

# **Heatwaves in India**

#### Why in News?

India Meteorological Department (IMD) warns that many parts of India continued to swelter for the upcoming days due to heatwaves.

- A heatwave is basically a period of *unusually high temperatures* over a place.
- The threshold to declare a heatwave depends on the temperatures normally seen in that area in that time of the year.
- **Criteria** According to the IMD, a heatwave is declared when the maximum temperature of a station reaches
  - At least 40 degree C or more for plains and
  - At least 30 degree C or more for hilly regions.

## Based on Departure from Normal

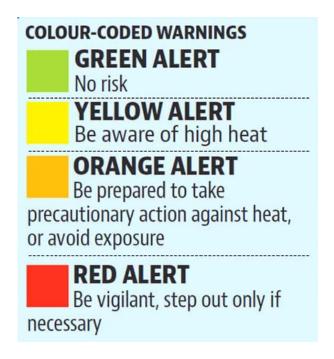
- $\circ$  A heatwave is when the departure is 4.5 degree C to 6.4 degree C, and
- A severe heatwave is declared when the departure is more than 6.4 degree C.

### • Based on Actual Maximum Temperature

- A heatwave exists when the maximum temperature is greater than 45 degree C, and
- A severe heatwave when the temperature is over 47 degree C.
- If above criteria met at least in 2 stations in a Meteorological sub-division for at least two consecutive days and it declared on the second day.
- **Supportive meteorological factors -** High humidity, high wind speed, duration of heat wave events.
- **Prevalence** Heatwaves in India occur *mainly from March to June* and in some cases, July.

#### • Heatwave-prone areas -

- o Northwest plains- Rajasthan, Punjab, Haryana, Delhi,
- Parts of central India Madhya Pradesh, Chhattisgarh), and
- The eastern and peninsular regions- Uttar Pradesh, Bihar, Jharkhand, West Bengal, Odisha, coastal Andhra Pradesh, Telangana, and Vidarbha in Maharashtra.



• **Heat Index** - Combination of air temperature and relative humidity, it measures of how hot it really feels *when relative humidity* is factored in with the actual air temperature.

#### **References**

- 1. The Indian Express What is a heatwave?
- 2. IMD FAQs

