

Building Disaster Resilience: How can individuals and communities prepare?















What is a Disaster?

Serious disruption of the functioning of a community or a society



Human losses

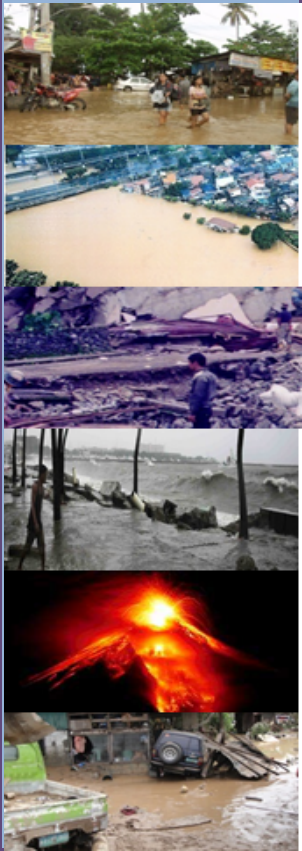
Material losses

Economic losses

Environmental losses

Photo credit:: Google Images

Natural



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

Human-Induced



- ✓ Fires
- ✓ Accidents
- ✓ Aircraft crash
- ✓ Pollution
- ✓ Civil disturbance
- ✓ Terrorist attacks
- ✓ Explosions
- ✓ Armed conflict

Pacific Ring of Fire

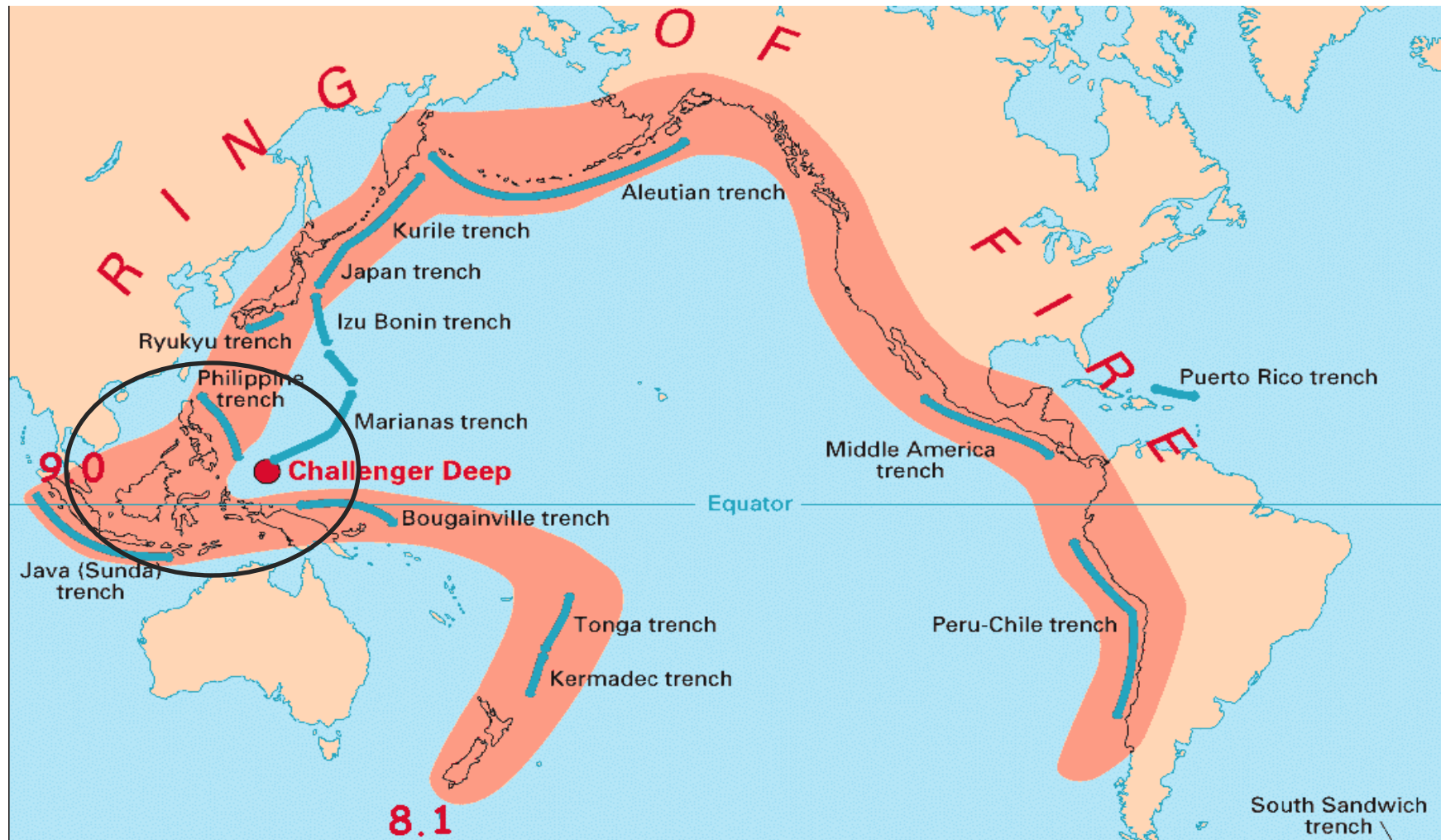
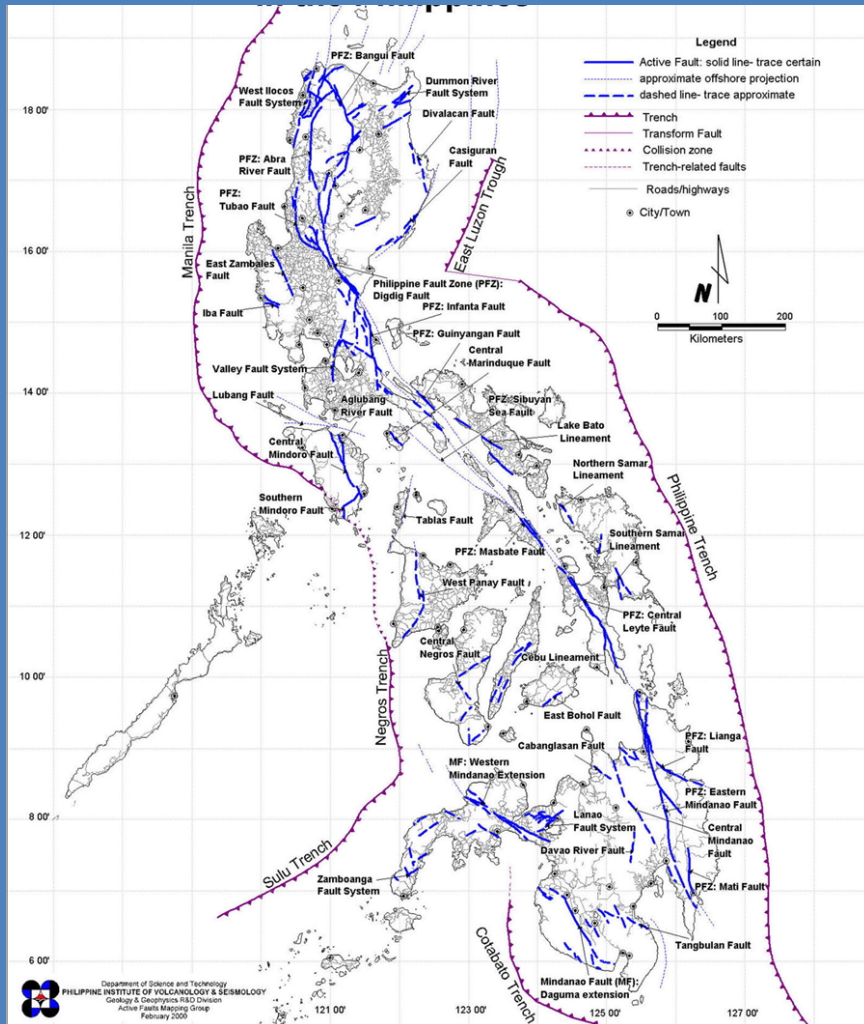
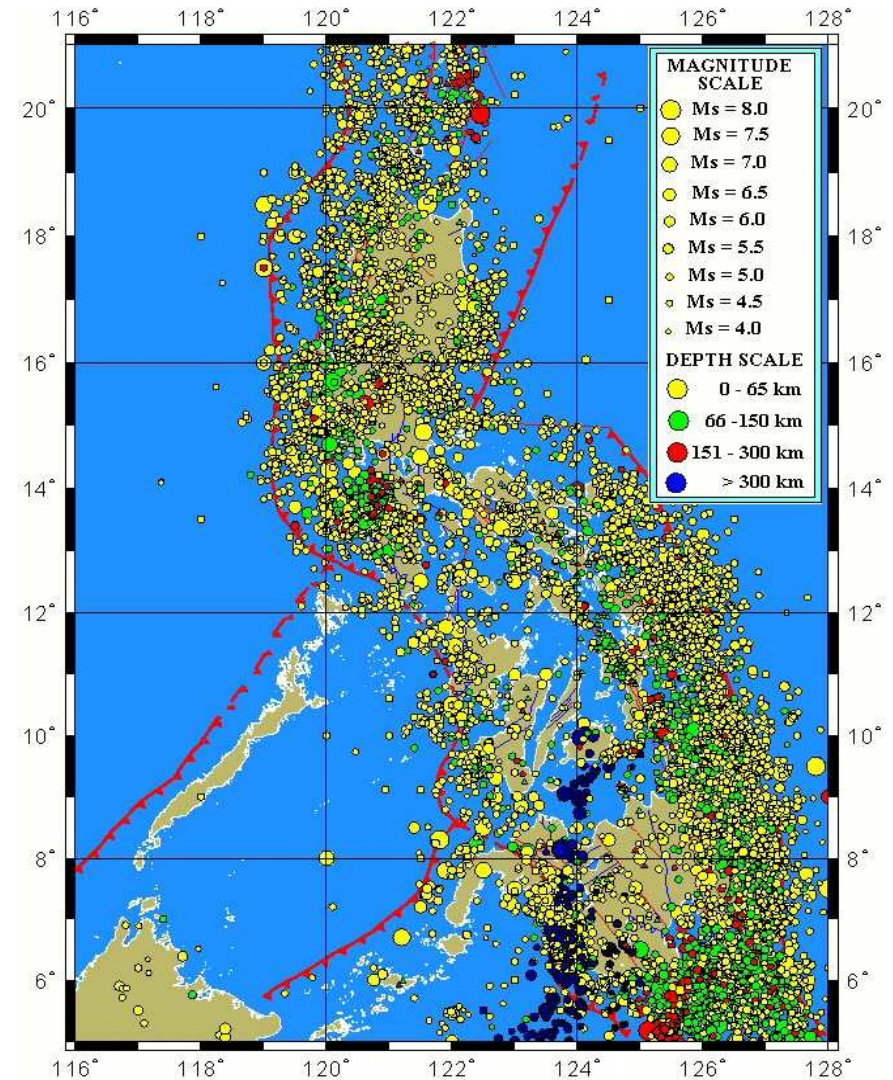


