

# Tauktae Cyclone Report





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## Tropical Cyclone - Tauktae

Tropical Cyclone Tauktae originated in the Arabian Sea and was first observed by the Indian Meteorological Department on 13<sup>th</sup> of May. A tropical cyclone that originates over warm tropical oceans and is characterised by low atmospheric pressure, strong winds followed by heavy rainfall.

The cyclone Tauktae (pronounced as Tau'Te) has been given the name 'Tauktae' by Myanmar. It means 'gecko', a highly vocal lizard, in Burmese dialect. Cyclones are officially named by World Meteorological Organisation and UN Economic and Social Commission for Asia and Pacific (UN ESCAP) led Panel on Tropical Cyclones (PTC) – includes 13 countries - India, Bangladesh, Myanmar, Pakistan, the Maldives, Oman, Sri Lanka, Thailand, Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen. The panel also includes regional specialised meteorological centres (RSMC) as well as tropical cyclone warning centres - prepares the names of the cyclones. Indian Meteorological Department (IMD) is among 6 RSMCs in the world, is mandated to issue advisories and name tropical cyclones in the north Indian Ocean region.

## Path of cyclone Tauktae

A low pressure area was formed over southeast Arabian Sea & adjoining Lakshadweep area on 13<sup>th</sup> May morning (0830 hrs IST). Which subsequently intensified into Extremely Severe Cyclone on 17<sup>th</sup> May.

The Extremely Severe Cyclonic Storm's landfall process started on 17<sup>th</sup> May evening continued till 18<sup>th</sup> May. It made a landfall on the Gujarat coast in Una Taluka east of Diu at 2030 hours as a Very Severe Cyclonic Storm with a maximum sustained wind speed of 150-175 kmph.

It crossed Gujarat & Diu coasts in Morning of 19<sup>th</sup> May, further started to weakened into well marked low pressure in evening of 19<sup>th</sup> May 2021. (Refer Annexure No.1)

| India Meteorological Department<br>Tropical Cyclone Intensity Scale |                                    |
|---------------------------------------------------------------------|------------------------------------|
| Category                                                            | Sustained winds<br>(3-min average) |
| Super Cyclonic Storm                                                | >120 kt<br>>222 km/h               |
| Very Severe Cyclonic Storm                                          | 64–119 kt<br>118–221 km/h          |
| Severe Cyclonic Storm                                               | 48–63 kt<br>88–117 km/h            |
| Cyclonic Storm                                                      | 34–47 kt<br>62–87 km/h             |
| Deep Depression                                                     | 28–33 kt<br>52–61 km/h             |
| Depression                                                          | ≤27 kt<br>≤51 km/h                 |

## Intensity and impact of cyclone Tauktae

- Tropical Cyclone Tauktae made landfall as a category 3 cyclone on the southern coast of Gujarat on the night of 17 May. Before making landfall, Tauktae brushed India's west coast over the weekend, causing damage in the states of Kerala, Karnataka, Goa, and Maharashtra.
- A category three cyclone's strongest winds are **VERY DESTRUCTIVE** winds with typical gusts over open flat land of 165-224kph. These winds correspond to the highest category on the Beaufort scale, Beaufort 12 (hurricane).
- Leading global catastrophe risk management consultancy RMSI has estimated the initial potential loss from the extremely severe cyclone Tauktae at ₹15,000 crore. At least half of the loss is in Gujarat and Daman & Diu. The remaining is expected from the western coastal States of Kerala, Maharashtra, Goa and Karnataka.
- **“25-40 per cent of damage caused by cyclone is expected from agriculture sector from all impacted States, according to the RMSI's cyclone model; 15-20 per cent is from the transportation sector, primarily ports, and a similar loss share is from the utility sector, primarily power and telecom”**
- As per Pushpendra Johari, Senior VP - Sustainability, RMSI **The insurance industry loss due to this event is primarily driven by impact to ports and vehicles and potentially agriculture (primarily plantations and horticulture) as no major city has been impacted.** The structural losses are to the tune of ₹100 crore, but the content losses could be very high for ports. We are not sure if the power and communication network and substations are insured or not.
- State wise assessment of damage reported by Ministry of Home Affairs in given in Annexure -II

## Impact on Agriculture

### Crop damage in Gujarat

#### ► Mahuva and Rajula in Bhavnagar district

- Large banana plantations

#### ► Botad, Amreli, Junagadh and Gir Somnath district

- Summer crop, Mangoes and pulses

#### ► Valsad district

- Mangoes

#### ► 11 districts in the Saurashtra region

- Officials are estimating 90% damage to standing crop in areas closer to the Saurashtra coast, while the damage to crops in interior areas of Saurashtra could be around 70%.

