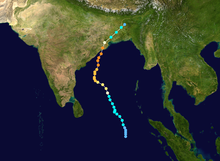
Cyclone Fani

|  |  |
| --- | --- |
| **Extremely Severe Cyclonic Storm Fani** | |
| **Extremely severe cyclonic storm (IMD scale)** | |
| **Category 4 tropical cyclone (SSHWS)** | |
| [Fani 2019-05-02 1657Z.jpg](https://en.wikipedia.org/wiki/File:Fani_2019-05-02_1657Z.jpg)  Cyclone Fani at peak intensity on 2 May, while approaching [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha) | |
| **Formed** | 26 April 2019 |
| **Dissipated** | 5 May 2019 |
| ([Remnant low](https://en.wikipedia.org/wiki/Post-tropical_cyclone) after 4 May) | |
|  | |
|  | |
| **Highest winds** | [*3-minute sustained*](https://en.wikipedia.org/wiki/Tropical_cyclone_scales#Wind_speed_conversions)*:* 215 km/h (130 mph) [*1-minute sustained*](https://en.wikipedia.org/wiki/Tropical_cyclone_scales#Wind_speed_conversions)*:* 250 km/h (155 mph) |
| **Lowest pressure** | 932 [hPa](https://en.wikipedia.org/wiki/Pascal_(unit)" \o "Pascal (unit)) ([mbar](https://en.wikipedia.org/wiki/Bar_(unit))); 27.52 [inHg](https://en.wikipedia.org/wiki/Inch_of_mercury" \o "Inch of mercury) |
|  | |
|  | |
| **Fatalities** | 89 total |
| **Damage** | $8.1 billion (2019 [USD](https://en.wikipedia.org/wiki/United_States_dollar)) |
| **Areas affected** | [Sri Lanka](https://en.wikipedia.org/wiki/Sri_Lanka), [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha), [Andhra Pradesh](https://en.wikipedia.org/wiki/Andhra_Pradesh), [East India](https://en.wikipedia.org/wiki/East_India), [Bangladesh](https://en.wikipedia.org/wiki/Bangladesh), [Bhutan](https://en.wikipedia.org/wiki/Bhutan) |
|  | |
| Part of the [**2019 North Indian Ocean cyclone season**](https://en.wikipedia.org/wiki/2019_North_Indian_Ocean_cyclone_season) | |

**Extremely Severe Cyclonic Storm Fani** ([/ˈfɒniː/](https://en.wikipedia.org/wiki/Help:IPA/English); [Bengali](https://en.wikipedia.org/wiki/Bengali_language): ফণী, [romanized](https://en.wikipedia.org/wiki/Romanization_of_Bengali" \o "Romanization of Bengali): *Phaṇī*[[a]](https://en.wikipedia.org/wiki/Cyclone_Fani" \l "cite_note-3)) was the strongest [tropical cyclone](https://en.wikipedia.org/wiki/Tropical_cyclone) to strike the [Indian state](https://en.wikipedia.org/wiki/Indian_state) of [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha) since the [1999 Odisha cyclone](https://en.wikipedia.org/wiki/1999_Odisha_cyclone). The second named storm and the first severe cyclonic storm of the [2019 North Indian Ocean cyclone season](https://en.wikipedia.org/wiki/2019_North_Indian_Ocean_cyclone_season), Fani originated from a tropical depression that formed west of [Sumatra](https://en.wikipedia.org/wiki/Sumatra) in the Indian Ocean on 26 April. Vertical [wind shear](https://en.wikipedia.org/wiki/Wind_shear) at first hindered the storm's development, but conditions became more favorable on 30 April. Fani [rapidly intensified](https://en.wikipedia.org/wiki/Rapid_intensification) into an [extremely severe cyclonic storm](https://en.wikipedia.org/wiki/Tropical_cyclone_scales#North_Indian_Ocean) and reached its peak intensity on 2 May as a high-end extremely severe cyclonic storm—the equivalent of a high-end Category 4 major hurricane. Fani weakened before making [landfall](https://en.wikipedia.org/wiki/Landfall_(meteorology)), and its convective structure rapidly degraded thereafter, degenerating into a remnant low on 4 May, and dissipating on the next day.

