

# Viet Nam: Typhoon Damrey & flooding in the Central and Highland regions of Viet Nam

*Situation Update No.2 (as of 11 November 2017)*



This update is issued on behalf of the United Nations Resident Coordinator in Viet Nam. It covers the period for 3-11 November 2017. Another update will be shared once new information become available.

## Situation Overview

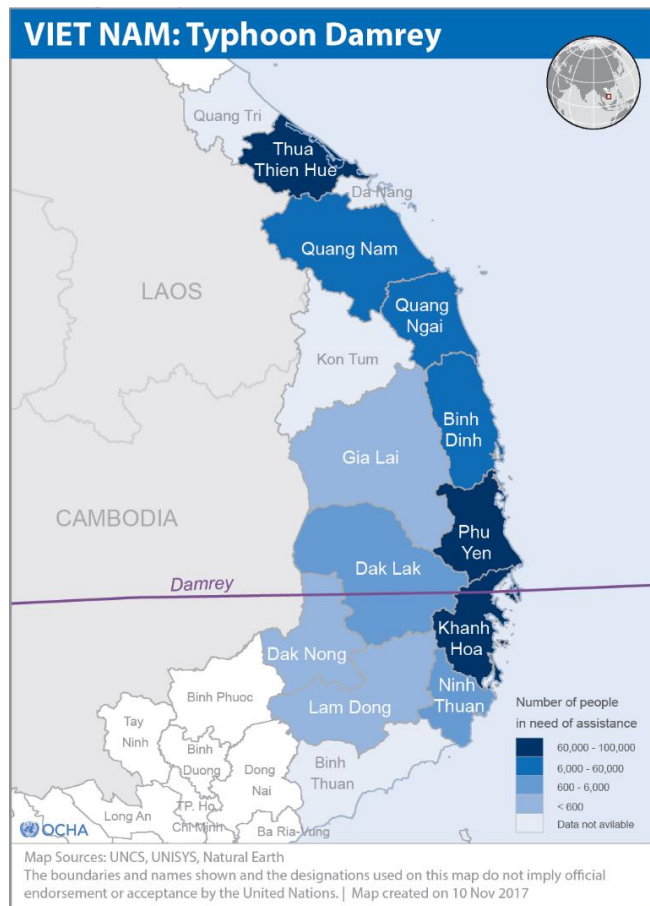
- Typhoon Damrey, or Storm No.12, made landfall in Viet Nam on early Saturday morning, 4 November 2017, with winds of up to 135 km/hour, 500 km south of Nha Trang (Khánh Hòa province). Additional heavy rainfall and floods continued to ravage many of the affected provinces, affecting more people, and damaging homes and farms.
- The most affected provinces, including in the South-Central regions (Khánh Hòa, Phú Yên, Bình Định, and Quảng Ngãi) and Central regions (Thừa Thiên-Huế, Quảng Nam, and Da Nang), show high numbers of deaths and missing people, seriously damaged infrastructure, collapsed/roofless/broken houses, and destruction of 33,153 hectares of crops, including 9,163 hectares of rice, 20,783 hectares of vegetables, and 69,900 agriculture cages.
- More than 35,000 people have been evacuated, 104 people have been killed, including 28 women, and 19 more are still missing.
- Reservoirs and hydropower facilities in the impacted areas are nearing total water storage capacity, and the Government is closely monitoring them to lower the risk of outburst, and to reduce the potential for forced release.
- The Government of Viet Nam, through the Central Committee for Natural Disaster Prevention and Control (CCNDPC), has actively responded to the impacts and led coordination in terms of preparedness and response to the typhoon in the Central and Central Highland provinces of Viet Nam. CCNDPC and VNRC missions were deployed to Hue, Quang Nam and Quang Ngai on 6 November to provide direct instructions.
- The Vietnamese Red Cross as well as international NGOs and UN agencies have started response activities in the most affected provinces. VNRC assessment missions took place from 6-9 November, whereas joint assessment teams from INGOs and UN agencies will be deployed from 13 to 16 November. On 8 November, the Government issued a request for international humanitarian support from UN agencies, INGOs and Development Partners.

