



Human Resource Management and Disaster Risk Reduction Management in Organizations

Scope

1. Philippine Disaster Risk Profile
2. Eastern Visayas Disaster Risk Profile
3. Salient Features of RA10121



THE PHILIPPINE DISASTER RISK PROFILE



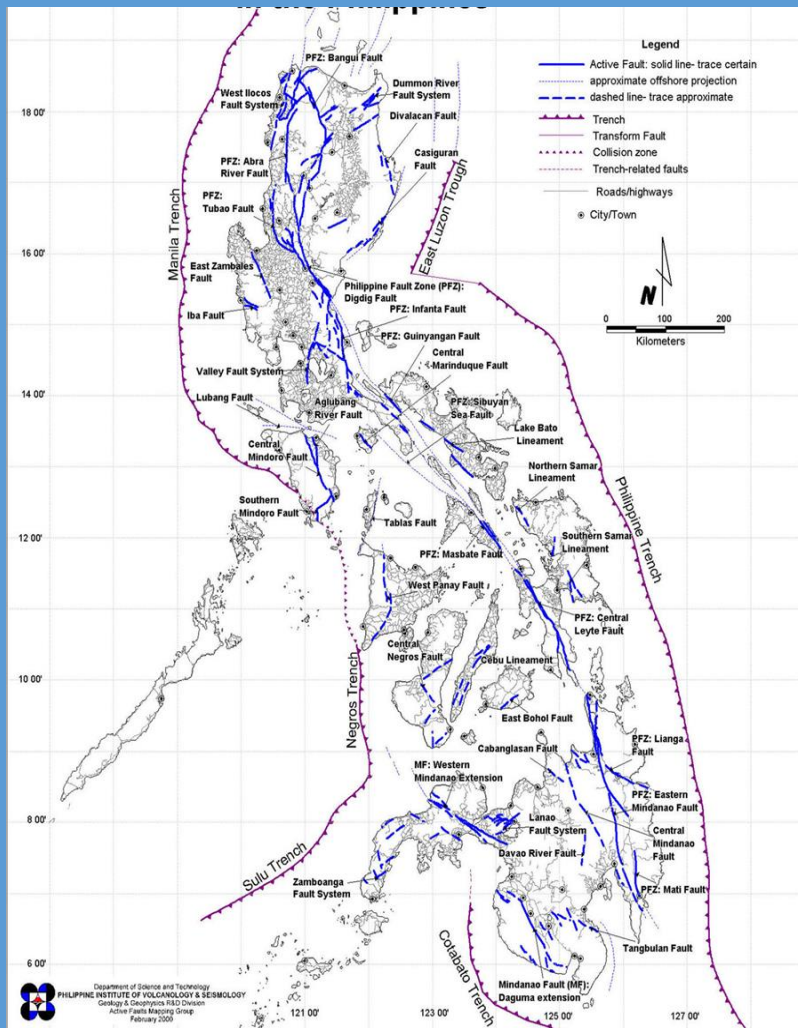
Pacific Ring of Fire



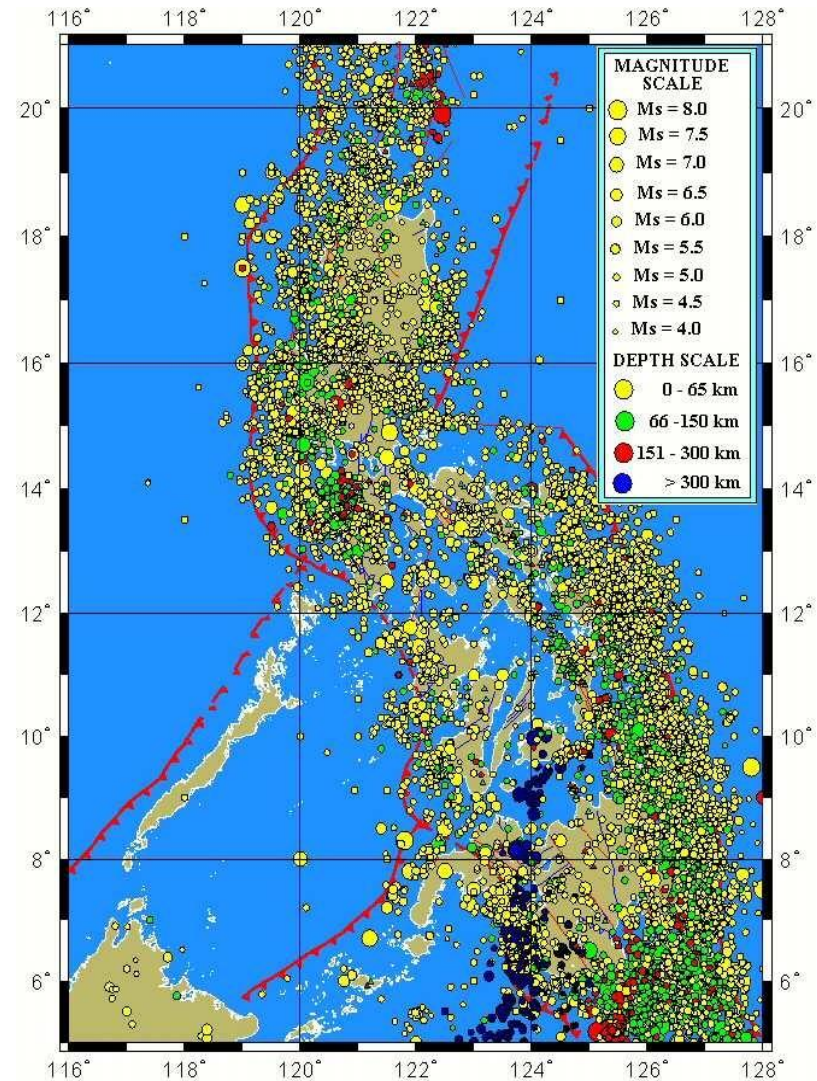
Photo credit: SciDev.net



