



CLASS : 7  
SUBJECT : GEOGRAPHY  
CHAPTER : 5 - WATER  
MODULE NO: 2/3

# Ocean Circulation

- The Ocean water keeps moving continuously and never remains still.
- The movements that occur in oceans can be broadly categorised as:

1) Waves

2) Tides

3) Currents

# Waves

- ❖ When the water on the surface of the ocean rises and falls alternately, they are called waves.
- ❖ During a storm, the winds blowing at a very high speed form huge waves. These may cause tremendous destruction.
- ❖ Waves are formed when winds scrape across the ocean surface. The stronger the wind blows, the bigger the wave becomes.



# Tsunami

- An earthquake, a volcanic eruption or underwater landslides can shift large amount of ocean water. As a result a huge tidal wave called tsunami, that may be as high as, 15 m., is formed.
- The largest tsunami ever measured was 150m.high.These waves travel at a speed of more than 700 km/hr.
- The Tsunami of 2004 caused wide spread damage in coastal areas of India.
- The Indira point in the Andaman and Nicobar islands got submerged after the tsunami.

# The Tsunami



# Tsunami -The Earth's Pandemonium

- ❖ Tsunami wave struck havoc in the Indian Ocean on the 26 December 2004. The wave was the result of the earthquake that had its epicenter close to the western boundary of Sumatra. The magnitude of the earthquake was 9.0 on the Richter scale.
- ❖ As the Indian plate went under the Burma plate, there was a sudden movement of the sea floor, causing the earthquake. The ocean floor was displaced by about 10-20m and tilted in a downwardly direction.
- ❖ Tsunami travelled at a speed of about 800km. per hour, comparable to speed of commercial aircraft and completely washed away some of the islands in the Indian Ocean.
- ❖ The Indira point in the Andaman and Nicobar islands that marked the southernmost point of India got completely submerged. Tsunami waves travelled upto a depth of 3 km. from the coast killing more than 10,000 people and affected more than lakh of houses.