

THE PHILIPPINE DISASTER RISK REDUCTION AND MANAGEMENT SYSTEM

SCOPE OF PRESENTATION

- I. **Philippine Disaster Risk Reduction and Management System**

- II. **The Typhoon Yolanda (HAIYAN) Experience**

REPUBLIC ACT 10121

“An Act Strengthening the Philippine DRRM System, Providing for the National DRRM Framework and Institutionalizing the National DRRM Plan, Appropriating Funds Therefor and for Other Purposes”

Top-down and centralized disaster management

Bottom-up and participatory disaster risk reduction

Disasters as merely a function of physical hazards

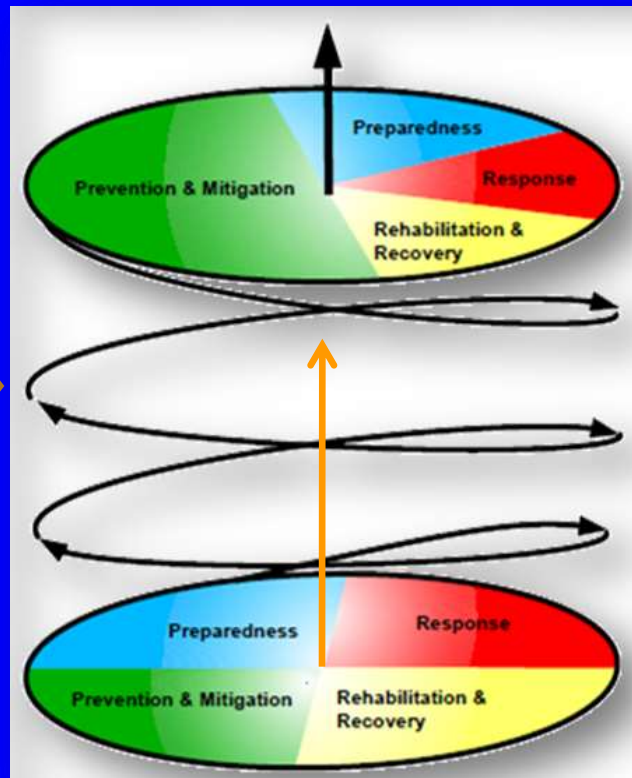
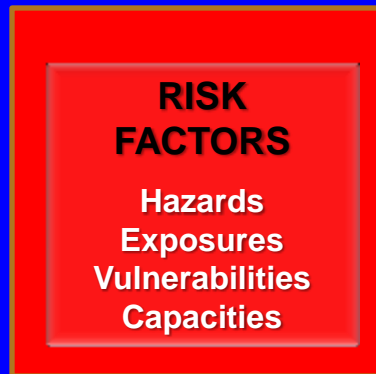
Disaster mainly a reflection of people's vulnerability

Focus on disaster response and anticipation

Integrated approach to genuine social and human development to reduce disaster risk

NDRRM FRAMEWORK

Safer, adaptive and resilient Filipino communities toward sustainable development



 Prevention & Mitigation

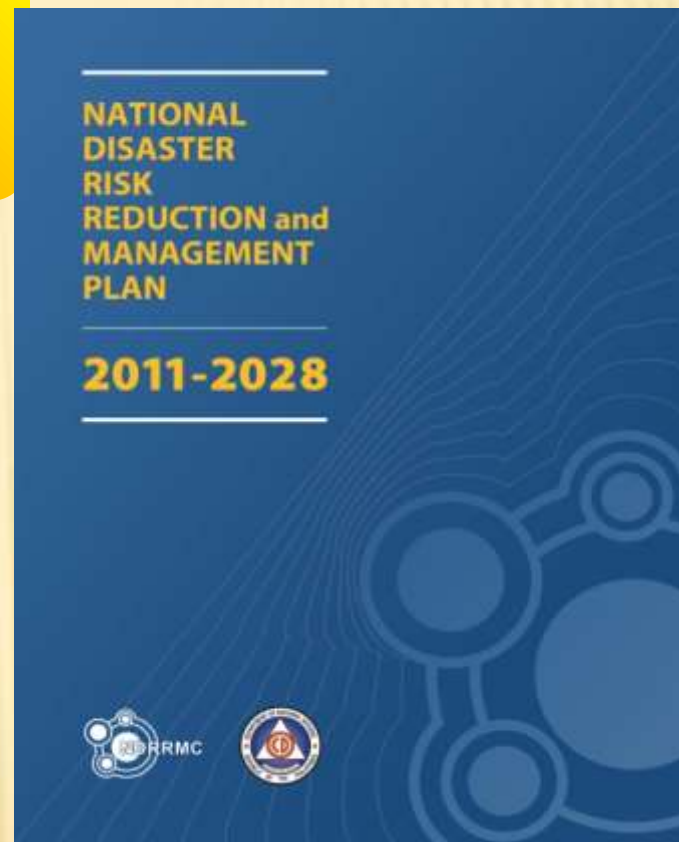
 Preparedness

 Response

 Rehabilitation & Recovery

THE NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT PLAN (NDRRMP, APPROVED ON FEBRUARY 07, 2012)