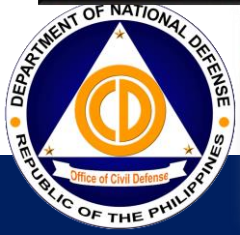
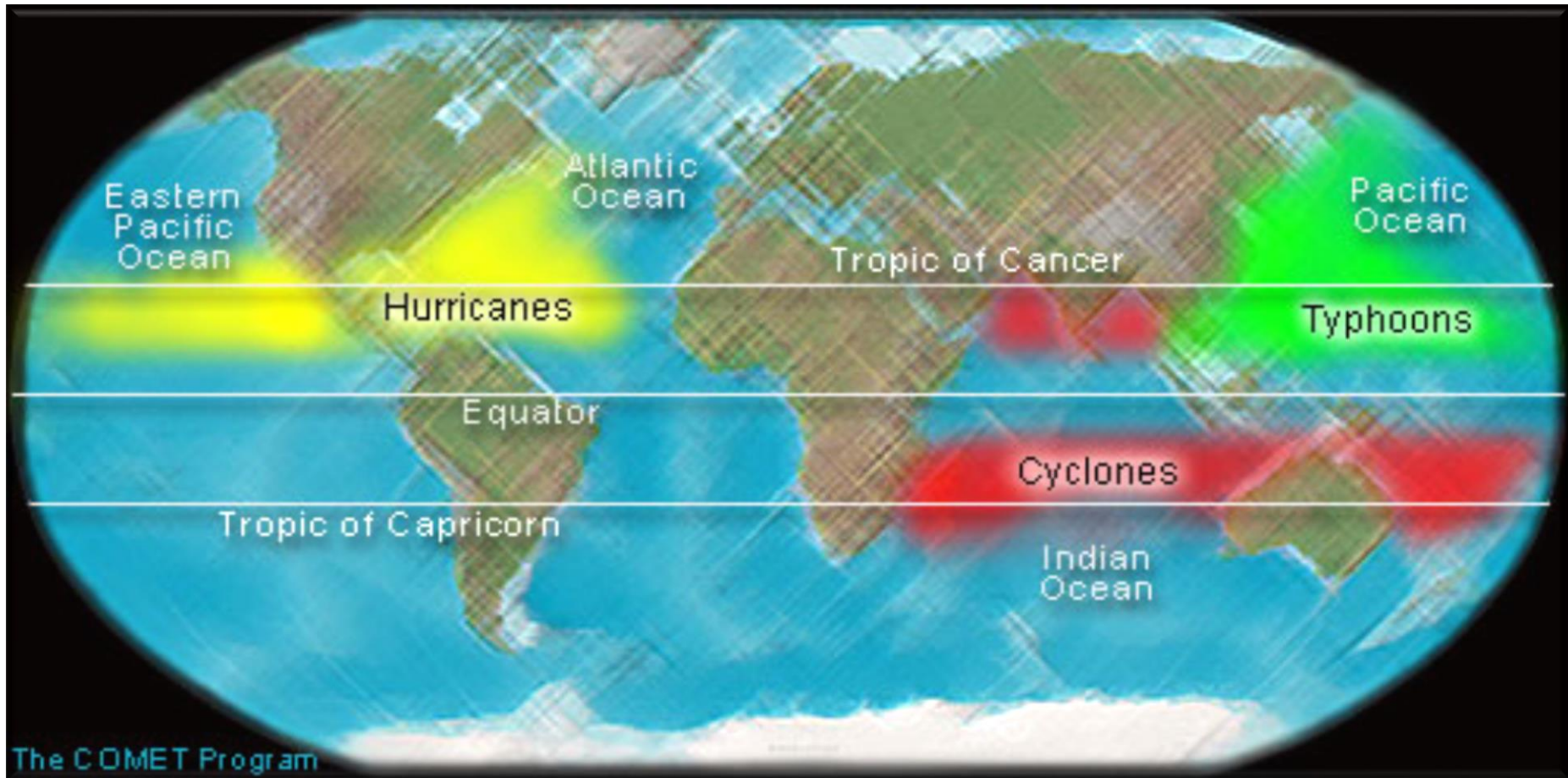
Active Faults and Trenches



Seismicity



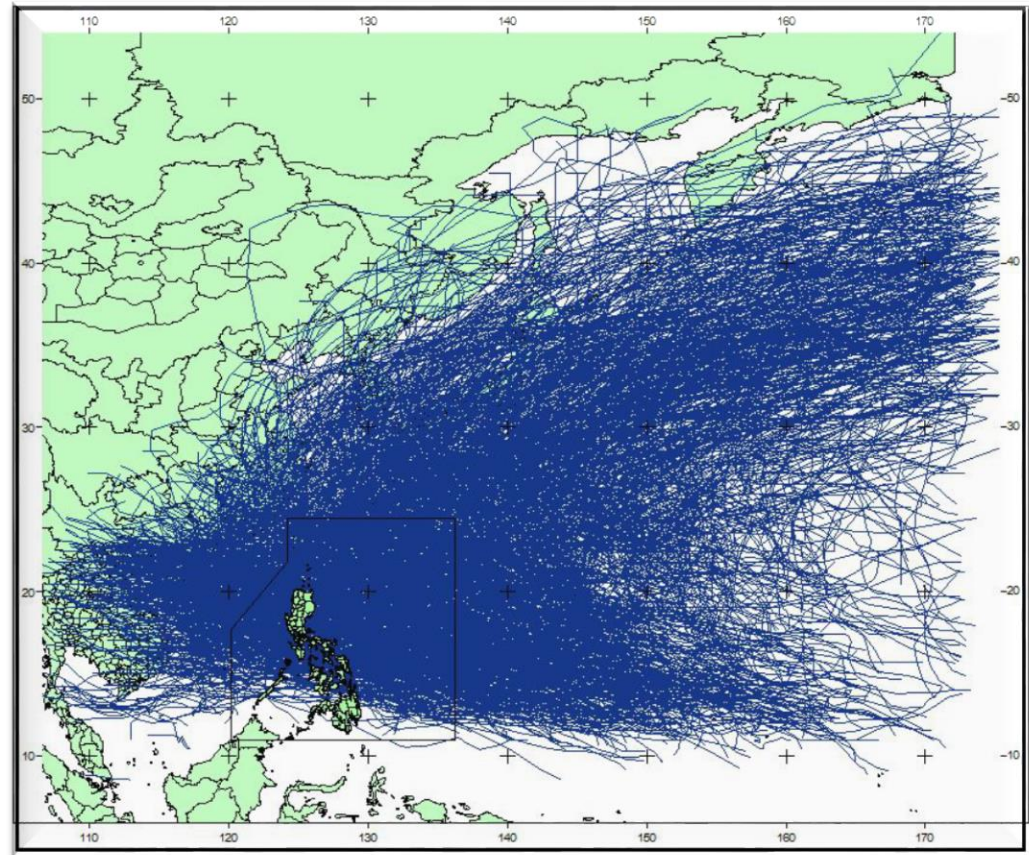
Pacific Typhoon Belt



Philippines as *Exporter* of Typhoons

Tracks of Tropical Cyclones in the Western North Pacific Period from 1948 to 2010.

Reference: Japan Meteorological Agency (n.d.)