Photo credit: wikipedia.org

Active Faults and Trenches



Seismicity



Reference: DOST PHIVOLCS

Pacific Typhoon Belt

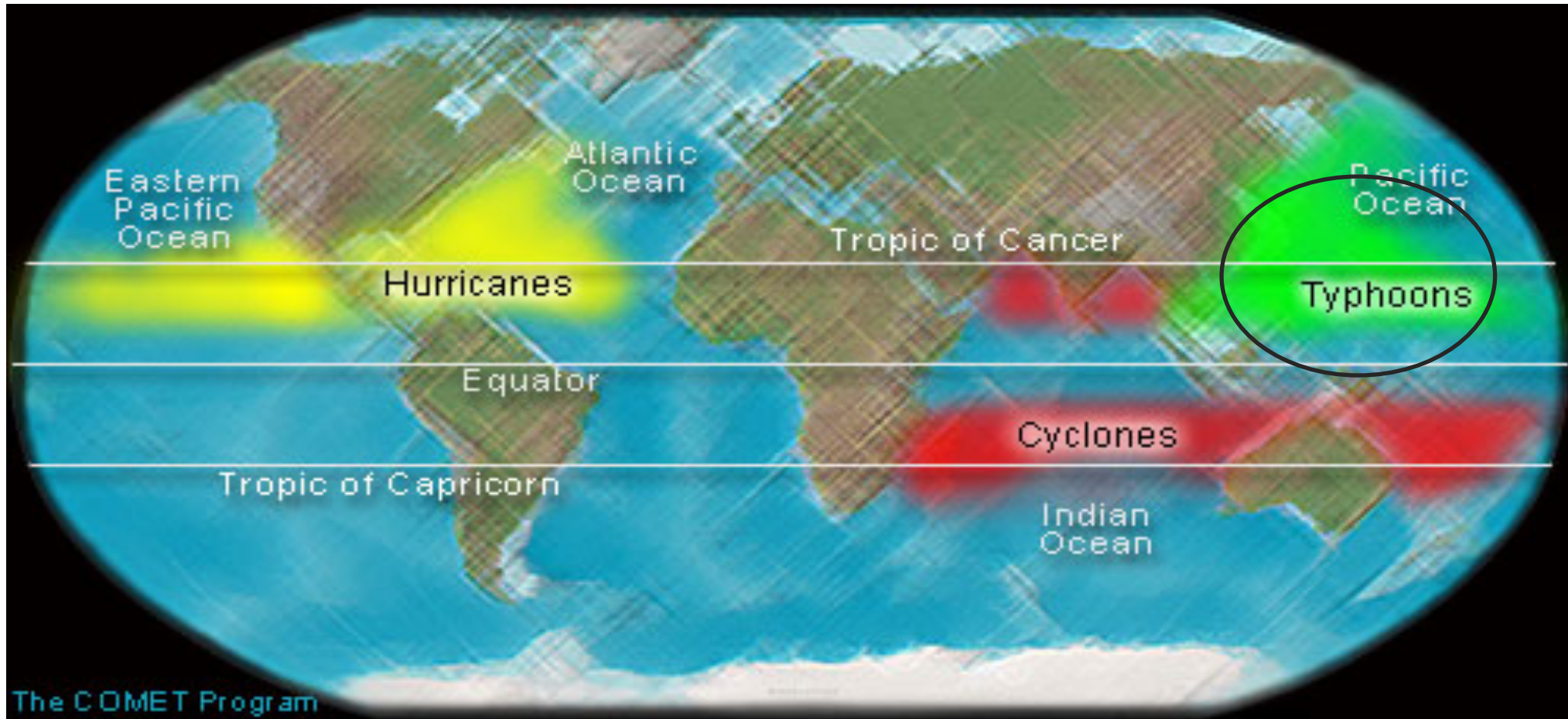
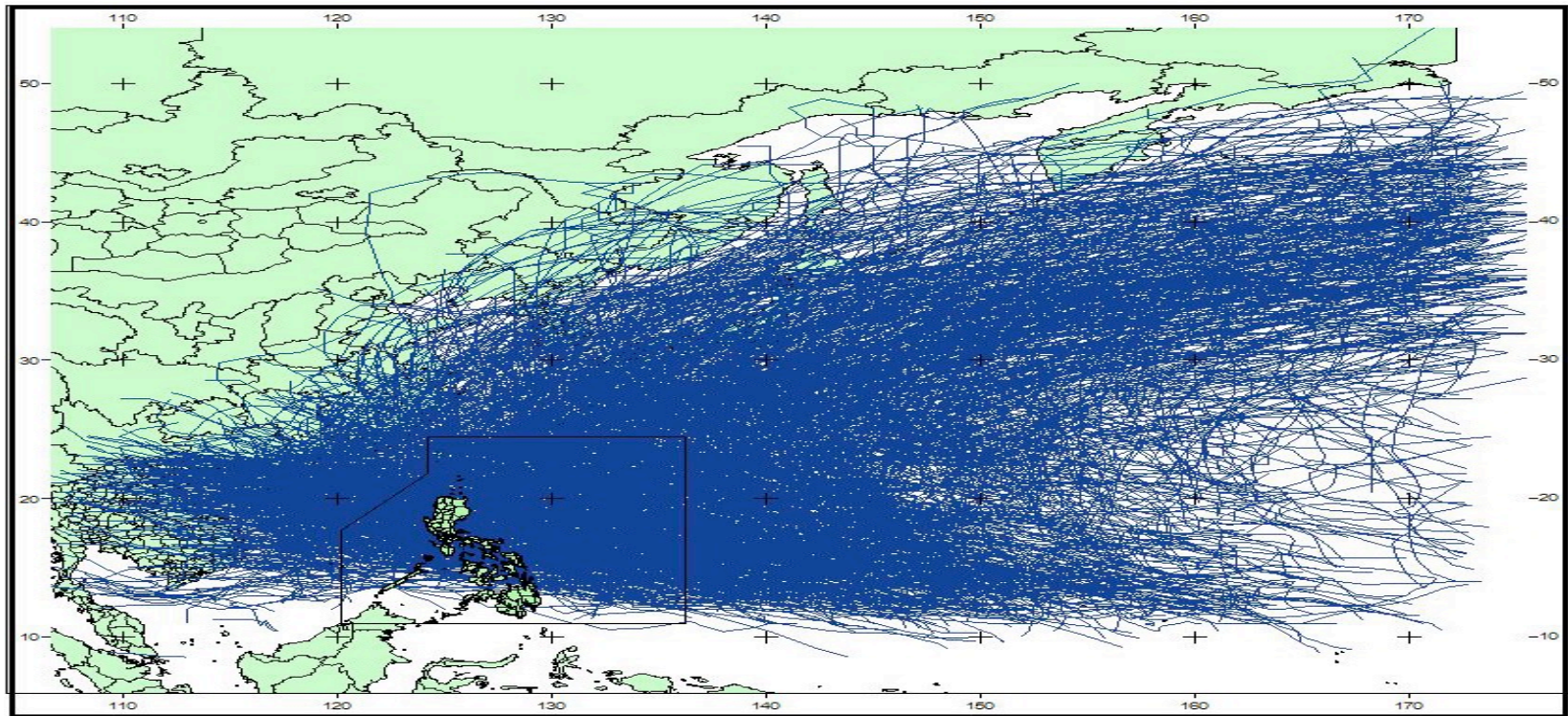


Photo credit: Google Images

Philippines: “Exporter” of Typhoons

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



Reference: Japan Meteorological Agency (n.d.)

