

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 465
TO BE ANSWERED ON WEDNESDAY, 6TH DECEMBER, 2023**

IMPACT OF HEAT WAVES

465. SHRI RAVNEET SINGH BITTU:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether it is a fact that India figures at the top in the list of populations which experienced elevated temperatures, especially heatwaves, for five days or more during the last one year;
- (b) if so, the details thereof along with the reasons therefor;
- (c) whether the Government has done any assessment on the potential impact of these persistent heat waves and if so, the details thereof;
- (d) whether the Government is taking any measures to bring down the incidence of long spells of elevated temperatures, especially heat waves in the country; and
- (e) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF EARTH SCIENCES
(SHRI KIREN RIJJU)

- (a)-(b) Being a tropical country, India is prone to heat wave conditions. In general, the north and central India and north peninsular India experience heatwave during March to June of every year. Normally 4-8 days of heat wave conditions prevail over these areas in the summer season. These statistics are based on the data for the period of 1961-2020. However, some areas covering Punjab, Himachal Pradesh, West Rajasthan, East Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, Vidarbha, Odisha, Telangana and Andhra Pradesh experience more than 8 days of heat wave conditions in a year. The meteorological sub-divisions that experienced the most number of heatwave days during the season of March-June 2023 are Gangetic West Bengal, Bihar, Coastal Andhra Pradesh & Yanam, Odisha with 34, 31, 21 and 18 days respectively.
- (c) It is a fact that, annual temperature is increasing globally and the impact of the same is reflected in the increase in heat waves in various parts of the globe including India. IMD issues forecasts and warnings related to severe weather events including heat waves in different spatial and temporal scales and share the same with public as well as disaster management authorities so as to initiate required mitigation measures. Also, IMD started issuing Impact Based Forecast (IBF) recently which give 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 general public about do's and don'ts while getting exposed to severe weather.

(d)-(e) IMD has taken up various steps to improve monitoring and timely early warning which helped minimizing loss of life and property. These include:

- i. Introduction of seasonal, monthly, and extended-range forecasts of temperature, and heat wave condition
- ii. Impact based forecast of heat wave condition at district levels
- iii. Heat wave vulnerability Atlas over India to help State Government authorities and disaster management agencies in planning and taking appropriate action
- iv. The hot weather hazard analysis over India that includes daily temperature, winds, and humidity condition
- v. Heat index forecast for the entire country
- vi. Real time heat wave information and warnings on the Web-GIS platform
- vii. Heat Action Plans (HAPs) in 23 States jointly implemented by National Disaster Management Authority (NDMA) in collaboration with the State Governments
- viii. Improvement of warning dissemination services; using modern tools of dissemination systems for timely public outreach