- ✘ Take-off points → RA 10121, NDRRMF, SNAP, PDP
- ✘ It is aligned with the NCCAP, HFA, AADMER
- ✘ 4 Priority Areas (DRRM Aspects) with a total of 93 activities/projects to be implemented from 2011 to 2028 at the national, regional and local levels
- ✘ Each aspect to be led by the 4 vice chairpersons
- ✘ It also identified lead agencies and implementing partners for each of the activities/programs
- ✘ Vertical and horizontal coordination of DRRM
- ✘ Monitoring and Evaluation Mechanisms
- ✘ Ensures multi-stakeholder partnerships and the mutual reinforcement of each of the priority areas



4 Priority Areas with 4 Long Term Goals

14 Objectives

24 Outcomes

56 Outputs

93 Activities

DRRM Council Networks



National Disaster Risk Reduction and Management Council

17 Regional Disaster Risk Reduction and Management Councils

81 Provincial Disaster Risk Reduction and Management Councils

144 City Disaster Risk Reduction and Management Councils

1, 490 Municipal Disaster Risk Reduction and Management Councils

42,027 Barangay Disaster Risk Reduction and Management Committees

INSTITUTIONALIZING DRRM

RA 10121 transformed the PDRRMS from
Disaster Relief and Response
towards
Disaster Risk Reduction and Management



**National Disaster
Coordinating Council**



**National Disaster Risk Reduction
and Management Council**

NDRRMC ORGANIZATIONAL STRUCTURE

Chairperson
Secretary of National Defense

Vice Chairperson
Sec. DOST
Disaster Prev. & Mitigation

Vice Chairperson
Sec. DILG
Disaster Preparedness

Vice Chairperson
Sec. DSWD
Disaster Response

Vice Chairperson
Sec. NEDA
Disaster Rehab & Recovery

**14 Line
Departments**

**11 Other Gov't
Agencies**

**2 Gov't
Financial Inst.**

**1 Quasi-Gov't
Agency**

**4 Leagues & 1
Union of LGUs**

**4 Civil Society
Orgs.**

1 Private Org.

**OCD, Administrator
Exec. Dir. NDRRMC**

 **Prevention & Mitigation**

 **Preparedness**

 **Response**

 **Rehabilitation & Recovery**

EXPANDED MEMBERSHIP

Old NDCC: 19 Members

Chairman: Secretary, DND

Members:

Secretary, DILG

Secretary, DPWH

Secretary, DOH

Secretary, DSWD

Secretary, DA

Secretary, DepEd

Secretary, DOF

Secretary, DOLE

Secretary, DTI

Secretary, DOTC

Secretary, DOST

Secretary, DBM

Secretary, DOJ

Secretary, DENR

Director, PIA

Sec-Gen - PNR

Chief of Staff, AFP

A, OCD: Exec Offr/Member

New NDRRMC: 44 Members

Chairperson: Secretary, DND

Vice-Chairpersons:

Sec, DOST – Prevention & Mitigation

Sec, DILG –Preparedness

Sec, DSWD – Disaster Response

DG, NEDA – Rehab & Recovery

Exec Dir: OCD Administrator

Members: 39

- **14 Depts: DOH, DENR, DA, DepEd, DOE, DOF, DTI, DOTC, DBM, DPWH, DFA, DOJ, DOLE & DOT**
- **12 gov't agencies: OES OPAPP, CHED AFP, PNP, OPS, NAPC, PCW, HUDCC, CCC, PHILHEALTH & OCD**
- **2 Gov Financial Inst (GSIS & SSS)**
- **1 Quasi-government agency (PRC)**
- **5 LGU Leagues**
- **4 Civil Society Organizations**
- **1 Private Sector Organization**

OFFICE OF CIVIL DEFENSE

- One of the five (5) bureaus of DND
- Established on July 1, 1973
- Acts as the Executive Arm and Secretariat of the NDRRMC
- Leads in coordinating the activities and functions of the N/RDRRMC member agencies



LDRRMC Composition (Provincial/City/Municipality) Sec. 11 RA 10121

Chairperson : Local Chief Executives

Members : Eighteen (18) Member Agencies

Barangay Level

**(Barangay Disaster Risk Reduction & Mgmt Committee under the Bgry.
Development Council)**

Chairperson : Punong Barangay

Members : Barangay DRRM Committee

Other Salient Features of RA10121

- Accreditation, Protection and Mobilization of Volunteers, NSRC, CSOs and Private Sector
- Integration of DRR Education into School Curricula, SK Program and Training for Public Sector employees
- Utilization of National and Local DRRM Funds
- Provisions for Prohibited Acts and Penal Clause