Climate Change

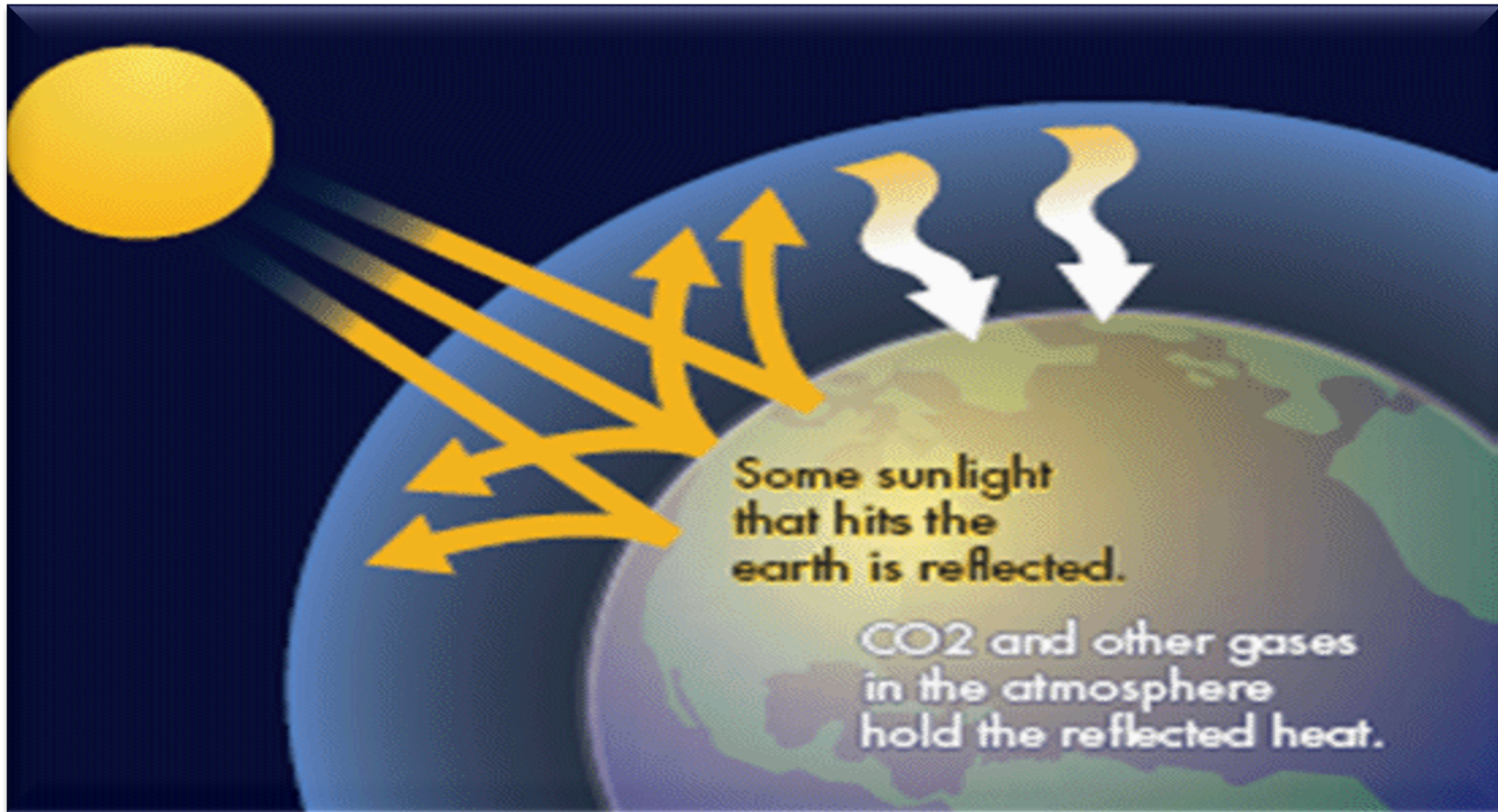


Photo credit: Google Images

Photo credit: Google Images



Effects of Disasters



PHP

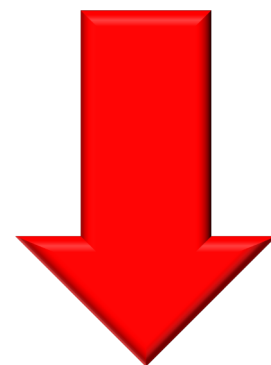


Photo credit: Google Images

WORLD RISK INDEX REPORT 2018

3rd in 2011 – 2013

2nd in 2014

3rd in 2015 – 2017

3rd in 2018

9th in 2019

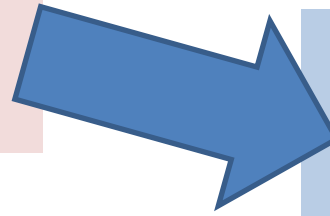
Rank	Country	Risk
1.	Vanuatu	56.71
2.	Antigua and Barbuda	30.80
3.	Tonga	29.39
4.	Solomon Islands	29.36
5.	Guyana	22.87
6.	Papua New Guinea	22.18
7.	Brunei Darussalam	21.68
8.	Guatemala	20.69
9.	Philippines	20.69
10.	Bangladesh	18.78
11.	Cape Verde	18.02
12.	Fiji	17.83
13.	Costa Rica	17.37
14.	Djibouti	16.46
15.	Timor-Leste	16.39

Study by : UN University Institute for Environment and Human Security
Reference: <https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2018.pdf>

