



भारत सरकार  
**Government of India**  
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**Ministry of Earth Sciences (MoES)**  
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**INDIA METEOROLOGICAL DEPARTMENT**  
**Climate Research and Services (CRS)**

**Climate Summary for the month of May 2022**

**1. Monthly Rainfall Scenario (01 to 31 May, 2022)**

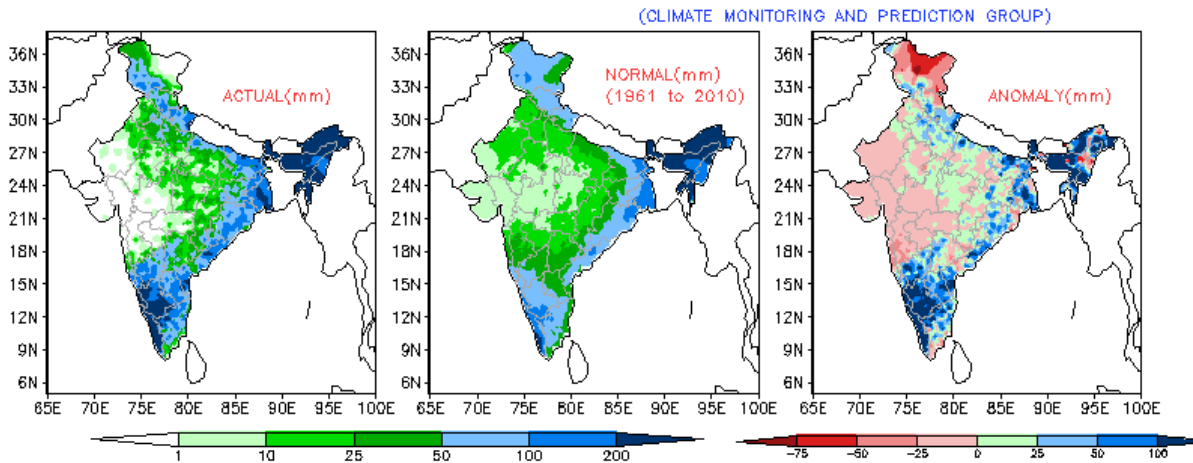
Rainfall over the country as a whole for the month of May 2022 received 83.4 mm, which is 34% more than its Long Period Average (LPA) of 62 mm during the period 1961-2010. During May 2022, rainfall over South Interior Karnataka (232.3 mm) was highest since 1901.

The monthly rainfall for May 2022 is given in the table below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	83.4	62	34
Northwest India	31.5	35	-10
Central India	17.7	20.1	-12
South Peninsula	140.2	73.5	91
East & northeast India	252	188.5	34

During this month, 11 sub-divisions received large excess, 9 excess, 5 normal, 5 deficient rainfall and 6 large deficient rainfall.

The observed spatial rainfall, normal rainfall (Averaged over 1961 to 2010) and its departures from normal for the month of May 2022 is given in Figure 1.