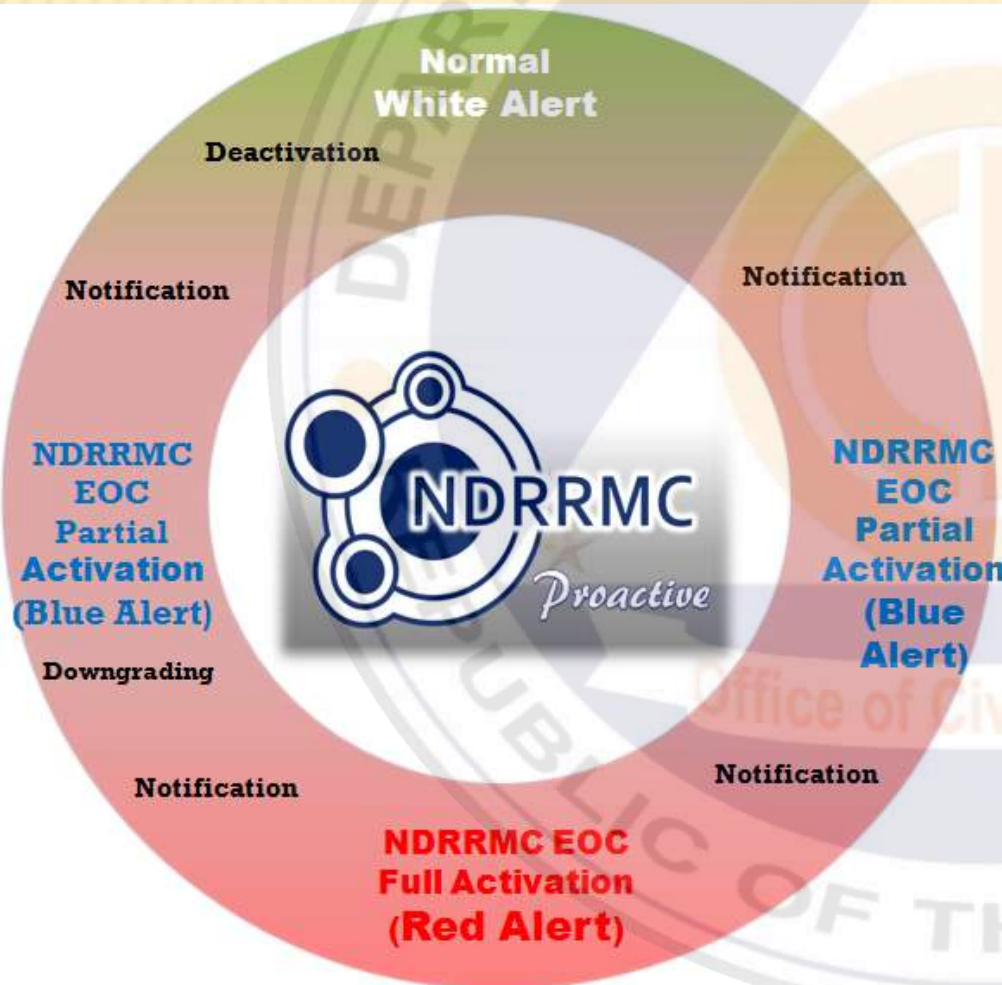
NDRRMC OPERATIONS CENTER

NDRRMC OPERATIONS CENTER

- ✓ Operates on a **24/7 basis**
- ✓ Center for **DRRM coordination**
- ✓ Provides DRRM **guidelines**
- ✓ **Disseminates** DRRM reports, alerts and other communications
- ✓ Facilitates effective **management** of the consequences of disasters
- ✓ Central **command** and **control** facility



NDRRMC OPERATIONS CENTER



**Cycle of
Operation**

NDRRMC OPERATIONS CENTER

During emergencies, the NDRRMC OpCen is activated into an **NDRRMC Emergency Operations Center (EOC)** and becomes the nerve center for:

- alert and monitoring
- multi-agency operational coordination
- response resource mobilization
- information management

NDRRMC OPCEN INFO FLOW

Chairperson, NDRRMC

President of the Philippines

**Executive Director, NDRRMC/
Administrator, OCD**

Media/ Other Stakeholders



NDRRMC SITREPs

**NDRRMCs
Member-Agencies**

- DSWD-DROMICS
- DOH-HEMS
- AFP COMMAND CTR
- PNRC
- DEPED
- DPWH
- DENR/EMB
- DA/BFAR/FARMC
- DILG/BFP/PNP MARITIME GROUP
- DOTC/PCG/NTC/MARINA
- ULAP
- LCP
- LMP
- LnB

OCD

RDRRMCs/OCDRCs

PDRRMCs

Situation Reports

C/M DRRMCs

B DRRMCs

Surveillance Agencies*

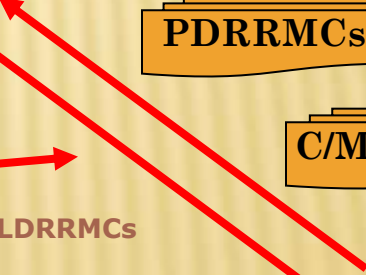
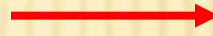
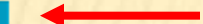
^Field Stations Info to LDRRMCs