Natural Hazards

- Typhoons
- Floods
- Storm Surges
- Earthquakes
- Tsunamis
- Volcanic eruptions
- Landslides
- Drought



Photo credit: Google Images

Human - Induced Hazards

- Fire
- Maritime accidents
- Aircraft crash
- Land accidents
- Industrial accidents
- Pollution
- Civil disturbance
- Terrorism
- Armed conflict



Photo credit: Google Images



Effects of Disasters



Photo credit: philstar.com

Effects of Disasters

- Human toll: dead, injured and missing
- Communities displaced
- Lost sources of livelihoods
- Environmental damages
- Infrastructure damages
- Economic losses
- Hampered delivery of services



Photo credit: Google Images

WORLD RISK INDEX REPORT 2017

9th in 2009

6th in 2010

3rd in 2011 – 2013

2nd in 2014

3rd in 2015 – 2016

3rd in 2017

The 15 countries with the highest risk worldwide

country	Risk (%)
Vanuatu	36.45
Tonga	28.57
Philippines	27.69
Guatemala	20.46
Bangladesh	19.57
Solomon Islands	18.77
Costa Rica	17.16
Cambodia	16.92
El Salvador	16.74
Timor-Leste	16.37
Papua New Guinea	16.34
Brunei Darussalam	16.22
Mauritius	15.11
Nicaragua	14.88
Fiji	13.50

Study by: UN University Institute for Environment and Human Security

Reference: <http://weltrisikobericht.de/wp-content/uploads/2016/08/WorldRiskReport2016.pdf>



I. RISK PROFILE OF REGION VIII





AREAS VULNERABLE TO HAZARDS IN REGION VIII



EARTHQUAKE

Description:

Parallel NW Faults to the Philippine Fault Zone

Areas likely to be affected :

- ✓ **Leyte:** Tacloban City, Babatngon, San Miguel, Sta. Fe, Palo, Tanauan and Tolosa
- ✓ **Samar:** San Sebastain, cities of Calbayog and Catbalogan

Description: 25-km. danger zone along the Philippine Fault Zone

Areas likely to be affected :

- ✓ **Leyte:** Carigara, Kananga, Capoocan, Jaro, Tunga, Ormoc City, Albuera, Burauen, Baybay, Abuyog and Mahaplag
- ✓ **Southern Leyte:** Silago, Sogod, Bontoc, Tomas Oppus, Malitbog, Padre Burgos, Hinunangan, Limasawa, St. Bernard, San Juan, Anahawan, Liloan, San Francisco, Pintuyan and San Ricardo

Description:

NNE Splay Fault Zone

Areas likely to be affected :

- ✓ **Southern Leyte:** Maasin City, Bontoc, Malitbog and Tomas Oppus



LANDSLIDE

Description:

Gravity-induced displacement of earth surface materials, such as rocks, boulders and soil from a point of higher elevation to a point of lower elevation

Areas likely to be affected :

- ✓ **Leyte:** Coastal section of Abuyog, Upland and mountainous portion of Ormoc City and Isabel Southern Leyte: Hilly areas of Maasin City, Mountainous portion of Sogod
- ✓ **Samar:** Rock formation of Catbalogan City

Description:

One type of hazard related to natural geologic processes under the earth's crust

Areas likely to be affected :

- ✓ **Leyte:** Alangalang, Pastrana, Dagami, Sta. Fe, Tabontabon, Dulag, Tolosa, Tanauan, San Miguel and Tacloban City

LIQUEFACTION

TSUNAMI



Midnight killer: The 1976 Moro Gulf tsunami

Description:

Geologic hazard created by undersea earthquake or volcanic eruption

Areas likely to be affected :

- ✓ **Samar:** Calbayog City, Catbalogan City and San Sebastian
- ✓ **Northern Samar:** Catarman and low lying municipalities
- ✓ **Eastern Samar:** The whole of Eastern Samar since it is fronting the Philippine Trench
- ✓ **Southern Leyte:** Coastal villages of Panaon Island
- ✓ **Leyte:** Coastal municipalities situated at



CATASTROPHIC EVENTS IN REGION 8 (PAST 30 YEARS)





Typhoon Yolanda in Tacloban City, Leyte on Nov. 8, 2013 killing - 5,894 , missing -1,005 and injured – 26,076 people.

Flashflood in Ormoc City and Burauen, Leyte on Nov. 5, 1991 killing almost 8,000 people.

Landslide in St. Bernard, Southern Leyte on February 17, 2006 burying the entire village and killing almost 1,200 people.

Landslide/Flashflood in Panaon Island, Southern Leyte on Dec. 19, 2003 killing more than 100 people.



MOST COMMON GEOHAZARD IN REGION VIII



“One of the most common Geohazard in Region 8”

LANDSLIDE

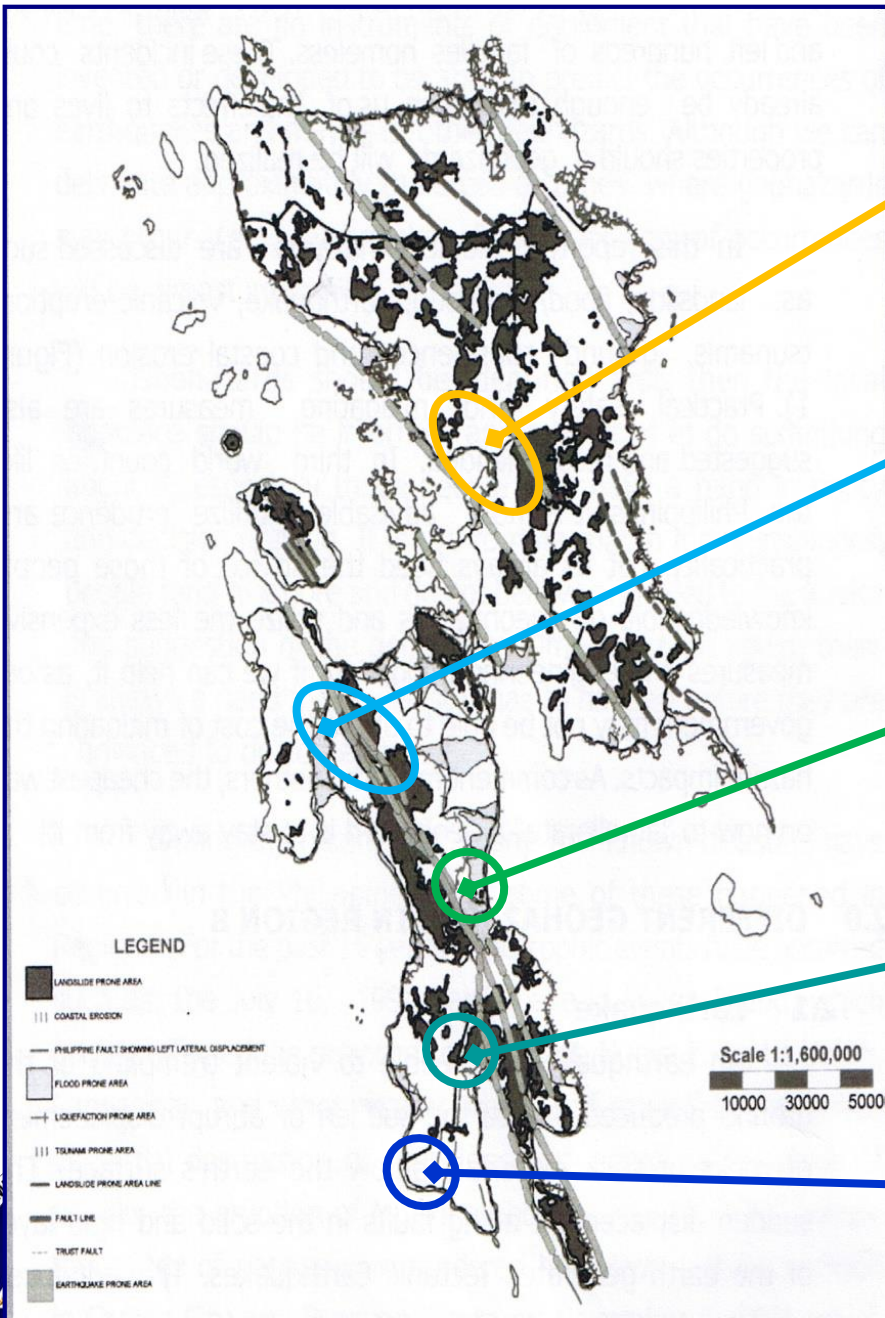
The numerous rapid mass-movements claimed more than a thousand of lives in the region and destroyed millions of pesos worth of properties.



