

Cyclone Storm Nisarga

July 6, 2020

The India Meteorology Department has issued the preliminary report on Severe Cyclonic Storm “Nisarga” over Arabian Sea. The storm Nisarga originated from a **Low Pressure Area which formed over southeast & adjoining east central Arabian Sea and Lakshadweep area**. Continuing to move northeastwards, it crossed Maharashtra coast close to south of Alibag as a **Severe Cyclonic Storm**.

Monitoring of Nisarga

India Meteorological Department (IMD) maintained round the clock watch over the north Indian Ocean and the development of the system was monitored since 10 days prior to the formation of low pressure area over the southeast & adjoining east central Arabian Sea and Lakshadweep area. The cyclone was monitored with the help of available satellite observations from **INSAT 3D and 3DR, SCAT SAT, polar orbiting satellites and available ships & buoy observations in the region**.

The system was also **monitored by Doppler Weather RADARs (DWR) Goa and Mumbai**. Various numerical **weather prediction models run by Ministry of Earth Sciences (MoES) institutions**, models run by other Global centres and dynamical-statistical models were utilized to predict the genesis, track, landfall and intensity of the cyclone. A **digitized forecasting system of IMD** was utilized for analysis and comparison of various models' guidance, decision making process and warning products generation.

4 Stages of Cyclone Warning

- The First Stage warning known as “PRE CYCLONE WATCH” issued 72 hours in advance contains early warning about the development of a cyclonic disturbance, its likely intensification into a tropical cyclone and the coastal

belt likely to experience adverse weather.

- The Second Stage warning known as “CYCLONE ALERT” is issued at least 48 hours in advance. It contains information on the location and intensity of the storm, likely direction of its movement, intensification, coastal districts likely to experience adverse weather and advice to fishermen, general public, media and disaster managers.
- The Third Stage warning known as “CYCLONE WARNING” issued at least 24 hours in advance. Landfall point is forecast at this stage.
- The Fourth Stage of warning known as “POST LANDFALL OUTLOOK” is issued at least 12 hours in advance. It gives the likely direction of movement of the cyclone after its landfall and adverse weather likely to be experienced in the interior areas.