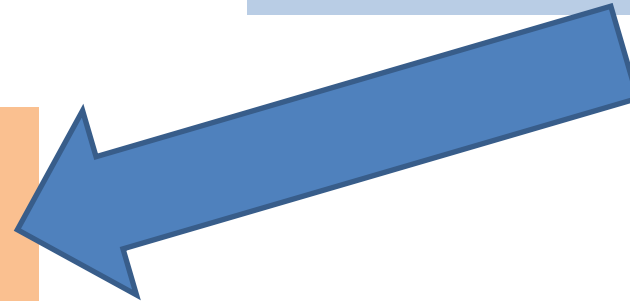
Paradigm Shift in DRRM

Disaster Risk Reduction and Management

Use directives, skills
and capacities

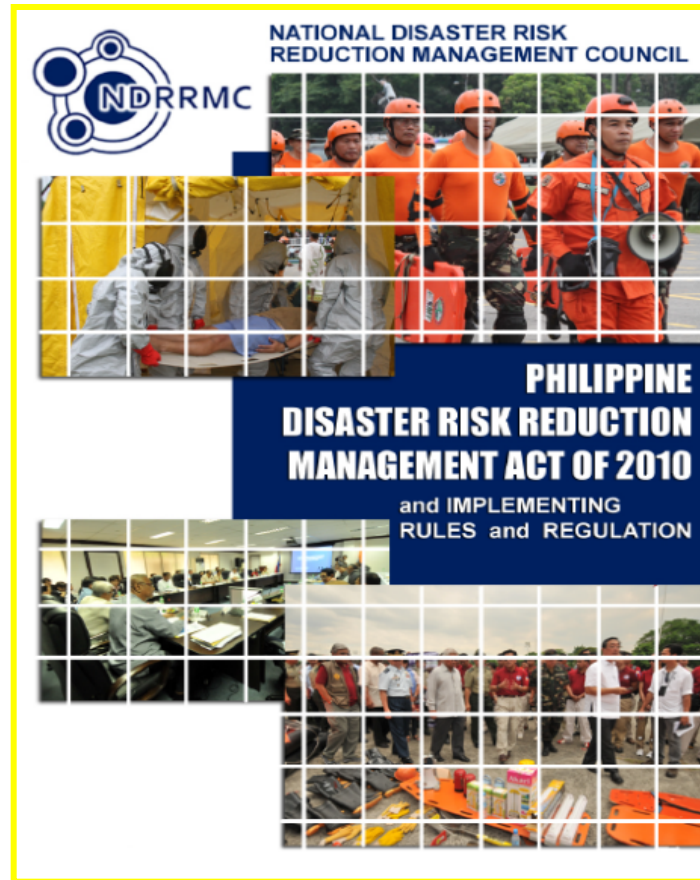


Implement
strategies and
policies



Lessen impacts and
possibility of disaster

Legal Basis: Republic Act 10121



Then: **REACTIVE**

Top-down, centralized



Disasters as function of physical hazards



Focus on response



Bottom-up, participatory



Disasters as reflection of vulnerability



Integrated approach



Now: **PROACTIVE**

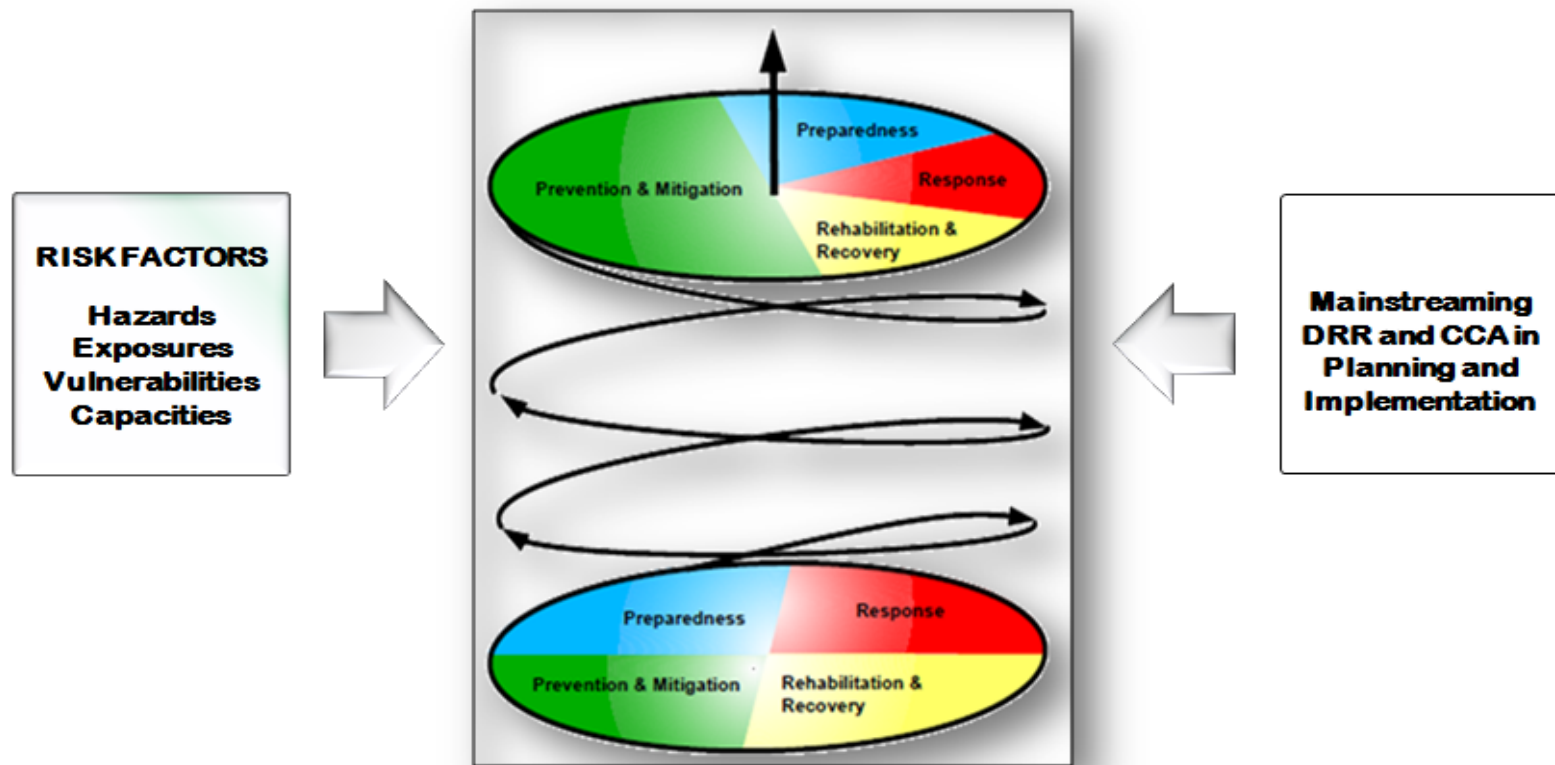
National Disaster Risk Reduction and Management Council



Highest organized and authorized body in DRRM in the Philippines.