**PANAON ISLAND,
SOUTHERN LEYTE**



**ST. BERNARD,
SOUTHERN LEYTE**



Rock formations of Catbalogan, Samar

Upland and mountainous portions of Ormoc City and Isabel, Leyte

Coastal section of Abuyog, Leyte

Mountainous portions of Sogod, Southern Leyte

Hilly areas of Maasin City, Southern Leyte

“One of the most common Geohazard in Region 8”

FLOOD/FLASHFLOOD

The flashflood that occurred in Ormoc City on November 5, 1991 was the worst that happened in the region. The Catastrophic flood killed more than 6,000 people in Ormoc City alone.



“One of the most common Geohazard in Region 8”

COASTAL EROSION

“Coastal erosion is a kind of geohazard that extensively affect the eastern side of Leyte Island



Recent studies conducted by the geologists of MGB-RO8 disclosed that the intense removal of beach sediment material could affect the coastal area from Tacloban City, Leyte in the north to as far as Silago, Southern Leyte in the south.

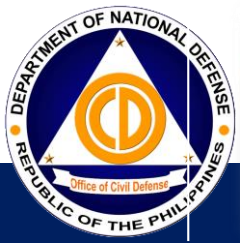


“One of the most common Geohazard in Region 8”

COASTAL EROSION



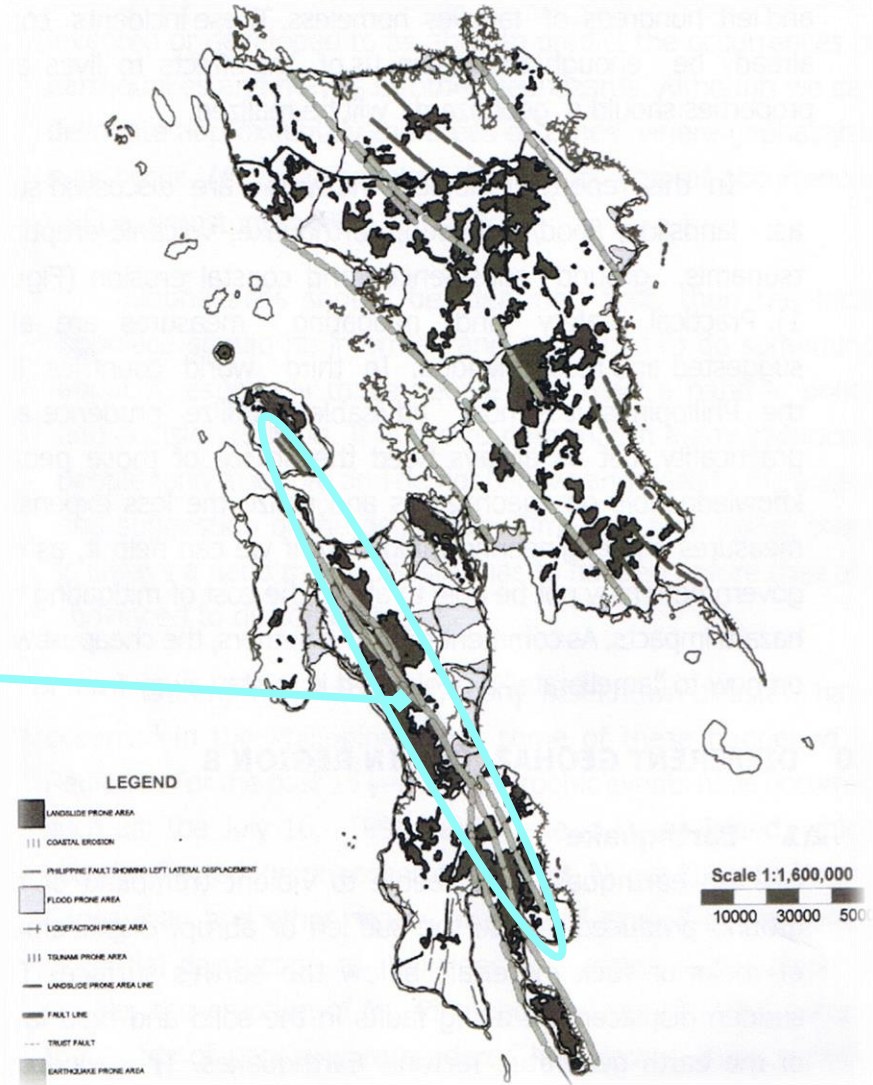
The most seriously affected coastal area is at Brgy. San Roque, Tanauan, Leyte. Here, a significant portion of beach area is already considerably eroded or washed out due to the wave induced movement of beach material moving northward. An old shoreline sand spit in the area was already washed-out.



“One of the most common Geohazard in Region 8”

EARTHQUAKE

These two geologic structures have been classified by PHIVOLCS as major earthquake generators in the Philippine Archipelago. The PFZ has been traced by previous geologist to be about 1,200 kilometers in length or its physio-graphically recognizable feature from Luzon to Mindanao. It passes at the near center of Leyte Island from the town of Leyte, Leyte in the north to the town of St. Bernard in the south.