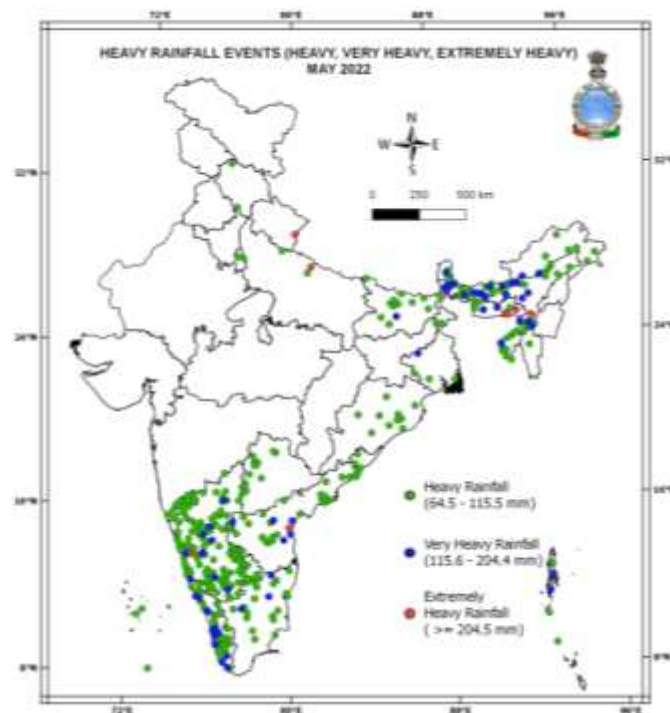


**Fig 1: Observed spatial Rainfall pattern for the month of May 2022 over India and their departure from normal (1961 to 2010 period)**

## 2. Frequency of Heavy Rainfall events

The May 2022 witnessed extremely heavy rainfall, very heavy rainfall and heavy rainfall events. Heavy rainfall events occurred mainly over some stations of south peninsular India and northeast India.

The location of occurrences of extremely heavy rainfall, heavy rainfall and heavy rainfall events is shown in the Figure 2. Out of total 392 stations, 9 stations reported extremely heavy rainfall ( $\geq 204.5$  mm), 62 station reported very heavy rainfall (115.6 to 204.4 mm) and 321 stations reported heavy rainfall (64.5 to 115.5 mm of rainfall) during this month.



**Fig 2: The location of occurrences of heavy rainfall events in the month of May 2022.**

Some stations received record rainfall (24 hour) during this month. The table below shows stations received 24-hour record rainfall and its previous record.

STATION	24 HOUR RECORD RAINFALL IN May 2022(mm)#	DATE	PREVIOUS RAINFALL RECORD(mm)	Date
ITANAGAR	131.8	16	74.4	23-05-2015
ORAI	39	24	37	31-05-1959
GURGAON	73.4	23	58	02-05-1987
PATHANKOT	11	24	4.4	20-05-2017
JAIPUR TEHSIL SR	8	24	1.2	09-05-1981
KAVALI	124.2	12	98	20-05-2010
HAKIMPET	61.2	4	60.4	04-05-2015
CHAMARAJANAGAR	82.2	13	54.8	25-05-2011
DAVANAGERE	87.6	19	60.5	26-05-2008
SHIVAMOGGA	118.4	20	93.8	31-05-1973
KOCHI C.I.A.L.	165.4	15	119	13-05-2017

\*Based on real time available data

### Chief synoptic features during May 2022

During this month, one severe cyclonic storm (“ASANI”) formed over Bay of Bengal (7 -12 May) and a depression formed over Gulf of Martaban and adjoining Myanmar (20 – 21 May). Tracks of these systems are shown in figure 3.

