

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 3788
TO BE ANSWERED ON WEDNESDAY, 18TH DECEMBER, 2024**

HEAVY RAINFALL IN MAHARASHTRA

†3788. SHRI OMPRAKASH BHUPALSINH ALIAS PAVAN RAJENIMBALKAR:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government is aware that there has been heavy increase in rainfall in Maharashtra during the last five years and if so, the details thereof;
- (b) whether the Government has conducted any study regarding the incidence of heavy rainfall in the State in the next ten years;
- (c) if so, the details thereof and if not, the reasons therefor;
- (d) whether the Government has conducted any study regarding the water holding capacity of soil in different areas of the said State and if so, the details thereof;
- (e) whether the Government has implemented any scheme to improve the water holding capacity of soil in the State to reduce the incidence of landslides; and
- (f) if so, the details thereof?

ANSWER

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

- (a) The incidents of heavy, very heavy, and extremely heavy rainfall events in Maharashtra during the last five years are given in Annexure-1. Among the previous five years, the highest incidents were observed in 2019 and the second highest in 2024.
- (b)-(c) Studies have reported significant rising trends in the frequency and the magnitude of extreme rainfall across India, including Maharashtra, due to climate change. Changing monsoon patterns and occurrences of extremes have affected various parts of the country. Regions that are more prone to such events in the changing climate include central India, northern Indian regions, and Western Himalayas (extreme precipitation), as well as north and northwest India and neighboring central India and coastal States.

The India Meteorological Department (IMD) has assessed the changing rainfall pattern in the country and its extremes in the recent 30 years in different States and districts. The reports are available to the public at <https://www.imdpune.gov.in/reports.php/>. There is an increasing trend of heavy rainfall events in a few districts of Maharashtra.

- (d) No.
- (e) No.
- (f) Does not arise.

Annexure-1

Years	June			July			August			September			SW Monsoon Season		
	HR	VHR	EHR	HR	VHR	EHR	HR	VHR	EHR	HR	VHR	EHR	HR	VHR	EHR
2019	133	70	16	579	191	30	348	167	54	300	82	10	1360	510	110
2020	154	31	0	253	55	2	414	138	22	82	19	3	903	243	27
2021	242	76	11	412	239	62	70	2	1	306	63	5	1030	380	79
2022	91	14	1	604	236	20	296	80	7	181	33	0	1172	363	28
2023	185	38	0	648	229	24	58	5	0	123	27	1	1014	299	25
2024	194	32	3	670	281	50	240	71	5	193	48	8	1297	432	66

Heavy Rainfall (HR): 64.5 mm to 115.5 mm; Very Heavy Rainfall (VHR): 115.6 mm to 204.4 mm;
Extremely heavy rainfall (EHR): >204.4 mm