Prior to Fani's landfall, authorities in India and Bangladesh moved at least a million people each from areas within Fani's projected path onto higher ground, and into cyclone shelters, which is thought to have reduced the resultant death toll.[[3]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-NYT05042019-4) Fani killed at least 89 people in eastern India and Bangladesh. Fani caused about [US$](https://en.wikipedia.org/wiki/United_States_dollar)8.1 billion in damages in both India and Bangladesh, mostly in Odisha, in India.[[4]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-Global_Catastrophe_Recap-5)

Meteorological history[[edit](https://en.wikipedia.org/w/index.php?title=Cyclone_Fani&action=edit&section=1" \o "Edit section: Meteorological history)]

[](https://en.wikipedia.org/wiki/File:Fani_2019_track.png)

Map plotting the track and the intensity of the storm, according to the [Saffir–Simpson scale](https://en.wikipedia.org/wiki/Saffir%E2%80%93Simpson_scale" \o "Saffir–Simpson scale)

The IMD began tracking a depression located west of [Sumatra](https://en.wikipedia.org/wiki/Sumatra) on 26 April, classifying it as BOB 02. Later that day, the [Joint Typhoon Warning Center](https://en.wikipedia.org/wiki/Joint_Typhoon_Warning_Center) (JTWC) issued a [Tropical Cyclone Formation Alert](https://en.wikipedia.org/wiki/Tropical_Cyclone_Formation_Alert) on the system.[[5]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-6) Afterward, the storm slowly coalesced while moving northward, and was upgraded to a deep depression at 00:00 [UTC](https://en.wikipedia.org/wiki/Coordinated_Universal_Time) on 27 April.[[6]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-7) At the same time, the JTWC began warning on the system, designating it 01B.[[7]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-8) Six hours later, the IMD upgraded the system to a cyclonic storm and gave it the name *Fani*.[[8]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-9)