NDRRM Framework

Safer, adaptive and resilient Filipino communities toward sustainable development



DRRM Network

1	NATIONAL DRRM COUNCIL
17	REGIONAL DRRM COUNCILS
81	PROVINCIAL DRRM COUNCILS
145	CITY DRRM COUNCILS
1,489	MUNICIPAL DRRM COUNCILS
42,044	BARANGAY DRRM COMITTEES

Reference: Philippine Statistics Authority

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"For each dollar
spent on
disaster preparedn
ess, an average of
four dollars is save
d on
disaster response
and recovery"

Whole-of-Nation Approach



Prepare your families



TOOLS

Use Current Location

Use Long-Lat Coordinates

DISPLAY OPTIONS

SELECT BASEMAP

Basemaps

SELECT HAZARD/S

Seismic (Earthquake)

Volcanic

Hydro-meteorological

SELECT EXPOSURE INFORMATION

Public Schools (DepEd)

Health Facilities (DOH)

Road Network (DPWH)

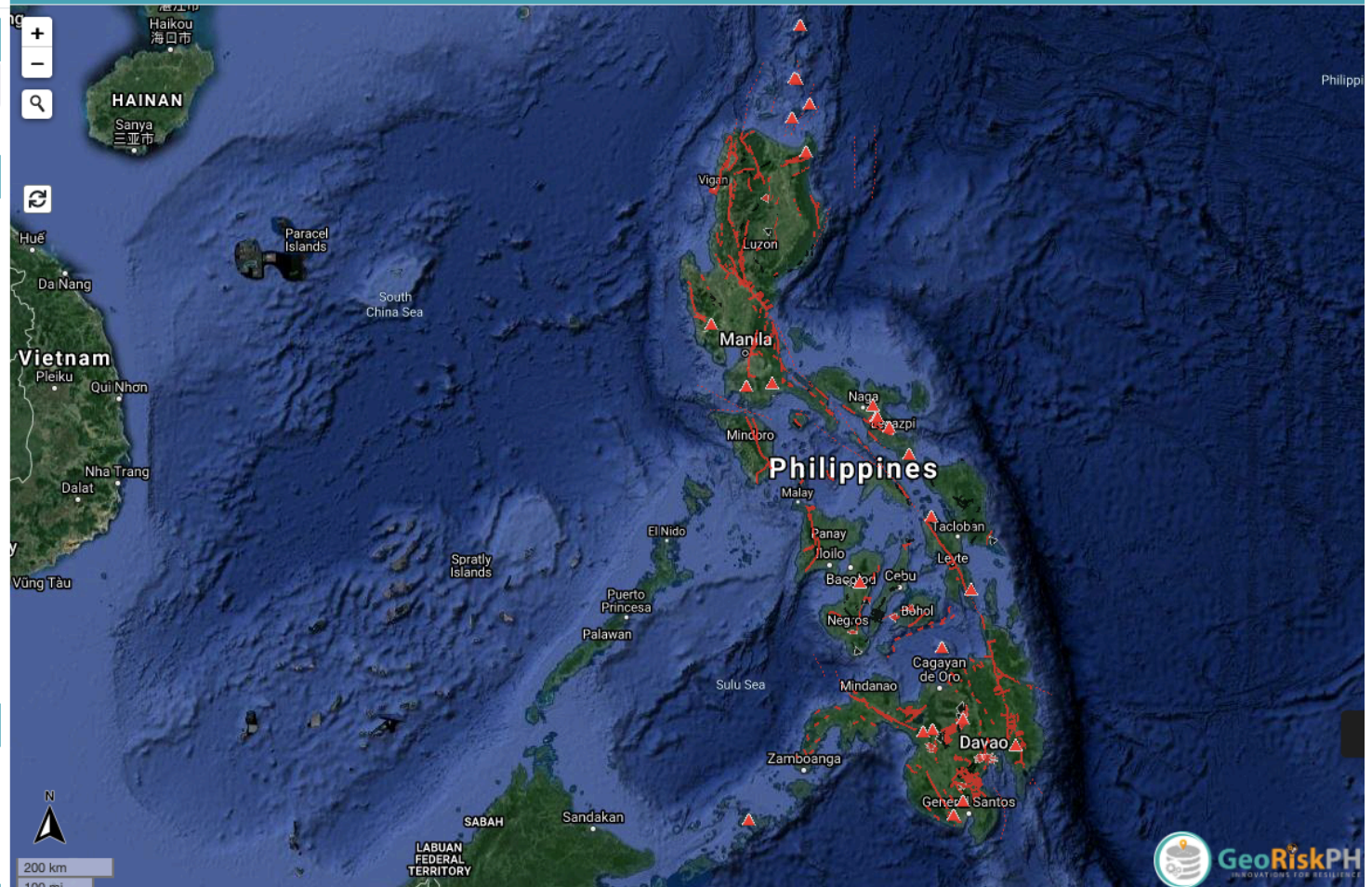
Boundary (PSA)

