

KERALA

Kottayam, Idukki more prone to lightning in Kerala



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THIRUVANANTHAPURAM JUNE 15, 2022 19:35 IST
UPDATED: JUNE 16, 2022 10:58 IST

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Males account for 89% of victims in India

A study by the Delhi-based RMSI, a global leader in geospatial and engineering solutions, has found that among the 14 districts in Kerala, Kottayam is the most prone to lightning fatalities, followed by Idukki and Ernakulam, especially in the pre-monsoon season (64% between 8 a.m. and 4 p.m.). The study also found that males account for around 89% of the total lightning fatalities in India.

Lightning fatalities are significantly more common in the summer than in the monsoon season in Kerala, and the west coast of India than in the rest of the country. The maximum thunderstorm days in Kerala, Tamil Nadu and adjoining parts of Karnataka (west coast of India) are observed during the pre-monsoon season (April–May) than in the monsoon season (June–September). Here, most of the cloud-to-ground flashes from 1998 to 2005 occurred during April–June, with peak activity in May.

About 72% of lightning fatalities in Kerala have occurred in the months of April (21%), May (22%), October (19%) and November (10%). Whereas, in the country as a whole, the maximum number of annual total lightning flash counts occurs in the monsoon season (47.2%), followed by summer (41.5%) and post-monsoon season (7.7%).

According to Murari Lal, Climate Change Expert – RMSI, who conducted the study, apparently, instead of incoming solar radiation, the availability of moisture and low-level winds play a dominant role in forming thunderstorms in these areas.

Based on data from 1979 to 2011, it has been found that lightning flashes have killed a significant number of males (89%) compared to females (5%) and children (6%) in the country. “This is most likely due to the larger proportion of males working and moving outdoors than females,” said Dr. Lal.

The top five States identified for lightning fatalities based on data from 1979 to 2011 were Kerala, Maharashtra, West Bengal, Jharkhand and Karnataka. In recent years, the occurrence of lightning flashes and deaths related to them have increased significantly.

Global factors such as climate change play a pivotal role in the rise in lightning strikes. Recent studies suggest that a rise in average global temperatures by 1 degree Celsius would increase the frequency of lightning by at least 12%. This was evident in 2021, the fifth warmest year reported in India over the past 121 years, according to the annual climate statement released by the India Meteorological Department (IMD).

Last year, around 750 people died due to heavy rain and flood-related incidents, while around 780 people died from thunderstorms and lightning in different parts of the country. A minimum 10% increase in lightning activity can be expected for every 1 degree Celsius rise in surface air temperature due to global warming, added Dr. Lal.