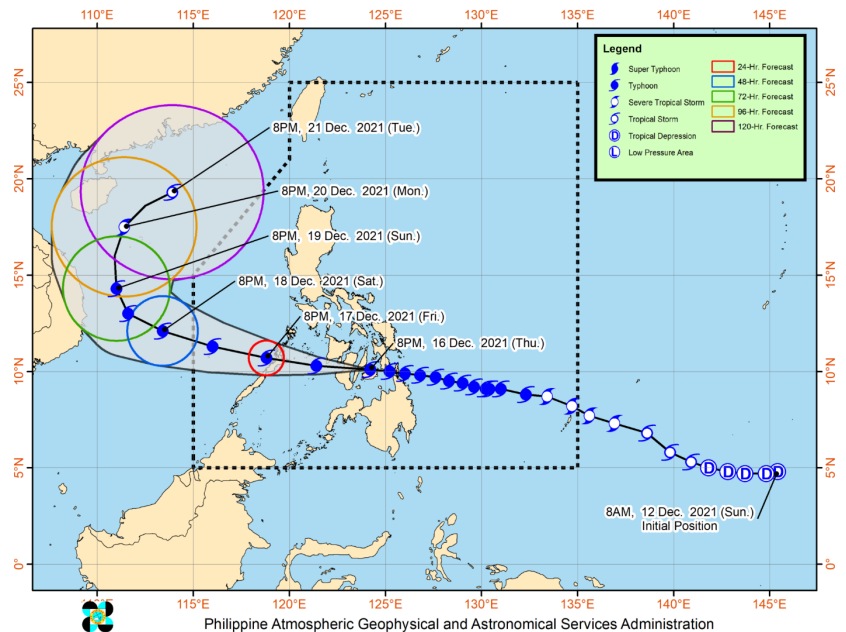




# TYPHOON ODETTE (RAI) RAPID DAMAGE ASSESSMENT AND NEEDS ANALYSIS

At 1:30 PM of December 16, Thursday, the Philippine Atmospheric, Geophysical and Astronomical Service Administration (PAGASA) in its 2 PM Bulletin reported that tropical cyclone Odette (International Name: Rai), the 15th that entered into the Philippine Area of Responsibility (PAR) in 2021 packing maximum sustained winds of 195 kilometers per hour (kph) near the center and gustiness of up to 240 kph made landfall in the vicinity of Siargao Island in Surigao del Norte province, exactly 10 years after Typhoon Sendong also made landfall in 2011 in the southern part of eastern Mindanao. Like its predecessor, Odette (Rai) is also accompanied by flood-causing heavy rain that battered the places of its path since a day before its landfall.

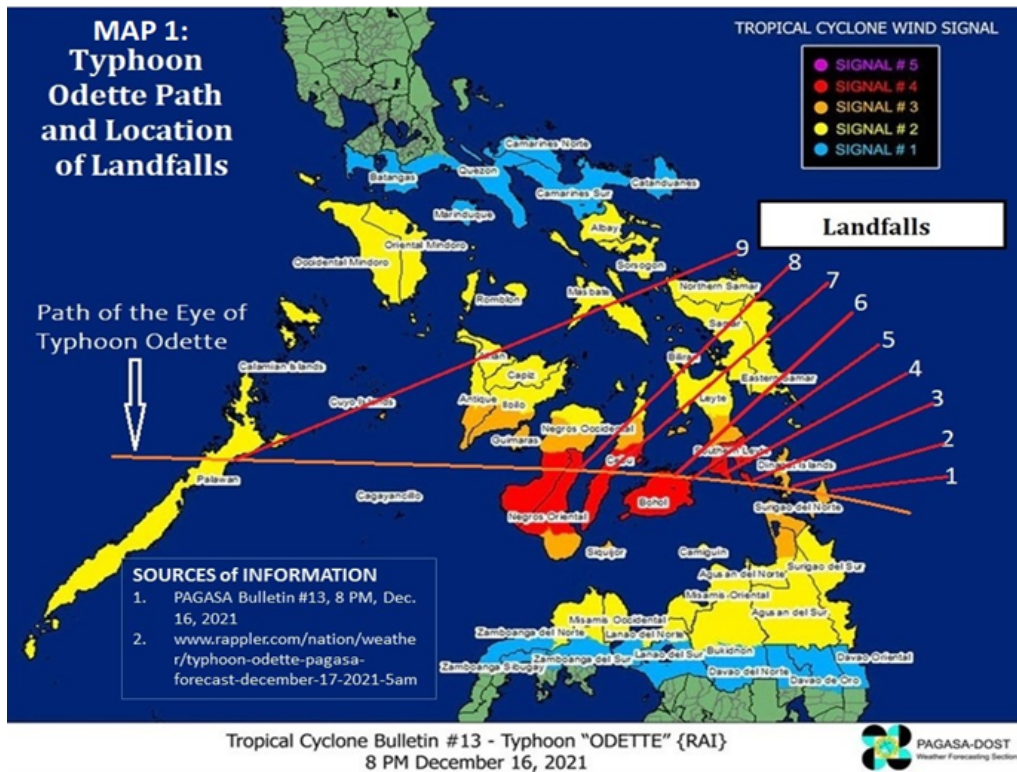
Track of Typhoon "ODETTE" {RAI}



Moving at 30 kilometers westward, on December 16, Typhoon Odette (Rai) made another 6 landfalls in Siargao Island, Surigao del Norte – 1:30 pm, Cagdianao, Dinagat Islands – 3:10 pm, Liloan, Southern Leyte – 4:50 pm, Padre Burgos, Southern Leyte – 5:40 pm, island town of President Carlos P. Garcia, Bohol – 6:30 pm and Bien Unido, Bohol – 7:30 pm and Carcar, Cebu – 10 pm. <sup>1</sup>

Typhoon Odette made its 8th landfall in La Libertad, Negros Oriental at 2 am of December 17, crossed the Visayan Sea and made its final landfall in Roxas, Palawan

at 4:00 pm, with a slightly lesser speed of 150 km per hour near the center and gustiness of up to 205 kph. It passed through the island and exited to the West Philippine Sea and as of 4 a.m. December 18, the center of the eye of Typhoon Odette (Rai) was located at 240 kilometers west northwest of Puerto Princesa City, Palawan packing maximum sustained winds of 150 kilometers per hour near the center, gustiness of up to 185 kph, central pressure of 960 hPa, and moving in the west northwest direction at a speed of 15 kph towards the West Philippine Sea. Map 1 below shows the path of the typhoon and the landfall points.