JULY 6, 2017 MG. 6.5 EARTHQUAKE ALONG THE PHILIPPINE FAULT ZONE



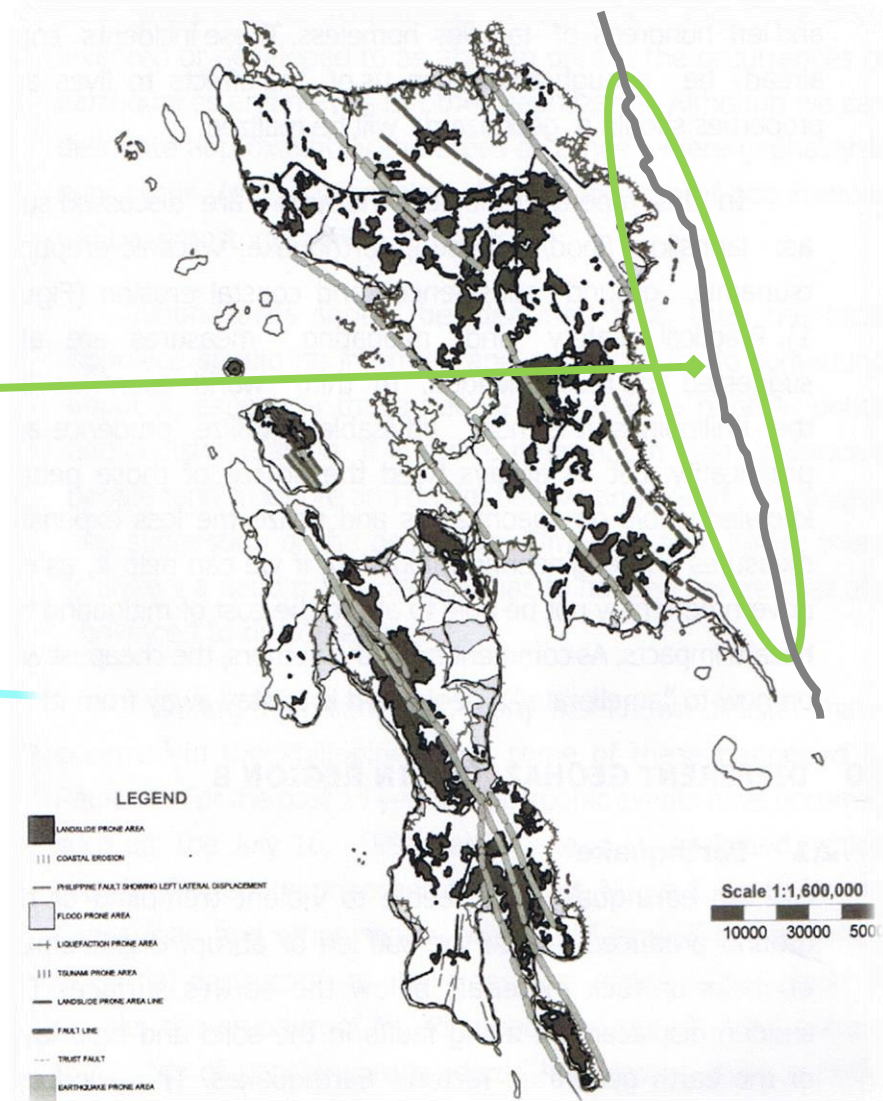
Aftershock Records as of 05:00 AM of 24 July 2017	1023 recorded aftershocks	127 plotted aftershocks	32 reported felt	Magnitude ranging from 1.5 to 5.8.
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“One of the most common Geohazard in Region 8”

EARTHQUAKE

On the other hand, the west dipping subduction zone is more commonly known as the Philippine trench, a portion of the well-known Philippine deep. It is estimated to be located about 60 kilometers from the eastern coast of Eastern Samar and generally trends approximately north-northeast.





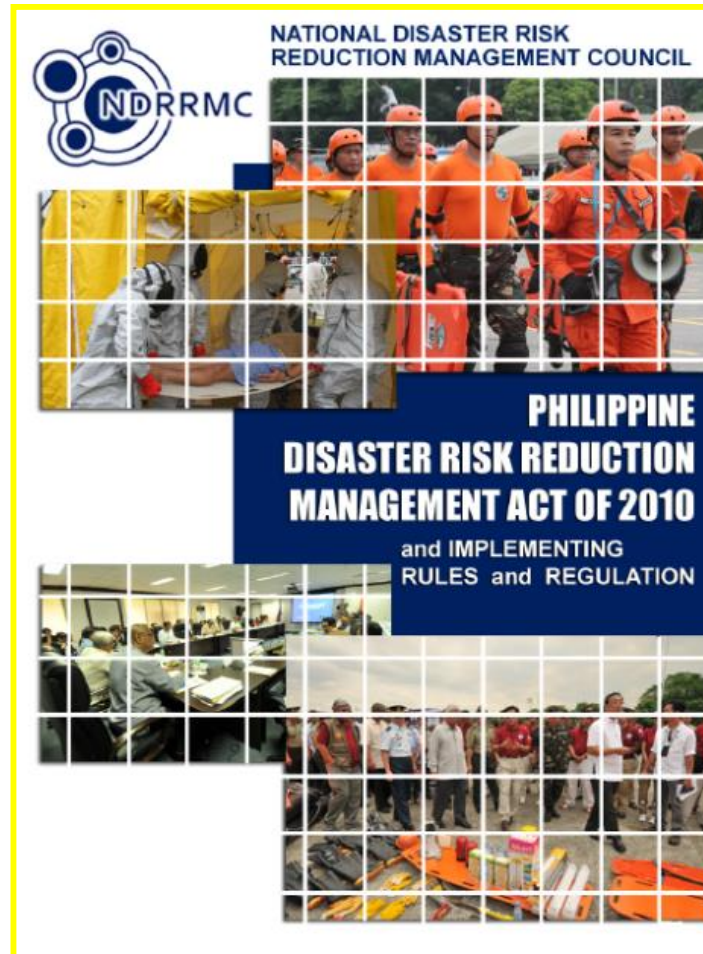
DISASTER PRONE AREAS IN REGION 8



FLOOD

RIVER	AREAS LIKELY TO BE AFFECTED
LEYTE	
Shapon River Watershed	Merida town proper and vicinities
Dupon River Watershed	Isabel
Sabang River Watershed	Brgy. Sabang, Palompon
Abijao River Watershed	Brgy. Abijao, Villaba
Tabango River Watershed	Tabango
Lemon River Watershed	Leyte
Pagbanganan and other western flowing rivers in the coastal zone of Albuera	Albuera proper and vicinities
Ormoc City basin and Anilao Rivers Watershed	Ormoc proper and vicinities

Legal Basis: Republic Act 10121



Legal Basis: Republic Act 10121

An act:

- Strengthening the Philippine DRRM system,
- Providing for the National DRRM framework and
- Institutionalizing the National DRRM plan,

appropriating funds therefore and
for other purposes.



