2015 Indian heat wave

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| **2015 Indian heat wave** | |
| [2015 Indian heat wave is located in India](https://en.wikipedia.org/wiki/File:India_location_map.svg)  Khammam 48 °C (118 °F)  **Khammam 48 °C (118 °F)**  Allahabad 47.8 °C (118.0 °F)  **Allahabad 47.8 °C (118.0 °F)**  Hyderabad 46 °C (115 °F)  **Hyderabad 46 °C (115 °F)**  Delhi 45.5 °C (113.9 °F)  **Delhi 45.5 °C (113.9 °F)**  Jharsuguda 45.4 °C (113.7 °F)  **Jharsuguda 45.4 °C (113.7 °F)**  A map marking significantly affected cities | |
| **Date** | Since May 2015 |
| **Location** | https://upload.wikimedia.org/wikipedia/en/thumb/4/41/Flag_of_India.svg/23px-Flag_of_India.svg.png [India](https://en.wikipedia.org/wiki/India) |
| **Casualties** | |
| As of 3 June 2015, there were at least 2,500 deaths[[1]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-theweathernetwork.com-1) | |

In May 2015, [India](https://en.wikipedia.org/wiki/India) was struck by a severe [heat wave](https://en.wikipedia.org/wiki/Heat_wave).[[2]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-2) As of 3 June 2015, it has caused the deaths of at least 2,500 people[[1]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave" \l "cite_note-theweathernetwork.com-1) in multiple regions.[[3]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-The_Hindu2752015-3)[[4]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-afp28may-4) The heat wave occurred during the Indian [dry season](https://en.wikipedia.org/wiki/Dry_season), which typically lasts from March to July with peak temperatures in April and May.[[5]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-ria-5) Although it typically remains hot until late October, Indian [monsoons](https://en.wikipedia.org/wiki/Monsoon) often provide some respite from the heat.[[6]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-6)

The [South Indian](https://en.wikipedia.org/wiki/South_Indian) states of [Andhra Pradesh](https://en.wikipedia.org/wiki/Andhra_Pradesh) and the neighbouring [Telangana](https://en.wikipedia.org/wiki/Telangana" \o "Telangana), where more than 1,735 and 585 people died respectively, were the areas most affected by the heat wave. Other casualties were from the eastern states of [West Bengal](https://en.wikipedia.org/wiki/West_Bengal) and [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha).[[3]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-The_Hindu2752015-3)[[7]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-7) The high demand for electricity to power [air conditioning](https://en.wikipedia.org/wiki/Air_conditioning) led to power outages in some cities.[[4]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-afp28may-4) The heat wave saw the highest recorded temperatures since 1995, subsequently surpassed in May 2016 by a separate heat wave n [Phalodi](https://en.wikipedia.org/wiki/Phalodi" \o "Phalodi).[[8]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-8) [[9]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-Channel_NewsAsia_2015-9)[[10]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-10)

Background[[edit](https://en.wikipedia.org/w/index.php?title=2015_Indian_heat_wave&action=edit&section=1" \o "Edit section: Background)]

According to the [Indian Meteorological Department](https://en.wikipedia.org/wiki/Indian_Meteorological_Department) (IMD), a heat wave is qualified when air temperatures of at least 40 °C (104 °F) in the plains or greater than 30 °C (86 °F) in the hilly regions. For the IMD classification of heat waves, temperatures greater than 46 °C (114.8 °F) are considered and classified as severe heat waves.[[11]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-11)

Every year India experiences severe heat waves in summer, but in the year 2015, casualties were abnormally high. Most of the deaths were concentrated in [Andhra Pradesh](https://en.wikipedia.org/wiki/Andhra_Pradesh), [Telangana](https://en.wikipedia.org/wiki/Telangana" \o "Telangana), [Punjab](https://en.wikipedia.org/wiki/Punjab,_India), [Uttar Pradesh](https://en.wikipedia.org/wiki/Uttar_Pradesh), [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha) and [Bihar](https://en.wikipedia.org/wiki/Bihar). More than 20,000 people have died of heat-related causes in India since 1990. In the recent past, the most severe period of hot weather occurred in 1995, when 1,677 people died due to a series of heatwaves. 793 people died in 2011 while 1,247 died in 2012 due to heat related causes. In 2013, 1,216 people died due to the heat.[[3]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-The_Hindu2752015-3) With over 2,500 deaths, the heat wave has proven to be the most deadly since 1979.[[12]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-12) The casualties crossed the mark of previous years rapidly in 2015.[[13]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-timesindia1242-13)[[14]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-CNN700-14)[[15]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-bbc-15)

