



ONE ASEAN  
ONE RESPONSE

# SITUATION UPDATE

## TROPICAL CYCLONE NORU PHILIPPINES, VIET NAM

No. **2**

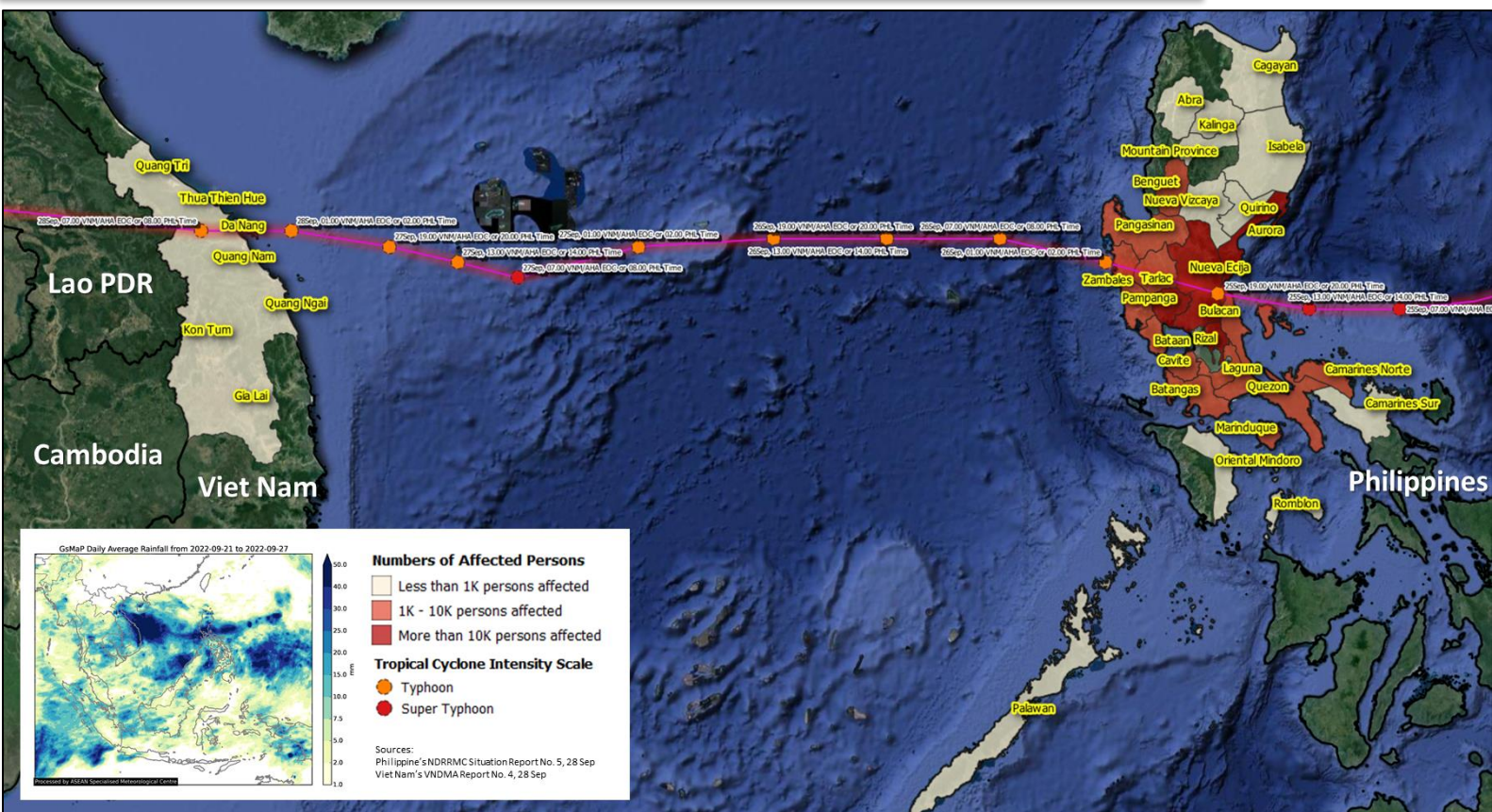
Wednesday, 28 September 2022, 1930 HRS (UTC+7)

This Situation Update is provided by the AHA Centre for use of 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, IFRC, NGOs, Humanitarian and Dialogue Partners, and News Organisations.

