

Coasts, typhoons and nature's
defences: lesson 1 of 3

Living with typhoons

Why typhoons are so
dangerous at the coast



The coast of Negros Oriental. Photo: MCP



A typhoon country

**about
20**

tropical cyclones enter the
Philippine Area of
Responsibility each year

8 or 9

of them cross the country

**July to
October**

the peak season, when
nearly 70% develop

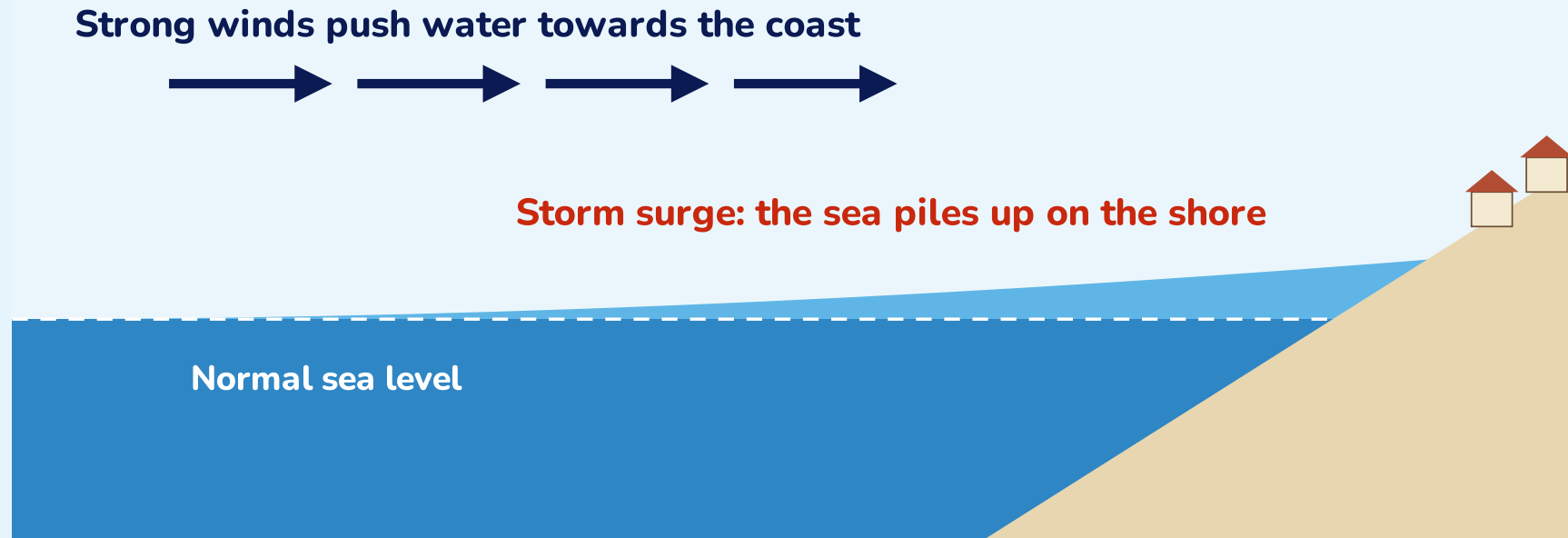
More tropical cyclones enter the Philippine Area of Responsibility than anywhere else in the world.

How we know: PAGASA



What is a storm surge?

A typhoon's winds and low air pressure pile seawater up against the coast. On a shallow, gently sloping shore, the surge can grow several metres high.



Yolanda, 2013

In November 2013, Typhoon Yolanda (Haiyan) struck the central Philippines. Its storm surge swept over coastal towns in Leyte and Eastern Samar.

More than 6,000 people died, many of them in the storm surge rather than from the wind.

What made the surge so deadly for coastal communities?



What makes a coast vulnerable?

Low, flat land

Water spreads far inland.

Shallow sea

Waves and surge build up more.

Homes near the water

More people in the surge zone.

Lost natural barriers

Cut mangroves and damaged reefs let more energy through.



Map the risk

1. Look at the map of Barangay Dagatan.
2. Shade the areas you think a 3 m storm surge would flood.
3. Mark the homes, school and roads most at risk.
4. Where are the natural barriers? What would happen without them?



Talk about it

Which parts of your own coast are most at risk?

Why is a surge more dangerous than strong wind?

What stops people moving away from risky coasts?

Next time: nature's shock absorbers



Photos and sources

Photos: Negros coast by MCP. Drawings made for this lesson. All illustrations drawn for this lesson by Marine Conservation Philippines.

Sources:

- PAGASA. Tropical cyclone information.
- NDRRMC (2014). Final report on Typhoon Yolanda (Haiyan).

Full links are in the teacher reading. Free to use and share for education. Made by Marine Conservation Philippines. More free lessons: marineconservationphilippines.org/resources/teachers-resources/

