy. Building | |
| | | Garrison | |
| | | Guardhouse CR | |
| | Brgy. Francfort and Salam, Amai Manabilang, Wao | 2 Masjid | Partially damaged |
| | Brgy. Kadingilan, Wao | Barangay Hall | Partially damaged |
| | Brgy. Panang, Wao | 2 Masjid | Partially damaged |
| | | 2 Masjid | Totally damaged |
| | Brgy. Park Area, Wao | Masjid Fence | Partially damaged |
| | | Multi-Purpose Building | |
| | | Barangay Hall | |
| | Brgy. Manila Group | Commercial Building | Partially damaged |
| | Brgy. Mambuaya, Wao | Masjid | Partially damaged |
| | | Barangay Hall | |
| Brgy. Muslim Village, Wao | Masjid | Partially damaged | |
| | Brgy. Building | | |
| Brgy. Wao | Wao District Hospital | Partially damaged | |
| Brgy. West Kili-kili | 2 Churches | Partially damaged | |
| Brgy. Western, Wao | Masjid | Partially damaged | |
| | Multi-Purpose Building | | |

| PROVINCE | MUNICIPALITY / BARANGAY | STRUCTURE | REMARKS |
|----------|-------------------------------------|---|--|
| | Brgy. Serran | Church | Partially damaged |
| Bukidnon | Brgy. West Poblacion, Kalilangan | Sangguniang Bayan Building | Severely damaged |
| | | Municipal Building | Partially damaged minor cracks |
| | | Terminal | Partially damaged Crack on walls and ceilings, portions of CHB plastered wall slightly damaged and 1 glass window damaged |
| | | Kalilangan Bukidnon Provincial Hospital | Partially damaged |
| | Brgy. Macaopao, Kalilangan | Barangay Hall & Health Center | Severely damaged |
| | Brgy. Central Poblacion, Kalilangan | Barangay Hall | Severely damaged |
| | Brgy. Ninoy Aquino, Kalilangan | Barangay Hall | Partially damaged |
| | Brgy. Public, Kalilangan | Barangay Hall | Partially damaged minor cracks |
| | Brgy. Canituan | Barangay Hall | Partially damaged minor cracks |

2. A total of **15 schools** were reported damaged in the Provinces of Lanao del Sur and Bukidnon:

| PROVINCE | BARANGAY / MUNICIPALITY | SCHOOL | REMARKS |
|---------------|--------------------------------|--------------------------------|---|
| Lanao del Sur | Brgy. Panang, Wao | Panang National Highschool | Collapsed ceiling and cracked walls |
| | Brgy. Serran Village, Wao | Serran Elementary School | Partially damaged |
| | Brgy. Sumugot, Amai Manabilang | Sumugot Elementary School | Partially damaged |
| | Brgy. West Kili-kili, Wao | Kili-kili Elementary School | Partially damaged |
| | Brgy. Balatin, Wao | Balatin Primary School | Partially damaged |
| | Brgy. Banga, Wao | Day Care Center | Partially damaged |
| | Brgy. Mimbahaya, Wao | Mimbahaya Primary School | Partially damaged |
| | Brgy. Eastern, Wao | Day Care Center | Partially damaged |
| | Brgy. Kandingilan, Wao | Kandingilan Primary School | Partially damaged |
| Bukidnon | Brgy. Ninoy Aquino, Kalilangan | Kalilangan National Highschool | Minor cracks Crack on wall and ceiling |
| | | Kimagting Elementary School | Minor cracks |
| | Brgy. Macaopao, Kalilangan | Macaopao Elementary School | 3 classrooms incurred minor |

| PROVINCE | BARANGAY / MUNICIPALITY | SCHOOL | REMARKS |
|----------|-------------------------------------|--------------------------------------|---|
| | | | cracks |
| | | Agaton Elementary School | 5 classrooms are partially damaged |
| | Brgy. Central Poblacion, Kalilangan | Kalilangan Central Elementary School | Damaged perimeter fence |
| | Brgy. Kinura, Kalilangan | Kinura Elementary School | 2 classroom severely damaged & 2 classrooms partially damaged |

F. DAMAGED HOUSES

A total of **1,156 damaged houses** were reported in the Provinces of Lanao del Sur and Bukidnon:

| PROVINCE | MUNICIPALITY | DAMAGED HOUSES | | |
|--------------------|--------------|----------------|-----------|--------------|
| | | PARTIALLY | TOTALLY | TOTAL |
| Lanao del Sur | Wao | 725 | 57 | 782 |
| Bukidnon | Kalilangan | 374 | 0 | 374 |
| GRAND TOTAL | | 1,099 | 57 | 1,156 |

Sources: DSWD DROMIC Terminal Report as of 16 May 2017, 10 PM and OCDRO X Corrected Final Report as of 03 May 2017.