### Tropical Cyclone NORU



Figures are the updates from NDRRMC Situation Report No. 5 and VNDMA Report No. 4, 28 September 2022



**157.8K**  
AFFECTED PERSONS

**8**  
DEAD

**2.3M USD**  
WORTH OF DAMAGES TO  
AGRICULTURE AND  
INFRASTRUCTURE

**39.9K**  
DISPLACED PERSONS

**3.2K**  
HOUSES

**93.6K USD**  
WORTH OF ASSISTANCE

**12**  
INJURED

**5**  
MISSING



SITUATION UPDATE

## 1. HIGHLIGHTS

- a. **Meteorological History (Philippines):** From 22-24 September 2022, Tropical Cyclone (TC) NORU (local name: Karding) developed from a Low-Pressure area into a Tropical Storm (TS) over the Philippine Sea while moving towards Central Luzon. On 24 September, TC NORU intensified into a Severe tropical Storm (STS). By 1900 UTC+7, NORU rapidly intensified into a Typhoon (TY) with maximum sustained winds of 120 km/h near the centre (equivalent to a Category 1 Hurricane in the Saffir-Simpson Hurricane Wind Scale (SSHWS)). In the early morning of 25 September, NORU underwent a series of rapid intensifications and a period of explosive intensification and reached Super Typhoon (STY) Category by 0700 UTC+7. On 25 September, 1630 UTC+7, TC NORU made its initial landfall in the vicinity of Burdeos, Quezon and again at 1920 UTC+7 in Dingalan, Aurora as a TY-category cyclone. On 26 September, TC NORU left the Philippine Area of Responsibility at 1900 HRS UTC+7 according to the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) (Figure 1).
- b. **Meteorological History (Viet Nam):** From 26-28 September 2022, TC NORU made its way from the Philippine Area of Responsibility across the West Philippine Sea-South China Sea-Viet Nam's East Sea going through a series of intensification and maintenance of strength towards the Thua Thien Hue-Quang Ngai area of the South-Central Coast region of Viet Nam. On the morning of 28 September, according to Viet Nam's National Center for Hydrometeorological Forecasting, TC NORU (Storm No. 4) made landfall with winds of 117 km/h in the province of Quang Nam. As of the advisory on 1300 UTC+7, 28 September from the National Centre for Hydrometeorological Forecasting (NCHFM), TC NORU has weakened into a tropical depression and into a low pressure area in the next 12 hours (Figure 1).