LANDFALLS of TYPHOON ODETTTE	
<b>December 16, 2021</b>	
1.	1:30 PM - Siargao Island, Surigao del Norte
2.	3:10 PM - Cagdianao, Dinagat Islands
3.	4:50 PM - Liloan, Southern Leyte
4.	5:40 PM - Padre Burgos, Southern Leyte
5.	6:30 PM - Island town of President Carlos P. Garcia, Bohol
6.	7:30 PM - Bien Unido, Bohol Mainland
7.	10:00 - Carcar, Cebu
<b>December 17, 2021</b>	
8.	2:00 AM - La Libertad, Negros Oriental
9.	4:00 PM - Roxas, Palawan

## OVERALL SITUATION

### A. Affected Area and Population

Typhoon Odette (Rai) is among the typhoons entering the Philippine area of responsibility with the widest circumferential overcast comparable to Typhoon Yolanda (Haiyan) in 2013. With its ring-bands spanning from the southern portion of Luzon, the whole of the Visayas and half of Mindanao and Palawan Island. Data gathered from members and affiliates of the Community-Led Empowering Action for Resilience Network (CLEARNet) and the digital feedbacking platform Talk-Loop-Philippines, to which both ECOWEB is acting as hub, reveal that Typhoon Odette (Rai) affected a total of 38 of the 81 provinces in 10 of the 17 regions of the country at various degrees of impact.

Map 2 below shows the provinces affected by the typhoon as assessed by ECOWEB and confirmed by CLEARNet focal organizations and other CSOs, National Anti-Poverty – Victims of Disaster and Calamities (NAPC-VDC) sectoral council members and other contacts in the provinces:

[1] <https://www.rappler.com/nation/weather/typhoon-odette-pagasa-forecast-december-17-2021-5am/>

# MAP 2: Odette Affected Provinces in the Philippines

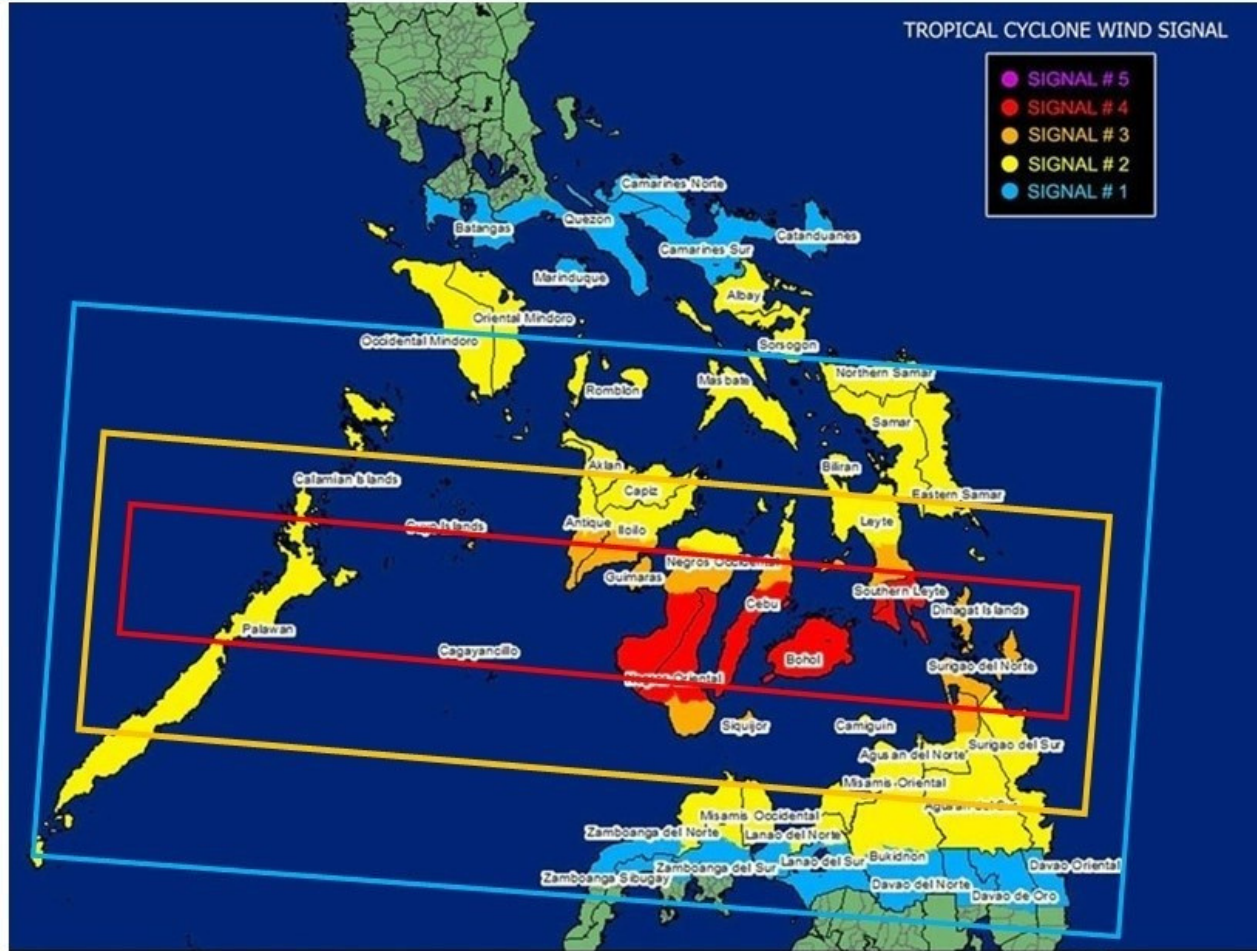
**LEGEND**  
ECOWEB Assessment

**Severely Affected**

**Moderately Affected**

**Slightly Affected**

**NOTE:**  
ECOWEB assessment is based on the data provided by local organizations belonging to the CLEARNet and the Talk-Loop Philippines.