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| <b>4.33 million</b><br>people estimated as<br>being affected<br><b>395,000</b><br>people in need of<br>assistance | <b>15</b><br>provinces in the<br>Central regions<br>severely affected | <b>137,836</b> houses<br>damaged or flooded<br><b>3,483</b> houses<br>destroyed entirely | <b>123</b><br>People who have<br>died, are missing or<br>are injured |
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Source for damage and loss data: Central Steering Committee of Natural Disaster Prevention and Control

# Damage, Needs and Response

*Damages and losses (as reported by CCNDPC on 11 November 2017)*



Source: UN Office for the Coordination of Humanitarian Affairs

vegetables, maize and other cash crops) have been severely damaged. The aquaculture sector is also greatly affected with 3,020 hectares of shrimp and crab cultivation destroyed, and over 69,900 aquaculture cages have been swept away. 1,345 fishing boats have been sunk. In addition, 63,456 poultry (ducks and chickens), 193 pigs and 29 buffaloes are dead.

- **Children:** At least 1 million children have been affected by the storm and a stronger focus should be placed on the impact on those children, especially the most vulnerable ones who live in hard to reach areas, prioritizing their immediate and medium-term needs in terms of water, hygiene and sanitation, health, education and child protection.
- **Other infrastructure:** 128 km of canals, dykes and irrigation facilities were damaged and/or affected, with considerable damage to river and coastal banks and small dams. Access to the affected population has been made difficult due to heavy rainfall that has pounded portions of the country since then and continued flooding in certain areas.

## National response

- Authorities at both central, provincial and local level have proactively carried out preparedness activities, including setting in place the necessary measures for safety and evacuation of more than 35,168 residents and tourists, measures for effective drainage and irrigation, and ship/boat inventories to better prepare for potential rescue missions.

- **Casualties:** 104 were killed (Quang Tri: 01, Thừa Thiên Huế: 11; Quảng Nam: 19; Quảng Ngãi: 06; Bình Định: 06; Phú Yên: 01; Khánh Hòa: 44 (including 2 children); Lâm Đồng: 03; Kon Tum: 01; Đắk Lắk: 01; and 11 people in a ship accident in Bình Định's coastal area); 19 people are still missing (Quảng Nam: 07; Quảng Ngãi: 01; Bình Định: 05; Phú Yên: 02; Khánh Hòa: 01; and 02 people in a ship accident).
- **Shelter:** 3,483 houses have collapsed, and 137,836 houses were partly damaged or lost their roof. As of 10 November, 131 houses in the province of Quảng Tri and 7,200 households in the province of Thừa Thiên-Huế were still inundated, while the water has almost receded in other provinces. It has been estimated that the economic losses in the most affected province of Khánh Hòa alone are more than USD 310 million.

- **Food security and livelihoods:** 1,500 metric tons of rice are urgently needed to cover the food needs of 38,400 households in the next four weeks, over 41,299 households have completely lost their livelihood means and are at risk, and 30,000 hectares of crops (including 9,163 hectares of rice, and 20,783 hectares of

- CCNDPC is closely monitoring the situation, and is keeping a close eye on reservoir and water discharge operations to prevent downstream flooding, especially in areas where APEC events are being organized. So far, only one dam has broken, and four irrigation reservoirs have been damaged. The Government is currently working to reduce the water levels of those reservoirs, and plans have been made to fix them completely once the dry season has started.
- The Viet Nam Fatherland Front (VFF) has released VND 5.5 billion to the most affected regions to provide relief aid to affected families. In addition, the Viet Nam Red Cross (VNRC) has released emergency aid in the form of cash and in-kind contributions valued at nearly VND 1.1 billion to support the provinces of Khánh Hòa, Phú Yên, Đắk Lắk and Bình Định. Further support will be provided from the International Federation of the Red Cross (IFRC) in the coming days.
- In addition, the VNRC has carried out rapid assessments in six of the most affected provinces, including Thua Thien-Hue, Quang Nam, Quảng Ngãi, Bình Định, Phú Yên, and Khánh Hòa from 6-9 November 2017. Preliminary findings have already been shared with regional and national partners, including the Government, UN agencies and INGOs.