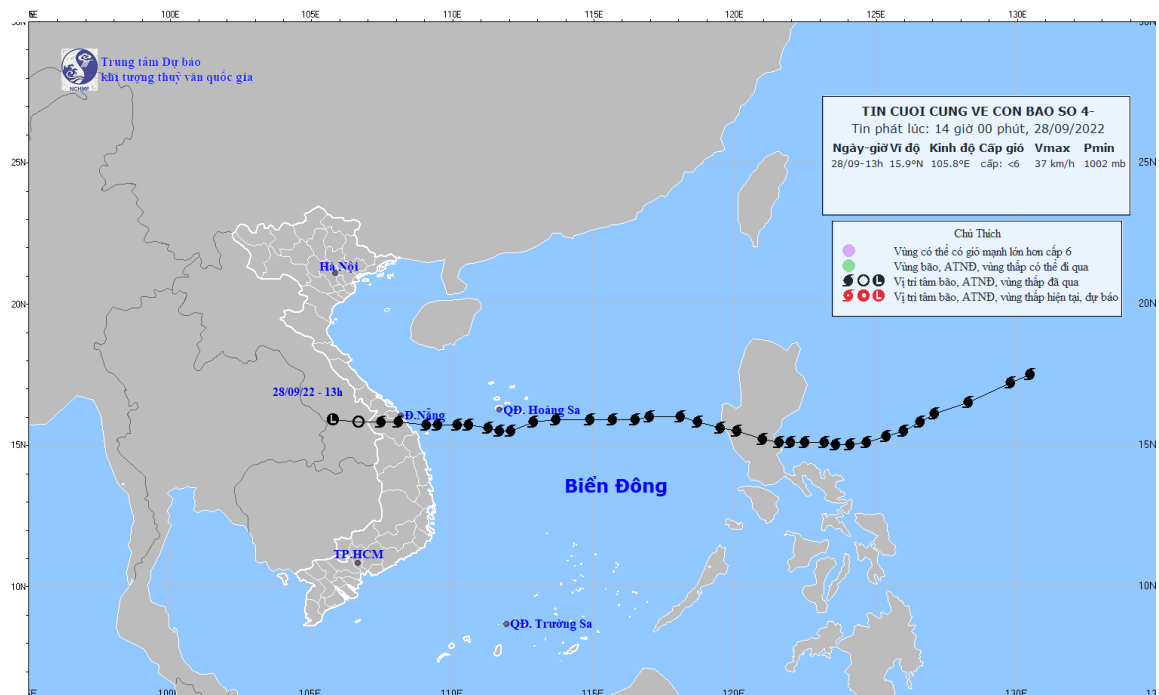


Figure 1. TC NORU Meteorological History (Data source: [NCHMF](#)).

- c. **Preparedness and Response (Viet Nam):** The Prime Minister established a Steering Committee that shall direct the response. Dispatches have been issued to the localities as well as the authorities and emergency meetings were conducted. The



Viet Nam Disaster Management Authority (VNDMA) also held the Disaster Risk Reduction Partnership (DRRP) meeting to discuss and update on the response to TC NORU (Viet Nam local name: Storm No. 4). Widespread evacuations (108,441 households or 340,863 people), aquatic vessel safe anchorage, thousands of hectares of aquaculture bracing, mobilisation of 40,000 soldiers and 200,000 militia in anticipation of the impacts of TC NORU (Storm No. 4).

- d. **Preparedness and Response (AHA Centre):** On 1630 UTC+7, 27 September, the AHA Centre deliberated on its course of action for the assistance to be provided and shall complement on-going efforts in the potentially affected areas in Viet Nam in accordance as well with the directives from VNDMA detailed in the DRRP meeting. The ICLT and ERAT are to stand down due to the decision to not activate the international joint assessment by the government of Viet Nam.

## 2. SUMMARY OF EVENTS

- a. 25 September 2022 (UTC+7)
- 1730 HRS: TC NORU made its initial landfall in Philippine landmass (Burdeos, Quezon)
  - ~1900 HRS: TC NORU made its second landfall in Philippine landmass (Dingalan, Aurora)
- b. 26 September 2022 (UTC+7)
- 1900 HRS: according to PAGASA, TC NORU left the Philippine Area of Responsibility and started making its way through the West Philippine Sea-South China Sea-Viet Nam's East Sea waters towards Viet Nam
- c. 27 September 2022 (UTC+7)
- 1500 HRS: VNDMA DRRP held a meeting to discuss updated early warning information, response activities, and emergency action plan in response to the impacts of TC NORU
  - 1630 HRS: the AHA Centre deliberated on its course of action for the assistance to be provided and shall complement on-going efforts in the potentially affected areas in Viet Nam in accordance as well with the directives from VNDMA detailed in the DRRP meeting.
  - ~1900 HRS: TC NORU directly affected localities in the central region and caused heavy rain (150-300 mm, even reaching 628 mm in Viet An in Quang Nam).
- d. 28 September 2022 (UTC+7)
- ~0400 HRS: according to the NCHMF, TC NORU (Storm No. 4) made landfall in the early hours with winds of 117 km/h in the province of Quang Nam.
  - 1400 HRS: TC NORU has weakened further from a tropical depression into a low pressure area over southern Lao PDR.

## 3. ASSESSMENT OF IMPACT AND HUMANITARIAN NEEDS

**Impacts in the Philippines** (as of 0500 UTC+7, 28 September 2022)

- a. **Affected population:** 39,893 families (157,023 persons) affected in 1,318 barangays in Regions I, II, III, MIMAROPA, V, CAR (MAJOR Disaster based on DMA guidelines); 52,894 displaced in Regions I, II, III, CALABARZON, and V – 37,135 of which are in 574 evacuation centres while 15,759 others are taking temporary shelter in friends/relatives' homes (NDRRMC).