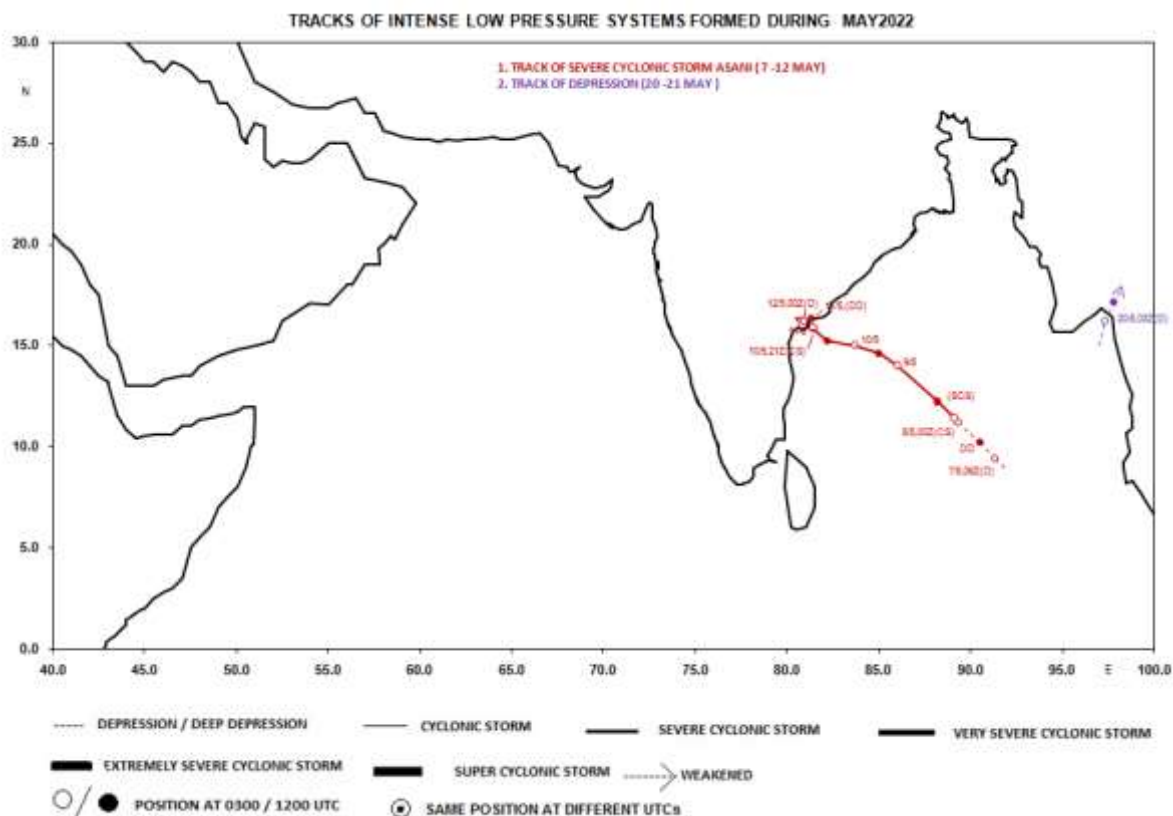
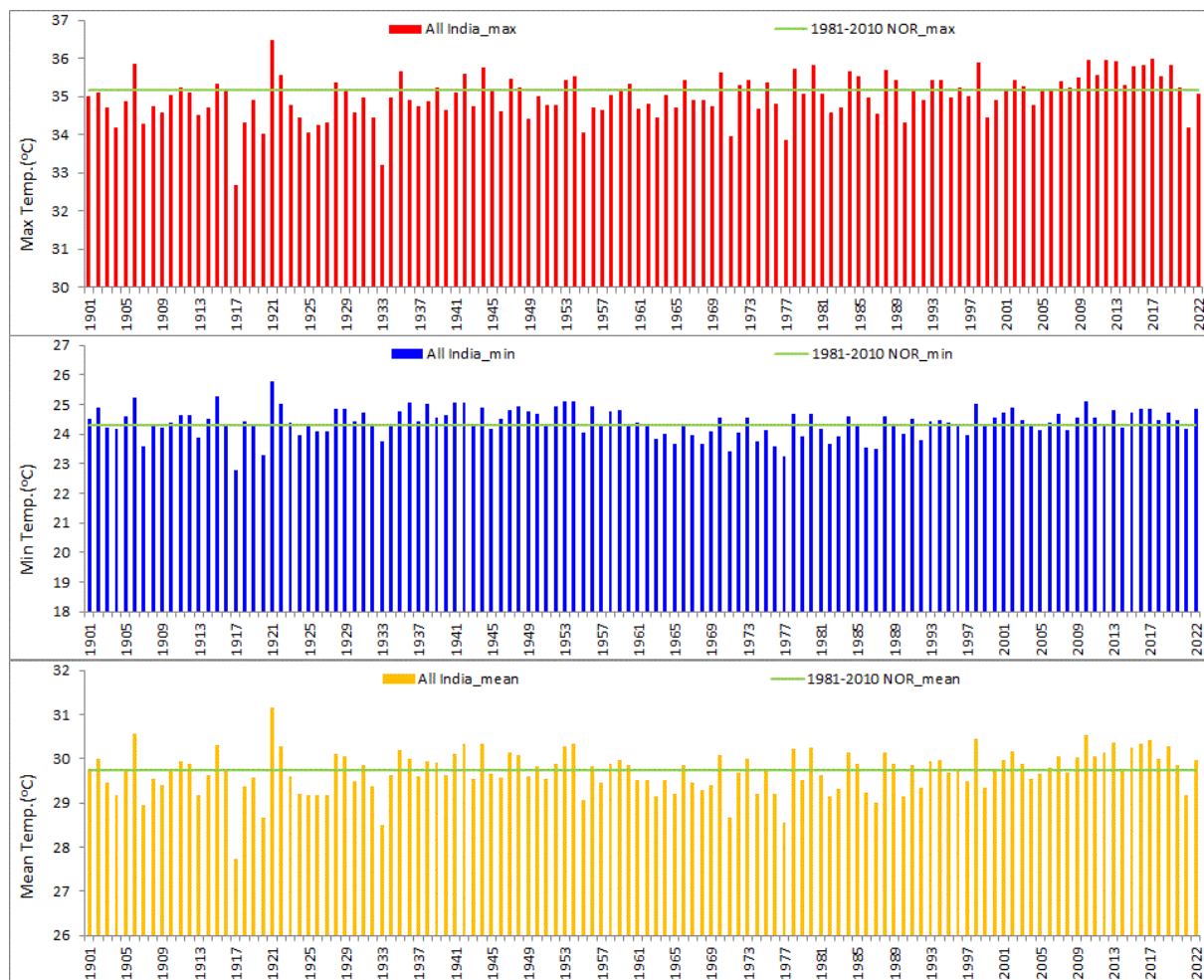


