



Heat Wave Warning

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- Odisha State Disaster Management Authority (OSDMA) has issued a heat wave warning to most of the districts in the Odisha state.
- Temperature rises above 45°C-45°C in some isolated pockets of **Vidarbha in eastern Maharashtra, Telangana, Andhra Pradesh and Odisha** during this week.
- The **deficit in monsoon and post-monsoon rainfalls** and the intense summer heat have resulted in an **acute water shortage** in both Vidarbha and the neighbouring Marathwada region.

Heat Wave

- A Heat Wave is a period of **abnormally high temperatures**, more than the normal maximum temperature that occurs during the summer season in the **North-Western and South Central parts of India**.
- Heat Waves typically occur between **March and June**, and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.
- Higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change.

Criteria for Heat Waves

The **Indian Meteorological Department (IMD)** has given the following criteria for Heat Waves:

- Heat Wave need not be considered till the maximum temperature of a station reaches at least 40°C for Plains and at least 30°C for Hilly regions.

- When the normal maximum temperature of a station is less than or equal to 40°C, Heat Wave Departure from normal is 5°C to 6°C and Severe Heat Wave Departure from normal is 7°C or more.
- When the normal maximum temperature of a station is more than 40°C, Heat Wave Departure from normal is 4°C to 5°C and Severe Heat Wave Departure from normal is 6°C or more.
- When the actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared.

Health Impacts of Heat Waves

The health impacts of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke. The signs and symptoms are as follows:

- Heat Cramps: Ederna (swelling) and Syncope (fainting) generally accompanied by fever below 39°C i.e.102°F.
- Heat Exhaustion: fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- Heat Stroke: body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potentially fatal condition.

India Meteorological Department (IMD)

- IMD was established in **1875**.
- It is an agency of the **Ministry of Earth Sciences of the Government of India**.
- It is the principal agency responsible for **meteorological observations, weather forecasting and seismology**.