

Cyclone Tauktae, May 2021

Cyclone Advisory

Second Advisory

Cyclone Tauktae that originated as a depression near the Lakshadweep Islands on May 14, has intensified into an Extremely Severe Cyclonic Storm (166 to 221 kmph), according to the IMD bulletin No. 25 (ARB/01/2021) at 1430 IST on May 17. According to the IMD forecasts, it is expected to move north-north westwards and make a landfall on the coast of Gujarat near Porbandar and Mahuva (east of Diu) on the night of May 17, and further move towards Rajasthan, weakening into a depression but with gusting wind and accompanying rainfall.

Being the first cyclone to impact India in 2021, this ESCS has brought heavy rainfall and wind to all States and UTs on the western coast of India since May 14. A summary of potential wind and rainfall impacts (between 17^{th} to 19^{th} May) over the various States along the western coast of India has been given in Table 1 and 2.

Table 1: Forecasted Impact on the States in the next 48 hours- Rainfall

| State | 17 th May | 18 th May | 19 th May |
|-------------|--|--|---|
| Karnataka | Heavy to Very Heavy rainfall (isolated) | Light to moderate rainfall | |
| Gujarat | Extremely heavy rainfall (Saurashtra and Diu) | Heavy to Very Heavy rainfall (Saurashtra) | |
| Goa | Light to moderate rainfall | Light to moderate rainfall | |
| Maharashtra | Isolated heavy rainfall | Isolated heavy rainfall | |
| Rajasthan | | Very Heavy to Extremely Heavy rainfall (isolated; south Rajasthan) | Heavy to Very Heavy rainfall (isolated) |

¹ <u>Cyclone Tauktae LIVE Updates: IMD issues Orange, Yellow alert in 22 Madhya Pradesh districts, including Bhopal, Indore (msn.com)</u>

| State | 17 th May | 18 th May |
|-------------|---|--|
| Gujarat | Gale winds (155-165 kmph gusting to 185 kmph; Gujarat coast) | Gale winds (80-90 kmph gusting to 100 kmph) |
| Goa | Gale winds (180-190 kmph gusting to 210 kmph) | |
| Maharashtra | Gale winds (90-100 kmph gusting to 100 kmph) | |
| Rajasthan | | Squally winds (45-55 kmph gusting to 65 kmph) |

Table 2: Forecasted Impact on the States in the next 48 hours- Wind

IMPACT

Six people have lost their lives to the cyclone in Karnataka and 121 villages are affected in the state¹. Barrelling towards Gujarat and travelling parallel to the coast, the cyclone has damaged several houses, uprooted trees and electric poles in Kerala, Goa and Karnataka. Electricity supply was disrupted in parts of Goa and Karnataka.

High-speed winds and lashing rains led to two barges offshore Mumbai (Bombay High) being de-anchored and drifting away². Mumbai has seen flooding, with several streets inundated. The busy Chhatrapati Shivaji

² <u>Cyclone Tauktae: Bombay High barge de-anchors, but all 261 onboard safe, says ONGC | Mumbai News</u> <u>- Times of India (indiatimes.com)</u>



Maharaj Airport suspended operations temporarily³. Vehicles were prevented from using the iconic Bandra-Worli sea link till 20:00 IST on May 17^4 . While India battles the devastating second wave of COVID-19 that is claiming thousands of lives across the country, the vaccination drive has been suspended in Mumbai.

Over 1.5 lakh people were evacuated from the low-lying areas along the Western Coast, particularly from Gujarat, in the wake of the Cyclone. The Indian Coast Guard rescued 15 fishermen off the coast of Goa⁵. With anticipated electricity disruptions, hospitals providing care for COVID-19 patients have been advised to ensure power back-up; and arrangements have been made for uninterrupted oxygen supply. The National Disaster Response Force (NDRF) has deployed 54 teams to manage the unfolding situation.



Figure 1: Visuals of cyclone impacts across western India (Source: Yahoo images)

ANALYSIS

RMSI has analysed potential wind and flood impact due to Cyclone Tauktae (based on IMD bulletin on 17th May at 1430 hours IST for wind and 1100 hours IST for flood and storm surge). The following map represent the result of the analysis:

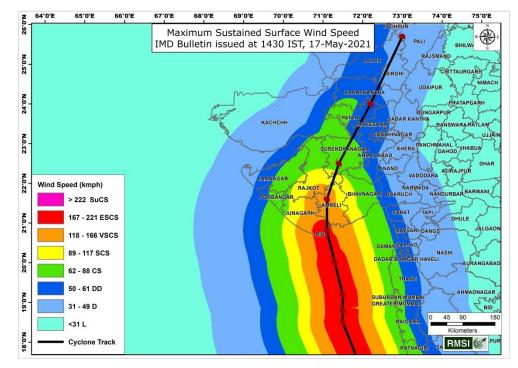


Figure 2: Estimated wind speeds for Cyclone Tauktae as per IMD bulletin on 17th May 1430 IST

³ <u>Republic on Twitter: "#CycloneTauktae | Mumbai Airport extends suspension of operations till 8 PM</u> today due to Cyclone Tauktae Tune in to know more: https://t.co/RZHKU3wOei https://t.co/TpplagH8Cj" / Twitter

⁴ Cyclone Tauktae: Mumbai cops on alert as strong winds, rain uproots trees, floods roads (yahoo.com)

⁵ <u>ANI on Twitter: "Indian Coast Guard Ship Samarth responding to a distress call rescued 15 crew from</u> a fishing boat named Milad, off Goa coast today. All crew are safe and boat is being towed ashore: Indian Coast Guard https://t.co/tQTo9erON0" / Twitter



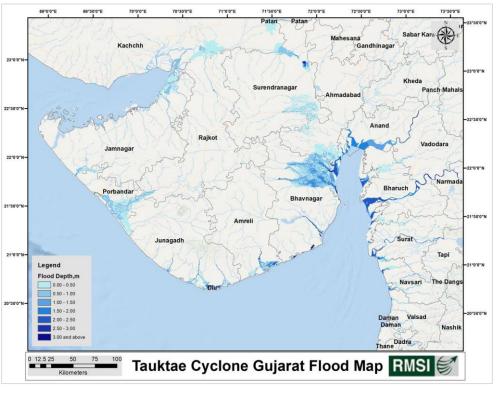


Figure 3: Potential flood and storm surge affected areas in Gujarat due to Cyclone Tauktae

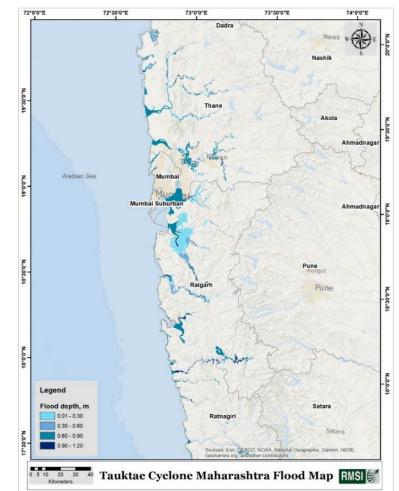


Figure 4: Potential flood affected areas in Maharashtra due to Cyclone Tauktae

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