### International response

- The CCNDPC officially issued a request for international help to UN agencies, INGOs and Development Partners on 8 November 2017 to cooperate on recovery work related to the impacts of typhoon Damrey and continued heavy rainfall and flooding in the Central and Highland regions of Viet Nam.
- The UN agencies, including FAO, UNDP and UNICEF, PACCOC and INGOs continue to coordinate their efforts jointly, and will deploy on three joint needs assessments missions to (i) Phu Yen and Khanh Hoa, (ii) Quang Ngai and Binh Dinh, and (iii) Thua Thien Hue and Quang Nam, from 13 to 16 November 2017, with participation from Government representatives.
- At the request of VNDMA, UNICEF has deployed WASH and communication experts between 9-12 November to support the VNDMA's assessment missions to the provinces of Khanh Hoa, Phu Yen and Binh Dinh to identify the existing needs and gaps, especially of children in remote communes.
- The Government of Russia has provided USD 5 million, as well as 40 tons of in-kind contributions of humanitarian assistance, including tents, food, and power generators for the severely affected province Khanh Hoa. In addition, the Government of Japan has provided 105 water filter systems to severely affected communes in the provinces of Thua Thien Hue and Quang Nam. Other bilateral partners have noted their interest in supporting response efforts, and internal discussions with INGOs and UN agencies are ongoing.
- The INGOs, in close cooperation with PACCOC, UN agencies, local partners and communities have activated initial responses to support the affected population. Save the Children has announced initial financial support of USD 120,000, while World Vision Viet Nam has started to provide support to affected families and children in the district of Bac Tra My, Quang Nam province.
- UN agencies, including FAO, IOM, UNDP and UNICEF, have requested funds to support response activities, including from the UN Office for the Coordination of Humanitarian Affairs through the Central Emergency Response Fund (CERF), with approval still pending.



### Water, Sanitation and Hygiene

Sector focal point: Mr. Lalit Patra ([lpatra@unicef.org](mailto:lpatra@unicef.org))

### Damages and Needs:

- The initial assessment of needs in the WASH sector in the most affected province of Khánh Hòa indicates 24,490 households in need of drinking water supply in the coming 15 days, and out of those 9,800 households will need drinking water support beyond the next 15 days, due to water pipes breaking and the pollution of water wells (with a total of 15,340 drinking wells being affected). So far, the Government has repaired 4,945 drinking wells that can be used again by the affected population. In addition, the environment in the province is highly polluted by rubbish, dead animals, and other debris, which could lead to further pollution of water wells and groundwater, escalating diseases such as diarrhea, dengue fever, hand-foot-mouth disease, and skin diseases.
- In Binh Dinh province, 16,552 households dug wells were submerged because of the flooding, of which 11,808 wells were repaired. The Binh Dinh provincial Department of Health requested the CCNDPC and MOH to provide 120,900 Chloramine B tablets and 589 kg of powdered Chloramine B to treat the contaminated wells.

#### **Response:**

- The Directorate of Water Resources under the Ministry of Agriculture and Rural Development (MARD) has directed the Department of Water Resources and Rural Water Supply, and the National Centre for Rural Water Supply and Sanitation (NCERWASS) to closely monitor the water and sanitation situation in the different provinces, and to guide the provincial CERWASS of affected provinces to consolidate reports of damage and the most urgent needs of affected populations.
- The provincial Centre for Rural Water Supply and Sanitation, together with the provincial Centre for Preventive Medicines and the Viet Nam Red Cross chapters in the affected provinces have been taking immediate response actions to provide bottled drinking water, treatment of polluted wells, and environmental cleansing for effective control of communicable diseases.
- The VNDMA dispatched assessment teams to Binh Dinh, Phu Yen and Khanh Hoa provinces between 9-11 Nov with a specific focus on WASH and communication for behavior change that are amongst the urgent needs of affected women and children. At the request of DGNDPC, UNICEF staff have joined these assessment teams to provide technical assistance.



#### **Food Security and Livelihoods**

Sector focal point: Ms. Roberta Tranquilli (roberta.tranquilli@fao.org)

#### **Damage and Priority Needs:**

- 1,500 metric tons of rice are urgently needed to cover the food needs of over 38,400 households in the next four weeks (23,000 households in Hue, 1,800 households in Quang Ngai, and 13,600 households in Khánh Hòa).
- Over 41,299 households have completely lost their livelihood and need immediate assistance (163,349 households in Thừa Thiên Huế, 23,150 households in Khánh Hòa, and 1,800 households in Quảng Ngãi).
- Over 30,000 hectares of crops have been destroyed as follows: 9,163 hectares of rice (Quang Tri: 51ha, Quang Nam: 778 ha; Quang Ngai: 237 ha, Bình Định: 1,860 ha; Phú Yên: 952 ha; Khánh Hòa: 4,374 ha; Gia Lai: 25 ha; Đắk Lắk: 787 ha; Lâm Đồng: 100 ha) and 20,783 hectares of cash crops including maize, vegetables and fruit trees (Quang Tri: 69 ha, Thừa Thiên Huế: 1,078 ha; Đà Nẵng: 140 ha; Quang Nam: 1,478 ha, Quảng Ngãi: 1,698 ha; Bình Định: 760 ha; Phú Yên: 999 ha; Khánh Hòa: 1,833 ha; Ninh Thuận: 2,0 ha; Gia Lai: 732 ha; Đắk Lắk: 12,025 ha; Kon Tum: 08 ha, Đắk Nông: 70 ha; Lâm Đồng: 205 ha).
- 3,020 hectares of shrimp and crab production are damaged and 69,900 aquaculture cages have been swept away (Thừa Thiên Huế: 768; Danang: 80, Quảng Ngãi: 23; Bình Định: 75; Phú Yên: 238; Khánh Hòa: 24,320).
- 1,345 fishing vessels were wrecked (including 1,141 in the province of Khánh Hòa).