G. COST OF DAMAGE TO INFRASTRUCTURE

An estimated **₱57,799,332.00 worth of damage** were reported to various infrastructures in the Province of Bukidnon:

| INFRASTRUCTURE | AMOUNT (₱) |
|-----------------------|----------------------|
| SB Building | 30,000,000.00 |
| Terminal | 401,250.00 |
| Roads & Bridges (MEO) | 2,703,452.00 |
| School Buildings | 8,052,500.00 |
| Barangay Hall | 2,505,235.00 |
| Houses | 13,045,365.00 |
| Water Source | 1,091,530.00 |
| Total | 57,799,332.00 |

Source: OCDRO X Corrected Final Report as of 03 May 2017.

H. DECLARATION OF STATE OF CALAMITY

The following municipalities were declared under the State of Calamity due to damages caused by the earthquake:

| MUNICIPALITY | RESOLUTION NO. | DATE |
|---------------------------------------|------------------------------------|---------------|
| Municipality of Wao (Lanao del Sur) | Sanggunian Bayan Resolution No. 20 | 17 April 2017 |
| Municipality of Kalilangan (Bukidnon) | Resolution No. 2017-153 | 17 April 2017 |

III. DISASTER RESPONSE

A. National Disaster Risk Reduction and Management Council (NDRRMC)

1. National DRRM Operations Center (NDRRMOC)

Disseminated the earthquake information to OCDRO ARMM and other concerned stakeholders through facsimile, SMS, website and twitter account for further dissemination to its respective local DRRMCs. Moreover, had advised to undertake precautionary measures and to monitor the situation for any possible effects of said earthquake particularly in areas with reported intensities.

2. DOST-Philippine Institute of Volcanology and Seismology (PHIVOLCS)

- a. Disseminated Earthquake Information No. 01 to 04, monitored the situation, and immediately relayed any new significant development to all concerned.
- b. Conducted an assessment on the affected areas in Wao and Amai Manabilang together with DOST-PHIVOLCS Cotabato Seismic Station.

3. Department of Social Welfare and Development (DSWD)

- a. DSWD-DROMIC coordinated with DSWD Field Office (FO) X, XI, and XII for updates on the extent of damage and number of affected families in its areas of responsibility.
- b. DSWD Central Office, and FOs X, XI, and XII ensured a total stockpile and standby funds amounting ₱1,204,953.38, with breakdown as follows:

Stockpiles

A total of 144,319 Family Food Packs (FFPs) worth ₱54,932,289.55 and Food and Non-Food Items (NFIs) worth ₱93,598,483.83.

Standby Funds

A total of ₱1,204,134,953.38 standby funds was available at the Central Office and Field Offices. Of which, ₱1,006,928,394.10 is the Quick Response Fund.

- c. DSWD Central Office through DSWD XII provided 200 FFPs to the affected families and additional 355 family food packs for augmentation; delivered supplementary NFIs of 10 tarpaulin rolls, 100 containers of 6 liters water, and 200 pcs of malong.
- d. PDSWD provided 548 food packs to the affected families.
- e. DSWD Disaster Response Assistance and Management Bureau organized a Mission Team scheduled for a flight to Cotabato City on 18 April 2017 to bring additional relief items for the affected families.

4. Department of Public Works and Highways (DPWH)

Coordinated with DPWH Regional Offices to check on the status of public buildings and national roads/bridges in its respective area of responsibilities.

B. Regional/Local Disaster Risk Reduction and Management Councils (R/LDRRMCs)

1. RDRRMC X

OCD X

Coordinated with Local DRRM Council and DOST-PHIVOLCS regarding the earthquake incident.

DSWD X

An operational survey was conducted by the LGU of Kalilangan, Bukidnon, the nearest LGU of Wao, Lanao del Sur, and MDRRMO staffs on 12 April 2017 with the following reports:

- SB Building is partially damaged.
- No electricity due to fallen electric post.
- Slightly damaged houses but no displacement of families except the admitted patients in the hospital who stayed temporarily outside the building for fear of after tremors.
- Other parts of the region like the Province of Camiguin and the 1st District of Misamis Oriental reported no damage and casualties nor displacements of families.