- b. **Damages:** 2.3M USD worth of damages have been reported (390.5K USD worth of infrastructure, 1.9M USD worth of agriculture, and 28K USD worth of livestock); 3,068 damaged houses (2,437 partially, 631 totally); 25 road sections, 15 bridge sections (NDRRMC).
- c. **Critical lifelines:** 115 cities/municipalities experienced power outage, power was returned to 41; 6 areas have communication outage/issues, and services were returned to 4 (NDRRMC).

**Impacts in Viet Nam** (as of 1500 UTC+7, 28 September 2022)

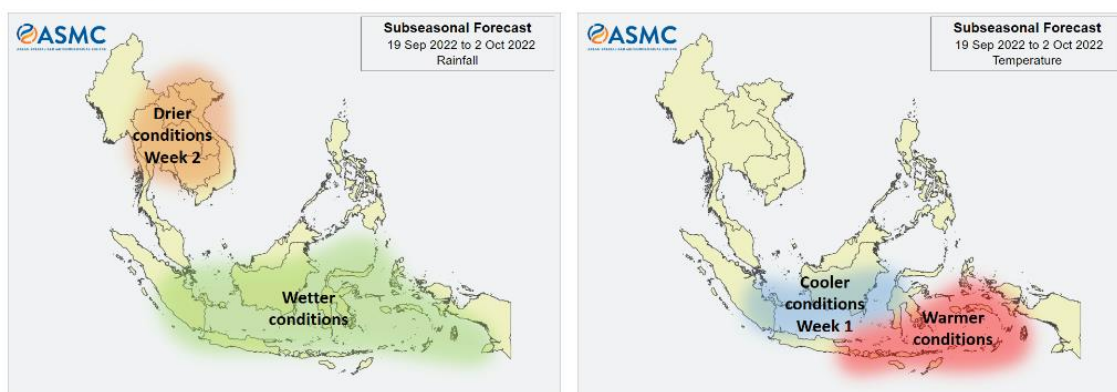
- a. **Affected population:** 4 people injured in Quang Tri
- b. **Damages:** 160 houses damaged - 3 of which were totally damaged (Quang Tri: 2, Thua Thien Hue: 1) and 157 others partially (118 houses is in Quang Tri); and 3 small boats sank (Da Nang 2, Quang Nam 1).
- c. **Critical lifelines:** 9,427 substations without power (Quang Nam: 4,369, Da Nang: 3,340, Quang Ngai: 1,718) and 15 communes without power (Kon Tum: 9 communes, Gia Lai: 6 communes). Currently, 535 substations have been repaired (Quang Nam: 372, Da Nang: 163); 1 communication tower (antenna pillar) and 2 border posts in Quang Nam were damaged.

**Anticipated Risks**

- a. According to the ASEAN Specialised Meteorological Centre ([ASMC](#)), for the period of 26 September – 2 October 2022, wetter conditions are expected over most of the southern ASEAN region. Drier conditions are expected over much of Mainland Southeast Asia. Warmer conditions are expected over parts of the southeastern Maritime Continent. For the regional assessment of extremes, there is a small increase in chance for extreme hot conditions to occur in southeastern Indonesia. La Niña conditions have been present. At the seasonal timescale, La Niña events tend to bring wetter conditions to much of the ASEAN region. A negative Indian Ocean Dipole (IOD) is now established. Negative IOD tends to bring wetter conditions to much of the southern ASEAN region.

First forecast week: 19 September – 25 September

Second forecast week: 26 September – 2 October



**Figure 2.** Subseasonal Weather Outlook (Source: [ASMC](#))

- b. According to WFP’s Automated Disaster Analysis and Mapping (ADAM) 5 days precipitation forecast, Tropical Cyclone NORU is expected to make heavy to very heavy rainfall along Mekong River in the southern parts of Lao PDR. This condition can also bring flooding (including flash flood) in Cambodia, particularly in the riversides area of Mekong River.



