From Disaster Response to Disaster Risk Reduction

The complementary roles of 'quick and dirty data' and official statistics

Scope of Presentation

- Philippine Disaster Risk Profile
- National Disaster Risk Reduction and Management Council (NDRRMC)
- Typhoon RAI (Local Name ODETTE)
  - Effects
  - Response
  - Challenges
  - Best Practices
  - Recommendations

Philippine Disaster Risk Profile

The Philippine Archipelago is located in the **Pacific Ring of Fire** and in the **Pacific Typhoon Belt.**

ECA UNDRR | United Nations | Department of Economic and Social Affairs | UN environment programme | UNECE | ESCAP | African Union

4ᵗʰ Global Expert Forum for Producers and Users of Disaster Related Statistics

Philippine Disaster Risk Profile

300 Volcanoes (24 active)

20 Earthquakes per day

20 Tropical Cyclones per year

1st Ranking in World Risk Index 2022-2024

WORLD RISK INDEX 2024

Rank	Country		Risk
1.	Philippines		46.91
2.	Indonesia		41.13
3.	India		40.96
4.	Colombia		37.81
5.	Mexico		35.93
6.	Myanmar		35.85
7.	Mozambique		34.44
8.	Russian Federation		28.12
9.	Bangladesh		27.73
10.	Pakistan		27.02
11.	Peru		27.01
12.	Papua New Guinea		26.35
13.	Madagascar		24.80
14.	Somalia		24.64
15.	Yemen		24.47

Disaster Effects
2013-2023

9,560	29 M	₱ 239 B	₱ 234 B
Deaths	Affected Families	Damage to Agriculture	Damage to Infrastructure

National Disaster Risk Reduction and Management Council

The **National Disaster Risk Reduction and Management Council** (NDRRMC) is the highest governing body for Disaster Risk Reduction and Management in the Philippines.
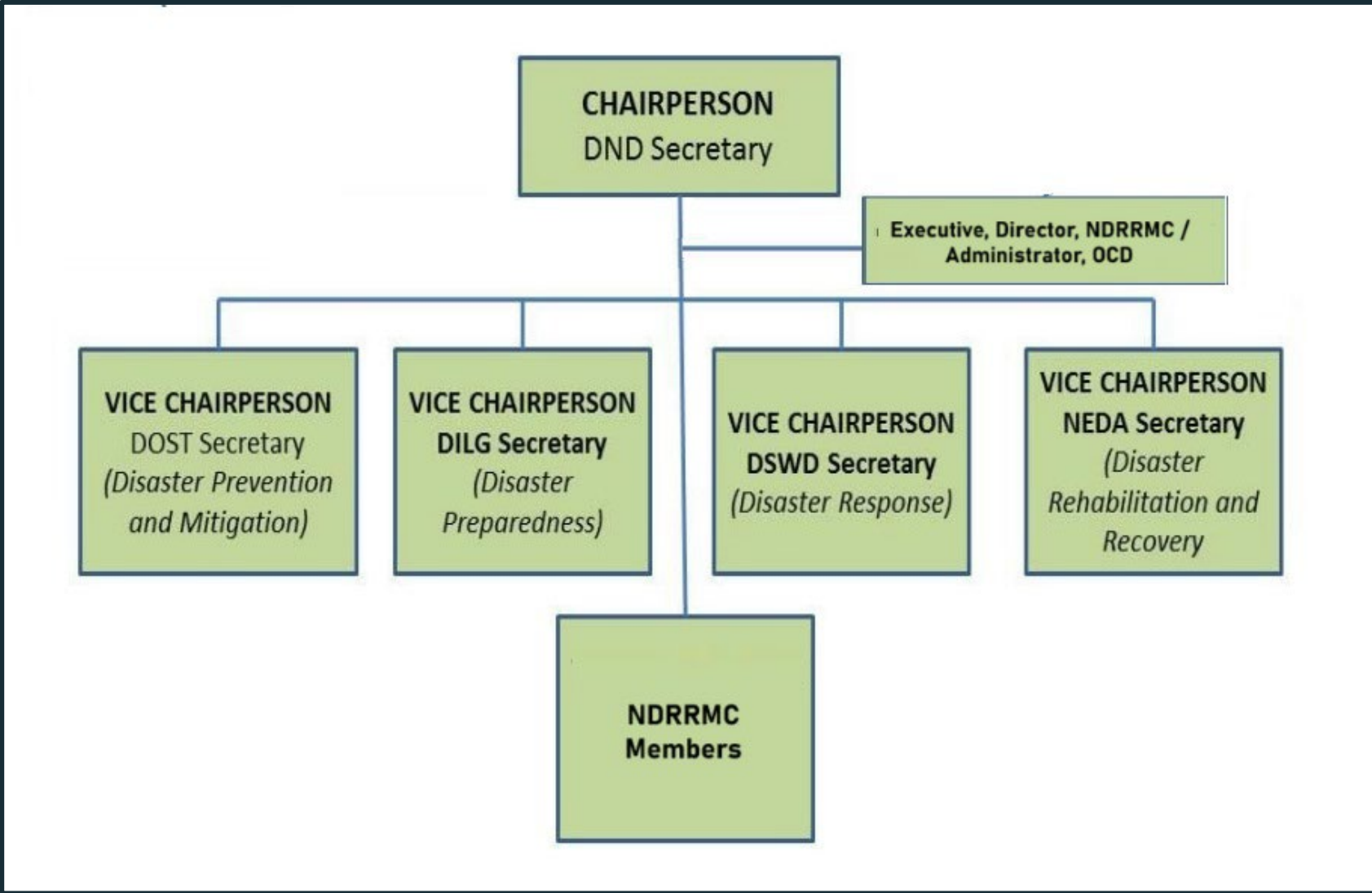
NDRRM Operations Center