- Livestock: over 63,456 poultry (ducks and chickens), 193 pigs and 29 buffaloes are dead.

**Response:**

- The Government is providing 500 tons of rice per severely affected province and 100-200 tons of rice for moderately affected provinces.
- The Viet Nam Red Cross (VNRC) has provided an initial support of 2.12 billion VND (distribution of unconditional cash, household kits, shelter repair kits, ceramic filters and Aquatabs) to support the relief in seven provinces of Thừa Thiên-Huế, Quang Nam, Quang Ngai, Phu Yen, Binh Dinh, Khanh Hoa and Dak Lak. The VNRC also distributed 1,000 boxes of instant noodles in Binh Dinh. In Quang Ngai, the VNRC has sent 700 boxes of instant noodles.



Sector focal point: Mr. Vu Quang Hieu (vuh@wpro.who.int)

**Damage and Needs:**

- A total of 109 Commune Health Stations (CHSs) and hospitals in the four most affected provinces of Quang Ngai, Khanh Hoa, Binh Dinh, and Phu Yen have reported damages or were flooded due to typhoon Damrey and ongoing floods. In some cases, those CHS' are still isolated, and functions such as the provision of basic health care services have been severely affected.
- As of now, no increase in communicable diseases or outbreaks in the affected provinces have been reported. Basic health care services in this regard have however been disrupted in some communes as they are not easily accessible, given the damage to infrastructure.

**Response:**

- The Ministry of Health (MOH) has sent delegates to the most affected provinces to guide local health sector response measures during and after the flood. In addition, MOH has provided emergency support to the affected provinces with emergency health kits and medical supplies.
- An MOH-led assessment team, consisting of the Minister of Health and relevant departments and partners, visited the provinces of Khanh Hoa and Phu Yen, and assessed recovery needs for the health sector.
- Local health sectors continue efforts to recover normal functions of the HCFs, strengthen surveillance with respect to epidemic situations, and support and direct affected people in cleaning their environment (i.e. disinfecting water wells, etc.).
- MOH has sent an official request for international support to the WHO, including the provision of needed aquatabs for the treatment of drinking water at household level.



Sector focal point: Mr. Nguyen Dinh Quang (ndquang@unicef.org)

**Damage and Needs:**

- 122 communes from 12 districts have been listed as seriously affected by the flooding, including 80,531 pregnant/lactating women and 143,997 children.

**Response:**

- MOH has provided in-kind support of medical supplies for each of the five provinces of Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, and Khánh Hòa, including 20 emergency health kits, 200,000 tablets of chloramine B, 50 live jackets, and six boxes of emergency medical equipment.

- The National Institute of Nutrition (NIN) has provided high doses of vitamin A capsules to six of the most affected provinces, including Thua Thien Hue, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, and Khanh Hoa, and continues to lead distribution campaigns of Vitamin A for all children between the age of three and 36 months in those provinces in the coming weeks to ensure a timely response to the situation, in alignment with the National Guidelines and Action Plan on Emergency Nutrition Preparedness and Response developed earlier in 2017. In addition, the NIN remains in close contact with the local nutrition teams of the affected provinces to continuously update information and provide technical support to local teams when and if needed.

