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**
  - 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 –**
  - 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

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