Central facility maintained and operated on a 24/7 basis by the Office of Civil Defense, being the Executive Arm and Secretariat of NDRRMC

Core Functions:

- Alert and Monitoring

- Multi-Agency / Multi-Level Coordination

- Disaster Response

- Resource Mobilization

- Information Management

NDRRMC Structure

Emergency Coordination

Escalation protocol is followed for coordination (Section 15, RA 10121)

Barangay Committee	1 Barangay affected
City/Municipal DRRMC	2 or more Barangays affected
Provincial DRRMC	2 or more Cities/Municipalities affected
Regional DRRMC	2 or more Provinces affected
NDRRMC	2 or more Regions affected

NDRRMC Communication Flow and Information Dissemination

This shows how warnings/alerts/advisories from the surveillance agencies are processed and developed into NDRRMC Advisories, Situational Reports, and other Official Disaster Reports, providing decision-makers with valuable information and knowledge.
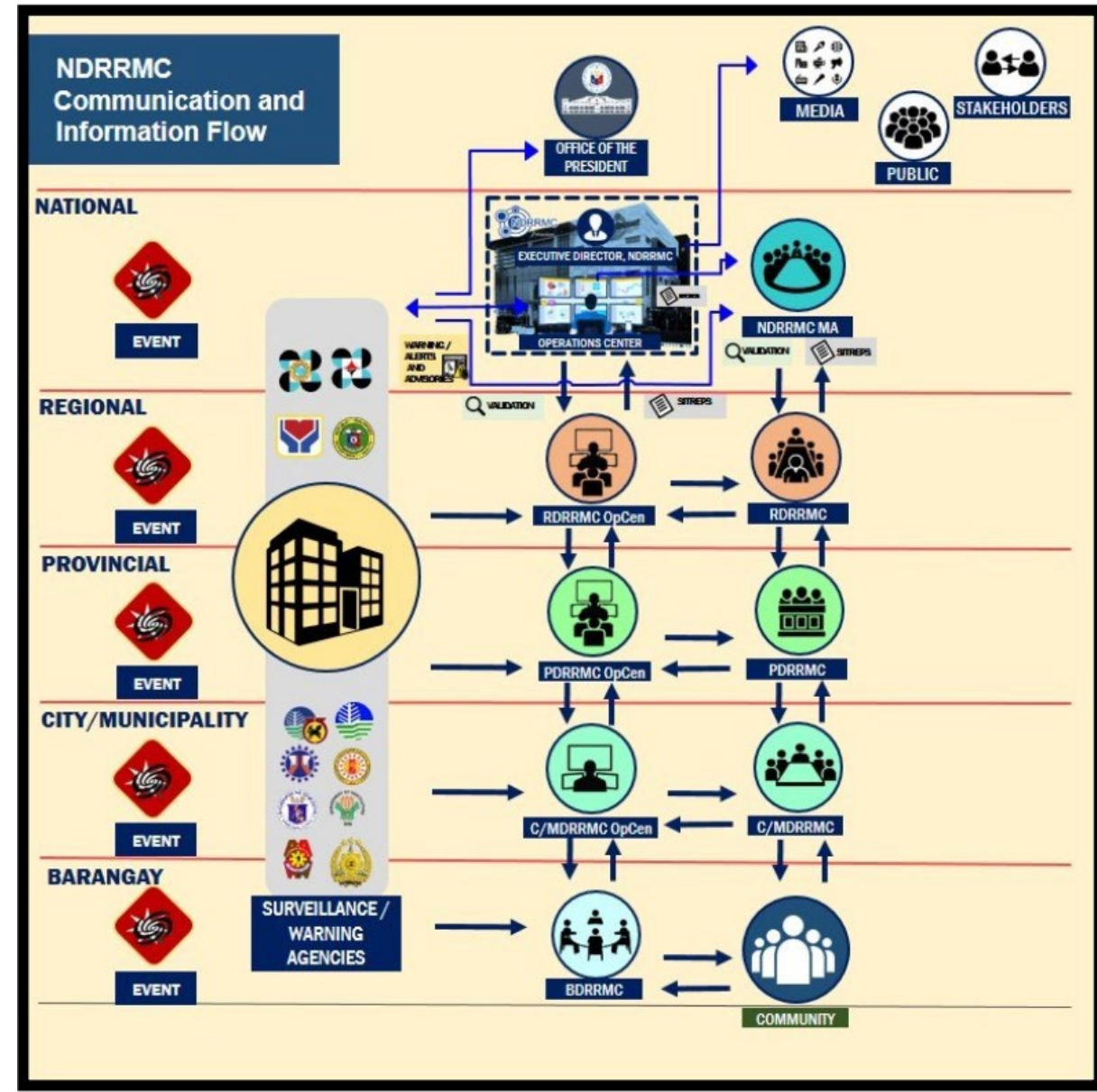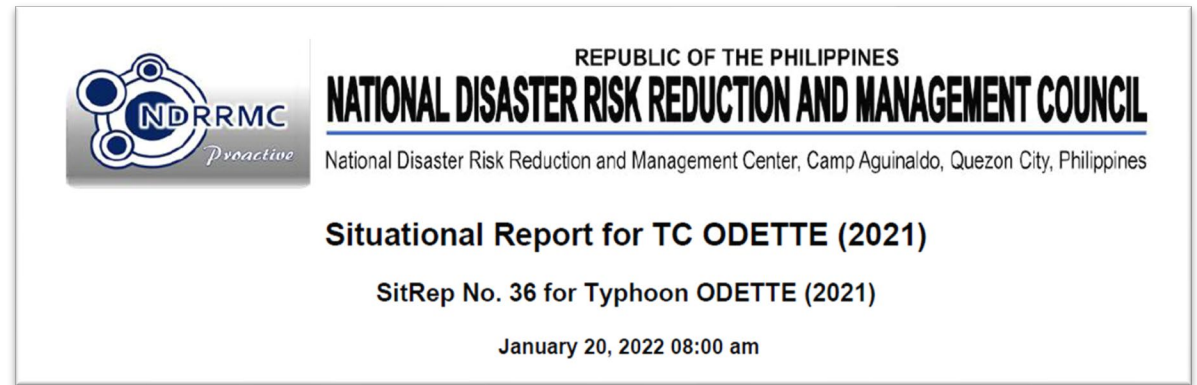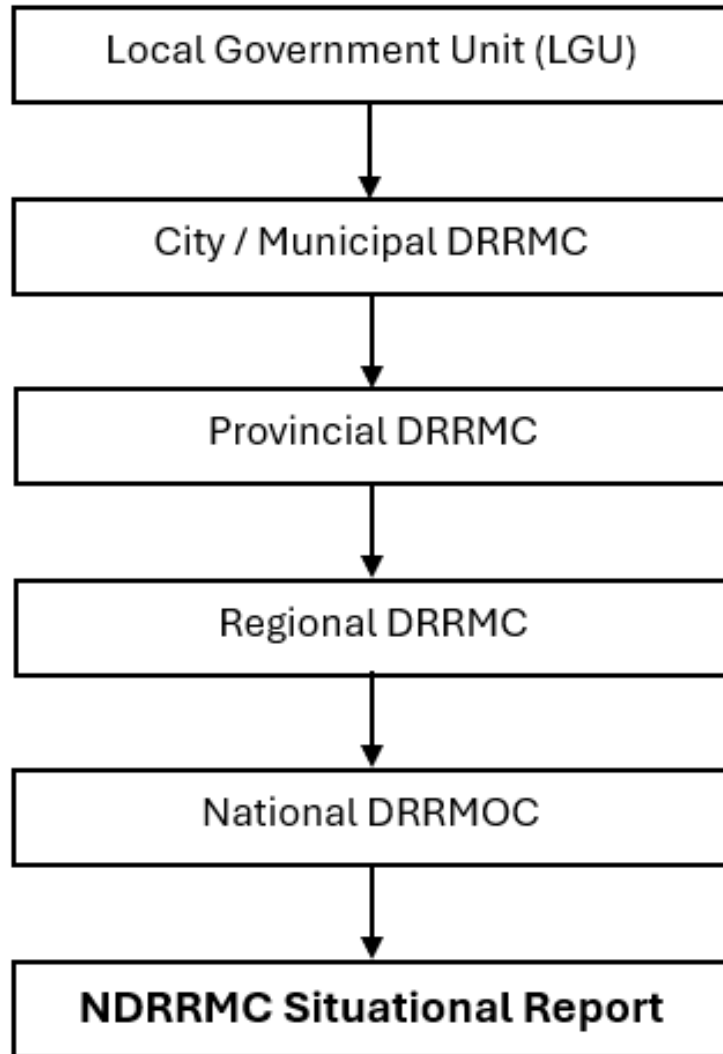
Who provides the data?