Figure 3. Tracks of Low-Pressure Systems formed during May 2022.

### 3. Characteristics of Temperatures for the month of May 2022

The observed average maximum, average minimum and mean temperature for the country as a whole during May 2022 are 35.07°C, 24.84°C and 29.96°C respectively, against the normal of 35.17°C, 24.32°C and 29.74°C based on period 1981-2010. Thus, for the country as a whole, the average maximum temperature is normal with anomaly of -0.1°C, average minimum temperature is above normal with anomaly of 0.52°C and mean temperature is above normal with anomaly of 0.21°C. Figure 4 shows time series of monthly average maximum, average minimum and mean temperature over all India for the month of May during 1901-2022. The temperatures during May 2022 for all India and homogeneous regions with its ranks since 1901 is given in table 1.



**Fig 4: Time series of monthly average maximum, average minimum and mean temperature over all India for the month of May during 1901-2022.**

MAY 2022		Max Temp (°C)	Min Temp (°C)	Mean Temp (°C)
ALL INDIA	ACTUAL	35.07	24.84	29.96
	NORMAL	35.17	24.32	29.74
	ANOMALY	-0.10	0.52	0.21
	TOP RANK	60	20	38
	BOT RANK	63	103	85
NORTHWEST INDIA	ACTUAL	36.60	22.90	29.75
	NORMAL	35.58	21.46	28.52
	ANOMALY	1.02	1.43	1.23
	TOP RANK	23	9	14
	BOT RANK	100	114	109
EAST & NORTHEAST INDIA	ACTUAL	32.85	23.12	27.98
	NORMAL	33.03	22.64	27.84
	ANOMALY	-0.18	0.48	0.15
	TOP RANK	66	26	50
	BOT RANK	57	97	73
CENTRAL INDIA	ACTUAL	37.69	26.38	32.04
	NORMAL	37.43	25.94	31.68
	ANOMALY	0.26	0.45	0.35
	TOP RANK	32	28	30
	BOT RANK	91	95	93
SOUTH PENINSULAR INDIA	ACTUAL	33.42	25.88	29.65
	NORMAL	34.46	25.88	30.17
	ANOMALY	-1.04	-0.01	-0.52
	TOP RANK	101	72	97
	BOT RANK	22	51	26

Table1: Temperature and its anomaly during May 2022 for all India and homogeneous regions with its ranks since 1901.