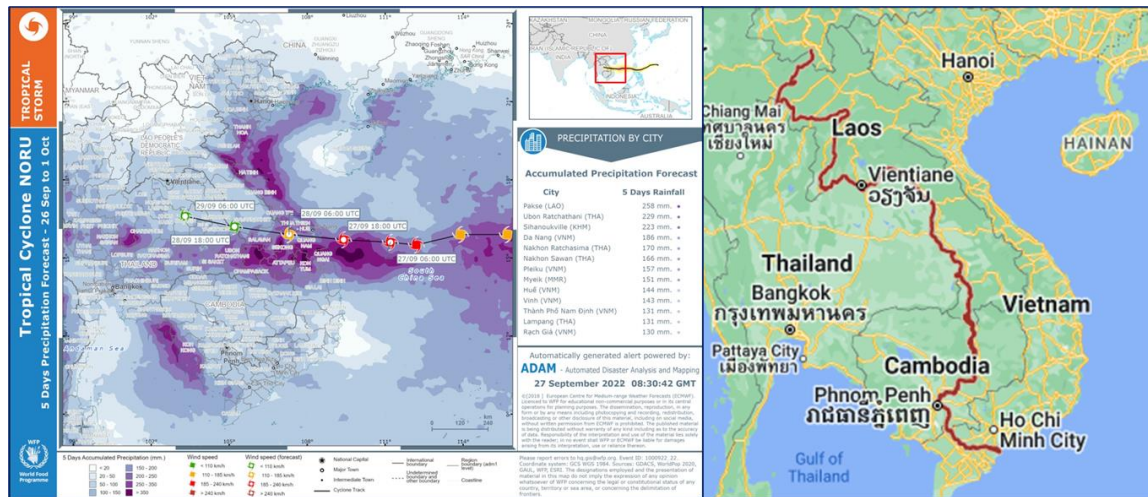


Figure 3. WFP ADAM 5 days precipitation forecast (left) and Mekong River (right).

#### 4. ACTIONS TAKEN AND RESOURCES MOBILISED

##### Response by the Philippine Government (as of 0700 UTC+7, 28 September 2022)

- NDRRMOC has been on Red Alert since 23 September
- 313.9K USD worth of assistance has been provided to the victims
- 22M USD total standby funds and stockpile are available in the central and field offices of the Department of Social Welfare and Development (DSWD).
- 50 teams SAR teams deployed, 2.8K transportation and 1.6K road clearing and engineering assets on standby, 60 deployed emergency ICT equipment
- 43 schools used as evacuation centers

##### Response by the Government of Viet Nam (as of 1500 UTC+7, 28 September 2022)

- The Prime Minister has decided to establish a Front Steering Committee headed by Deputy Prime Minister Le Van Thanh to directly direct the response.
- The Prime Minister issued 02 dispatches directing localities, especially 11 provinces and cities where the storm hit from Quang Binh - Khanh Hoa, Gia Lai and Kon Tum to respond to the storm.
- In the days of 25-27 September, the Front Steering Committee organized 3 working groups to directly inspect, urge, and direct the response to TC NORU (Storm No. 4).
- On the night of 27 September, the Front Steering Committee continuously monitored closely and held online meetings with the chairmen of the People's Committees of the provinces and cities to understand the situation in each locality, and promptly directed the implementation of the response.
- The VNDMA held the DRRP meeting at 1500 HRS, 27 September to discuss updated forecast information for TC NORU (Storm No. 4), on-going response activities, action plan triggering the emergency relief, FAO sharing on anticipatory action trigger responding to TC NORU (Storm No. 4) in Quang Tri and Thua Thien Hue. During the meeting, the general plan on emergency assistance response was presented. The setup of the Joint Rapid Assessment mission was also presented to the attendees of the DRRP meeting.
- According to a news article from VNDMA that on 27 September 2022, preemptive evacuation of 108,441 households (340,643 persons) and mobilisation of 40,000 soldiers and 200,000 militia in preparation for rescue and relief operations have been undertaken to minimise the impacts of TC NORU to life and property.