- **Affected Population** – Department of Social Welfare and Development (DSWD)
- **Casualties**
  - Dead – Department of the Interior and Local Government (DILG) / LGU
  - Injured – Department of Health (DOH) / Local Government Units (LGUs)
  - Missing – DILG / LGU
- **Damage to Agriculture** – Department of Agriculture / LGUs
- **Damage to Infrastructure** – Department of Public Works and Highways / LGUs
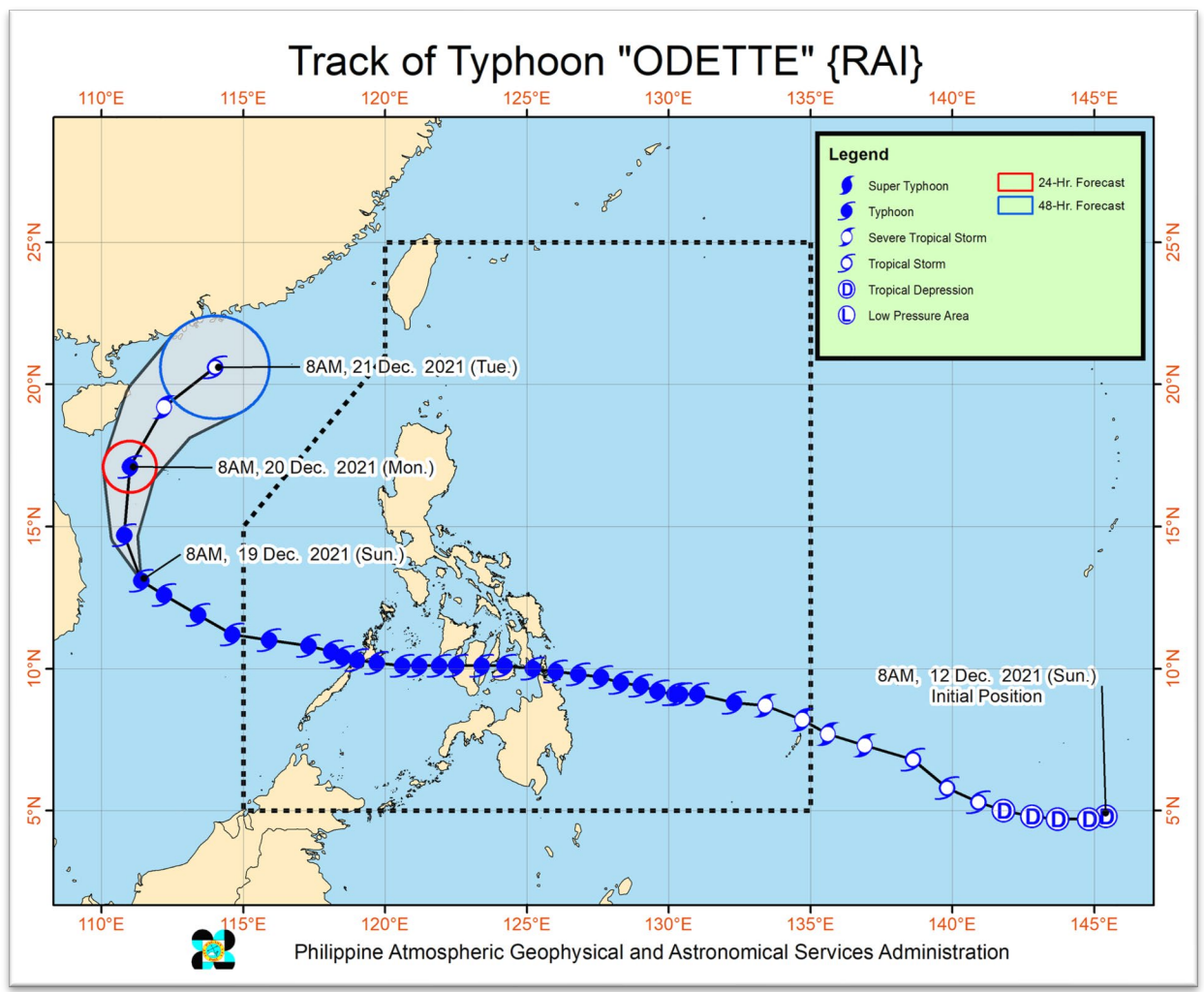
How data are collected:

Local Government Unit (LGU)

↓

City / Municipal DRRMC

↓

Provincial DRRMC

↓

Regional DRRMC

↓

National DRRMOC

↓

NDRRMC Situational Report

REPUBLIC OF THE PHILIPPINES

NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL

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

Situational Report for TC ODETTE (2021)

SitRep No. 36 for Typhoon ODETTE (2021)

January 20, 2022 08:00 am

Meanwhile, other National Government Agencies collect data through their Regional counterparts.

Typhoon RAI 2021

Local Name: TY ODETTE

Track of Typhoon "ODETTE" {RAI}

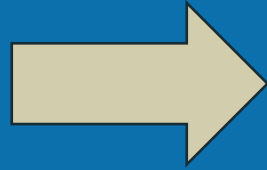Philippine Atmospheric Geophysical and Astronomical Services Administration

Typhoon RAI

- Locally known as Typhoon ODETTE

- 15th Tropical Cyclone in 2021

- First monitored as Low Pressure Area

- Entered the Philippine Area of Responsibility (PAR) on 14 December 2021
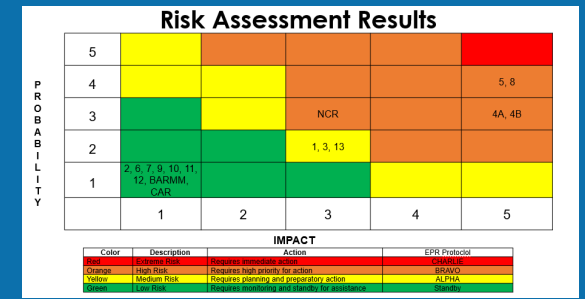
- Made 9 landfalls
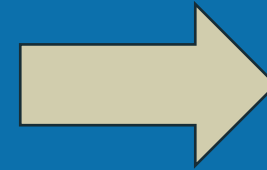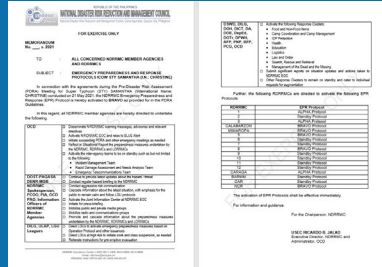
- Left the PAR on 18 December 2021
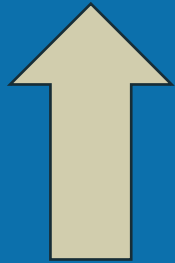
Warning agency detects the hazard.

Analyst Group is convened.

Analyst Group makes initial assessment based on existing data.
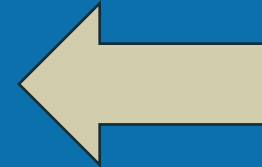
DRRMC Directive is issued.

PDRA Process

PDRA Meeting is scheduled.

Core Group presents assessment during PDRA Meeting.

Decisions and Response Protocols are agreed.

RISK LEVEL	EPR PROTOCOL
Low Risk	Standby Protocol
Medium Risk	ALPHA Protocol
High Risk	BRAVO Protocol
Extreme Risk	CHARLIE Protocol
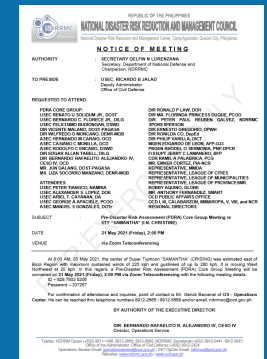
Affected Population

Date and Time of Reporting	No. of Affected Population	Remarks
16 December 2021, 8 AM	None reported	No landfall recorded; Pre-emptive evacuation was made
17 December 2021, 8 AM	11,859 Families / 41,434 Persons (5 Regions Affected)	8 Landfalls recorded
18 December 2021, 5 PM	99,501 Families / 373,110 Persons (8 Regions Affected)	9 Landfalls recorded
20 December 2021, 8 AM	276,522 Families / 997,665 Persons (10 Regions Affected)	ODETTE is outside the Philippine Area of Responsibility
FINAL REPORT	**2,272,905 Families / 7,846,542 Persons (11 Regions Affected)**	

Casualties

Date and Time of Reporting	No. of Casualties	Remarks
16 December 2021, 8 AM	None reported	No landfall recorded
17 December 2021, 8 AM	1 dead / 2 injured	8 Landfalls recorded
18 December 2021, 5 PM	31 dead / 3 injured / 1 missing	9 Landfalls recorded
20 December 2021, 8 AM	58 dead / 199 injured / 18 missing	ODETTE is outside the Philippine Area of Responsibility
FINAL REPORT	**405 dead / 1,371 injured / 52 missing**	

Damage to Agriculture

Date and Time of Reporting	Estimated Cost of Damage	Remarks
16 December 2021, 8 AM	None reported	No landfall recorded
20 December 2021, 8 AM	₱ 118 M (5,391 hectares)	ODETTE is outside the Philippine Area of Responsibility
31 December 2021, 8 AM	₱ 7 B (86,264 hectares)	ODETTE is outside the Philippine Area of Responsibility
FINAL REPORT	**₱ 17 B (10 M hectares)**	

Damage to Infrastructure

Date and Time of Reporting	Estimated Cost of Damage	Remarks
16 December 2021, 8 AM	None reported	No landfall recorded
20 December 2021, 8 AM	₱ 225 M (16 infra)	ODETTE is outside the Philippine Area of Responsibility
31 December 2021, 8 AM	₱ 17 B (331 infra)	ODETTE is outside the Philippine Area of Responsibility
FINAL REPORT	**₱ 30 B (1,734 infra)**	

During the height of TY ODETTE, the following Response Clusters were activated:

- Logistics
- Food and Non-Food Items
- Camp Coordination and Camp Management
- Internally Displaced Population Protection
- Health
- Search, Rescue, and Retrieval
- Education
- Emergency Telecommunications

Disaster Response

Lead: OCD

Members/Assisting Agencies: AFP, DOE, DOTr, DSWD, DWPH, PCG, PDRF, WFP

Logistics

258	49	33
Land assets/resources deployed	Sea assets/resources deployed	Air assets/resources deployed

Disaster Response

Food and Non-Food Items

Lead: DSWD
Members/Assisting Agencies: None reported

1,541,044
Food items delivered

273,303
Non-Food Items delivered

Disaster Response

Camp Coordination and Camp Management; and Protection

Lead: DSWD
Members/Assisting Agencies: DOH, DepEd

10,930
Evacuation Centers used

2,145,284
Persons served

Disaster Response

Health

Lead: DOH
Members/Assisting Agencies: PRC, UNICEF, WHO, WASH

P3,486,219.08	P 13,903,644.40	202
Augmented logistics from Centers for Health Development	Augmented logistics from DOH Central Office	Teams deployed

Disaster Response

Search, Recsue and Retrieval

Lead: AFP

Members/Assisting Agencies: PNP, BFP, PCG

676

Teams deployed

Disaster Response

Education

Lead: DepEd

Members/Assisting Agencies: Save the Children Philippines, PLDT and SMART, Seeds Asia, Psychological Association of the Philippines (PAP), World Vision, GIZ/Aral Pilipinas, UNICEF, Cultural Center of the Philippines (CCP), ChildFund Philippines, Plan International, USAID ABC+, FundLife

1,633	10,248
Schools used as evacuation centers	Classrooms used as evacuation centers

Disaster Response

Emergency Telecommunications

Lead: DICT
Members/Assisting Agencies: OCD, PLDT and SMART, GLobe, Converge, WFP

417
Assets deployed

Challenges

- Availability / Accessibility of data
- No standard protocol in data gathering
- COVID-19 risks
- Media

Best Practices

- Conduct of Pre-Disaster Risk Assessment (PDRA)
- Delineation of tasks among agencies for early recovery efforts.
- Data are validated and verified before publishing
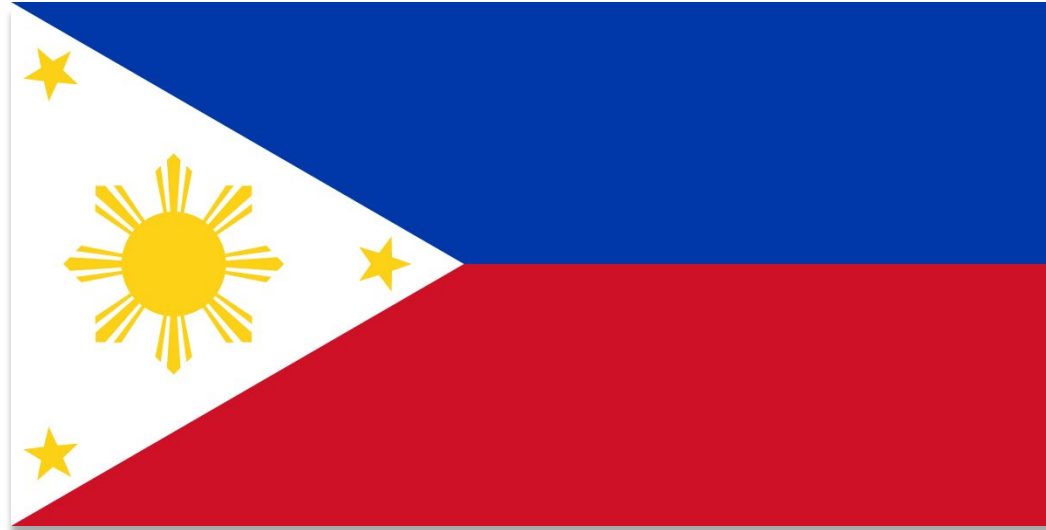
Recommendations

- Standardize data collection

- Training and Capacity Building

- Analyze data for efficient decision-making and response

- Use of CRVS data as means of verification

Thank you!