PUBLIC

**LOCAL DRRMOs
P/C/M/B**

HAZARDS

- HYDRO-METEOROLOGICAL** DOST PAGASA
- GEOPHYSICAL** PHIVOLCS, MGB
- AFP
- DOH
- DA BAI
- PNP
- DA
- DOST
- PNRI



NDRRMC OPERATIONS CENTER

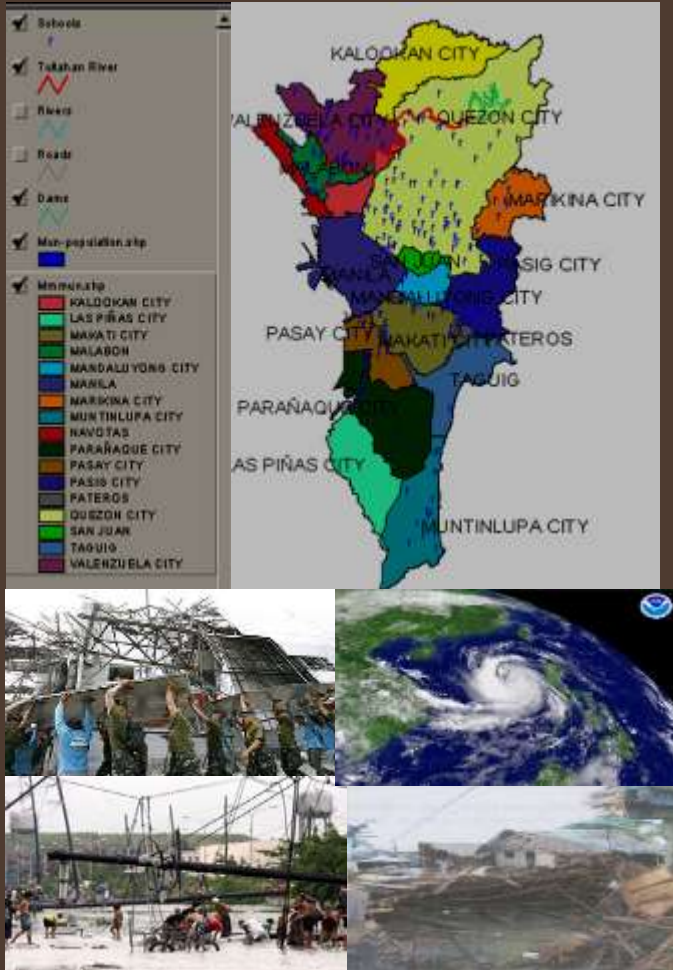
Means of communication and information dissemination:

- ✓ SMS/ Text Blast
- ✓ Phone (Radio, Cellphone, Landline)
- ✓ Website
- ✓ Email
- ✓ Social Media (Facebook)
- ✓ Facsimile
- ✓ TSF telecommunications equipment (back-up communication equipment)

NDRRMC OPERATIONS CENTER

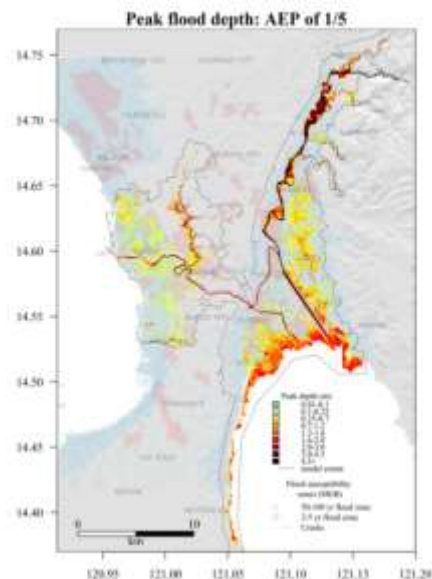
Information Management

- ✓ Maintains an **updated database** of relevant baseline information
- ✓ Collects, collates, validates, analyzes information and undertakes **appropriate DRRM steps**
- ✓ Documents all past DRRM situations





TOWARDS A
READY, SAFE,
RESILIENT & GREATER
METRO MANILA

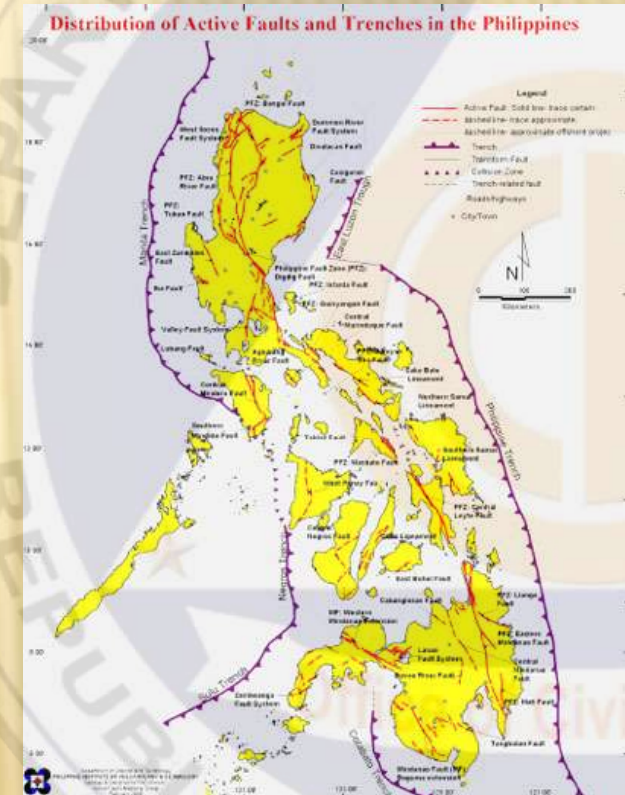
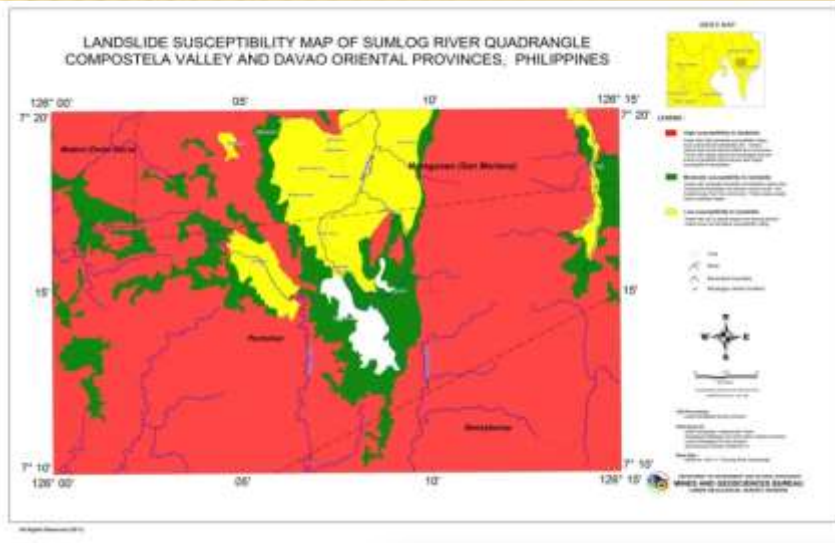