## Education

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Sector focal point: Ms. Le Thi Minh Chau (ltmchau@unicef.org)

### **Damages and Needs:**

- Casualties: 1 teacher died in the province of Phu Yen.
- In the most affected provinces Khánh Hòa, 40-50% of primary, secondary and high school building roofs have been destroyed. In two of the most affected districts, Van Ninh and Ninh Hoa, 100% of school buildings were destroyed.
- Significant damage in the affected provinces, especially the provinces of Khánh Hòa, Phu Yen, Binh Dinh, Quang Ngai, and Thua Thien Hue has been reported, with classrooms with roofs blown away, glass windows broken, fallen walls, damage to school offices, school toilets, boarding facilities, and water storage facilities due to uprooting of trees, as well as the collapse of fences and parking spaces for students and teachers. In addition, damage of school equipment and teaching aids as well as learning materials have been reported.
- The roads to schools have been heavily damaged by the floods, making transport to school very challenging for both students and teachers. The disruption of the education system in the most affected districts has lasted for days, starting on 3 November. Education activities in less affected districts have resumed on 7 November, although lots of difficulties are still being faced due to damage to the schools.

### **Response:**

- MOET is following up closely with the affected provinces to compile data and situation analysis of the impacts on the education sector, to report to MOET leaders and the CCNDPC, and to share the information with education sector partners for a better and more effective coordination of assessments and responses.
- The MOET Vice Minister is leading a mission to the worst affected province of Khanh Hoa, starting on 13 November. In addition, MOET representatives are participating in the joint DRMT/DMWG assessment mission in Quang Ngai and Binh Dinh from 13 to 16 November.

## Shelter

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Sector focal point: Mr. Nguyen Quoc Nam (qnam@iom.int)

### **Damage and Needs:**

- 3,483 houses have collapsed (Thua Thien-Hue: 01; Quang Nam: 21, Quảng Ngãi: 30; Bình Định: 151; Phú Yên: 177; Khánh Hòa: 2.688; Gia Lai: 16; Đắk Lắk: 119; Đắk Nông: 01; Lâm Đồng: 03); and 137,836 houses were partly damaged or lost their roof (Quảng Trị: 06, Quảng Nam: 234, Quảng Ngãi: 287; Bình Định: 833; Phú Yên: 18.466; Khánh Hòa: 98.442; Ninh Thuận: 65; Gia Lai: 140; Đắk Lắk: 2.280; Kon Tum: 65; Đắk Nông: 54; Lâm Đồng: 87).
- More than 35,000 people were evacuated.

### **Response:**

- Local authorities in the affected provinces have provided support to 35,168 persons from 8,516 households to return to their homes, and the VNDMA is closely working with provincial authorities to get information on shelter needs to plan for effective relief action and early recovery.
- In addition to IOM, UNDP and VNRC are working on a joint proposal for funding to provide relief assistance in the shelter sector, UNDP has secured funds for the coordination, assessment and preparation work for a shelter and housing assessment.



## Early Recovery

Sector focal point: Ms. Jenty Kirsch-Wood (jenty.kirsch-wood@undp.org) and Ms. Bui Viet Hien (bui.viet.hien@undp.org)

### Damage and Needs:

- Debris removal remains a key concern in many of the affected areas, and damage to roads and critical infrastructure is significant. Local communities are mobilising volunteers and Government staff to provide support in their clean-up efforts.
- Initial needs assessment reports suggest that local markets and Government services are affected but so far are still functioning.
- Water levels remain high, and a significant number of the more than 70,000 houses flooded after the storm remained under-water and/or inundated, and 7,200 households in the province of Thừa Thiên Huế are inundated (as of 10 November). The current flooding levels are equivalent to the historical levels in 2007 and 2009, but occur in a broader affected area than previous floods, hence requiring more longer-term interventions.
- With almost 3,500 houses fully destroyed and coastal aquaculture, as well as approximately 25,000 hectares of crop production heavily impacted, there is an urgent need for recovery planning and assistance to prevent a further degradation of the humanitarian situation. In addition, an increased flow of rural migrants to urban areas has already been reported in highly affected areas where livelihoods have been destroyed.