Causes[[edit](https://en.wikipedia.org/w/index.php?title=2015_Indian_heat_wave&action=edit&section=2" \o "Edit section: Causes)]

The heat wave was caused in large part by sparser pre-[monsoon season](https://en.wikipedia.org/wiki/Wet_season) showers, which brought less moisture than normal to the area, leaving large parts of India arid and dry. The sudden end of pre-monsoon rain showers, an uncommon trend in India, has contributed to the heat waves.[[14]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-CNN700-14)[[16]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-16) Additionally, the monsoon season is later and further south than the normal trend.[[17]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-17) This weather pattern, coupled with the [El Niño](https://en.wikipedia.org/wiki/El_Ni%C3%B1o) effect, which often increases temperatures in Asia, combined to create the record high temperatures. High [humidity](https://en.wikipedia.org/wiki/Humidity) compounded the effects of the temperatures on residents.[[18]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-hindu-18) The [Loo](https://en.wikipedia.org/wiki/Loo_(wind)), a dry wind originating from Pakistan and northwest India, has contributed to increasing the temperature in India.[[19]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-19)

Affected areas[[edit](https://en.wikipedia.org/w/index.php?title=2015_Indian_heat_wave&action=edit&section=3" \o "Edit section: Affected areas)]

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| --- | --- | --- |
| **State** | **Number of deaths** | **As of** |
| [Andhra Pradesh](https://en.wikipedia.org/wiki/Andhra_Pradesh) | 1,735 | 3 June 2015[[20]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-ind3-20) |
| [Telangana](https://en.wikipedia.org/wiki/Telangana) | 585 | 3 June 2015[[20]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-ind3-20) |
| [Odisha](https://en.wikipedia.org/wiki/Odisha) | 35[[α]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-stroke-21) | 5 June 2015[[21]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-odishandtv-22) |
| [Uttar Pradesh](https://en.wikipedia.org/wiki/Uttar_Pradesh) | 22 | 30 May 2015[[22]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-23) |
| [West Bengal](https://en.wikipedia.org/wiki/West_Bengal) | 13 | 27 May 2015[[9]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-Channel_NewsAsia_2015-9) |
| [Gujarat](https://en.wikipedia.org/wiki/Gujarat) | 10 | 28 May 2015[[23]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-24) |
| [Madhya Pradesh](https://en.wikipedia.org/wiki/Madhya_Pradesh) | 10 | 29 May 2015[[24]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-25) |
| [Delhi](https://en.wikipedia.org/wiki/Delhi) | 5 | 27 May 2015[[3]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-The_Hindu2752015-3) |
| [Maharashtra](https://en.wikipedia.org/wiki/Maharashtra) | 2 | 27 May 2015[[9]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-Channel_NewsAsia_2015-9) |
| [Rajasthan](https://en.wikipedia.org/wiki/Rajasthan) | 2 | 25 May 2015[[25]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-26) |
| [Chhattisgarh](https://en.wikipedia.org/wiki/Chhattisgarh) | 1 | 25 May 2015[[26]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-27) |
| [Bihar](https://en.wikipedia.org/wiki/Bihar) | 1 | 29 May 2015[[27]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-28) |
| [Karnataka](https://en.wikipedia.org/wiki/Karnataka) | 1 | 30 May 2015[[28]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-29) |
| Total | 2,500 | 3 June 2015[[29]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-reuters-30) |