DRRM EFFORTS

Prevention and Mitigation

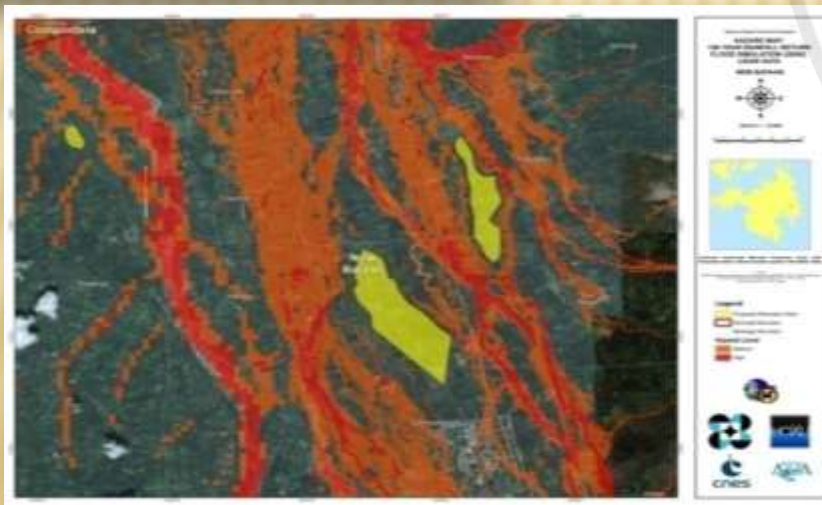
Multi-hazard Maps, EWS and Risk Assessment

Landslide Susceptibility Map (MGB-DENR)



Active Faults & Trenches (PHIVOLCS)

Rainfall Return Flood Simulation (PAGASA)



Preparedness



- Contingency planning
- Prepositioning of equipment & supplies
- Enhancement of operation & coordination centers
- Organizing, training & equipping responders
- Organizing & mobilizing community volunteers
- Conduct of disaster trainings & drills

Response

- Search, rescue & retrieval operations
- Humanitarian aid, relief and health services
- Provision for temporary shelter, water, sanitation & hygiene
- Financial assistance to calamity victims
- Management of evacuation centers



Rehabilitation and Recovery



- Early recovery & rehabilitation
- Reconstruction of damaged houses & buildings
- Resettlement
- Provision for livelihood
- Restoration & improvement of destroyed facilities



RESILIENCE

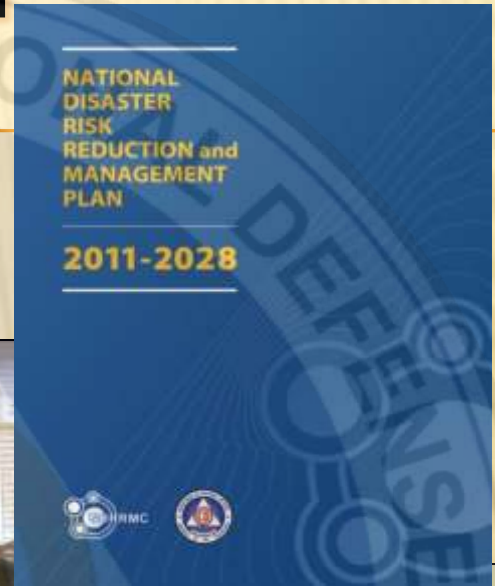
is the ability of a system, community or society exposed to hazards **to resist, absorb, accommodate and recover** from the effects of a hazard in a timely and efficient manner

(Source: RA 10121)