DOH X

- a. Deployed response teams composed of three (3) Nurses, two (2) Engineers and three (3) Drivers to conduct Rapid Health Assessment.
- b. Augmented 50 folding beds, 15 tents, and 20 Jerry cans amounting to ₱271,200.00.

PDRRMC Bukidnon

- a. Provided generator set to MDRRMC Kalilangan.
- b. Conducted assessment on damaged infrastructures.
- c. Coordinated with 403rd Bde, Philippine Army regarding the use of tents intended for the patients of Bukidnon Provincial Hospital-Kalilangan.

MDRRMC Kalilangan (Bukidnon)

- a. Established the Incident Command Post (ICP).
- b. Personnel from Kalilangan Municipal Engineers Office, MDRRMO Rescue, and DPWH conducted an initial assessment in the municipality.

MDRRMC Cagayan de Oro

Provided 390 pcs of 5 and 6 liters of drinking water.

Philippine Red Cross – Malaybalay Chapter

Conducted stress debriefing at Barangay Macaopao and in other barangays.

2. RDRRMC ARMM

OCD ARMM

- a. Coordinated with Local DRRM Council and DOST-PHIVOLCS regarding the earthquake incident.
- b. Distributed the following Non-Food Items amounting to ₱700,000.00 to the affected families in the Municipality of Wao:
 - 300 pcs of plastic pails

- 100 pcs of sakoline
 - 250 pcs of water containers
 - 2 emergency tents
 - 300 pcs of 1 liter bottled water
 - 300 pcs of plastic dipper
- c. MM-Aid Consortium provided 100 pcs of food packs.
- d. Provincial Government provided 1,124 food packs and 3,965 pcs of 500-ml bottled drinking water.

ARMM-Humanitarian Emergency Action and Response Team (ARMM HEART)

Deployed personnel to assist in the conduct of damage assessment in the Municipalities of Wao and Amai Manabilang.

DOH ARMM

Augmented tents for the patients in Wao District Hospital and provided jerry cans and water purifying tabs.

PDRRMC Lanao del Sur

Augmented 2,000 packs or relief assistance consist of 3 kilos of rice, 3 pcs of canned goods, 3 pcs instant noodles, 12 pcs instant coffee, and 1 kilo of sugar.

MDRRMC Wao (Lanao del Sur)

- a. Organized a Rapid Damage Assessment and Needs Analysis (RDANA) Team composed of personnel from Municipal Engineering Office, PNP, AFP, Municipal Social Welfare and Development Office, Rural Health Unit, BFP, and MDRRMO.
- b. Provided 499 packs of relief goods in Brgys. West Kili-kili, East Kili-kili, Panang, Serran Village, and Extension.
- c. Distributed 620 Family Food Packs amounting to ₱247,782.00.
- d. Distributed additional 51 food items to Brgy. Mambuaya and 73 food items in Muslim Village on 17 April 2017.
- e. Distributed food packs together with MSWD to the following barangays on 19 April 2017:
 - 88 food packs in Serran Village
 - 24 food packs in Christian Village
 - 55 food packs in Western
 - 1 food pack in Extension
 - 28 food packs in Eastern

3. RDRRMC XI

DSWD FO XI

Submitted Terminal Report indicating that there was neither reported damaged nor affected families relative to the incident.

4. RDRRMC XII

DSWD FO XII

- a. Coordinated with MSWDO and MDRRMO of Wao for further assistance needed.

- b. Provided 100 pcs of bottled drinking water, 400 Family Food Packs, 1,000 packs of energy biscuits, 200 pcs. of Malong, 5 tarpaulin rolls, and 1,500 pcs of cup noodles amounting to ₱252,394.40.
- c. A total of 845 Family Food Packs were provided to the affected families by the Office of the Governor of Lanao del Sur.

DOST XII

Provided 171 food packs, 171 pcs of 5-kg bag rice, 10 pcs 2x2 meters PE Gazebo Tent, 40 pcs/cut of 2x3, sakoline/trapal, and 10 pcs. Plastics chairs.

IV. COST OF ASSISTANCE

A total of **₱500,176.40** worth of assistance was provided to the affected families in Wao, Lanao del Sur. Of which **₱252,394.40** was provided by the DSWD, while **₱247,782.00** was provided by the Municipality of Wao.
