Natural Disasters

The Philippine Islands are prone to all kinds of natural disasters because of its geographical location and physical environment. The country is strategically located in the path of turbulent and destructive cyclones in the Pacific, and the "Ring of Fire." This situation has adverse effects, not only on the lives and properties of the Filipino people, but also on the economy of the nation, as disaster impacts may result in widespread environmental and property damages.

Natural disasters may cause danger to people, structures or economic assets, and may lead to a disaster if they are not mitigated against and prepared for.

The common hazards associated with these are heavy rains, strong winds, storm surge, floods and landslides/ mud slide /mud flow.

Almost all types of geological disasters occur in the Philippines except those associated with glaciers and seasonal snowfall.

(Source: http://www.deped.gov.ph/Disaster Risk Reduction Resource Manual)

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DEPARTMENT OF ENERGY

NATURAL DISASTERS

PREPAREDNESS, MITIGATION and REHABILITATION

PART 2 of 5

Consumer Welfare and Promotion Office

Thunderstorms

A thunderstorm is a weather condition that produces lightning and thunder, heavy rainfall from cumulonimbus clouds and possibly a tornado. It is a violent local atmospheric disturbance accompanied by lightning, thunder, and heavy rain, and often by strong gusts of wind, and sometimes by hail. The typical thunderstorm caused by convection occurs when the sun's warmth has heated a large body of moist air near the ground. This air rises and is cooled by expansion. The cooling condenses the water vapor present in the air, forming a cumulus cloud. If the process continues, the summit often attains a height of 6.5km above the base, and the top spreads out in the shape of an anvil becoming cumulonimbus clouds.

The turbulent air current within the cloud causes a continual breaking up and reuniting of the rain drops, which may form hail, and builds up strong electrical charges that result in lightning. As the thunderstorm approaches an area, the gentle flow of warm air feeding the cloud gives way to a strong, chilly gust of wind from the opposite direction, blowing from the base of the cloud. Intense rain begins, then gradually diminishes as the thunderstorm passes.

Night thunderstorms are caused by the cooling of the upper layers of air by radiation; others are caused by approaching cold air masses that advance as a wedge near the ground, forcing the warmer air in its path to rise.

Preparedness and Mitigation (What to do before):

Develop a National Preparedness Plan. Severe thunderstorm-specific planning should include the following:

- Learn about your area's severe thunderstorm risk.
- Discuss how you would know if a thunderstorm may produce a tornado.
- Discuss how to be warned of an approaching thunderstorm.
- Recommend trimming and removal of dead or rotting trees that could fall and may cause damage or injury.
- Secure outdoor objects that could be blown away and cause damage.
- Secure doors and windows both from the inside and outside.
- Estimate the distance of the thunderclouds by computing the difference in time (second) between seeing the flash of lightning and hearing the claps of thunder. (1 second = 1000 ft.)
- If possible, stay indoors for 30 minutes after hearing the last clap of the thunder.
- Ensure proper drainage for rain water on the whole school site.

Response (What to do during):

- Instruct people to do the lightning safety position and stay away from structures, trees, towers, fences, telephone lines, or power lines if out in the open.
- Advise people to watch out for falling debris and flash floods.
- Advise people to stay calm throughout the occurrence of thunderstorm.
- Postpone all outdoor activities.
- Advise people to get inside the building, classroom or hard top automobile.
- Advise people to avoid plumbing and bathroom fixtures that are good conductors of electricity.
- Unplug or turn off all appliances and other electrical items such as computers. Electric power surges and storm lightning can cause serious damage to these appliances.
- Turn off the air conditioner and television, and stay off the phone until the storm is over. Use a battery operated radio for gaining information.
- Choose and move to a "safe place" in your area where you can gather during a thunderstorm preferably on the lowest floor of the building. This should be a place where there are no windows, skylights, or glass doors, which could be broken by strong winds or hail, causing damage or injury.

Rehabilitation (What to do after):

- Send students or workers home if the weather condition improves/allows.
- Remind people to continually observe safety measures on their way home.
- Continue listening to local radio or television stations for updated information and instructions.
- Stay away from storm-damaged areas.
- Watch out for fallen power lines, stay away from them and report them immediately to proper authorities.