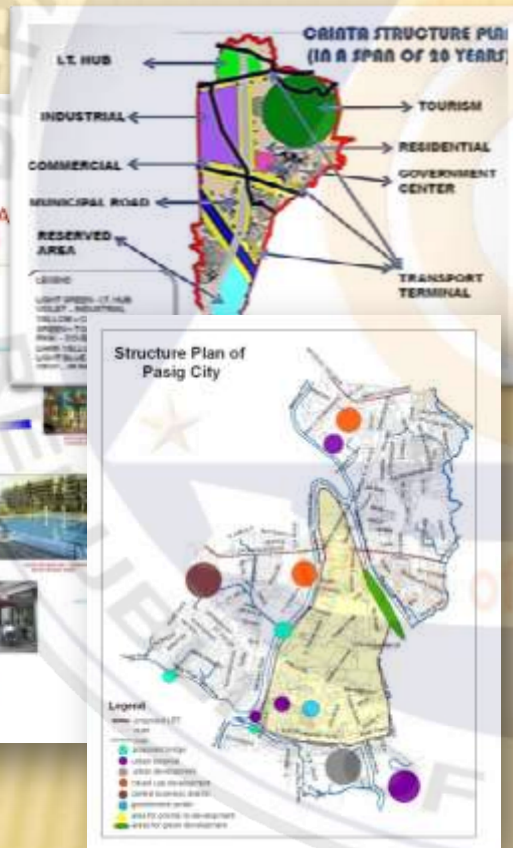
Areas of Cooperation

- Formulation of Local DRRM Plans and Updating of Hazard-specific Contingency Plans



Areas of Cooperation

- Enhancement of Comprehensive Land Use Plans (CLUP) integrating DRRM



Areas of Cooperation

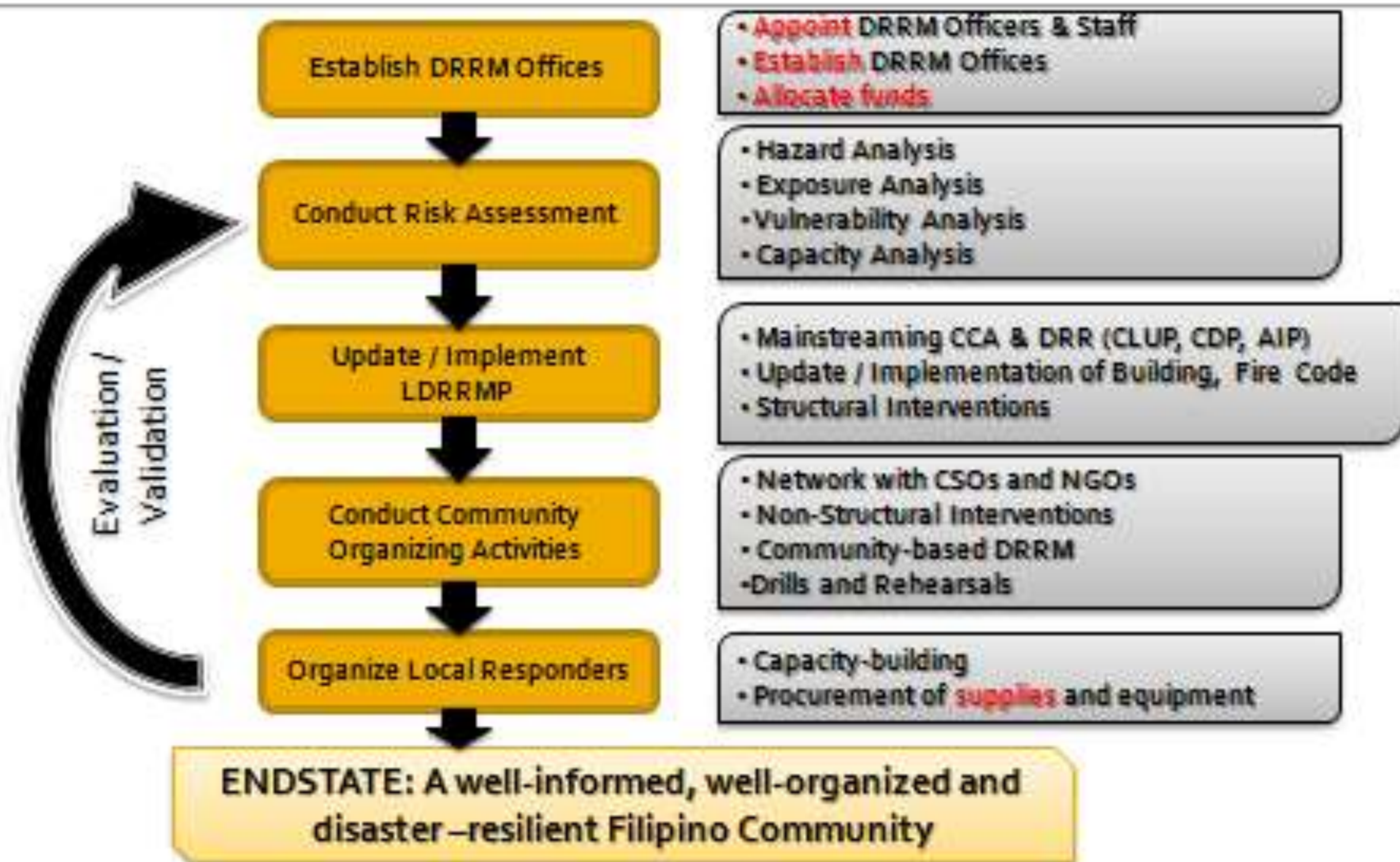
- Establishment of an integrated Flood Early Warning System

Observers and Caretakers have critical roles to fulfill



"We did this in Pasig-Marikina-Tullahan River Basin"

DRR Operational Framework



Funding for DRRM

I. National Disaster Risk Reduction and Management Fund (NDRRM Fund)

▪ *Shall be used for disaster risk reduction or mitigation, prevention and preparedness activities such as but not limited to training of personnel, procurement of equipment, and capital expenditures.*