The system continued to intensify until 18:00 UTC on 17 April, after which it stagnated for over a day, as [convection](https://en.wikipedia.org/wiki/Atmospheric_convection) around the storm's center waxed and waned.[[9]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-10) Fani resumed strengthening around 12:00 UTC, with the IMD upgrading it to a severe cyclonic storm.[[10]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-11) At that time, Fani began a period of [rapid intensification](https://en.wikipedia.org/wiki/Rapid_intensification) as it was located within a very favorable environment with [sea surface temperatures](https://en.wikipedia.org/wiki/Sea_surface_temperatures) of 30–31 °C (86–88 °F) and low [vertical wind shear](https://en.wikipedia.org/wiki/Wind_shear#Vertical_component). As a result, the JTWC upgraded Fani to a [Category 1](https://en.wikipedia.org/wiki/Saffir-Simpson_scale#Category_1)-equivalent cyclone late on 29 April.[[11]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-12) Around 00:00 UTC on 30 April, Fani was upgraded to a very severe cyclonic storm by the IMD.[[12]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-13) The organization of the system continued to improve, with tight spiral [banding](https://en.wikipedia.org/wiki/Rainband) wrapping into a formative [eye](https://en.wikipedia.org/wiki/Eye_(cyclone)) feature,[[13]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-14) resulting in Fani being upgraded to an extremely severe cyclonic storm by the IMD around 12:00 UTC[[14]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-15) while the JTWC upgraded the storm to a Category 3-equivalent cyclone hours later.[[15]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-16) Development proceeded more slowly over the following days, with little improvement evident in the system's satellite presentation. On 2 May, however, the [central dense overcast](https://en.wikipedia.org/wiki/Central_dense_overcast) became more symmetrical and the eye more distinct, and Fani was upgraded to a Category 4-equivalent cyclone by the JTWC at 06:00 UTC.[[16]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-17) Shortly after, Fani started another period of rapid intensification, attaining 1-minute sustained winds of 250 km/h (155 mph) just below Category 5-equivalent tropical cyclone intensity, according to the JTWC.[[17]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-18) At 8:00 a.m. [IST](https://en.wikipedia.org/wiki/Indian_Standard_Time) (02:30 UTC) 3 May, Fani made landfall near [Puri](https://en.wikipedia.org/wiki/Puri" \o "Puri), [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha) as a severe cyclonic storm, with 3-minute sustained winds of 185 km/h (115 mph).[[18]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-19) This made Fani the most intense storm to make landfall in India's Odisha state since the [1999 Odisha cyclone](https://en.wikipedia.org/wiki/1999_Odisha_cyclone).[[19]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-strongest_landfall_since_1999-20) Land interaction quickly degraded Fani's convective structure; and it weakened to a Category 1-equivalent tropical cyclone soon after landfall.[[20]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-21) Fani continued to weaken after landfall, weakening to a cyclonic storm later that day,[[21]](https://en.wikipedia.org/wiki/Cyclone_Fani" \l "cite_note-22) before passing just north of [Kolkata](https://en.wikipedia.org/wiki/Kolkata). On 4 May, Fani weakened to a deep depression and moved into [Bangladesh](https://en.wikipedia.org/wiki/Bangladesh),[[22]](https://en.wikipedia.org/wiki/Cyclone_Fani" \l "cite_note-23) before degenerating into a well-marked low later on the same day.[[23]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-24) On 5 May, Fani's remnant low dissipated over [Bhutan](https://en.wikipedia.org/wiki/Bhutan).[*[citation needed](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed" \o "Wikipedia:Citation needed)*]

Preparations[[edit](https://en.wikipedia.org/w/index.php?title=Cyclone_Fani&action=edit&section=2" \o "Edit section: Preparations)]

The [India Meteorological Department](https://en.wikipedia.org/wiki/India_Meteorological_Department) tracked the storm and issued numerous yellow warnings for much of the south-eastern portion of India when the cyclone started to intensify.[[24]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-25)[[25]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-26) In preparation for the storm's impact, the state government of Odisha evacuated over 1.2 million residents from vulnerable coastal areas and moved them to higher ground and into cyclone shelters built a few miles inland. The authorities deployed around a thousand emergency workers and 43,000 volunteers in these effort. It sent out 2.6 million text messages to warn of the storm in addition to using television, sirens and public-address systems to communicate the message. About 7,000 kitchens were operated to feed evacuees in 9,000 storm shelters.[[26]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-HT04052019-27)[[27]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-NYT03052019-28)

The [Indian Navy](https://en.wikipedia.org/wiki/Indian_Navy) readied naval ships and aircraft at [Arakkonam](https://en.wikipedia.org/wiki/INS_Rajali" \o "INS Rajali) and [Visakhapatnam](https://en.wikipedia.org/wiki/INS_Dega) air-bases to prepare for the storm's aftermath and aid in reconnaissance, rescue and relief operations.[[28]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-29) The Odisha government staged "300 power boats, two helicopters and many chain saws, to cut downed trees" for the purpose.[[27]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-NYT03052019-28)

Authorities in [Bangladesh](https://en.wikipedia.org/wiki/Bangladesh) were ordered to open shelter areas as well in 19 coastal districts.[[29]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-30) [Bangladesh Navy](https://en.wikipedia.org/wiki/Bangladesh_Navy) deployed 32 naval ships to provide emergency relief and medical assistance to the coastal areas in case of any emergencies.[[30]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-31) More than 1.2 million people were evacuated in Bangladesh and moved to the cyclone shelters in coastal areas.[[31]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-32)

Impact and aftermath[[edit](https://en.wikipedia.org/w/index.php?title=Cyclone_Fani&action=edit&section=3" \o "Edit section: Impact and aftermath)]

