

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1152**  
ANSWERED ON 01/08/2024

**HEAT WAVES IN THE COUNTRY**

1152. SHRI DHANANJAY BHIMRAO MAHADIK:

Will the Minister of **EARTH SCIENCES** be pleased to state:

- (a) whether attention of Government is drawn to the alarming rate of heat waves in the recent years and if so, the details of the steps taken to contain the causes of heat waves in the upcoming years, if not, the reasons therefor; and
- (b) the manner in which Government coordinates with meteorological departments and climate experts to enhance early warning systems for heat waves and improve preparedness across different regions of the country?

**ANSWER**

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR  
MINISTRY OF SCIENCE AND TECHNOLOGY  
AND EARTH SCIENCES  
(DR. JITENDRA SINGH)

- (a) Yes. The trend in heatwave conditions across the country has been analysed by the India Meteorological Department (IMD) based on data from 1961 to 2020. In general, there is an increasing trend in the frequency of heatwaves in the heat core zone covering northern plains and central India. The rising frequency and intensity of heat waves are clear indicators of the broader issue of global climate change.

Addressing the root causes of global climate change is essential to mitigating the impact of heat waves. This involves international cooperation to reduce carbon emissions, transition to renewable energy sources, and implement sustainable practices across all sectors. Towards this, India has taken a proactive role in fostering international collaborations through initiatives such as the International Solar Alliance and the Coalition for Disaster-Resilient Infrastructure. India is committed to pursuing low-carbon strategies for development and is actively pursuing them, as per national circumstances.

- (b) India Meteorological Department (IMD), in coordination with various research centers across the country, has been taken multiple steps to improve monitoring and early warning systems, which helped minimize loss of life and property during extreme weather events, including heat waves. These include:
  - i. Issuing seasonal and monthly outlooks, followed by extended-range forecasts of temperature and heat wave conditions. The early warning and forecasts information are also disseminated through various social media for timely public outreach.
  - ii. District-wise heatwave vulnerability Atlas over India to help State Government authorities and disaster management agencies in planning.

- iii. The hot weather hazard analysis map over India that includes daily temperature, winds, and humidity condition.
- iv. Heat Action Plans (HAPs) in 23 States that are prone to heatwave conditions jointly implemented by the National Disaster Management Authority (NDMA) in collaboration with the State Governments.

A series of National and State-level heatwave preparedness meetings conducted much before the start of the summer season with regular review meeting time to time during the season.

\*\*\*\*\*