Tropical Cyclone Bulletin #13 - Typhoon "ODETTE" {RAI}  
8 PM December 16, 2021



Guided by the above preliminary analysis based on the typhoons path shown in Map 1 and the estimated affected area, the situation of the provinces in their region were assessed using the criteria below:

**Severely affected** are provinces where the eye of the typhoon passed when it was at its peak speed and gustiness (speed: above 150 kph); affected by both strong wind and heavy rain; more than half of its municipalities and cities have internally displaced families that will remain in evacuation centers for at least a week due to total damage of shelters; strategic services like water, electricity, food supply, medicine and other essential goods is totally disrupted and will potentially remain in the same condition for at least a week; families' major sources of livelihoods totally damaged and could not be restored for at least a month; majority of municipal local government unit (LGU) or the provincial LGU declared a state of calamity and needing support from other provinces, cities or the national government or international agencies.

**Moderately affected** are provinces where the eye of the typhoon passed with lesser speed (100-149 kph) and gustiness; affected by both or either of strong winds and heavy rains; less than half of its municipalities and cities have internally displaced families that will remain in evacuation centers for at least a week due to total damage of shelters; strategic services like water, electricity, food supply, medicine and other essential goods is disrupted but can be restored within a week; families major sources of livelihoods totally damaged and but some could recover within a month; at least half of the municipal LGUs declared state of calamity and may need external support for a few days.

**Slightly affected** are provinces where the eye of the typhoon did not pass through but affected by slightly strong winds (less than 100 kph) but severely affected by heavy rains; less than 20% or less of the total municipalities declared state of calamity; not more than 100 families are internally displaced with totally damaged houses, most returned within 3 days; strategic services like water and electricity are interrupted but could be restored in not more than 3 days; food supply not totally disrupted and do not need external support.

Using the above categorization, ECOWEB came up with the list of provinces in Table 1 coded as follows:

**Red** = severely damaged

**Orange** = Moderately affected

**No Color** = Slightly Affected

ECOWEB and CLEARNet Assessment with information from NAPC-VDC and other CSOs revealed that as of December 18, there are already provinces that are 7 severely affected, 16 moderately affected and 15 that are slightly affected. The data could change as local government units are still in the process of completing their assessments.

TABLE 1: Typhoon Odette affected provinces by region		
<b>Luzon (Total Affected: 13)</b>		
<b>Region 4-B - MIMAROPA</b>	<b>Region 5 - Bicol Region</b>	5. Sorsogon
1. Palawan	3. Catanduanes	6. Masbate
2. Romblon	4. Albay	
<b>Visayas (Total Affected: 16)</b>		
<b>Region 6 - Western Visayas</b>	<b>Region 8 - Eastern Visayas</b>	<b>Region 7 - Central Visayas</b>
7. Negros Occidental	13. Leyte	18. Bohol
8. Aklan	14. Southern Leyte	19. Cebu
9. Capiz	15. Samar	20. Negros Oriental
10. Antique	16. Eastern Samar	21. Siquijor
11. Iloilo	17. Northern Samar	
12. Guimaras		
<b>Mindanao (Total Affected: 17)</b>		
<b>Region 9 - Western Mindanao</b>	<b>Region 11 - Davao Region</b>	35. Agusan del Norte
22. Zamboanga del Norte	29. Davao Oriental	36. Agusan del Sur
23. Zamboanga del Sur	30. Davao del Norte	
	31. Davao de Oro	<b>Bangsamoro Autonomous Region of Muslim Mindanao (BARMM)</b>
<b>Region 10 - Northern Mindanao</b>	<b>Region 13 - Caraga Region</b>	37. Lanao del Sur
24. Misamis Oriental	32. Dinagat Province	38. Maguindanao
25. Misamis Occidental	33. Surigao del Norte	
26. Lanao del Norte	34. Surigao del Sur	
27. Bukidnon		
28. Camiguin		

In some provinces, CLEARNet's focal organization have limited access to municipalities and rely on LGU's assessment.

The documentation and initial data gathering were focused in the nine provinces along the path of the typhoon when it was at its peak speed of between 150 to 195 km/h in the afternoon and evening of December 16. Data revealed that a total of 3,082 barangays in 133 municipalities in 9 most affected provinces (MAP) in 4 most affected regions were severely affected with a total population of 7,549,722 individuals from 1,509,944 families. (See Table 2 below.)

Table 2: Severely Affected Provinces and their Population				
Provinces	No. of Municipalities	No of Barangays	Population	Families
Dinagat	7	100	128,117	25,623
Surigao del Norte	21	335	534,636	106,927
Southern Leyte	19	500	97,630	19,526
Bohol	48	1,109	1,394,329	278,866
Cebu	22	542	2,027,041	405,408
Negros Oriental	9	223	484,124	96,825
Negros Occidental	22	482	2,552,266	510,453
Palawan	9	152	331,579	66,316
<b>TOTAL</b>	<b>157</b>	<b>3,443</b>	<b>7,549,722</b>	<b>1,509,944</b>
Estimated Most Vulnerable Population and families due to Poverty using National Poverty Incidence pegged at 23.7% by the Phil. Statistics Authority for 2021			<b>1,789,284</b>	<b>357,857</b>

Considering poverty as a major factor of vulnerability of families, using the 23.7% poverty incidence indicator in 2021 provided by the Philippine Statistics Administration (PSA)<sup>2</sup> an estimated 357,857 families with 1,789,284 men, women and children are the most vulnerable to the short and long-term impact of Typhoon Odette.

The latest SitRep No. 4 on Typhoon Odette released by the National Disaster Risk Reduction and Management Council (NDRRMC) issued at 8:00 AM of December 18, 2021 based on the initial updates received from the 7 regions, not including Central Visayas that is among the worst affected, revealed that it has already affected 911 barangays with 187,750 individuals from 51,113 families.