THEN

TOP-DOWN
CENTRALIZED
DISASTER
MANAGEMENT

DISASTERS AS
FUNCTION OF
PHYSICAL
HAZARDS

FOCUS ON
DISASTER
RESPONSE

REACTIVE

NOW

BOTTOM-UP
PARTICIPATORY
DISASTER RISK
REDUCTION AND
MANAGEMENT

DISASTERS AS
REFLECTION OF
PEOPLE'S
VULNERABILITY

INTEGRATED
APPROACH TO REDUCE
DISASTER RISK

PROACTIVE

National Disaster Risk Reduction and Management Council



The 24-7 command-and-control facility of NDRRMC that performs the following functions:

- Alert and monitoring
- Multi-agency operational coordination
- Response resource mobilization
- Information management
- Operations capability upgrade for effective program coordination



Highest organized and authorized body in DRRM in the Philippines.



NDCC to NDRRMC



NATIONAL
DISASTER
COORDINATING
COUNCIL

NATIONAL DISASTER
RISK REDUCTION
AND MANAGEMENT
COUNCIL



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 - PNRC

Chief of Staff, AFP

A,OCD: Exec Offr/Member

NDRRMC: 45 Members

Chairperson: Secretary, DND

Vice-Chairpersons:

Sec, DOST – Prevention & Mitigation

Sec, DILG –Preparedness

Sec, DSWD – Disaster Response

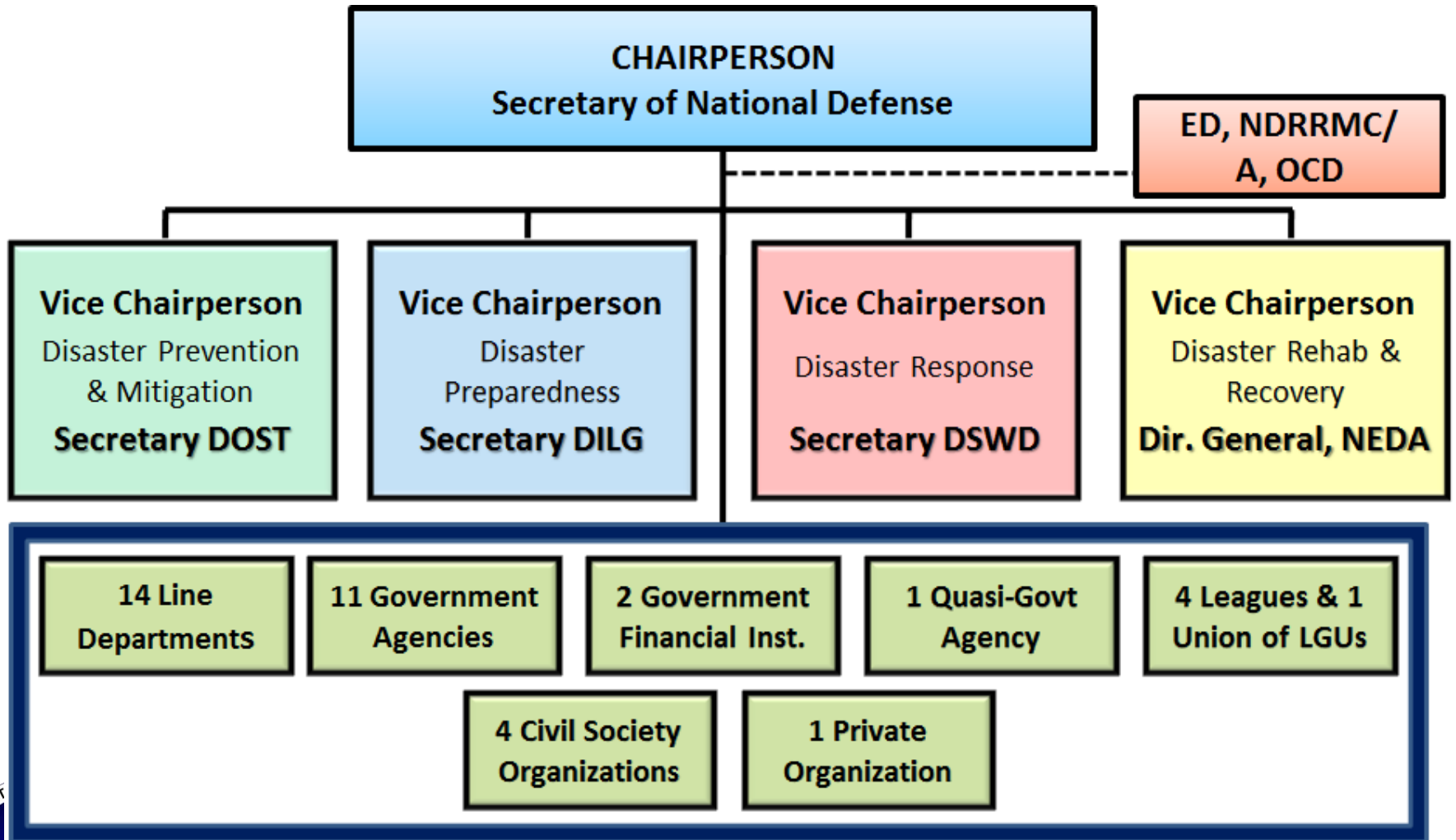
DG, NEDA – Rehab & Recovery

Exec Dir: OCD Administrator

Members: 39

- 15 Depts.: DOH, DENR, DA, DepEd, DOE, DOF, DTI, DOTr, DBM, DPWH, DFA, DOJ, DOLE & DOT, DICT
- 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

NDRRMC Composition



Office of Civil Defense



- Executive Arm and Secretariat of the NDRRMC
- **Primary mission:** administer a comprehensive national civil defense and DRRM program



Office of Civil Defense



Photo credit: clipartfreefor.com



OCD Powers and Functions



- Policy-making
- Coordination
- Integration
- Supervision
- Monitoring and Evaluation



NDRRM Operations Center

Facility for situation monitoring and coordination during emergencies



DRRM Network

1	NATIONAL DRRM COUNCIL
17	REGIONAL DRRM COUNCILS
81	PROVINCIAL DRRM COUNCILS
145	CITY DRRM COUNCILS
1,489	MUNICIPAL DRRM COUNCILS
42,029	BARANGAY DRRM COMITTEES