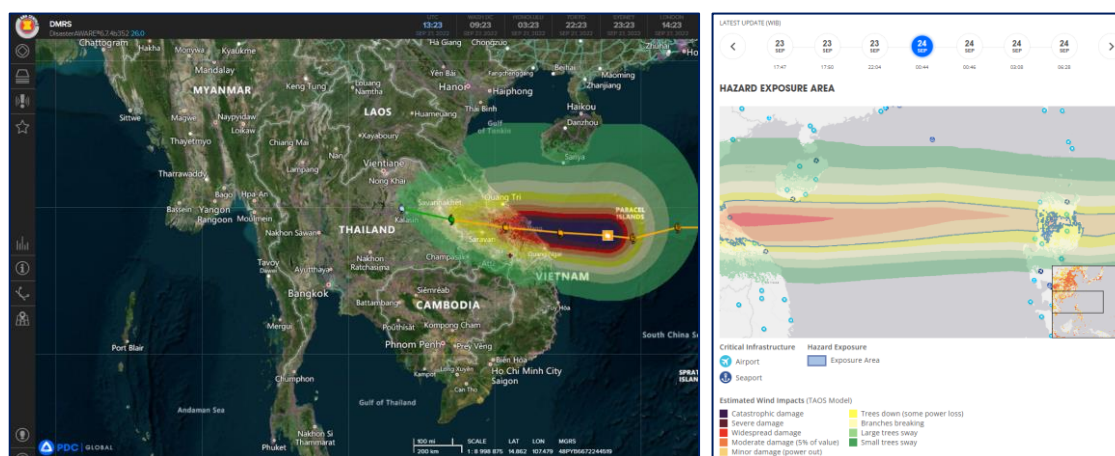


## Response by the AHA Centre

- On 24 September 2022, the AHA Centre issued Flash Update #1 in anticipation of the tropical cyclone impacts in the Philippines
- On 26 September 2022, the AHA Centre issued Flash Update #2 to relay the impacts of TC NORU (Karding) in the Philippines and in anticipation of the tropical cyclone impacts in Viet Nam (Storm No. 4) and Lao PDR.
- On 26 September 2022, the AHA Centre conducted an Emergency Response Organisation Briefing, also attended by the ASEAN Secretariat, to discuss the latest information on TC NORU and the potentially impacted ASEAN Member States such as the Philippines, Viet Nam, and Lao PDR and the possibility of support that ASEAN and the AHA Centre can provide.
- On 26 September 2022, the AHA Centre raised its Emergency Operations Centre's Alert Level to **ORANGE** (Preparedness for Response).
- On 27 September 2022, the AHA Centre has issued Situation Update #1 in anticipation of TC NORU's (Storm No. 4) impacts to Viet Nam due to information from VNDMA stating that it will be the strongest TC to make landfall in the last 20 years.

## Response by Other Humanitarian and Operational Partners

- Pacific Disaster Centre (PDC)** has issued the first Warning for the potential impacts of Tropical Cyclone NORU in Viet Nam since 24 September 2022 0044 HRS UTC+7, with the name Tropical Storm NORU originating from JTWC. Until 27 September 2022 at 1556 HRS UTC+7 PDC has issued 57 Warnings related to Tropical Cyclone NORU that have been distributed through DisasterAWARE products and ASEAN Disaster Monitoring and Response System (DMRS)



**Figure 5.** Early Warning Information from the ASEAN Disaster Monitoring and Response System for TC NORU (Storm No. 4)

- PDC, WFP and OCHA** have released the Joint Analysis of Disaster Exposure (JADE) products. The latest Jade products was on 27 September 2022 at 1100 HRS UTC+7 which displays breakdown impact estimates based on population, vulnerable groups, key needs, hospitals exposed, school exposed, and cost to rebuild in worst affected areas. The product have been distributed through email lists of relevant stakeholders, ASEAN Disaster Monitoring and Response System (DMRS), DisasterAWARE, EMOPS, as well as WFP and UNOCHA's ReliefWeb websites.