II. Local Disaster Risk Reduction and Management Fund (LDRRMF)

▪ *Not less than five percent (5%) of the estimated revenue from regular sources to support disaster risk management activities such as, but not limited to, pre-disaster preparedness programs including training, purchasing life-saving rescue equipment, supplies and medicines, for post-disaster activities and for the payment of premiums on calamity insurance*

Of the amount appropriated for N/LDRRMF, thirty percent (30%) shall be allocated as Quick Response Fund (QRF) or stand-by fund for relief and recovery programs



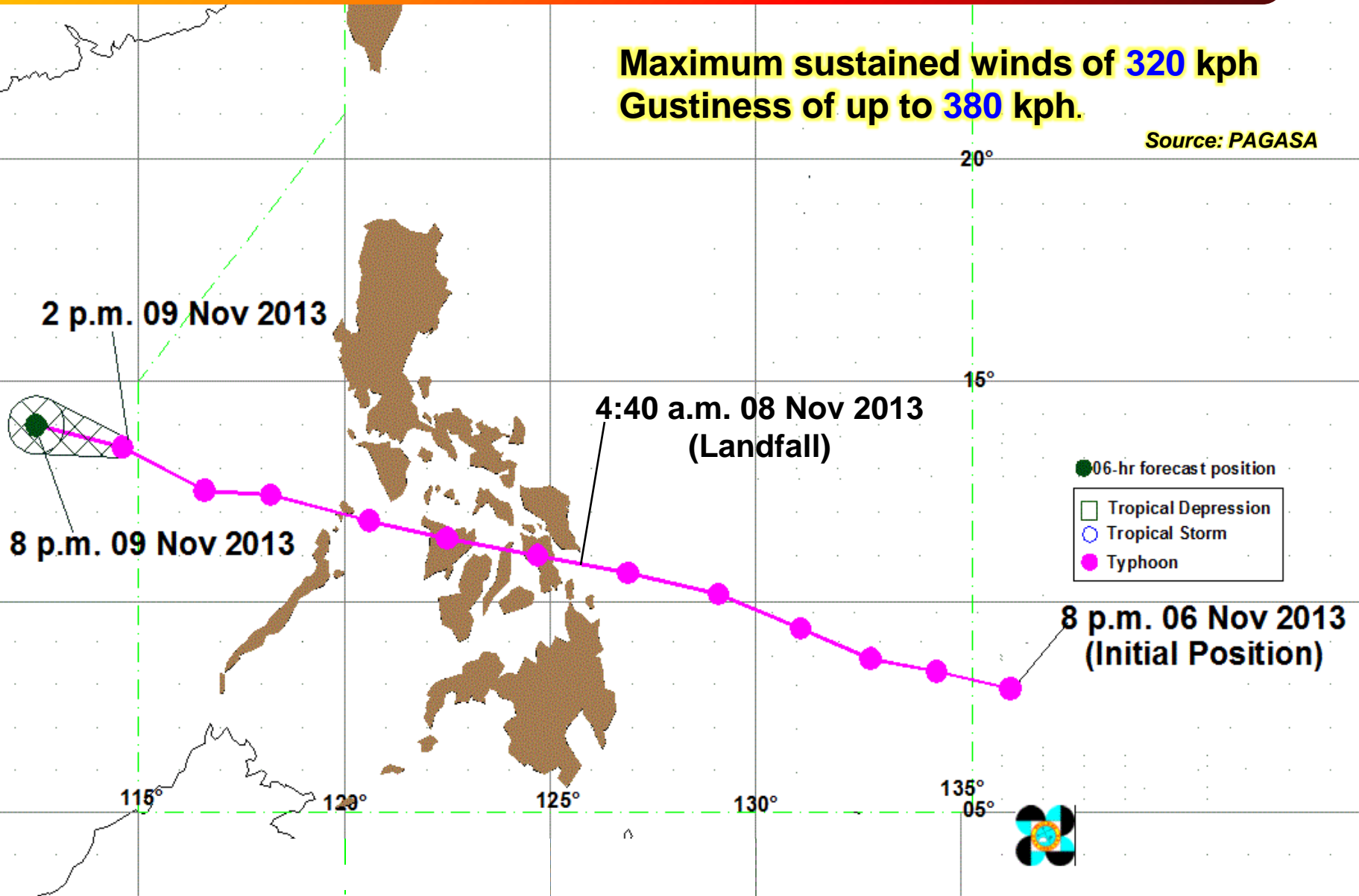
II. Typhoon “YOLANDA” (HAIYAN) Experiences



TY Yolanda Track

Maximum sustained winds of **320 kph**
Gustiness of up to **380 kph**.