The observed spatial temperature pattern of monthly average maximum, average minimum and mean temperature over India and their departures from normal (1981 to 2010 period) for the month of May 2022 is given in Figure 5.

TEMPERATURE & ITS ANOMOLY FOR THE MONTH MAY 2022

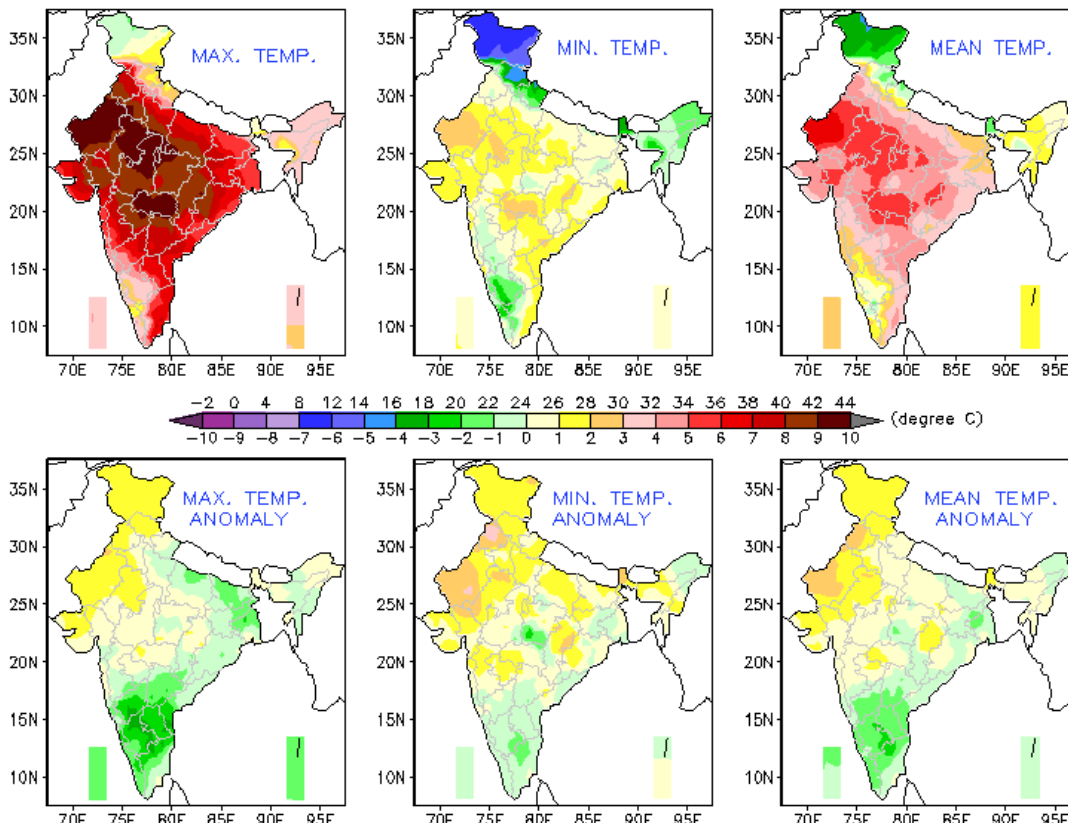


Fig 5: Observed spatial temperature pattern of monthly average maximum, average minimum, and mean temperature over India (top three from left to right) and their departure from normal (1981 to 2010 period) for May 2022 (lower three from left to right).

During May 2022 some stations were reported record (highest) temperature, the table below shows stations reported highest temperature and its previous record.

