



Tropical Cyclones Encountering Philippines and Elsewhere

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1. Tropical Cyclone Yinxing (Marce), Philippines on November 6-12, 2024

On November 6, 2024, the tropical cyclone Yinxing (Marce) struck the west-northwest region of the Philippines. Yinxing had maximum sustained winds of 150 km/h near the center, gusts of up to 185 km/h, and a central pressure of 970 hPa. The impact of the cyclone caused various conditions, including heavy rainfall, severe winds, and coastal inundation, which led to flooding and rain-induced landslides. The hazard of heavy rainfall ranged from heavy to intense, then to torrential levels (on November 7, 2024). Afterward, the cyclone's intensity decreased to moderate to heavy rainfall levels (on November 8, 2024). According to BNN Bloomberg, Yinxing caused an estimated 4.8 million USD in damages and at least 195.84 million USD in crop losses.

On November 12, 2024, Cyclone Yinxing continued its path across other countries, including Cambodia, Lao PDR, Thailand, and Vietnam. Winds were recorded as strong, with a level 6 intensity (39-49 km/h), gusting to level 8. It was estimated that rainfall in the eastern half of Cambodia, southern Lao PDR, eastern Thailand, and north-central and south-central Vietnam ranged from 25-76 mm. Less

than 76 mm of rainfall was expected in the rest of Cambodia, central Lao PDR, northeastern and eastern Thailand, and northern and southern Vietnam. Yinxing also affected crops, damaging approximately 1,120 hectares.

2. Tropical Cyclone Oraj (Nika), Philippines on November 10, 2024

The storm, designated locally as Nika, struck Aurora province with winds reaching 130 km/h, equivalent to a Category 1 hurricane. Weather officials have warned that the typhoon could bring over 200 mm of rain to parts of Luzon Island, particularly in Aurora and Isabela provinces. The storm caused various hazardous conditions, including heavy rainfall, severe winds, and coastal inundation. Under these conditions, flooding and rain-induced landslides are likely, especially in areas identified as highly or very highly susceptible to these hazards on hazard maps, and in regions with significant prior rainfall.

On November 11, 2024, heavy rainfall ranged from heavy to intense (100-200 mm) in Aurora and Isabela, and from moderate to heavy (50-100 mm) in Cagayan, Apayao, Abra, Kalinga, Mountain Province, Ifugao, Nueva Vizcaya, Quirino, Quezon, Catanduanes, Camarines Norte, and Camarines Sur. On November 12, 2024, rainfall intensified to intense to torrential (>200 mm) in Cagayan, Isabela, Apayao, Kalinga, and Aurora; heavy to intense (100-200 mm) in Mountain Province, Ifugao, Benguet, Abra, Ilocos Norte, Ilocos Sur, Quirino, and Nueva Vizcaya; and moderate to heavy (50-100 mm) in Quezon, Tarlac, Pangasinan, La Union, and Nueva Ecija.

3. Tropical Cyclone Usagi (Ofel), Philippines on November 13, 2024

Tropical Cyclone Usagi (Ofel) continued to intensify over the Philippine Sea, east of Aurora. Usagi moved west-northwestward, then northwestward, over the Philippine Sea before making landfall along the eastern coast of Cagayan or Isabela on November 14, 2024. The storm brought various hazardous conditions, including heavy rainfall, severe winds, and coastal inundation. Under these conditions, flooding and rain-induced landslides are likely, especially in areas that are highly or very highly susceptible to these hazards, as identified on hazard maps, and in regions with significant prior rainfall.

Additionally, on November 14, 2024, heavy rainfall ranged from intense to torrential (>200 mm) in Cagayan and Isabela, heavy to intense (100-200 mm) in Apayao and Kalinga, and moderate to heavy (50-100 mm) in Batanes, Ilocos Norte, Abra, Mountain Province, Ifugao, Quirino, Nueva Vizcaya, and Aurora. On November 15, 2024, rainfall was intense to torrential (>200 mm) in Batanes and Cagayan, heavy to intense (100-200 mm) in Ilocos Norte, and moderate to heavy (50-100 mm) in Apayao and Abra.