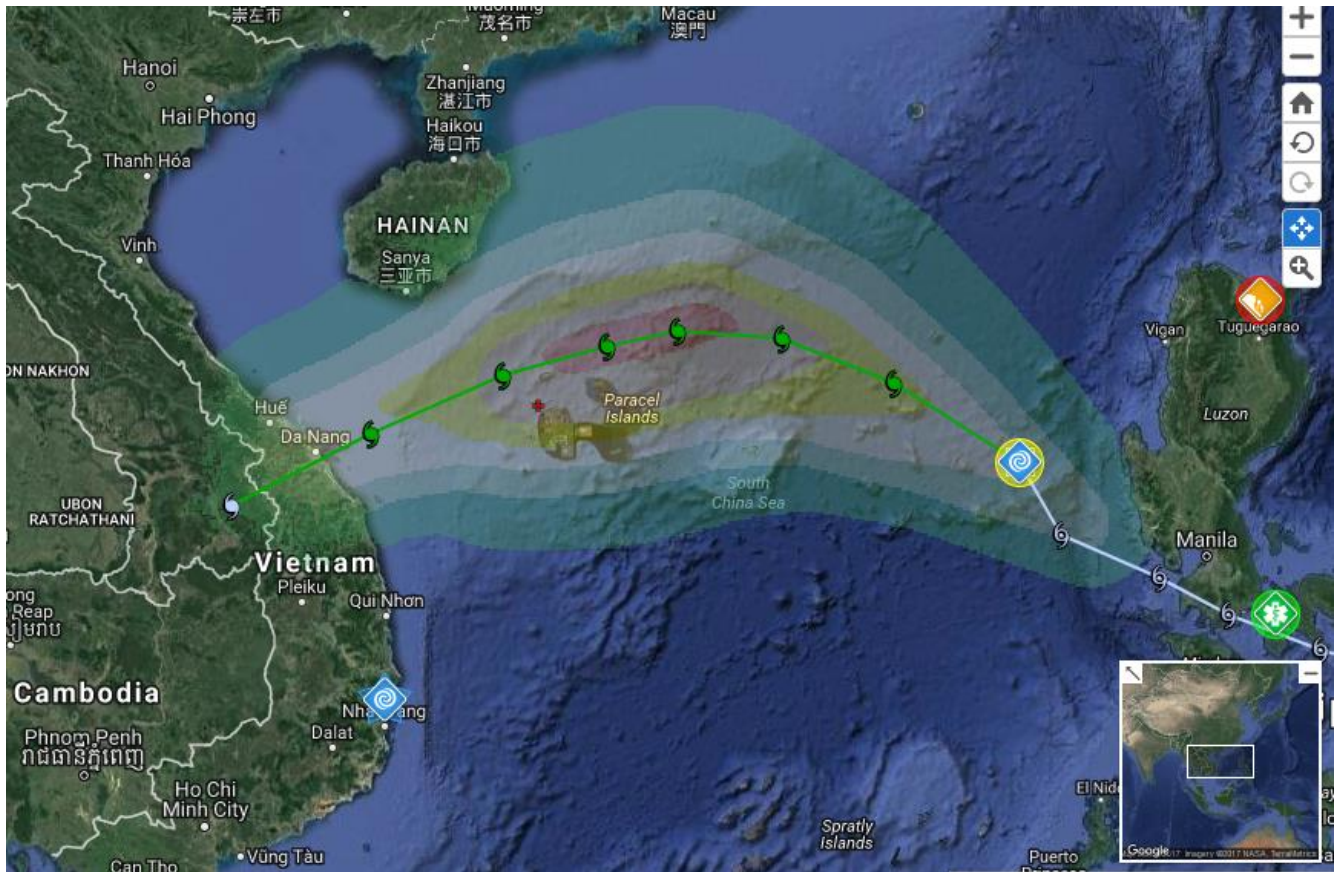
### Response:

- The Government of Viet Nam has been active in debris removal and the reestablishment of roads, electricity and other infrastructure services. It has also initiated recovery planning and requested international support for its ongoing efforts.
- UNDP has mobilised national early recovery experts to join and lead UN assessment teams. Regional and global expertise is also being mobilised to support a planned scale up of early recovery and recovery support and to ensure effective information management for recovery in partnership with the VNDMA. This will likely include extending existing flood and storm resilient housing programs in highly impacted provinces.

## Forecast and General Coordination

Based on recent forecasts, there is a risk of another tropical storm affecting the North and Central coast of Viet Nam in the coming days in the form of tropical depression 30, which is expected to make landfall in Central Viet Nam on 14 November 2017.

The Government of Viet Nam, through the Central Committee for Natural Disaster Prevention and Control (CCNDPC) and the Viet Nam Disaster Management Authority (VNDMA) under the Ministry of Agriculture and Rural Development (MARD) which serves as the CCNDPC Secretariat, is coordinating the response in the affected provinces and at the national level. The UN, both at country and regional level, as well as INGOs and the Viet Nam Red Cross are closely monitoring the situation, and will provide continued support.



Source: Pacific Disaster Center (PDC), 10 November 2017

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