The NDRRMC is the national council coordinating reports from various agencies responding to disasters. The latest Department of Social Welfare and Development (DSWD) DROMIC Report #7 on Typhoon "ODETTE" as of 18 December 2021, 6AM, reported that a total of 130,128 families or 477,614 persons were affected by the Typhoon "ODETTE" in 1,417 Barangays in Regions V, VI, VIII, X, XI, Caraga, and Region VI-A (MIMAROPA).

Of the above affected population, 305,711 persons from 81,610 families (64%) are displaced from their homes while 171,903 persons from 48,518 families were able to stay in their homes. Of the displaced population and families, 77,494 families or 289,049 persons sought temporary shelter in 1,603 evacuation centers while 4,116 families or 16,662 persons temporarily staying with their relatives and/or friends in the above regions.

[2] <https://www.gmanetwork.com/news/money/economy/814951/psa-poverty-incidence-in-first-half-of-2021-at-23-7/story/>

The regions severely affected by the typhoon are also home to a number of indigenous peoples who are among the poorest in the Philippines. A total of 22 ethnic groups of indigenous peoples are found in the provinces and regions affected by Typhoon Odette. Table 3 shows the list of the various tribes.

<b>Table 3: Indigenous Peoples in the Provinces of Affected Regions by Typhoon Odette</b>	
<b>Region</b>	<b>Indigenous Groups Present</b>
Region IV-B	Tabanua, Mangyan, Agutaynon, Batak, Molbog, Palawano
Region VI	Ati, Panay Bukidnon
Region X	Higaunon, Bukidnon, Talaandig, Manobo
Region XI	Mandaya, Mansaka, Banwaon, Dibabawon, Manobo, Matigsalog
Region XIII	Manobo, Higaunon, Mamanwa, Banwaon
BARMM	Tiduray



Photo: Floods in different areas of Lanao del Sur during Odette's first landfall. (Photo forwarded by Padoman Paporo, CLEARNet member)

## B. Immediate Causes of Destruction

### 1. Strong Winds

Typhoon Odette brought strong winds that was sustained because it did not hit high mountains except when it traverses the Negros Island causing its slowing after hitting the island. From a strong 195 kph when it made landfall in Negros, it slowed down when it exited and was down to 150 kph when it made another landfall in Palawan.

The typhoon made a total of 9 landfalls, because it passes through small and thin islands like Siargao, Dinagat and tips of peninsula like Liloan, Padre Burgos and Bien Unido in Bohol. Its eye only passes bigger and mountainous islands when it crosses the islands of Cebu and Negros. Most of the time, the typhoons center was hovering in the Surigao and Visayan seas causing huge storm surge that destroyed coastal towns in Surigao del Norte, Southern Leyte, Bohol, Cebu, Negros Oriental, Negros Occidental and Palawan.

Typhoon Odettes strong wind blown off roofs of houses and urban buildings, destroys small non-concrete houses, windows of high-buildings, toppled electric posts and wreak havoc on industrial plants and facilities, and airports in Siargao, Surigao City, Cebu and Tagbilaran, Bohol.

### 2. Storm Surge

With much of Typhoon Odettes journey spent on sea, giant storm surges with waves reportedly reaching 10 to 15 meters hit resorts, fishing villages and coastal residential areas.

The Leyte Center for Development (LCDe), a partner of Talk-to-Loop and member of NAPC-VDC, reported that "in Southern Leyte towns facing the Pacific Ocean - Silago, San Juan, Saint Bernard and Libagon, suffered devastation to livelihood and property due to storm surges 12 feet high in Barangays Hindag-an and Lepanto of Saint Bernard; Barangays Tigbao and Oticon of Libagon town and 2 barangays of San Juan.



Photo: Damaged properties caused by strong winds and heavy rains in Surigao City. (Credit: Emelou Dumas)

At least 300 houses totally washed out and many others partially damaged. Fisherfolk lost their motorboats, palay destroyed. The people told us that no regional nor provincial government agency had checked on them. They need food, shelter materials and livelihood support.”

A resident from Hindag-an, Southern Leyte reported “our old house that withstand earthquakes and typhoon Yolanda before, was swept by huge waves that is taller than our two-storey old house, what is left are concrete floor and a few posts.”

In Bohol, at least 10 coastal towns of its northern part were badly devastated by storm surge and strong winds leveling off the ground and washing coastal houses to higher grounds. In Tagbilaran City, sea-crafts docked in the port were washed up on the piers. Thousands of fishing boats that fishermen carried meters away from coast for safety in Surigao, Dinagat, Bohol and Southern Leyte were still reached by the massive waves. The fishermen thought that the evacuation location of their boats was already safe.

### 3. Heavy Rain and Flooding in Provinces outside the typhoon path

The circumferential overcast of Typhoon Odette was one of the widest that a typhoon crossing the Philippines archipelago had. Its diameter stretches roughly 450 kilometers from southern Luzon down to Central Mindanao. Its rain-bands poured heavy rains up to the provinces of Maguindanao in the Bangsamoro Autonomous Region for Muslim Mindanao (BARMM), roughly 200 kilometers away from the main typhoon path.

The heavy rains poured into the marshlands of Mindanao – Agusan and Liguasan marshes – the lake regions of Lake Lanao, in Lanao del Sur and Lake Mainit in Surigao del Norte.

### Agusan Marsh in Agusan del Sur

The Agusan Marsh is located in the province of Agusan del Sur and shared by at least 10 municipalities. Its banks are dotted with at least 200 barangays with an estimated population of 250,000 people of mostly Manobo indigenous peoples. Since a day before the typhoon, heavy rain poured in the Agusan provinces causing the rise of the water to a meter in some areas half-submerging many barangays and hundreds of homes.

Reports from PASAKK, an organization of Manobo indigenous peoples and a member of CLEARNet, said that 3 days after the typhoon, the water-level has still not fully subsided forcing families to seek refuge to homes of relatives located in higher grounds. PASAKK is still verifying on field the number of affected barangays and households.