VOLCANO HAZARDS INFORMATION

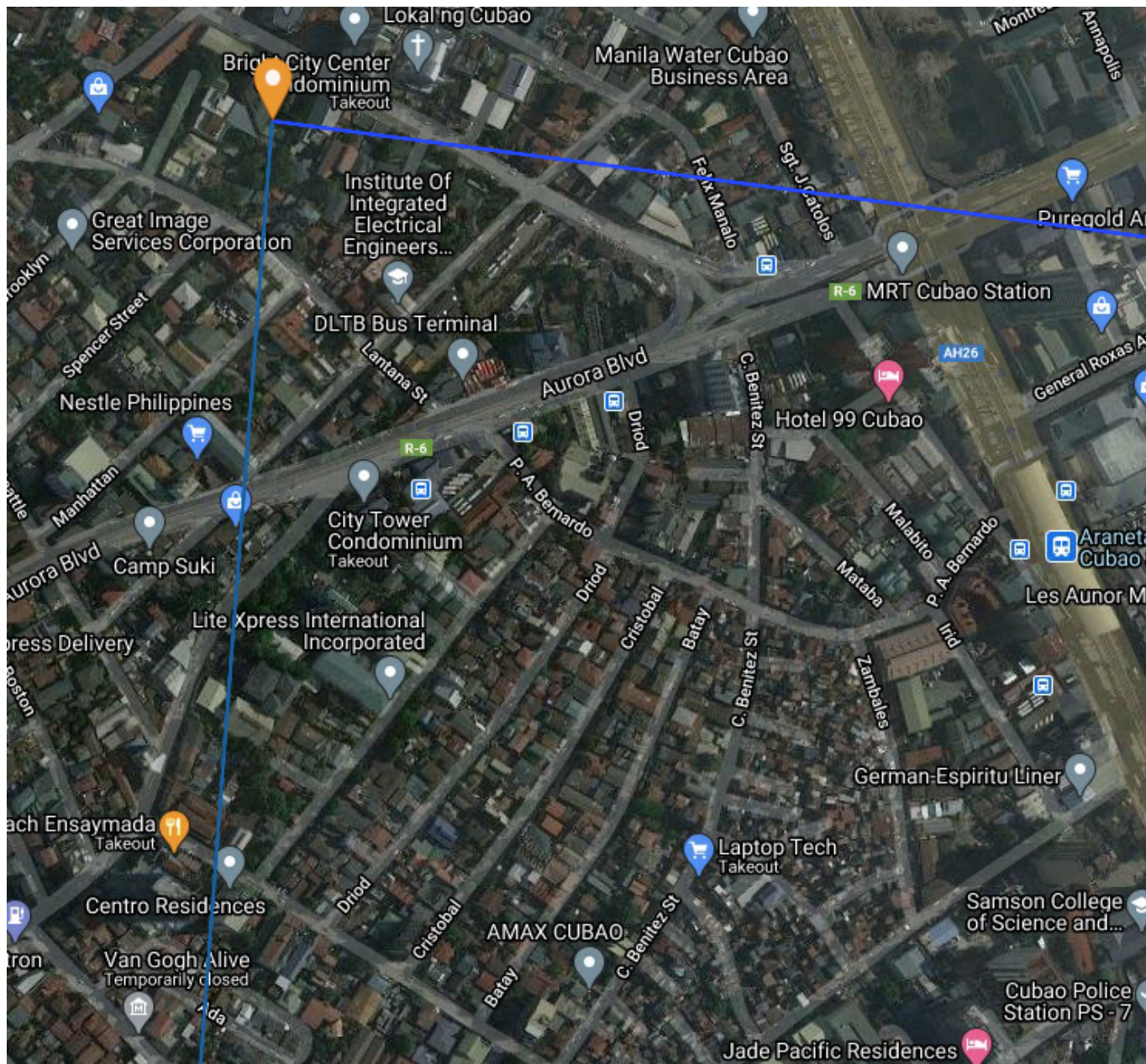
Taal Volcano Hazard Maps and List

Hazard Maps and List

Municipal-scale Maps and List



Understanding Hazards



SEISMIC HAZARD ASSESSMENT

Nearest Active Fault	Valley Fault System: West Valley Fault (3.3 km) Valley Fault System: West Valley Fault (3.3 km)
Ground Rupture	SafeSafe
Ground Shaking	Prone; Intensity VIII Prone; Intensity VIII
Earthquake-Induced Landslide	SafeSafe
Liquefaction	SafeSafe
Tsunami	SafeSafe

VOLCANIC HAZARD ASSESSMENT

Nearest Active Volcano	Taal (67.9 km) Taal (67.9 km)
Nearest Potentially Active Volcano	Corregidor (57.3 km); No immediate volcanic hazard threat Corregidor (57.3 km); No immediate volcanic hazard threat
Kilometer Radius	Outside Outside
Ballistic Projectiles	SafeSafe
Base Surge	SafeSafe
Volcanic Tsunami	SafeSafe
Nearest Inactive Volcano	Talim (part of laguna caldera) (38.2 km); No immediate volcanic hazard threat Talim (part of laguna caldera) (38.2 km); No immediate volcanic hazard threat

Evacuation Planning

Where will we evacuate?

Which routes will we take?

How will we get there?



Photo credit: cdp.org



Prepare your Go Bags

Coordinate with local authorities



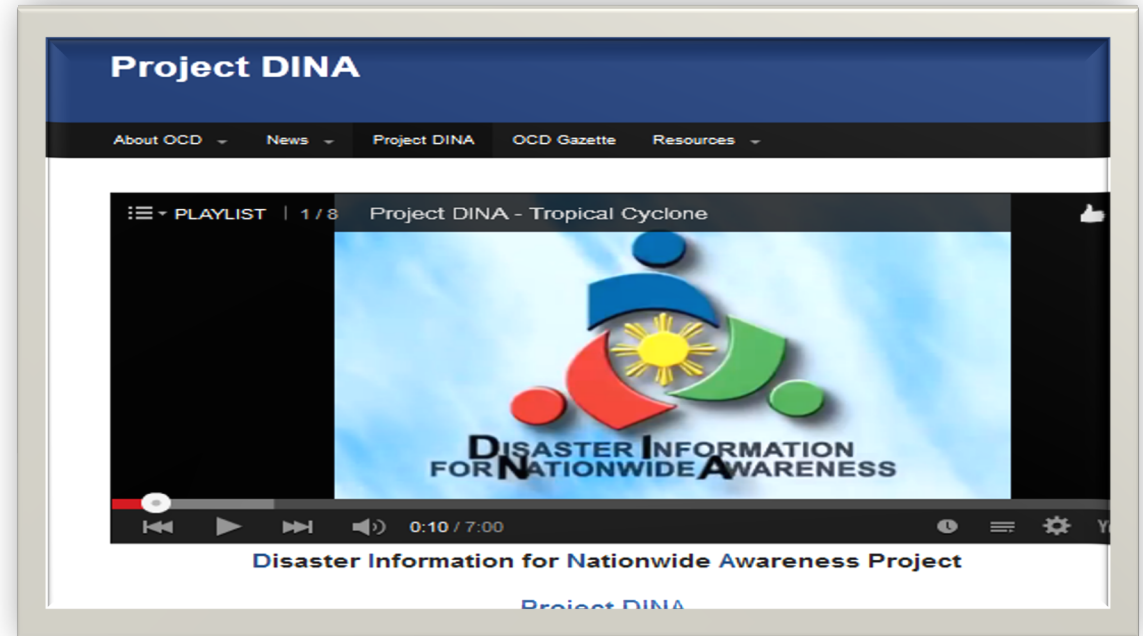
Photo credit: Dinagat Islands

Follow evacuation procedures of the local government



Photo credit: cnnphilippines.org

Use Social Media to promote DRR Awareness



BEFORE

KNOW THE HAZARDS IN YOUR AREA:

Familiarize yourself with the following (*Alamin ang mga sumusunod*):

- Fire extinguishers
- Medical kit
- Exit Routes
- Evacuation Plan

Check your house for weak points and have them repaired if necessary. (*Siguraduhing matibay ang bahay at ipakumpuni ang mga sirang bahagi nito.*)

Store harmful chemical and flammable materials properly. (*Ayusin ang pag-imbak ng mga nakalalasong kemikal at mga bagay na maaaring maging sanhi ng sunog.*)

Secure heavy furniture and hanging objects. (*Siguraduhing ligtas ang pagkakalagay ng mga mabibigat at mga nakabiting bagay.*)

Prepare your family's GO BAG containing items needed for survival. (*Ihanda ang GO BAG na naglalaman ng mga pangangailangan ng pamilya.*)

Participate in office and community earthquake drills. (*Makilahok sa mga pagsasanay ukol sa lindol.*)



DURING

WHEN INSIDE A BUILDING, STAY CALM AND:



DO NOT ATTEMPT TO RUN. Duck under a strong table and hold on to it. Stay alert for potential threats. (*Yumuko at magtago sa ilalim ng matibay na mesa at kumapit sa mga paa nito. Manatiling alerto sa mga banta ng panganib sa iyong paligid.*)

Stay away from glass windows, shelves and heavy objects. (*Umiwas sa mga bintanang salamin, mga aparador at mabibigat na gamit na maaaring mahulog.*)

After the shaking stops, exit the building and go to the designated evacuation area. (*Matapos ang pagyanig, agad na lisanin ang gusali at pumunta sa evacuation area.*)

WHEN YOU ARE OUTSIDE, MOVE TO AN OPEN AREA!

