

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 234  
TO BE ANSWERED ON WEDNESDAY, 24<sup>TH</sup> JULY, 2024**

**EFFECTIVE HEAT ACTION PLANS**

234. SHRI PRADYUT BORDOLOI:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the steps taken/proposed to be taken by the Government to update and implement effective Heat Action Plans (HAPs) in lieu of increasing frequency and intensity of heatwaves in the country particularly in densely populated and low income areas;
- (b) the details of the number of districts currently covered under HAPs, the outcome of these plans in the past three years and any new initiatives introduced to mitigate the impacts of night-time heat waves;
- (c) the details of the statistics on heat-related illnesses and mortality rates over the past three years; and
- (d) the details of the information on the coverage, accuracy, and effectiveness of current early warning systems for heatwaves, including plans for improvement along with details of budget allocated for these initiatives in the current fiscal year?

**ANSWER**

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

- (a)-(b) India Meteorological Department (IMD) in collaboration with the national disaster management authority and local health departments, has started HAPs in 23 States issuing early warning about heatwaves, and advised actions to be taken during such occasions. The heatwave bulletin is issued daily at 1600 hrs IST, providing heatwave forecasts and warnings with 5-day forecasts. The impact of an expected heatwave over a region is mentioned in color codes (Green, Yellow, Orange, and Red), and the specific impact is described. Bulletins are issued by meteorological centers/regional meteorological centers at district levels. The heatwave alerts/information are also effectively disseminated through print and social media.
- (c) The mortality data are given in Annexure-1, as provided by National Crime Records Bureau (NCRB), Ministry of Home Affairs.
- (d) IMD has taken various 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 outlook of temperature and heat wave conditions.
- ii. District-wise heatwave vulnerability Atlas over India to help State Government authorities and disaster management agencies in planning and taking appropriate action.
- iii. The hot weather hazard analysis over India that includes daily temperature, winds, and humidity condition.
- iv. Heat index forecast for the entire country and impact-based forecast of heatwave conditions at district levels.
- v. Real-time heat wave information and warnings on the Web-GIS platform.
- vi. Heat Action Plans (HAPs) in 23 States that are prone to heatwave conditions jointly implemented by the national disaster management authority in collaboration with the State Governments.
- vii. Improvement of warning dissemination services; using modern tools of dissemination systems for timely public outreach.

The budget (BE component) allocated for the central sector scheme Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS) IMD component is 233.27 Cr for the FY2024-25.

## Annexure-1

### State/UT wise deaths due to Heat/Sun Stroke during 2020-2022:

S. No.	State/UT	2020	2021	2022
1	Andhra Pradesh	50	22	47
2	Arunachal Pradesh	0	0	0
3	Assam	0	0	1
4	Bihar	53	57	78
5	Chhattisgarh	3	2	11
6	Goa	0	0	0
7	Gujarat	12	8	5
8	Haryana	23	14	27
9	Himachal Pradesh	0	1	0
10	Jharkhand	23	33	47
11	Karnataka	1	0	2
12	Kerala	0	0	0
13	Madhya Pradesh	7	2	27
14	Maharashtra	56	37	90
15	Manipur	0	0	0
16	Meghalaya	0	0	0
17	Mizoram	0	0	0
18	Nagaland	0	0	0
19	Odisha	13	15	38
20	Punjab	110	91	130
21	Rajasthan	23	1	12
22	Sikkim	0	0	0
23	Tamil Nadu	0	2	2
24	Telangana #	98	43	62
25	Tripura	2	0	2
26	Uttar Pradesh	50	35	130
27	Uttarakhand	0	0	0
28	West Bengal	6	11	18
	<b>TOTAL STATE(S)</b>	<b>530</b>	<b>374</b>	<b>729</b>
29	A & N Islands	0	0	0
30	Chandigarh	0	0	0
31	D&N Haveli and Daman & Diu @ +	0	0	0
32	Delhi UT	0	0	1
33	Jammu & Kashmir @ *	0	0	0
34	Ladakh @	0	0	0
35	Lakshadweep	0	0	0
36	Puducherry	0	0	0
	<b>TOTAL UT(S)</b>	<b>0</b>	<b>0</b>	<b>1</b>
	<b>TOTAL (ALL INDIA)</b>	<b>530</b>	<b>374</b>	<b>730</b>

As per data provided by States/UTs

‘+’ Combined data of erstwhile D & N HAVELI AND DAMAN & DIU UT during 2013-2019

‘\*’ Data of erstwhile JAMMU & KASHMIR State Including LADAKH during 2013-2019

‘#’ Data of newly created State during 2014

‘@’ Data of newly created Union Territory 2020

Source: National Crime Record Bureau (NCRB), Ministry of Home Affairs (MHA)

\*\*\*\*\*