The heat wave affected many people in various [states](https://en.wikipedia.org/wiki/States_and_union_territories_of_India) and regions, including [Madhya Pradesh](https://en.wikipedia.org/wiki/Madhya_Pradesh), [Vidarbha](https://en.wikipedia.org/wiki/Vidarbha" \o "Vidarbha), [Andhra Pradesh](https://en.wikipedia.org/wiki/Andhra_Pradesh), [Telangana](https://en.wikipedia.org/wiki/Telangana" \o "Telangana), Bihar and [Jharkhand](https://en.wikipedia.org/wiki/Jharkhand). On 21 May the temperature in the Indian capital, [New Delhi](https://en.wikipedia.org/wiki/New_Delhi), was reported to be 42.6 °C (108.7 °F), with black [asphalt](https://en.wikipedia.org/wiki/Asphalt) roads reportedly melting and [pedestrian crossing](https://en.wikipedia.org/wiki/Pedestrian_crossing) stripes curling.[[18]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-hindu-18)[[30]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-31) On the same day, a temperature of 45.4 °C (113.7 °F) was recorded in [Jharsuguda](https://en.wikipedia.org/wiki/Jharsuguda" \o "Jharsuguda) and at least 12 people were reported dead due to [heat stroke](https://en.wikipedia.org/wiki/Heat_stroke) the following day.[[18]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-hindu-18) On 24 May in [Allahabad](https://en.wikipedia.org/wiki/Allahabad), a temperature of 47.7 °C (117.9 °F) was recorded.[[31]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-32)[[32]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-toi-33) Cities such as [Delhi](https://en.wikipedia.org/wiki/Delhi) and [Kolkata](https://en.wikipedia.org/wiki/Kolkata) recorded 44.5 °C (112.1 °F) and 36.0 °C (96.8 °F) on the same day, respectively.[[32]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-toi-33) In the state of [Odisha](https://en.wikipedia.org/wiki/Odisha" \o "Odisha), 23 people died of heat stroke by 24 May.[[5]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-ria-5) Many deaths occurred in the state of Andhra Pradesh where at least 246 people have died by 25 May.[[15]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-bbc-15)

The temperature in [Hyderabad](https://en.wikipedia.org/wiki/Hyderabad) on 21 May was 46 °C (115 °F) and on 22 May was 44.3 °C (111.7 °F), above the normal maximum of 39.9 °C (103.8 °F) recorded on the same day in the previous years.[[33]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-timesindia-34) On the following day the temperature in the city was also above a normal maximum temperature, at 43.6 °C (110.5 °F) compared to 39.5 °C (103.1 °F) recorded on the same day in earlier years.[[33]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-timesindia-34) On 24 May, [Khammam](https://en.wikipedia.org/wiki/Khammam" \o "Khammam) recorded its highest ever temperature at 48.0 °C (118.4 °F).[[32]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-toi-33)[[34]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-35) The air temperature on [hill stations](https://en.wikipedia.org/wiki/Hill_station) like [Mussoorie](https://en.wikipedia.org/wiki/Mussoorie" \o "Mussoorie), situated 2,010 metres (6,580 ft) above sea level, rose to 36.0 °C (96.8 °F).[[32]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-toi-33)

On 25 May, more than 90 deaths due to [sun stroke](https://en.wikipedia.org/wiki/Sun_stroke) were recorded in the states of Andhra Pradesh and Telangana. The temperature on that day continued to be above normal, especially in the [coastal Andhra](https://en.wikipedia.org/wiki/Coastal_Andhra) region where the maximum temperature recorded was 47.0 °C (116.6 °F) in [Guntur district](https://en.wikipedia.org/wiki/Guntur_district).[[35]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-36)[[36]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-37) The highest temperature in India recorded on that day was at 47.6 °C (117.7 °F) in [Titlagarh](https://en.wikipedia.org/wiki/Titlagarh" \o "Titlagarh), Odisha.[[37]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-38)

By 3 June, 50 lakh (five million) [chicken](https://en.wikipedia.org/wiki/Chicken) were killed by the heat wave across Telangana within a span of two weeks, causing the price of eggs and chickens to rise throughout the state as well as in the neighbouring Andhra Pradesh.[[38]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-39)