Coordination and Response during Emergencies

Barangay DRRMC	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



Reference: Section 15, RA 10121

RDRRMC Composition

Chair

OCD

Vice-Chairs

DILG

*Disaster
Preparedness*

DSWD

Response

DOST

*Prevention &
Mitigation*

NEDA

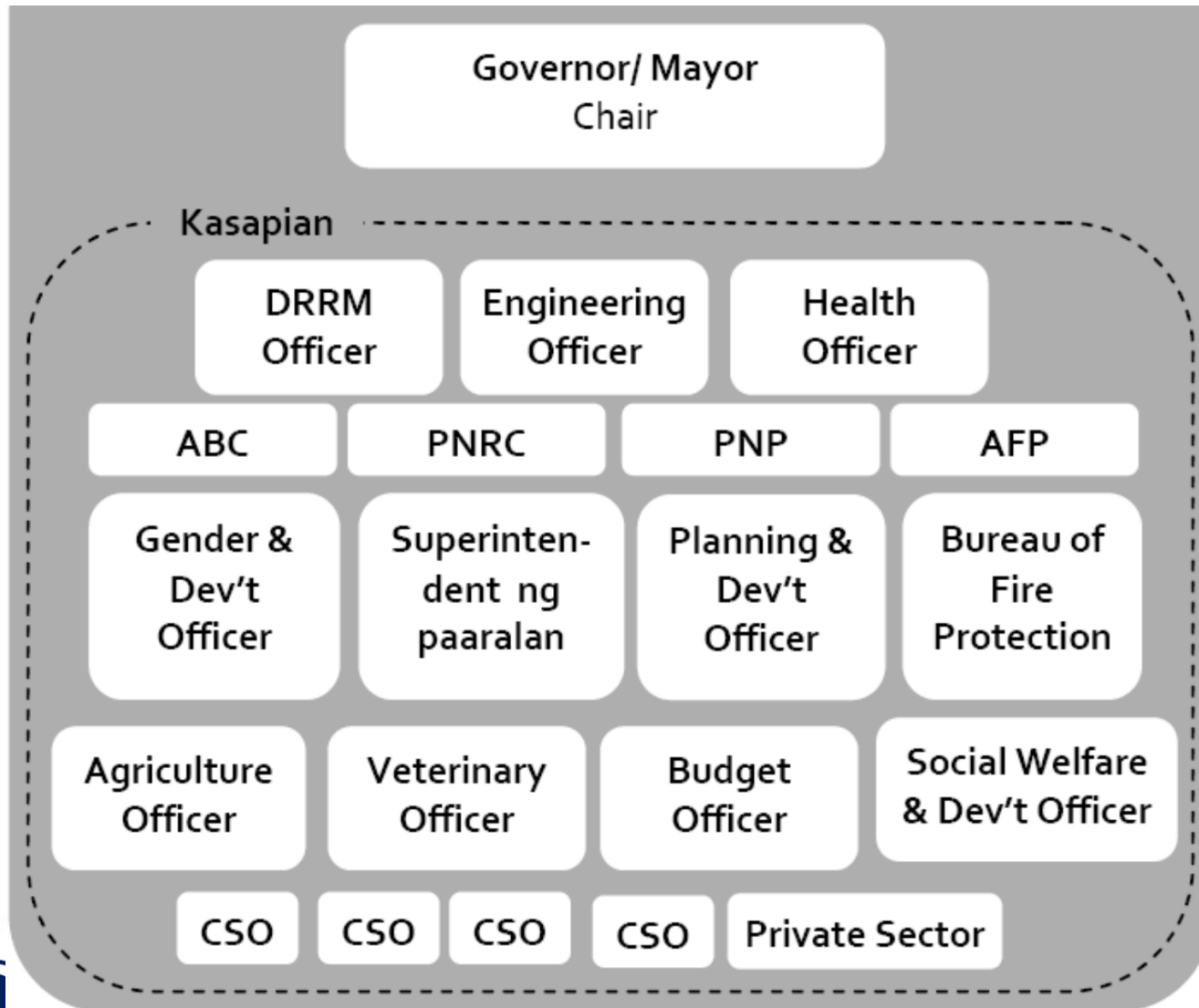
*Rehab &
Recovery*

Members

- Executives of regional offices and field stations of NDRRMC member agencies
 - Other entities that may be invited by the RDRRMC



LDRRMC Composition



Local DRRM Offices

In charge of DRRM in every Province, City and Municipality, and Barangay



Photo credit:: Dinagat Islands, Pasig City

LDRRMO Composition

DRRM Officer

***Administrative
& Training***

***Research &
Planning***

***Operations &
Warning***



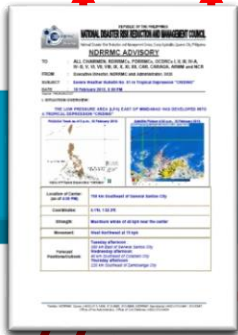
NDRRMC OPCEN INFO FLOW

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/OCDCs

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

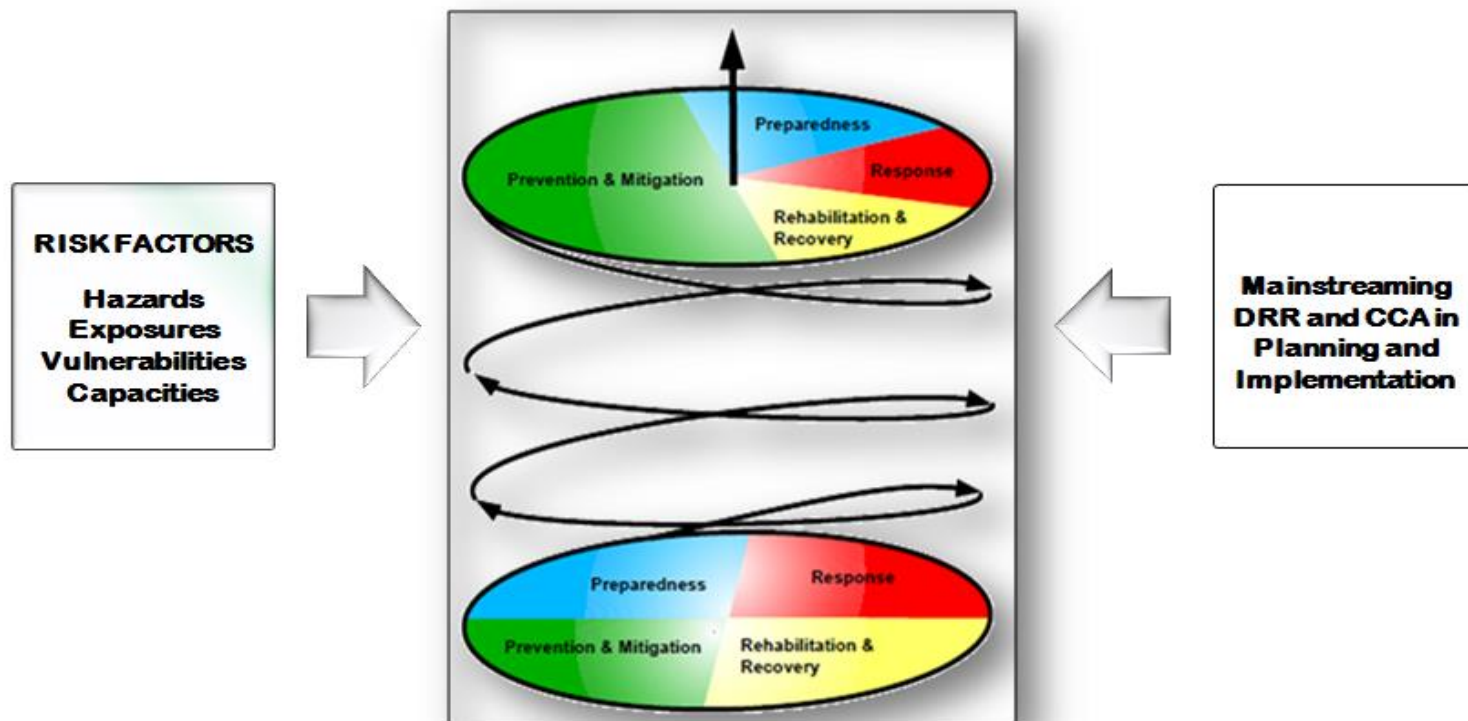
DA

DOST PNRI



NDRRM Framework (approved on June 6, 2011)