**India**[[edit](https://en.wikipedia.org/w/index.php?title=Cyclone_Fani&action=edit&section=4" \o "Edit section: India)]

At least 72 people have been killed by Fani in India; 64 in [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha),[[32]](https://en.wikipedia.org/wiki/Cyclone_Fani" \l "cite_note-33) and 8 in two districts of [Uttar Pradesh](https://en.wikipedia.org/wiki/Uttar_Pradesh).[[33]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-34) In Odisha, a teenager was killed after being hit by a falling tree. One woman died when she was hit by flying debris, and another died of a heart attack while in a cyclone shelter.[[34]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-35) The cyclone adversely affected electricity supply and telecommunication in several coastal areas of Odisha, and to a lesser extent, of West Bengal. [Puri](https://en.wikipedia.org/wiki/Puri_district" \o "Puri district) and [Khordha district](https://en.wikipedia.org/wiki/Khordha_district" \o "Khordha district) in Odisha were the worst hit.[[26]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-HT04052019-27) The [Jagannath Temple](https://en.wikipedia.org/wiki/Jagannath_Temple" \o "Jagannath Temple) in Puri suffered minor damage, the repairing cost were estimated to be [₹](https://en.wikipedia.org/wiki/Indian_rupee)51 million (US$738,000).[[35]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-36) The [Siksha 'O' Anusandhan University](https://en.wikipedia.org/wiki/Siksha_%27O%27_Anusandhan_University" \o "Siksha 'O' Anusandhan University) also suffered a damage of about ₹300 million (US$4.3 million).[[36]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-37) Total damage in Odisha were estimated at ₹120 billion (US$1.74 billion), mostly in property damage and the relief.[[37]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-Odisha_damage-38)

Although no fatalities occurred in [Andhra Pradesh](https://en.wikipedia.org/wiki/Andhra_Pradesh), [Srikakulam](https://en.wikipedia.org/wiki/Srikakulam" \o "Srikakulam) and [Vizianagaram](https://en.wikipedia.org/wiki/Vizianagaram" \o "Vizianagaram) districts reported an economic loss of ₹586.2 million (US$8.5 million).[[38]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-Andhra_damage-39) The [South Central Railway](https://en.wikipedia.org/wiki/South_Central_Railway) also suffered a damage of about ₹29.8 million (US$432,000).[[39]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-40)

After the cyclone, Odisha required ₹170 billion (US$2.46 billion) for rebuilding the infrastructure.[[40]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-41) Indian Prime Minister [Narendra Modi](https://en.wikipedia.org/wiki/Narendra_Modi" \o "Narendra Modi) announced that the government had released over ₹10 billion (US$145 million) for the states affected by Fani.[[41]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-42)

**Bangladesh**[[edit](https://en.wikipedia.org/w/index.php?title=Cyclone_Fani&action=edit&section=5" \o "Edit section: Bangladesh)]

Fani killed 17 people in ten districts of [Bangladesh](https://en.wikipedia.org/wiki/Bangladesh).[[42]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-43) In [Bagerhat District](https://en.wikipedia.org/wiki/Bagerhat_District" \o "Bagerhat District), a woman died after being hit by a falling tree, and 7 of them were killed by lightning in two districts of Bangladesh.[[43]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-44)[[44]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-45) The cyclone also destroyed about 63,000 ha (160,000 acres) of farmland in 35 districts of the country, the agricultural loss were at [৳](https://en.wikipedia.org/wiki/Bangladeshi_taka)385 million (US$4.6 million).[[45]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-46) Total damage in Bangladesh were up to ৳5.37 billion (US$63.6 million).[[46]](https://en.wikipedia.org/wiki/Cyclone_Fani#cite_note-Bangladesh_damage-47)

The Bangladeshi government distributed rice, dried food, and ৳19.7 million (US$234,000) to those affected by the cyclone.