

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1155**  
ANSWERED ON 01/08/2024

**DEATHS DUE TO HEATWAVES**

1155. SHRI HARIS BEERAN:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the number of deaths occurring in the several heatwaves that were reported this year in various parts of the country;
- (b) the measures taken by Government to reduce its impact on labourers;
- (c) whether any discrepancies were reported in weather mapping at various observatories; and
- (d) whether the India Meteorological Department (IMD) has taken any steps for using new technologies to predict severe weather events like cloud bursts, extreme heat and cold conditions?

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

- (a) The latest details are given in Annexure-1 as per the National Crime Record Bureau (NCRB), Ministry of Home Affairs (MHA).
- (b) India Meteorological Department (IMD), in collaboration with the National Disaster Management Authority (NDMA) and the local health departments, has started a Heat Action Plan in many parts of the country to forewarn about the heatwaves and also advising action to be taken during such occasions.

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 for immediate as well as longer-term actions to increase preparedness, information-sharing, and response coordination to reduce the health impacts of extreme heat on vulnerable populations including labourers.

- (c) No.
- (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 and cold 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.

Prediction of cloud burst is a challenging task. This is mainly attributed to small area, short duration and sudden development of thunderstorm and also due to the complexity of associated atmospheric processes which prevail in tropical regions like India. Due to that, cloudbursts are not predictable across the world.

# Annexure-1

## State/UT wise deaths due to Heat/Sun Stroke during 2013-2022:

SL	State/UT	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Andhra Pradesh	418	244	654	312	231	97	128	50	22	47
2	Arunachal Pradesh	0	0	0	0	0	0	0	0	0	0
3	Assam	5	0	0	6	0	0	3	0	0	1
4	Bihar	85	131	86	85	84	64	215	53	57	78
5	Chhattisgarh	3	4	2	9	11	1	16	3	2	11
6	Goa	0	0	0	0	0	0	0	0	0	0
7	Gujarat	26	45	52	32	25	31	27	12	8	5
8	Haryana	82	79	34	76	24	56	46	23	14	27
9	Himachal Pradesh	0	1	0	0	0	0	0	0	1	0
10	Jharkhand	42	50	96	45	51	42	88	23	33	47
11	Karnataka	6	2	0	17	0	0	4	1	0	2
12	Kerala	1	0	1	4	1	1	3	0	0	0
13	Madhya Pradesh	12	33	24	26	34	15	33	7	2	27
14	Maharashtra	80	58	61	96	102	128	159	56	37	90
15	Manipur	0	0	0	0	0	0	0	0	0	0
16	Meghalaya	0	2	0	0	0	4	0	0	0	0
17	Mizoram	1	0	0	0	0	0	0	0	0	0
18	Nagaland	0	0	0	0	0	0	0	0	0	0
19	Odisha	101	78	60	81	99	40	84	13	15	38
20	Punjab	144	123	99	145	60	38	90	110	91	130
21	Rajasthan	40	45	41	51	35	43	54	23	1	12
22	Sikkim	0	0	0	0	0	0	1	0	0	0
23	Tamil Nadu	0	0	0	1	0	0	0	0	2	2
24	Telangana #	-	128	182	216	180	107	156	98	43	62
25	Tripura	12	2	0	2	0	1	1	2	0	2
26	Uttar Pradesh	108	126	487	114	142	176	117	50	35	130
27	Uttarakhand	0	0	0	0	0	0	0	0	0	0
28	West Bengal	45	88	28	18	48	46	49	6	11	18
	<b>TOTAL STATE(S)</b>	<b>1211</b>	<b>1239</b>	<b>1907</b>	<b>1336</b>	<b>1127</b>	<b>890</b>	<b>1274</b>	<b>530</b>	<b>374</b>	<b>729</b>
29	A & N Islands	0	0	0	0	0	0	0	0	0	0
30	Chandigarh	0	0	0	0	0	0	0	0	0	0
31	D&N Haveli and Daman&Diu @ +	0	0	0	0	0	0	0	0	0	0
32	Delhi UT	2	9	0	1	0	0	0	0	0	1

33	Jammu & Kashmir @ *	3	0	1	1	0	0	0	0	0	0
34	Ladakh @	-	-	-	-	-	-	-	0	0	0
35	Lakshadweep	0	0	0	0	0	0	0	0	0	0
36	Puducherry	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL UT(S)</b>	<b>5</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
	<b>TOTAL (ALL INDIA)</b>	<b>1216</b>	<b>1248</b>	<b>1908</b>	<b>1338</b>	<b>1127</b>	<b>890</b>	<b>1274</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)

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