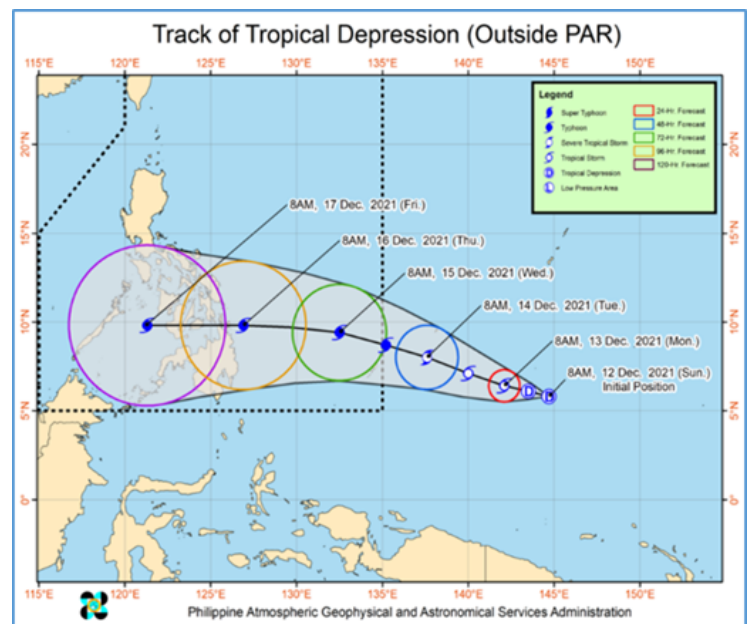


Figure 1: The projected track of Typhoon Odette issued by PAGASA on December 13 before it entered the Philippine Area of Responsibility. The track map also shows the expected circumferential overcast when it reaches the Philippine archipelago.

## Liguasan Marsh in Maguindanao

The Liguasan Marsh is located in the BARRM and Region XII. It is shared by three provinces: Maguindanao, Cotabato and Sultan Kudarat. The Liguasan Marsh is far from the typhoon path but most of its water is drained from the highlands of Bukidnon and Davao region where heavy rains continuously poured for 3 days. This caused the unusual increase of water in the marshland whose banks hosts at least 100 barangays.

Suara Kalilintad, another member CLEARNet based in Maguindanao province reported on December 19 that at least 18 barangays with a population of 16,168 in the municipalities of Pagalungan and Datu Montawal remain submerged to water, three days after the heavy rains. Most of the houses in the areas are built on stilts but the high-water level forced 160 families to evacuate. Most of the families remain in their stilt houses but food supply is dwindling as transporting goods to the communities become difficult and only by water craft. The situation caught many communities and local government unprepared because they were not included in the coverage of Typhoon Warnings. As of the writing of this report, the water level of the marsh has reduced slowly but hundreds of houses are still submerged.

## 4. Landslides

The heavy rains also cause landslides in many provinces blocking important roads connecting provinces and cities.

In Sibagat, Agusan del Sur, a massive landslide occurred in Barangay Dioyo on December 16 causing the death of 4 persons. Barangay Dioyo is located in the mountainous part of the municipality. The 4 persons, aging 12 to 23 years old, left their home around noontime leaving behind their father who still took care of their animals. The father arrived at the evacuation center almost dark and found out that his children did not arrive. He returns to look for them despite the dark but was not able to find them. Thinking that they went somewhere, the father decided to go back to the evacuation center and wait for the following morning. Together with rescue workers, they found the 4 bodies buried in the landslide between their home and the evacuation center.

CLEARNet members in the various provinces reported landslides that block roads. Some landslides included portion of the road rendering them impassable for days or weeks. This condition hampered rescue operations and the delivery of relief goods in distant towns.

## Lake Lanao in Lanao del Sur

The Lake Lanao, the second largest lake in the Philippines, is located in the province of Lanao del Sur. Surrounding the Lake are vast rice lands and marshland that are prone to flooding due to heavy siltation of rivers that empties into the lake. In the last 10 years, residents' towns around the lake experience flooding as large volume of water that normally goes straight to the sea overflows. The heavy rain brought by Typhoon Odette, overflows at least two tributary rivers to the lake causing massive flooding in the municipalities of Bubong, Ditsaan-Ramain, Molundo, Lumba Bayabao and Taraca. Vast tracts of rice lands were also totally submerged by water. Some families in Bubong still remain in the houses of their relatives in higher grounds as many of their houses are still full of mud and needs cleaning.

## Lake Lanao in Lanao del Sur

Lake Mainit in Surigao del Norte and Agusan del Norte  
Lake Mainit, the third largest in the Philippines and the second in Mindanao, is located in the provinces of Surigao del Norte and Agusan del Norte. Surrounding the lake are communities belonging to five municipalities. The heavy rain brought by typhoon Odette raised the lake water level flooding communities and rice-fields. The water slowly subsided leaving mud on many houses also partly damaged by the strong winds. A number of rice fields were flooded and fish cages damaged.

## Ilog-Hilabangan and Sipalay River Basins in Negros Occidental

The heavy rains of Typhoon Odette caused the Ilog-Hilabangan River system and the Sipalay River to overflow and flood Kabankalan City and Sipalay City, both in Negros Occidental killing a total of 19 – 10 in Sipalay and 9 in Kabankalan. These deaths contributed much to the reported 34 deaths in the province. Latest update from ECOWEB contacts said that the flood water is now subsiding leaving hundreds of hectares of damaged rice fields and other farms.



Photo: Landslide in the barangays of Dalaguete in Southern Cebu caused by heavy rains brought by Typhoon Odette. (Source: Doris Mondragon, Cebu Daily News)

## CASUALTIES AND DAMAGES



**CASUALTIES:** As of 8 PM of December 19, CLEARNet focal organizations, NAPC-VDC members and other sources, reported a total casualty of 183, 74 in Bohol, 34 in Negros Occidental, 22 in Negros Oriental, 21 in Cebu, 14 in Dinagat, 11 in Agusan del Sur, 3 in Southern Leyte, 2 in Iligan City 1 each in Bukidnon and Misamis Oriental.



