

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1175**  
TO BE ANSWERED ON 05.12.2024

**Extreme weather events**

1175 SHRI HARIS BEERAN:  
SHRI DIGVIJAYA SINGH:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether Government is aware that deaths due to extreme weather events in India have increased by 18 per cent over the last three years, if so, the details thereof;
- (b) data on fatalities and injuries caused by extreme weather events, such as heatwaves, floods, cyclones, landslides, and droughts, over the last five years, year-wise and Statewise;
- (c) steps being taken by Government to mitigate the impact of extreme weather events; and
- (d) whether Government has assessed the long-term impact of climate change on the frequency and intensity of extreme weather events in the country, and if so, the key findings and policy implications?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(SHRI KIRTI VARDHAN SINGH)

(a) to (d) According to the Ministry of Earth Sciences, complex interactions between the earth system components amidst the warming environment and regional anthropogenic influences have led to a rise in frequency of localized heavy rainfall events, drought and flood occurrences, increase in the intensity of tropical cyclones etc. Studies have reported significant rising trends in the frequency and the magnitude of extreme rainfall across India. Changing monsoon pattern and occurrences of extremes have affected various parts of the country. Regions which are more prone to such events in the changing climate include Central India, Northern Indian regions and Western Himalayas (extreme precipitation), and North, Northwest India and neighbouring Central India (moderate droughts and expansion in semi-arid regions) and coastal states (cyclones and heatwaves).

Climate change and extreme weather events related assessments are undertaken by an increasing number of private and publicly owned enterprises, NGOs and thinktanks across the world. Extreme weather events have impact on livelihood of local communities, including their life and property. As per the information from the National Disaster Management Authority (NDMA), no centralized data on loss of life and property due to extreme weather conditions in the

States/ Union Territories is maintained. Each State has its own State Disaster Management Authority (SDMA) to deal with such events.

Relief, recovery, and rehabilitation are governed, inter alia, by the relevant provisions of the Disaster Management Act, 2005 and the guidelines, directives, and orders of the NDMA and the SDMA. The constitutional, legal and administrative provisions relevant to disaster management and disaster risk reduction adequately address the management of disasters in the country. The State Governments undertake relief measures in the wake of natural disasters from the State Disaster Response Fund (SDRF) already placed at their disposal in accordance with the extant norms. Additional assistance is extended from the National Disaster Response Fund (NDRF) as per established procedure. The assistance approved under SDRF/NDRF norms is provided in the form of relief.

India Meteorological Department (IMD) issues Impact Based Forecast which contains 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. These guidelines are finalised in collaboration with NDMA and have been successfully implemented for cyclone, heatwave, thunderstorm and heavy rainfall events. IMD has brought out a web based online "Climate Hazard and Vulnerability Atlas of India" prepared for 13 most hazardous meteorological events, which cause extensive damages, economic, human, and animal losses. The Climate Hazard and Vulnerability Atlas of India will help State Governments and Disaster Management Agencies in planning and taking appropriate actions to tackle various extreme weather events. This product is useful in building Climate Change resilient infrastructure.

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