- Summer crop in 3.04 lakh ha this year, which is around one-third of the total 10.4 lakh hectares under summer crop in Gujarat. Apart from Bajra, Sesamum, Green Gram, Groundnut, Pearl Millet, Black Gram were some of the summer crops sown this year

#### ► Districts - Junagadh, Amreli, Bhavnagar, Gir Somnath, Porbandar, Jamnagar

- Moong, Bajra

#### ► Sanand, Bavla and Dholka in Ahmedabad district

- Summer paddy

#### ► Surat and adjoining districts

- Summer paddy

#### ► Coastal belts of Amreli, Junagadh, Bhavnagar and Bharuch districts

- Salt pans

According to official figures, this year, Bajra and Moong were sown over 59,000 ha as compared to 32,000 ha last season. Groundnut was sown over 60,000 ha as compared to 47,000 ha last season. There was a major rise in sesame crop this season. It was sown over 98,000 ha as compared to 31,000 ha last season. Around 30% of the total sowing of 10.5 lakh ha took place in Saurashtra, 40% sowing was in North Gujarat and 23% sowing in Central Gujarat. The official said that if similar damage occurs in North Gujarat, around 60% of the total sowing area in the state will be affected adversely by the cyclone.



Source:TOI; While the cyclone has ravaged 50-70% mangoes in Saurashtra and South Gujarat, 10-15 lakh tonnes of salt have been washed away



Source:<https://timesdel.com/>; Crops broken, orchards and plantations flattened in Gujarat



Source: TOI; Hundreds of coconut trees uprooted in Gir Somnath district



## Crop damage in Kerala

- Vandanmedu, Mali, Anyartholu, Anavilasom and Chakkupallam areas of Iddukki district
- Cardamom and winter vegetables



Source:aninews; NDRF team posted at Cheruthoni in Iddukki district



Source:newindianexpress.com; Plantains of this farmer from Venganoor panchayat was recently destroyed in the wind and downpour caused by Cyclone Tauktae

## Crop damage in Goa

- Bicholim taluka
- Damaged plantations of Bananas, Mangoes and Cashews
- Chasndor, Macasana, Paroda in Salcete region
- Early sowing of paddy
- Nuvem, Raia, Curtorim, and Cuncolim Salcete region
- Vegetable crops like ladyfinger, brinjal and sweet potato



Source:Financial Express;Candolim: Several trees collapsed on nearby buildings due to cyclone Tauktae at Candolim in North Goa.



Source:Financial Express;NDRF team undertakes restoration work, after a tree collapsed due to strong winds during the formation of cyclone Tauktae, in Panjim.



## Crop damage in Karnataka

► Dakshina Kannada, Uttara Kannada, Kodagu, Belagavi, Dharwad, Chamarajanagara, Ramangara, Bengaluru Urban and Rural, Ballari, Chitradurga and Chikkaballapura districts

- Agriculture and horticulture crop losses have been estimated in about 30 hectares and in about 2.87 hectares, respectively.



Source:vijaykarnataka;mangaluru-cyclone-tauktae- hits-karnataka-coast-brings-in-huge-waves-and- heavy-rains-with-gusty-winds

## Crop damage in Maharashtra

► Ratnagiri and Sindhudurg districts in Konkan region

- The cyclone caused severe damage in 5 talukas of the district. The worst affected areas are Rajapur and Ratnagiri talukas.
- Damage to mango and cashew and coconut orchards in the district
- Approximately 1,100 farmers lost about 2,500 hectares. Out of this, the work of panchnama of 810.30 hectares of 3,430 farmers has been completed till date

**Relief approved in the cabinet meeting to the disaster affected people in the state**

| Compensation for houses (in rupees)             |          |
|-------------------------------------------------|----------|
| If completely destroyed                         | 1,50,000 |
| 15 percent loss                                 | 15,000   |
| 25 percent loss                                 | 25,000   |
| 50 percent loss                                 | 50,000   |
| Slots eligible for rehabilitation               | 15,000   |
| Crop Assistance (in Rupees) (two hectare limit) |          |
| Perennial crops (hectares)                      | 50,000   |
| Coconut (per tree)                              | 250      |
| Arecanuts (per tree)                            | 50       |

► Thane district

- Crops on 363 hectares were destroyed

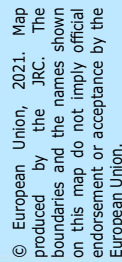


Source:Financial Express;A farmer inspects the damage caused to his banana plants due to strong winds and rainfall owing to Cyclone Tauktae, at Chachegaon Village in Karad



Source:Financial Express;A fallen tree blocks a road after strong winds triggered by Cyclone Tauktae at Vengurla in Sindhudurg district.