Photo: A survivor in San Pascual, Bohol stands beside here totally damaged abode caused by Typhoon Odette. (Credit: Retchel Sasing)

### HOUSES AND BUILDINGS

All CLEARNet focal organizations reported that houses are damaged in all the provinces categorized as severely affected. They have sent photos of damaged houses. However, the latest official report of the DSWD DROMIC as of 18 December 2021 only reported 14 damaged houses of which 9 are totally and 5 are partially damaged. The non-concrete houses were mostly toppled down while the concrete ones have blown-off roofing. In the cities, like Surigao, Cebu, Maasin and Bacolod, tall buildings suffered damages on windows and roofs.

In the four most devastated province – Dinagat, Southern Leyte, Bohol and the island of Siargao – an estimated 129,029 houses need to be reconstructed or be repaired. (See Table 4 below.)



Province	Reported Total Houses	Estimated %tage of Damage	Est. No. of Damage Houses
Siargao	13,609	80%	10,887
Dinagat	12,812	80%	10,249
Southern Leyte	28,508	85%	24,232
Bohol	139,433	60%	83,660
<b>TOTAL</b>	<b>180,753</b>		<b>129,029</b>

The Governor of Dinagat Province reported that at least 80% of the houses of the province needs repair or reconstruction, there is no categorization of how many are totally and partially damaged. Based on the 2015 Census, the province has an estimated 25,623 houses. With the above percentage, at least 10,249 needing replacement or major repairs.

The Social Action Center of Maasin shared to ECOWEB that 85% of the province is affected and all houses made of light materials are all destroyed the 11 of the 19 municipalities of Southern Leyte. All the 11 municipalities are coastal municipalities. These municipalities have a total of 28,508 houses. With 85% being damaged, there is at least 24,232 houses damaged, either totally or partially.

The province of Bohol declared a state of calamity on December 17, 2021, the province has an estimated 139,433 houses based on the 2015 census, the Provincial Disaster Risk Reduction and Management Coordinating Council (PDRRMC) estimated that not less than 60% of the houses in the province is either totally or partially damaged which could reach to 129,029. As of December 19, the Bohol Chronicle reported that 67,000 families are now homeless as their houses were totally damaged or needing major repairs.

Initial reports said that in the province of Cebu, at least 30 percent of family houses in the province are damaged, 20% in Negros Oriental and 20% in Negros Occidental. It is very likely that all the 16 moderately affected provinces sustained not less than 10 percent of the houses either because of strong winds or by flood waters and mud-slide. These estimates are still being verified on the ground and hopefully would be documented by government agencies.

The destruction of houses put many families to evacuation centers while others choose to construct shanties near or in their damaged houses. The condition affects most especially the women and girls, children, elderly and persons with disability. Most evacuation centers are schools and do not have enough facilities to cater to the special needs of children, elderly and persons-with-disability.

The first landfall of Typhoon Odette (Rai) was in the island of Siargao, part of the province of Surigao del Norte. The island is a favorite destination of tourists. Families of tourists visiting the island are also reported to be waiting for reports about the whereabouts of their family members. One family asked help from ECOWEB to help trace a tourist family member. Based on the 2015 Census on Housing, Siargao has an estimated total number of houses of 13,609 in its 9 municipalities. A number of the houses are owned by rich families who have resorts or tourist-related business. It is estimated that 80% of the houses in the island were either partially or totally damaged which translates to 10,887 houses needing replacement or major repair.



Photo: Totally damaged houses in one of the hardly hit barangays of 2nd district in Bohol. (Credit: Retchel Sasing)



Photo: Some of the market vendors flock in Surigao City Public Market a day after Odette's landfall. (Credit: Emelou Dumas)

## Livelihoods

Next to shelter, livelihoods of the people are the heavily devastated by the typhoon. The provinces badly hit by Typhoon Odette are largely agricultural, thriving fishing and tourism industry. Except for fishing that could easily recover when equipment lost are replaced, agriculture and tourism will take months to recover.

In agriculture, the most affected long-term crops are coconuts, abaca, falcatta, fruits, rubber and bananas. Short-term crops include rice, corn, cassava, camote and various kinds of vegetables. Also damaged are the family flower gardens that were products of the previous year's lock-downs and limited mobility.

In addition to crops, a good number of livestock were also lost including pigs, cows, carabaos, goats, chickens and ducks. There are also fish-cages in the coastal areas of Southern Leyte, Bohol, Cebu and Negros that were badly damaged.



Photo: Damages in infrastructure and disfigured power lines in the streets of Surigao City. (Credit: Emelou Dumas)

## Communication

Internet connectivity is also disrupted when fiber optic lines were damaged by flood waters. Mobile phone connectivity was also disrupted due to damages on cell-cites and fiber optic cables. Mobile phone connectivity is still a problem three days after the typhoon in most heavily devastated areas.

ECOWEB networks reported difficulty in all forms of communication services resulting to very slow reporting from the ground. Some have to travel far from the devastated areas to access mobile phone services.

## Water

Most of the municipalities and cities affected by the typhoon have their own localized water systems sourced from springs and deep-wells. During the days of heavy rains, many springs become turbid rendering it not fit for drinking, some sources got contaminated while in others lines and pipes were damaged by the flood. In Dinagat, Surigao del Norte, Bohol and Southern Leyte, water system were reported to have been badly damaged. This condition resulted to lack of drinking water supply in the cities and town centers. Most of the water-work offices of municipalities and cities are still doing repairs of their water system.

The city of Cebu, Tagbilaran and Surigao that already have water shortages, is currently doing rationing. Prices of bottled water also increase as demand increases that calls for Price Control measure that the government is mandated to ensure in times of disaster.

## Infrastructure

Damage in infrastructure includes public buildings like barangay halls, auditoriums, gymnasiums, public markets, school buildings, health centers and bridges. There is no estimate on the damages on infrastructure caused by typhoon Odette (Rai) yet. Private buildings like churches, apartment buildings also incur damages.

## Power

Power lines in the most severely-damaged provinces remain damaged three days after the typhoon. The provinces of Bohol, Dinagat, Southern Leyte and some parts of Cebu and Surigao del Norte still have no power. The most common damage is in the power lines that are either toppled by the wind or cut by fallen trees. The interconnection from Leyte to Bohol suffered minor damages but were already repaired.