- c. **WFP** has the Automated Disaster and Mapping (ADAM) product on 27 September 2022 1530 HRS UTC+7 which estimates population exposure from Tropical Cyclone NORU and accumulated five (5) days precipitation forecast.
- d. On 26 September 2022, **Emergency Response Coordination Centre (ERCC) - DG ECHO** has published Tropical Cyclone NORU DG ECHO Daily Map.
- e. During the meeting with Viet Nam Government, ASEAN, AHA Centre, and other humanitarian partners on 27 September 2022, United Nations in Viet Nam, UNFPA, UN Woman, World Vision, UNDP, and other humanitarian organisation are willing to support Joint Rapid Assessment which was led the by Viet Nam Government. UN Women also willing to provide gender-sensitive support and activated emergency plan. World Vision will also focus on children, caregiver, and identified NFI as well as family kit that can be given to the people affected by TC NORU (Storm No. 4) in Viet Nam. UNDP will also conduct damage and needs assessment following Viet Nam authority standards and directives.
- f. The Food and Agriculture Organisation (FAO) has started the preparation of Anticipatory Action (AA) 5 days prior to the landfall of Tropical Cyclone NORU in Viet Nam. Upon 48 hours ahead FAO Anticipatory Action (AA) can deliver cash vouchers and item allocations. Detail of FAO Anticipatory Action (AA) is disseminating early warnings, distribution of 640 waterproof drums, cash distribution, and livestock evacuation. Livestock evacuation will be implemented immediately after Tropical Cyclone NORU landfall as well as assessment of the Tropical Cyclone NORU impacts.
- g. On 26 September 2022, Ministry of Natural Resources and Environment (MONROE) of Viet Nam has made an emergency observation request through the Sentinel Asia OPTEMIS Dashboard for the date of occurrence by 28 September 2022 (immediately after landfall of TC NORU (Storm No. 4) in Viet Nam.

## 5. PLAN OF ACTION

### The AHA Centre's Plan

- a. Due to the minor damage sustained due to TC NORU (Storm No. 4) reported by the VNDMA, it has been decided that the international emergency assistance will not be activated. Therefore:
  - The AHA Centre stands down on the deployment of the three (3) members of the ASEAN Emergency Response and Assessment Team (ASEAN-ERAT) to support the rapid needs assessment coordinated by the VNDMA with previously estimated departure date from the home countries to Hanoi, Viet Nam on Thursday, 29 September 2022.
  - The AHA Centre stands down on the deployment of the two (2) staffs of the AHA Centre as the AHA Centre's In-Country Liaison Team (ICLT) with previously estimated departure date from Jakarta, Indonesia to Hanoi, Viet Nam on Thursday, 29 September 2022.
- b. The AHA Centre remains ready to support and provide additional assistance, if and when requested by Viet Nam Disaster Management Authority (VNDMA).
- c. DELSA relief items from Subang, Malaysia and Chainat, Thailand are on standby for a potential mobilisation to Viet Nam if requested.



- d. The AHA Centre will continue its close coordination with the Viet Nam Disaster Management Authority (VNDMA) and will issue necessary updates accordingly.

**Prepared by:**

The AHA Centre - Emergency Operations Centre (EOC)

**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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## ANNEXES: Information Products from Partners

### ASEAN DMRS

Estimated Still Water Storm Surge and Storm Surge layer in DMRS: [link](#)

Emergency Services (emergency shelters, pharmacies, hospitals, health centers, fire stations) near Da Nang, Viet Nam layer in DMRS: [link](#)