## Annexure - II

## Damage reported

| SL No | Name of State/UTs                    | No of Districts affected | No of Villages Affected | Population Affected | Human Lives lost                                                                                                                                          | Injured | Houses damaged                | Loss of Livestock | No of Persons evacuated | Inmates in relief camps | Crop Area Affected | Infrastructure damage                                                                                      |
|-------|--------------------------------------|--------------------------|-------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------|-------------------|-------------------------|-------------------------|--------------------|------------------------------------------------------------------------------------------------------------|
| 01    | Goa                                  | 02                       | 44                      | 594                 | <b>03</b><br>(Tree felling -1,<br>Electric pole felling-1)                                                                                                | 07      | Fully-02<br>Partially-709     | 16                | 0                       | 0                       | 10 HA              | Shops-04, Cars-07, Electric pole 62, Transformer 02<br>Restaurant-1, Garage-1, Wall-2, Temple-1, Cowshed-1 |
| 02    | Karnataka                            | 08                       | 125                     | 3200                | <b>09</b><br>(House collapse-03, Lightning-01, Crushing between Boats-01, Electrocutation-02, Drowning - 2)                                               | 03      | Fully-57<br>Partially-453     | 01                | 547                     | 16                      | 229 HA             | Road-140 km, Power line-59.5 km, Electrical pole-1129, Transformer-189, Boats 171,                         |
| 03    | Kerala                               | 14                       | 162                     | 4653                | <b>19</b><br>(Dwoning-08, Electrocutation 02, Lightning-09)                                                                                               | 04      | Fully-163<br>Partially-3211   | 0                 | 3063                    | 5235                    | 19934.38 HA        | Road -356.8 KM<br>School – 15<br>Anganwadi-36<br>Primary Health Center - 11                                |
| 04    | Maharashtra                          | 10                       | 0                       | 0                   | <b>19</b><br>(Tree falling-02<br>Electric wire-04<br>03 fisherman)                                                                                        | 37      | Fully-81<br>Partially-13021   | 11                | 13425                   | 0                       | -                  | -                                                                                                          |
| 05    | Gujarat                              | 23                       | 4619                    | 11711000            | <b>64</b><br>(Tree Falling-06,<br>Wall collapse-33,<br>Building collapse-10, Lighting-06,<br>Ceilling Falling-06,<br>Tower Falling-01,<br>Power pole-02,) | 36      | Kuchcha - 93231<br>Pucca-1593 | 3090              | 238808                  |                         | Yet to assess      | Electric Pole-104024<br>Fallen tree- 91400<br>Road Damage-1262<br>Govt Building – 543                      |
| 06    | Lakshadweep                          | 01                       | 0                       | 2000                | -                                                                                                                                                         | 12      | Fully -18,<br>Partially-9371  | 0                 | 91                      | 91                      | -                  | -                                                                                                          |
| 07    | Daman & Diu and Dadra & Nagar Haveli | 03                       | 98                      | 52591               | -                                                                                                                                                         | -       | Fully -53,<br>Partially-445   | 11                | 1461                    | 246                     |                    | Solar Plate-22807,<br>Electric Pole-355,<br>Fallen tree- 7592,<br>Boats-29<br>Govt Building-79             |
| 08    | Tamil Nadu                           | 08                       | 228                     | 2343734             | 05                                                                                                                                                        | 02      | Fully -17<br>Partially-105    | 06                | 220                     | 222                     | 64.73              | EB Poles damaged 95,<br>Transformers -3 EB Lines-13 EB Connections-263                                     |
| 09    | Ship Barge P-305                     | -                        | -                       | -                   | <b>62</b>                                                                                                                                                 | -       | -                             | -                 | -                       | -                       | -                  | -                                                                                                          |
|       | Total                                | 69                       | 5276                    | 14117772            | 181                                                                                                                                                       | 101     | 122530                        | 3135              | 257615                  | 5810                    | 20238.11           | -                                                                                                          |

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## Sources

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