## Transportation

Transportation is heavily affected when landslides caused by heavy rains covered many roads including major highways in Southern Leyte, Surigao, Agusan and Bohol. In Siargao, Surigao and Dinagat, the ports were damaged and needs clearing. The Mactan International Airport in Lapu-lapu City remains close as major damage in its buildings are still undergoing repairs. Travels by boat were also affected due to closure of some seaports in Cebu, Bohol, Siargao and Surigao.

## Migration

The massive destruction of property and livelihoods in the 9 most affected provinces will potentially cause migration to other provinces and cities particularly to Mindanao and Metro Manila. The people from the most affected provinces have a long history of migrating to Mindanao, this could intensify in the aftermath of Typhoon Odette. This potential migration should be considered in the planning of long-term response to the crisis.



Photos: (1) Damaged pump boats of fishermen; (2) Motorists flock in the only open gasoline station in Surigao City. (Credit: Emelou Dumas)

# NEEDS AND RECOMMENDATIONS

## FOOD

Siargao, Dinagat, Southern Leyte, Bohol, Cebu and Palawan are facing food shortage and surging of prices. Both Siargao and Dinagat are islands that depend their food supply from Surigao City that is among the cities in Mindanao that was badly damaged. Running very low on food supply, the Governor of Dinagat was calling for immediate food relief to the island as the food supply that were already in the island was running very low. They also run short of cooking gas and petrol.

In Siargao, food shortage forced some residents to use whatever sea-worthy vehicle and fuel to reach Surigao City and other towns to buy food, bottled water and other essential supplies. They have difficulty finding the goods they need in Surigao City because the city is badly affected and store and warehouse owners were also controlling their stocks and prioritize local residents. Siargao badly needs an urgent food mission to abate hunger of the people of the island. Cebu is now experiencing food shortages and SAC-Maasin said that people in Southern Leyte would be walking dead if no food support will arrive in 3 days' time.

The municipalities of Southern Leyte, Bohol and Cebu were also rationing food as local supplies are critically low. Southern Leyte could be supplied from Tacloban. Bohol could be supplied from Dapitan City in Zamboanga del Norte in Mindanao.

Given the above condition there is an urgent need to distribute emergency food packs especially in urban areas. The DSWD is already distributing food packs but this needs to be augmented by other aid agencies. For areas difficult to reach, airborne food relief operation should be conducted to abate famine.



## WATER, SANITATION, AND HEALTH



There is a need to prioritize water in delivering relief especially in urban centers. People in Cebu who are leaving in condominiums reported using water from swimming pools to flush their toilets while saving whatever drinking water left as water supply is vanishing and prices of bottled water quintupled.

The water supply of the affected provinces badly need decontamination thus, water should be supplied by trucks to towns that are on the brink of shortage of drinkable water. While drinking water is supplied, the water sources should be repaired and decontaminated.

In terms of health, cough and fever are reported in many communities in all provinces. In Southern Leyte, the Social Action Center expressed the need of anti-tetanus vaccine for the number of people who got wounded from flying debris and fallen trees.

Hygiene kits are needed to also ensure COVID-19 protocol during relief operation and families start their early recovery actions. In most evacuation centers, there are no WASH facilities and there are no personnel providing assistance. Water supply to evacuation centers should also be prioritized and hand-washing facilities should be installed as part of sustained effort to prevent the resurgence of the spread of COVID.

Psychosocial services to address the trauma experienced by those hardest hits is also a need identified as basic needs for survival are addressed. Mental health is necessary faculty for effective recovery.

## SHELTER

Affected families and communities urgently need evacuation facilities. The survivors should be involved in choosing the location of their evacuation sites and in the planning and construction of their shelter units. The evacuees should be encouraged to help each other in building their temporary shelter.

Those who opt to stay in their damaged houses should be provided with shelter repair kits that should include roofing materials (GI Sheets), nails, walling materials like plastic sheets, lumber, plywood and basic carpentry tools including hammer, chisel and hack-saws.

The primary target for shelter support are all the severely affected provinces and municipalities.

The need for evacuation centers and its management is beyond the capacity of local government units considering that many of the workers and volunteers have families who are also badly affected.



## NON-FOOD ITEMS

Solar lamps are among the needs expressed. Restoration of electricity is expected to take time in heavily devastated areas. Children, women, elderly, PWD especially are considered most vulnerable when a place is dark. Kitchen utensils, blankets, mats, are among other needs expressed. Families affected also expressed the need for fuel, petrol which has become so scarce is heavily devastated areas.



## CASH

Cash grants should accompany the other modalities of assistance. Cash grant could address multiple needs of the affected. Cash modality is considered more dignifying and more empowering. Cash grants will also help local economy to be restored faster.

Cash grant to most vulnerable families and to groups will enable self-help initiatives of communities affected. This can be facilitated through survivor and community-led process, an approach being promoted by ECOWEB and CLEARNet that could be applied even in emergency phase to early recovery and during recovery and rehabilitation phase.

Cash grant is expected to enable communities and self-help groups to prioritize actions they see most needed for their faster recovery which may also include shelter repair, water access, food production, distribution of priority essential goods, support for mobility, personal hygiene, among others.

There is a strong possibility that banks will run out of cash. To abate this problem, the government should use emergency powers to comply banks to fly in cash from Manila to the affected cities like Surigao, Bohol, Southern Leyte, Negros Oriental, Negros Occidental and Palawan.



## LIVELIHOODS

Livelihoods (early) recovery should be among the priority intervention after the emergency phase when food and water and shelter are the need.

With vast agricultural areas affected, those who are involved in farming should be provided with livelihood recovery support based on their expressed needs and capacities. Participatory and inclusive planning and implementation process should be ensured.

Next to agriculture, the most affected is the fisheries sector because of the storm surge that affected rich fishing grounds of the 9 most affected provinces. Considering that fishers usually do not have other livelihoods, they should be given priority in the livelihood recovery effort. Other livelihood options maybe introduced to them with due consultation.

Shelter repair and reconstruction should already be considering employment opportunities of skilled carpenters in the communities for their livelihood recovery.