Stay away from buildings, trees, electric posts and landslide prone areas. (*Lumayo sa gusali, puno, poste at mga lugar na may panganib ng pagguho ng lupa.*)

If you're in a moving vehicle: stop and exit the vehicle then go to an open area. (*Kapag nagmamaneho: itabi at ihinto ang sasakyan at lumikas sa ligtas na lugar.*)

AFTER

STAY ALERT FOR AFTERSHOCKS!

Assess yourself and others for injuries. Provide first aid if necessary. (*Suriing ang iyong sarili at mga kasama kung may tinamong pinsala. Magbigay ng paunang lunas kung kailangan.*)

Prioritize the needs of older persons, pregnant women, PWDs and children. (*Unahin ang mga pangangailangan ng mga matatanda, buntis, may kapansanan at mga bata.*)

If in a coastal area and there is threat of a tsunami, evacuate immediately. (*Kapag nasa tabing dagat at may banta ng tsunami, agad na lumisan at pumunta sa ligtas na lugar.*)

Check for spills of toxic and flammable chemicals. (*Suriin kung may natapong nakalalasong kemikal at mga bagay na maaaring pagmulan ng sunog.*)

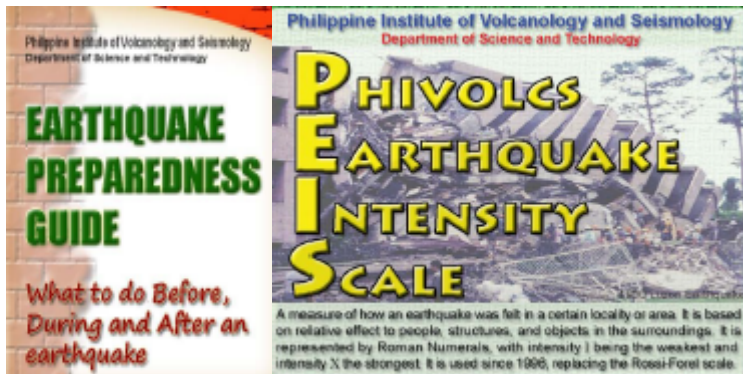
Stay outside of the building until advised that it is safe to return. (*Huwag bumalik sa loob ng gusali hanggang walang abiso na ligtas na ito.*)

Check for damages in water and electrical lines, and gas or LPG leaks. (*Suriin ang mga linya ng tubig at kuryente para sa maaring pinsala. Suriin din ang tangke ng gas o LPG.*)

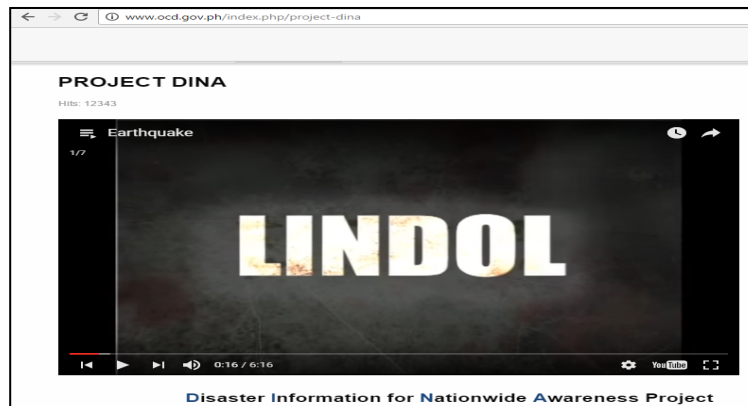


Information, Education, and Communication Campaigns

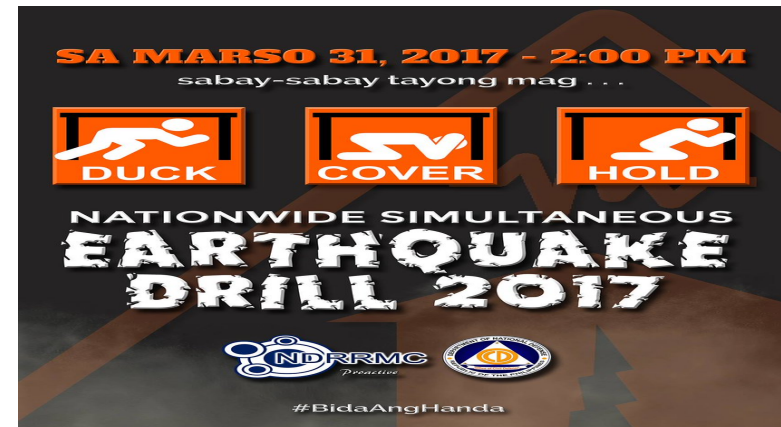
IEC Materials



Project DINA



Nationwide Simultaneous Earthquake Drill



Community-level Campaigns



Ensure the preparedness of your organization.



Photo credit: Living Rational

Organize Disaster Control Group

HEADS

CHAIR

**ASSISTANT
CHAIR**

SERVICE TEAMS

SECURITY

WARNING

EVACUATION

RELIEF

MEDICAL

FIRE

**DAMAGE
CONTROL**

SUPPORT TEAMS

SUPPLY

COMMUNICATION

TRANSPORTATION

Join in disaster preparedness training



Photo credit: Asia-pacific.undp.org, Wikipedia.org

Training Courses offered by the Office of Civil Defense



Incident Command System

Contingency Planning

Public Service Continuity Planning

Emergency Operations Center

Community First Responder

Community-based Disaster Risk
Reduction and Management

Rapid Damage Assessment and
Needs Analysis

Post-Disaster Needs Assessment

Participate in drills



Quarterly Nationwide Simultaneous Earthquake Drill





Video 😊

For a safer, adaptive, disaster resilient Filipino Communities!



THANK YOU!