Source: PAGASA



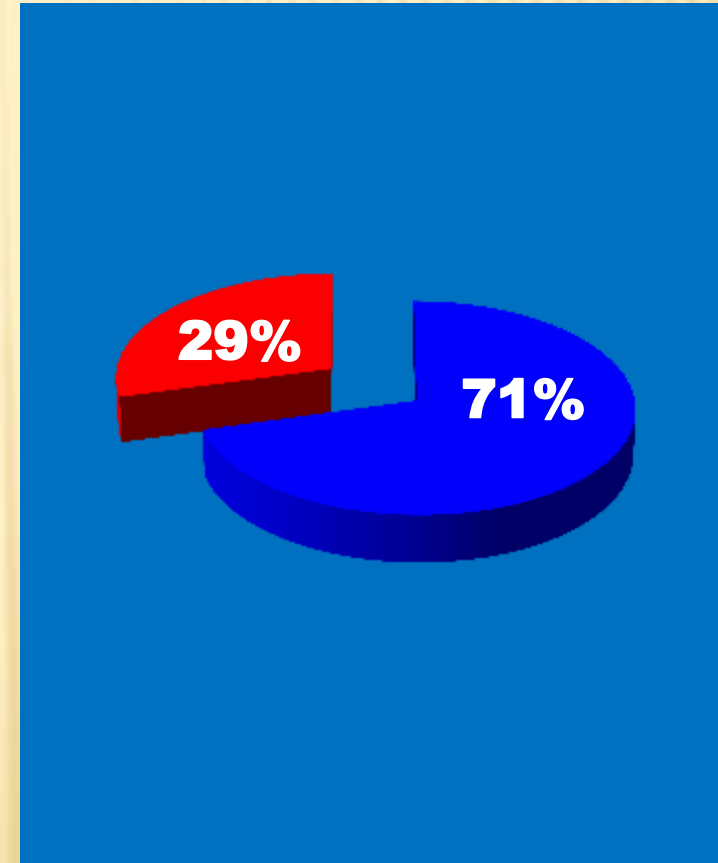
Effects

(As of 27 March 2014)

Affected Population	
<i>Families</i>	3,424,593
<i>Persons</i>	16,078,181
Casualties	
<i>Dead</i>	6,268
<i>Injured</i>	28,689
<i>Missing</i>	1,061
Damaged Houses	1,149,332
<i>Totally</i>	550,928
<i>Partially</i>	598,404

TOTAL DAMAGE AND LOSSES PERCENTAGE

SECTORS	DAMAGE	LOSSES
Region IV-B		
1. Northern Palawan	786,816,243	380,571,769
Sub-total	786,816,243	380,571,769
Region VII	0	0
1. Northern Cebu	4,888,993,882	3,133,686,743
Sub-total	4,888,993,882	3,133,686,743
Region VI	0	0
1. Aklan	2,020,856,968	838,703,090
2. Antique	1,573,938,206	257,960,763
3. Capiz	7,278,382,447	357,781,729
4. Iloilo	6,647,640,086	509,251,741
Sub-total	17,520,817,707	1,963,697,324
Region VIII	0	0
1. Biliran	389,252,345	236,917,882
2. Leyte	50,911,426,069	24,061,941,843
2.1. Tacloban City	6,948,485,783	5,308,802,499
3. Southern Leyte	336,886,132	118,495,921
4. Eastern Samar	5,584,100,411	2,645,441,606
5. Samar	4,776,307,654	418,958,939
Sub-total	68,946,458,395	32,790,488,690
TOTAL	92,143,086,228	38,268,444,525



■ LOSSES ■ DAMAGE

USD 2.06B USD 856.61M

Photographs



Storm surge battering the coastline of Tacloban City



Tacloban City before the disaster...



... and after the onslaught of Typhoon Yolanda



Tacloban before...



... and after..



Fallen trees & electric posts in the aftermath of TY Yolanda



Houses-turned-debris & rubbles in Tacloban City



A partially damaged house in Tacloban City



Tacloban City Airport



Tacloban City Airport



Tacloban City Airport



Debris from Destroyed Houses in Tacloban City, Leyte



Totally damaged houses in Tacloban City, Leyte



Palo Cathedral, Palo City, Leyte



Debris and rubbles in Palo, Leyte

Concerns/Lessons Learned

- A great number of death was caused by the storm surge that hit Samar and Leyte
- Incapacity of local government units to discharge their functions for being victims themselves
- Huge damages to electricity, water supply, communications, ports and thoroughfares
- Deterioration of Peace and Order
- Non-enforcement of Water and Building Codes

Lessons Learned on Prevention, Mitigation & Preparedness

- Evaluate current evacuation plan
- Increase mangrove forest area
- Apply science and evidence-based scenarios in mainstreaming DRRM and CCA into plans, policies and programs in national and local govt
- Review building code where structures are built to withstand less than 200kph (Yolanda has 300+kph winds)
- Improve monitoring of efforts of LCEs and LDRRMOs in DRRM and CCA (esp use of maps in CLUPs and RDCs)

Lessons Learned on Response

- Clarify the role of OCD and NDRRMC members in disaster operations at the strategic and tactical level
- There should be one body who would decide on prioritization of transportation of goods and augmentation staff
- Relax procurement policies and procedures during disasters to facilitate expeditious provision of necessary goods and services
- Improve logistics capability to ensure prompt delivery of goods and allow immediate restoration of power, transport and communication services

Recommendations

- **Revision of Water Code (PD 1067 of 1976)**
- **Implementation of the Building Code**
- **Establishment of permanent evacuation centers taking into consideration the different hazard maps and studies with respect to location and structure**
- **Enhancement of emergency telecommunications system and acquisition of mobile devices**
- **Increase capacity for mobility; air, sea and land assets**
- **Creation of national responders in the three major islands with expertise on collapse structures and water search and rescue operations.**

What can we do?

GET INVOLVED

BE PROACTIVE

COORDINATE

IMPLEMENT

THANK YOU AND MABUHAY!

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