## LOGISTICS

Many of the ports in the most affected provinces were badly damaged causing disruption in shipping prompting shipping companies to reduce trips of inter-island vessels. The provision of humanitarian aid to the affected provinces demands vast logistics, especially shipping considering that the provinces are located in various islands. To ensure that logistics by sea is available, the government should comply shipping lines to make special trips for goods and people who wanted to temporarily migrate other provinces where their relatives are located.

Debris clearing will be an enormous task in so many localities. Heavy equipment is needed but may also be a challenge to bring to the affected localities. Community participation in debris clearing could be an opportunity as well to enable the people to become part of the action and provide opportunity for cash for work.





## COORDINATION MECHANISMS

Considering the impact of the disaster and the wide area affected, there is a need for strong coordination mechanism among humanitarian responders. This is to ensure effective complementation and harmonization of services so no one would be left behind considering the widespread impact of the disaster. The condition in the ground clearly revealed the slow response from government thus necessitating intervention from humanitarian agencies including local, national and international organizations. The challenges in communication and access in some areas necessitate more support to existing local organizations and networks on the ground and support local coordination mechanisms that could augment the limitation of the government at the moment. Locally-led response and coordination is important to ensure in the process while there is a clear need for capacity augmentation from national and international agencies as many localities have shown to be not quite prepared and local responders and leaders are heavily affected.

## INITIAL RESPONSE AND CHALLENGES

Many of the families who have damaged houses make repairs and use whatever materials usable from their houses. These initiatives need urgent support. Government initially reports availability of food packs. The DSWD is providing food packs for those in the evacuation center and those living with relatives. But many affected have reported to have not received any food assistance from government or other agencies. Local self-help is what is helping people now including support from families finding ways to send support by any means to affected communities.

Among the challenges that the affected population would be experiencing are the following:

1. Its year-end time and most local governments have already exhausted their calamity response budget due to their year-long COVID pandemic response.
2. President Rodrigo Duterte, in a public address on Friday, said he is still looking for funds to assist provinces that were hit by the typhoon as government coffers have already been depleted due to COVID-19.<sup>3</sup> On December 19, the government announced that it will allocate 9 billion pesos for its response to the impact of Typhoon Odette.
3. If the government allocate funds this time, it is very likely that such funds will be released in the first quarter of 2022 under the 2022 budget. This means that funds could be released only in April and May, the peak season for the election campaign. This brings the danger of politicizing humanitarian aid by making it as a tool to ensure that people will vote candidates who are identified or endorsed by the incumbent administration.

[3] <https://newsinfo.inquirer.net/1529007/duterte-says-looking-for-money-for-typhoon-victims-as-funds-depleted-due-to-covid>

ECOWEB INC.

# APPEAL FOR DONATIONS FOR **ODETTE (RAI)** AFFECTED COMMUNITIES

## DONATE HERE

**YOUR DONATIONS WILL HELP PROVIDE LIFE SAVING SUPPORT  
FOR THEIR EARLY RECOVERY THRU #SCLR APPROACH.**



## APPEAL FOR DONATIONS

ECOWEB disseminated on its official website, social media platforms, and networks an appeal for donations to support affected communities which are heavily devastated by the recent super typhoon. According to the United Nations-Office for Coordination of Humanitarian Affairs, at least 3.7 million people live below the poverty line. Across the six regions of some parts in Mindanao and Visayas, the direct impact of Odette has affected at least 16 million people on its path. This is a call for donations to help these communities and affected populations rise from the impact of typhoon #OdettePH (Rai, international name) through a survivor and community-led response approach.

SCLR approach puts trusts on the affected local communities through their self-help groups to lead and manage their own crisis response processes, identify their current needs, and recognize their capacities to initiate disaster recovery actions towards building community resilience. ECOWEB aims to empower the locals to lead and manage their own responses and build back their lives and restore their communities amid the multiple challenges they are facing – typhoon devastation amid COVID-19 pandemic and continue to face hazards of flashfloods, landslides, heavy rains, and storms this La Nina season.

SCLR encourages provision of cash assistance for the crisis-affected and vulnerable communities. Through their self-help groups, the affected will be the one to prioritize their needs with recognition of their capacities. ECOWEB intends to assist devastated communities in Visayas and reach remote areas of indigenous peoples in CARAGA, among other vulnerable affected communities of the typhoon in Mindanao in partnership with members of our network at NAPC-VDC and CLEARNet.

To know further the impact of Typhoon Odette, read ECOWEB's 1st Situational Report for Typhoon Odette as of December 16, 2021. Download and read here:

[bit.ly/ECOWEB-SitRep1-Odette](https://bit.ly/ECOWEB-SitRep1-Odette)

## How to donate?

**Help us raise funds** as ECOWEB intends to assist devastated communities in Visayas and reach remote areas of indigenous peoples in CARAGA, among other vulnerable affected communities of the typhoon in Mindanao.

**YOU MAY SEND IT HERE:**

**BDO** **00180-01-4242-9**  
Ecosystems Work for Essential Benefits (ECOWEB) Inc.

**PayPal** **ecoweb2006@gmail.com**  
Ecosystems Work for Essential Benefits (ECOWEB) Inc.






**Donate at [www.ecowebph.org](http://www.ecowebph.org)**




SCLR approach puts trusts on the affected local communities to lead and manage their own crisis response processes. We really need your help!

**#ODETTEPH**

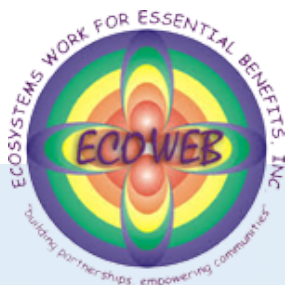
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**CLICK HERE TO DONATE: [bit.ly/ECOWEB-OdetteDonationDrive](http://bit.ly/ECOWEB-OdetteDonationDrive)**




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SOURCES OF INFORMATION:

- Reports from ECOWEB partners and CLEARNet members on the ground
- Shared information from members of the NAPC-VDC
- Shared information from other CSOs, Protection, including MERN
- NDRRMC and R/P/LDRRMC Reports
- Various media reports


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