On 3 June, rainfall caused the temperatures to decrease in many areas of Andhra Pradesh and Telangana. No heat-related deaths were reported on that day across the two states. The highest temperature recorded on the same day was 43 °C (109 °F) in [Nizamabad](https://en.wikipedia.org/wiki/Nizamabad,_Telangana" \o "Nizamabad, Telangana).[[20]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-ind3-20) On 5 June, Odisha reported temperatures to have decreased to less than 40.0 °C (104.0 °F) across the state, but the humidity continued to be high.[[21]](https://en.wikipedia.org/wiki/2015_Indian_heat_wave#cite_note-odishandtv-22)

Recorded temperatures[[edit](https://en.wikipedia.org/w/index.php?title=2015_Indian_heat_wave&action=edit&section=4" \o "Edit section: Recorded temperatures)]

| **Date** | **Place** | **Temperature** |
| --- | --- | --- |
| 21 May 2015 | [Jharsuguda](https://en.wikipedia.org/wiki/Jharsuguda) | 49.4 °C (120.9 °F) |
| 21 May 2015 | [Hyderabad](https://en.wikipedia.org/wiki/Hyderabad) | 46.0 °C (114.8 °F) |
| 24 May 2015 | [Allahabad](https://en.wikipedia.org/wiki/Allahabad) | 47.7 °C (117.9 °F) |
| 24 May 2015 | [Khammam](https://en.wikipedia.org/wiki/Khammam) | 48.0 °C (118.4 °F) |
| 25 May 2015 | [Delhi Airport](https://en.wikipedia.org/wiki/Delhi_Airport) | 46.4 °C (115.5 °F) |
| 25 May 2015 | [Safdarjung (Delhi)](https://en.wikipedia.org/wiki/Safdarjung_(Delhi)) | 45.5 °C (113.9 °F) |
| 27 May 2015 | [Daltonganj](https://en.wikipedia.org/wiki/Daltonganj) | 47.0 °C (116.6 °F) |
| 29 May 2015 | [Palamau](https://en.wikipedia.org/wiki/Palamau) | 47.0 °C (116.6 °F) |
| 29 May 2015 | [Chandrapur](https://en.wikipedia.org/wiki/Chandrapur) | 47.6 °C (117.7 °F) |
| 30 May 2015 | [Nagpur](https://en.wikipedia.org/wiki/Nagpur) | 47.1 °C (116.8 °F) |
| 8 June 2015 | [Allahabad](https://en.wikipedia.org/wiki/Allahabad) | 47.8 °C (118.0 °F) |
| 9 June 2015 | [Allahabad](https://en.wikipedia.org/wiki/Allahabad) | 47.6 °C (117.7 °F) |
| 10 June 2015 | [Delhi Airport](https://en.wikipedia.org/wiki/Delhi_Airport) | 44.6 °C (112.3 °F) |
| 10 June 2015 | [Bhubaneswar](https://en.wikipedia.org/wiki/Bhubaneswar) | 44.0 °C (111.2 °F) |
| 11 June 2015 | [Kolkata](https://en.wikipedia.org/wiki/Kolkata) | 39.0 °C (102.2 °F) |

Relief efforts[[edit](https://en.wikipedia.org/w/index.php?title=2015_Indian_heat_wave&action=edit&section=5" \o "Edit section: Relief efforts)]

The government of Andhra Pradesh announced ₹100,000 to the [next of kin](https://en.wikipedia.org/wiki/Next_of_kin) of people killed in the heatwave in the state. Drinking water, [oral rehydration salts](https://en.wikipedia.org/wiki/Oral_rehydration_salts) and [intravenous fluids](https://en.wikipedia.org/wiki/Intravenous_therapy) were made available at public places like railway stations and bus stations. Emergency medical camps are set up across the state.[[*specify*](https://en.wikipedia.org/wiki/Wikipedia:Citing_sources)] An awareness campaign was launched advising citizens to not leave their homes at noon unless absolutely necessary.