4. Tropical Cyclone Man-Yi (Pepito), Philippines on November 16, 2024

Tropical cyclone Man-Yi was classified as a super typhoon. This cyclone is the fourth super typhoon to hit the Philippines in the last weeks of November. It caused heavy rainfall-induced landslides in some areas of the Quezon-Aurora region. The cyclone also crossed the Luzon landmass, with winds and rainfall affecting parts of the Visayas and Mindanao. Maximum winds of 195 km/h were recorded near the center, with gusts reaching up to 240 km/h. Strong to typhoon-force winds extended up to 300 km from the center. On November 17-18, 2024, heavy rainfall ranged from intense to torrential (>200 mm) in Catanduanes, Camarines Sur, and Camarines Norte; heavy to intense (100-200 mm) in Albay, Quezon, Northern Samar, and Eastern Samar; and moderate to heavy in Sorsogon, Samar, Leyte, Biliran, and Masbate.

Damage and losses

Impact on the affected area

The cyclones brought significant rainfall to areas in the Philippines, including Santa Ana, the island of Luzon, and the northern region, including Batanes province. Rainfall exceeded 20 cm (8 inches) in Cagayan, Apayao, and Ilocos Norte, while totals of 10-20 cm (4-8 inches) were recorded in Batanes, Ilocos Sur, and Abra. Lesser rainfall of 5-10 cm (2-4 inches) was likely over most of the rest of northern Luzon. More than 160,000 people had been evacuated. Sustained heavy rainfall could trigger flooding in low-lying areas and those with drainage systems that are easily overwhelmed, leading to localized evacuations, flash flooding, and landslides. Moreover, the effects of Usagi also extended to Taiwan. On November 14, the Central Weather Administration in Taiwan issued a sea warning for the storm, covering the southern part of the Taiwan Strait, followed by a land warning later in the day for Pingtung County and the Hengchun Peninsula.

Agricultural devastation

Major crops such as rice, corn, coconut, and bananas have been destroyed after the cyclones hit Philippines in the last week of September to November. The storm affected many areas along the west-northwest region of the Philippines, causing significant agricultural damage. Initial assessments from the Department of Agriculture reveal that Yinxing alone caused 4.73 million USD in damages, predominantly to crops. The tropical cyclone Oraji devastated the northern coast on the morning of November 11, 2024, threatening to exacerbate the crop losses already sustained this year due to relentless cyclones. This added to the mounting toll of weather-related agricultural losses this year, which had already surpassed 195.84 million USD. The details are as follows:

Agriculture land:

- Luzon Island, Philippines: Nearly 1.1 million hectares of crops were damaged by Tropical Cyclone Yinxing. Additionally, crop damage has increased to 5.07 million USD.
- Cagayan Valley, Philippines: More than 100,000 hectares of crops are estimated to have been affected in Cagayan Valley due to the devastation caused by Tropical Cyclone Oraji.

Affected crops:

- Luzon Island, Philippines: Nearly 1.1 million hectares of rice and corn crops were damaged by the combined tropical cyclones. Approximately 32 hectares of rice were affected, with a cost of 7 million USD. Corn crops covering about 5.6 thousand hectares were affected, with a cost of 1.55 million USD. Additionally, approximately 2,114 hectares of cassava were affected, with a cost of 1 million USD.
- Cagayan Valley, Philippines: It was reported that, before the cyclone hit, there was already a standing crop of 133,025 hectares of rice. The standing crop of corn was estimated at 24,112 hectares, while high-value crops covered 11,679 hectares. Additionally, more than 100,000 hectares of crops are estimated to have been affected by the devastation caused by Tropical Cyclone Oraji.

Government response and countermeasures for Philippines

Government Aids:

- President Ferdinand Marcos Jr.'s administration has spent over 17 million USD on food and other aid for hundreds of thousands of storm victims.
- A quick response has provided aid for the rehabilitation and recovery of affected areas, amounting to 17 million USD.
- Agricultural inputs (such as rice, corn, and vegetable seeds, as well as drugs and biologics for livestock and poultry) worth 2.48 million USD were provided by the DA Regional Field Offices.

Foreign Aids:

- Neighboring countries, including Singapore, Indonesia, Malaysia, and Brunei, provided additional aircraft to transport food, water, and other aid to villages isolated by the storms. The United States, Manila's longtime treaty ally, deployed cargo aircraft with food and other assistance.
- The Taipei Economic and Cultural Office donated disaster relief supplies worth over 102,000 USD to the Philippines. The South Korean government provided aid valued at 610,000 USD through the World Food Programme to assist those affected by the recent storms.