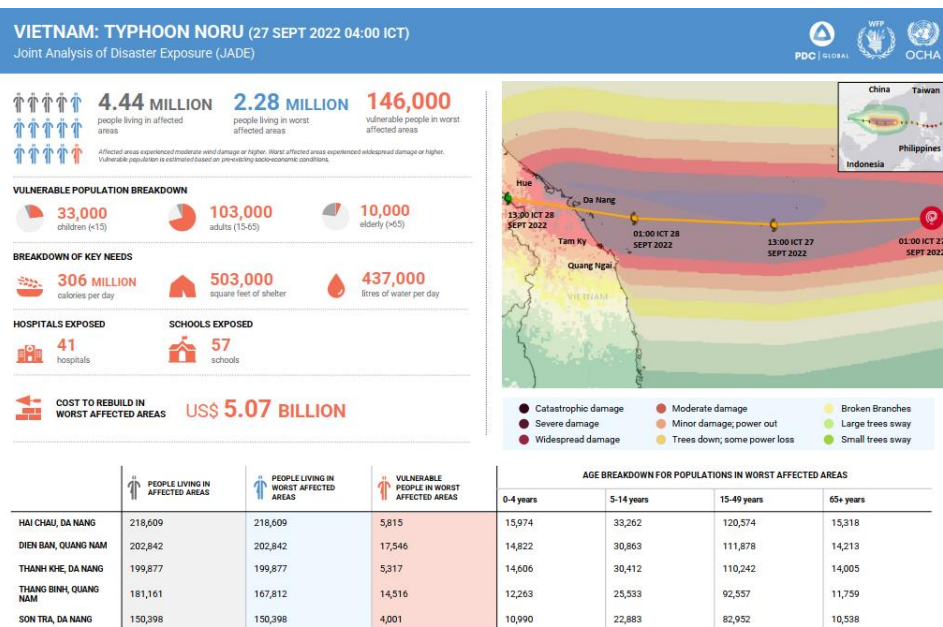
Government and Public Facilities (government buildings, places of worship, and schools) layer in DMRS: [link](#)

Utilities (dams, electric substations, electric transmission lines, dams, power plants, water supply stations) layer in DMRS: [link](#)



Map of Emergency Shelter in Da Nang from DMRS

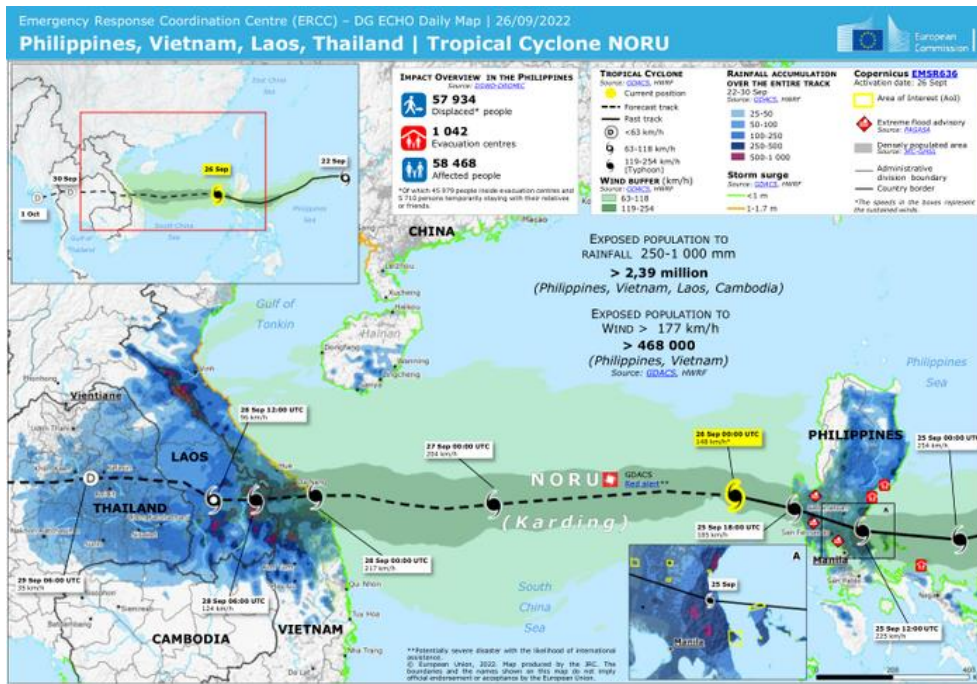
### Pacific Disaster Center (PDC-Global), WFP and OCHA



### Joint Analysis of Disaster Exposure (JADE) for Tropical Cyclone NORU in Viet Nam on 27 Sep 2022 0400AM ICT



# Emergency Response Coordination Centre (ERCC) - DG ECHO



ERCC – DG ECHO Daily Map on 26 Sep 2022