Safer, adaptive and resilient Filipino communities toward sustainable development



NDRRM Plan (approved on February 7, 2012)

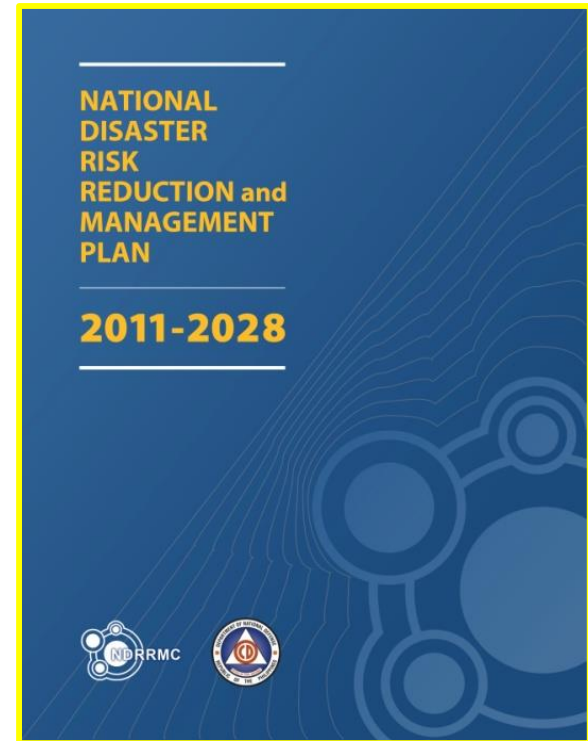
4 Priority Areas with 4 Long Term Goals

14 Objectives

24 Outcomes

56 Outputs

93 Activities



Salient Features of RA 10121

Disaster Volunteers(Sec. 13)

- Mobilization of DVs by government agencies, CSOs, private sector and LGUs to augment their respective personnel complement and resource requirement.
- Enhancement, welfare and protection of DVs shall be the full responsibility of said agencies.
- Maintenance of National Roster of ACDVs, NSRC, CSOs and Private Sector by OCD, list of which shall be submitted through the LDRRMOs.
- Accreditation to be done at the municipal / city level / agency.
- DV mobilization to be based on guidelines to be issued by the NDRRMC.
- Entitlement to compensatory benefits / accident personnel insurance.



Proactive

Training and Education in DRR

- Integration of DRR Education in School Curricula at the Secondary and Tertiary Levels, NSTP, Sanggunian Kabataan; **Mandatory Training in DRR** for Public Sector Employees, including formal and non-formal, vocational, indigenous learning and out-of-school youth courses and programs (**Sec.14**)
- Approaches /Strategies (IRR)
 - CSC to issue a directive to all national and local government agencies for the mandatory training of public sector employees
 - Train-the Trainers Approach
 - Standard Training Designs and Training Materials



Sangguniang Kabataan

Salient Features of RA 10121

OPERATIONAL MECHANISMS

VI. Mechanism for **International Humanitarian Assistance(Sec.18)**

- Authorizing the importation and donation of food, clothing, medicine, equipment for relief and recovery and other DM and recovery-related supplies in accordance with the Tariff and Customs Code and *GAA*.
- Importation and donation to be considered as importation / donation to the NDRRMC, subject to the approval of the Office of the President.



Salient Features of RA 10121

IV. Funding

- National Level

- ❖ National DRM and Recovery Fund (formerly known as the National Calamity Fund) can be used for DRR or mitigation, prevention and preparedness activities (e.g. but not limited to training of personnel, procurement of equipment and capital expenditures; can be used for relief, recovery and reconstruction activities).
- ❖ Quick Response Fund (QRF) - 30% of the NDRMRF as standby fund for relief and recovery programs.



Salient Features of RA 10121

• Funding – Local Government Level

- Local DRRM Fund – not less than 5% of the estimated revenue from the regular sources can now be used to support DRM activities such as, but not limited,
 - Pre-disaster preparedness programs, e.g. training purchase of lifesaving rescue equipment, supplies, medicines;
 - Post-disaster activities, and
 - Payment of Premiums on calamity insurance
- 30% of the local DRRM Fund shall be allocated as Quick Response Fund or stand-by fund for relief and recovery programs.
- Special Trust Fund – Unexpended LDRRMF to support DRRM activities within the next five (5) years; after 5 years if not fully utilized, it shall revert back to the General Fund and made available for other social services to be identified by the Local Sanggunian.



Salient Features of RA 10121

- Annual Report.

The National council through the OCD, shall submit to the Office of the President, the Senate and the House of Representatives, within the first quarter of the succeeding year, an annual report relating to the progress of the implementation of the NDRRMP.



Salient Features of RA 10121



➤ Prohibited Acts such as:

- Dereliction of duties which leads to destruction, loss of lives, critical damage of facilities and misuse of funds.
- Preventing the entry/distribution of relief goods and disaster teams/experts in disaster-stricken areas.
- Buying, for consumption or resale, from disaster relief agencies any relief goods, equipment or other aid commodities intended for distribution to disaster affected communities.
- Buying, for consumption or resale, from the recipient disaster affected persons any relief goods, equipment or other aid commodities received by them.
- Selling of relief goods, equipment or other aid commodities intended for distribution to disaster victims.



Salient Features of RA 10121

- **Prohibited Acts such as:**

- Forcibly seizing of relief goods.
- Diverting/misdelivery of relief goods.
- Repacking of relief goods, equipment and other articles.
- Substitution of relief goods.
- Illegal solicitations by persons/organizations.
- Deliberate use of false or inflated data.
- Tampering with or stealing hazard monitoring and disaster preparedness equipment and paraphernalia.



Salient Features of RA 10121

- **Penal Clause**

- Violators of those prohibited acts shall suffer a fine of not less than PhP50,000.00 or any amount not to exceed PhP500,000.00 or imprisonment of not less than 6 years and 1 day or not more than 12 years or BOTH.



THANK YOU!