India Meteorological Department (IMD)

Due to climate change, annual temperature is increasing globally, and the impact of the same is reflected in the rising frequency and intensity of extreme weather events in various parts of the globe, including India.

The India Meteorological Department (IMD) issues various outlooks/forecasts/warnings for the public as well as disaster management authorities to prepare for extreme weather events and to adapt and mitigate various extreme weather-related risks. IMD started issuing Impact Based Forecasts (IBF), which gives details of what the weather will do rather than what the weather will be. It contains the details of impacts expected from the severe weather elements and guidelines to the general public about do's and don'ts while getting exposed to severe weather.

IMD has recently brought out a web-based online "Climate Hazard & Vulnerability Atlas of India" prepared for the thirteen most hazardous meteorological events, which cause extensive damages and economic, human, and animal losses. The climate hazard and vulnerability atlas will help state government authorities and disaster management agencies plan and take appropriate action to tackle various extreme weather events. This product is useful in building Climate Change resilient infrastructure also.

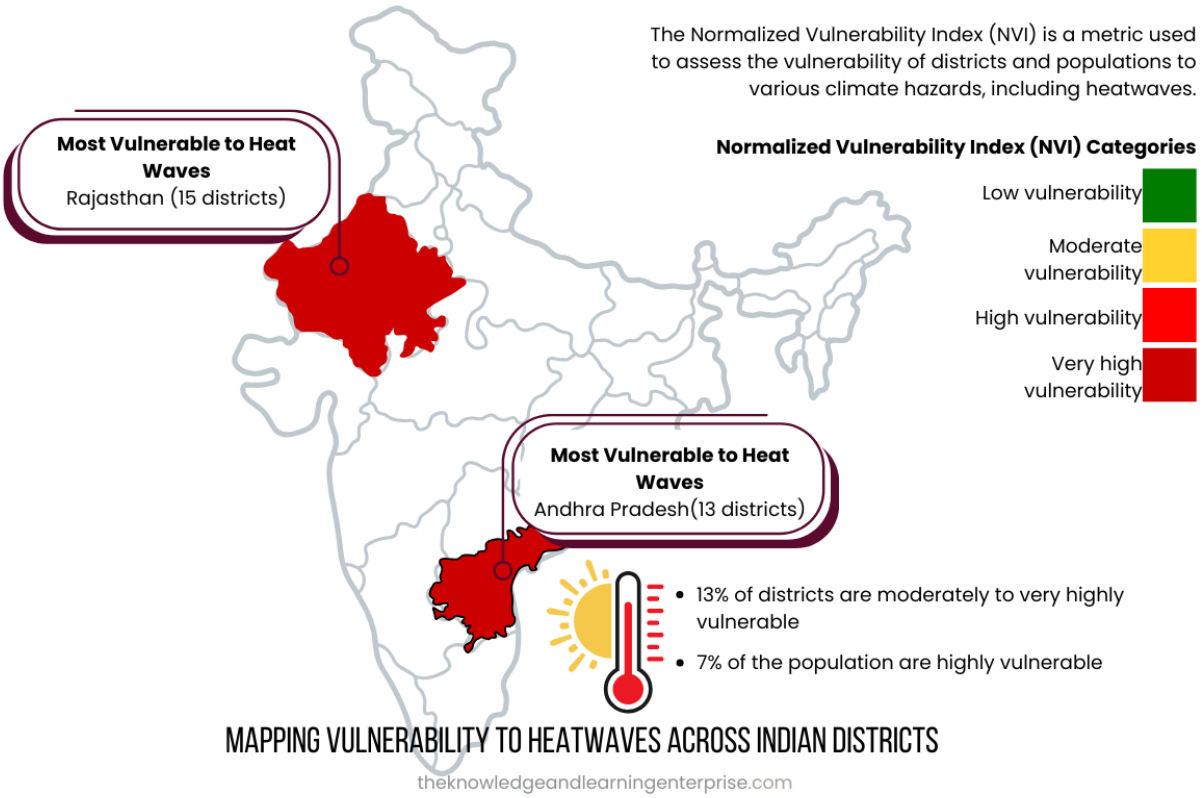
IMD has launched seven of its services (Current Weather, Nowcast, City Forecast, Rainfall Information, Tourism Forecast, Warnings, and Cyclone) with the 'UMANG' Mobile App for use by the public. Moreover, IMD developed a mobile App, 'MAUSAM' for weather forecasting, 'Meghdoot'

for Agromet advisory dissemination, and 'Damini' for lightning alerts. The common Alert Protocol (CAP) developed by the National Disaster Management Authority (NDMA) is also being implemented to disseminate warnings by the IMD.

Guidelines for preparedness are finalised in collaboration with the NDMA and respective State Governments and are already implemented successfully for extreme weather events such as cyclones, heatwaves, thunderstorms, and heavy rainfall.

Percentage of districts and populations affected by disastrous weather events in different categories of vulnerability scales based on the Normalized vulnerability index for eleven of thirteen climate hazards are prepared.

The vulnerability atlas for heatwaves indicates that 13% of the districts and 15% of the population are moderate to very highly vulnerable, and 4% of the districts and 7% of the population are highly vulnerable. The States of Rajasthan (15 districts) and Andhra Pradesh (13 districts) are the most vulnerable to heatwaves.



Reference: [parliament question: phenomenon of el nino-southern oscillation]

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