

Super Typhoon Hinnamnor

September 2, 2022

In news- The strongest tropical storm of 2022, dubbed Super Typhoon 'Hinnamnor', has been barrelling across the western Pacific Ocean, mainly Japan & Korea.

About the Typhoon 'Hinnamnor'-

- It is a category 5 typhoon, the highest classification on the scale.
- According to a forecast from Japan Meteorological Agency (JMA), the storm is expected to move towards parts of Southwestern Japan, Eastern China and South Korea over the next few days.
- Typhoon has been classified as 'violent'.
- **The factors contributing to the Super Typhoon** rapidly intensifying and expanding is the fact that it has started absorbing other local meteorological systems.
- **Warm tropical waters and other pre-existing meteorological disturbances** have also led to the system's escalation.

What is a typhoon?

- Tropical cyclones, also known as typhoons or hurricanes, are among the most destructive weather phenomena.
- They are intense circular storms that originate over warm tropical oceans, and have maximum sustained wind speeds exceeding 119 kilometres per hour and heavy rains.
- **They originate over warm tropical oceans** and are characterized by low atmospheric pressure, high winds, and heavy rain.
- In extreme cases winds may exceed 240 km per hour, and gusts may surpass 320 km per hour.
- Accompanying these strong winds are torrential rains and a devastating phenomenon known as the storm surge, an

elevation of the sea surface that can reach 6 metres (20 feet) above normal levels.

- Such a combination of high winds and water makes cyclones a serious hazard for coastal areas in tropical and subtropical areas of the world.
- Every year during the late summer months (July–September in the Northern Hemisphere and January–March in the Southern Hemisphere), cyclones strike regions as far apart as the Gulf Coast of North America, northwestern Australia, and eastern India and Bangladesh.
- **Tropical cyclones are known by various names in different parts of the world.**
- **In the North Atlantic Ocean and the eastern North Pacific** they are called **hurricanes**, and in the **western North Pacific** around the Philippines, Japan, and China the storms are referred to as **typhoons**.
- In the **western South Pacific and Indian Ocean** they are variously referred to as severe tropical **cyclones, tropical cyclones, or simply cyclones**.
- All these different names refer to the same type of storm.

Tropical cyclone scales-

- Tropical cyclones are ranked on one of five tropical cyclone intensity scales, according to their maximum sustained winds and which tropical cyclone basin(s) they are located in.
- **Only a few scales of classifications are used officially by the meteorological agencies** monitoring the tropical cyclones, but other scales also exist, such as accumulated cyclone energy, the Power Dissipation Index, the Integrated Kinetic Energy Index, and the Hurricane Severity Index.
- **Tropical cyclones that develop in the Northern Hemisphere** are unofficially classified by the warning centres on one of **three intensity scales**.

- **Tropical cyclones or subtropical cyclones** that exist **within the North Atlantic Ocean** or the North-eastern Pacific Ocean **are classified as either tropical depressions or tropical storms.**
- Should a system intensify further and become a hurricane, then it will be classified on the Saffir–Simpson hurricane wind scale, and is based on the estimated maximum sustained winds over a 1-minute period.
- **In the Western Pacific, the ESCAP/WMO Typhoon Committee uses four separate classifications** for tropical cyclones that exist within the basin, which are based on the estimated maximum sustained winds over a 10-minute period.
- **The India Meteorological Department's scale uses 7 different classifications for systems** within the North Indian Ocean, and are based on the systems estimated 3-minute maximum sustained winds.
- **Tropical cyclones that develop in the Southern Hemisphere are only officially classified by the warning centres on one of two scales,** which are both based on 10-minute sustained wind speeds: The Australian tropical cyclone intensity scale is used to classify systems within the Australian or South Pacific tropical cyclone basin.
- The scale used to classify systems in the **South-West Indian Ocean is defined by Météo-France for use in various French territories, including New Caledonia and French Polynesia.**
- **The definition of sustained winds recommended by the World Meteorological Organization (WMO) and used by most weather agencies is that of a 10-minute average at a height of 10 m (33 ft) above the sea surface.**