STATION NAME	NEW RECORD (°C)*	DATE (MAY 2022)	PREVIOUS RECORD (°C)	Date
Ratlam	46	9	45.5	13-05-1970
Naliya	46.1	14	44.2	23-05-2018
Karwar	37.6	3 & 4	37.4	10-05-2010

\* Based on real time available data

#### 4. Significant Weather Events for the month May 2022:

From 1<sup>st</sup> May to 31<sup>st</sup> May, total 159 persons reportedly claimed dead, 33 persons injured, 11 persons missing & 1186 livestock perished. The details of casualties given below, which are based on real time media reports and other state government agencies. Fig. No.6 shows significant weather events during the month. (based on real time media reports.)

**Thunderstorm** : Total 5 persons reportedly claimed dead & 1 person injured on 18<sup>th</sup> and 19<sup>th</sup> May 2022 because of Thunderstorm at Barpeta and Dhubri district of Assam State.

**Heat Wave** : One person reportedly claimed dead on 10<sup>th</sup> May 2022 due to Heat Wave in Nagpur district of Maharashtra State.

**Gale** :One person reportedly claimed dead on 12<sup>th</sup> May 2022 due to gale in Kamrup Metro of Assam state.

**Dust Storm** : Total 22 persons reportedly claimed dead on 23<sup>rd</sup> May 2022 due to dust storm in Amethi, Ambedkar Nagar, Ayodhya/Faizabad, Ballia, Barabanki, Chitrakoot, Firozabad, Gonda, Jaunpur, Kaushambi, Muzaffarnagar, Sitapur, Varanasi of Uttar Pradesh State.

**Lightning**: Total 55 persons reportedly claimed dead, 19 persons injured & 35 livestock perished, during the month because of Lightning. The details of the area effected by the events are summarized and given in the table below;

DATE	DEATH	INJURED	LIVESTOCK	DISTRICT (STATE) AFFECTED
19 & 20 May	34			Araria, Banka, Begusarai, Bhagalpur, Jamui, Jehanabad, Lakhisarai, Munger, Muzaffarpur, Nalanda, Purnia, Saran, Vaishali ( <b>Bihar</b> )
4, 21, 23 May	10	10		Aligarh, Amroha, Banda, Bijnor, Lakhimpur Kheri, Meerut, Shahjahanpur ( <b>Uttar Pradesh</b> )
1, 4, 17 May	5	7	33	Bidar, Chitradurga, Gulbarga, Mandya ( <b>Karnataka</b> )
4 May	3		2	Chittoor, Guntur ( <b>Andhra Pradesh</b> )
4 May	1	1		Siddipet ( <b>Telangana</b> )
22 May	1	1		Sirmaur ( <b>Himachal Pradesh</b> )
28 May	1			Ganjam ( <b>Odisha</b> )

**Floods, Heavy Rains & Landslide**: Total 75 persons reportedly claimed dead, 13 persons injured, 11 persons missing & 1151 livestock perished, during the month, because of Floods, Heavy Rains & Landslide. The details of the area effected by the events are summarized and given in the table below;



DATE	DEATH	INJURED	MISSING	LIVESTOCK	DISTRICT (STATE) AFFECTED
15 to 17 May	8	7	1		Itanagar, Kurung Kumey <b>(Arunachal Pradesh)</b>
13, 15 to 25, 27, 29 May	35		10	1151	Cachar, Darrang, Dima-Hasao, Hojai, Lakhimpur, Nagaon, Udalguri <b>(Assam)</b>
19 to 21 May	3				Darbhanga, Katihar, Kishanganj <b>(Bihar)</b>
22 & 29 May	4				Kangra, Mandi, Shimla, Sirmaur <b>(Himachal Pradesh)</b>
18 & 19 May	2	2			Hassan, Koppal <b>(Karnataka)</b>
17, 18, 20 May	4				Ernakulam, Idukki, Kozikode, Thrissur <b>(Kerala)</b>
14, 16, 19 May	4	1			East Khasi Hills, Ri-Bhoi <b>(Meghalaya)</b>
23 May	3				Dimapur, Kohima, Peren <b>(Nagaland)</b>
23 May	12	3			Agra, Ghazipur, Kaushambi, Pratapgarh, Varanasi <b>(Uttar Pradesh)</b>

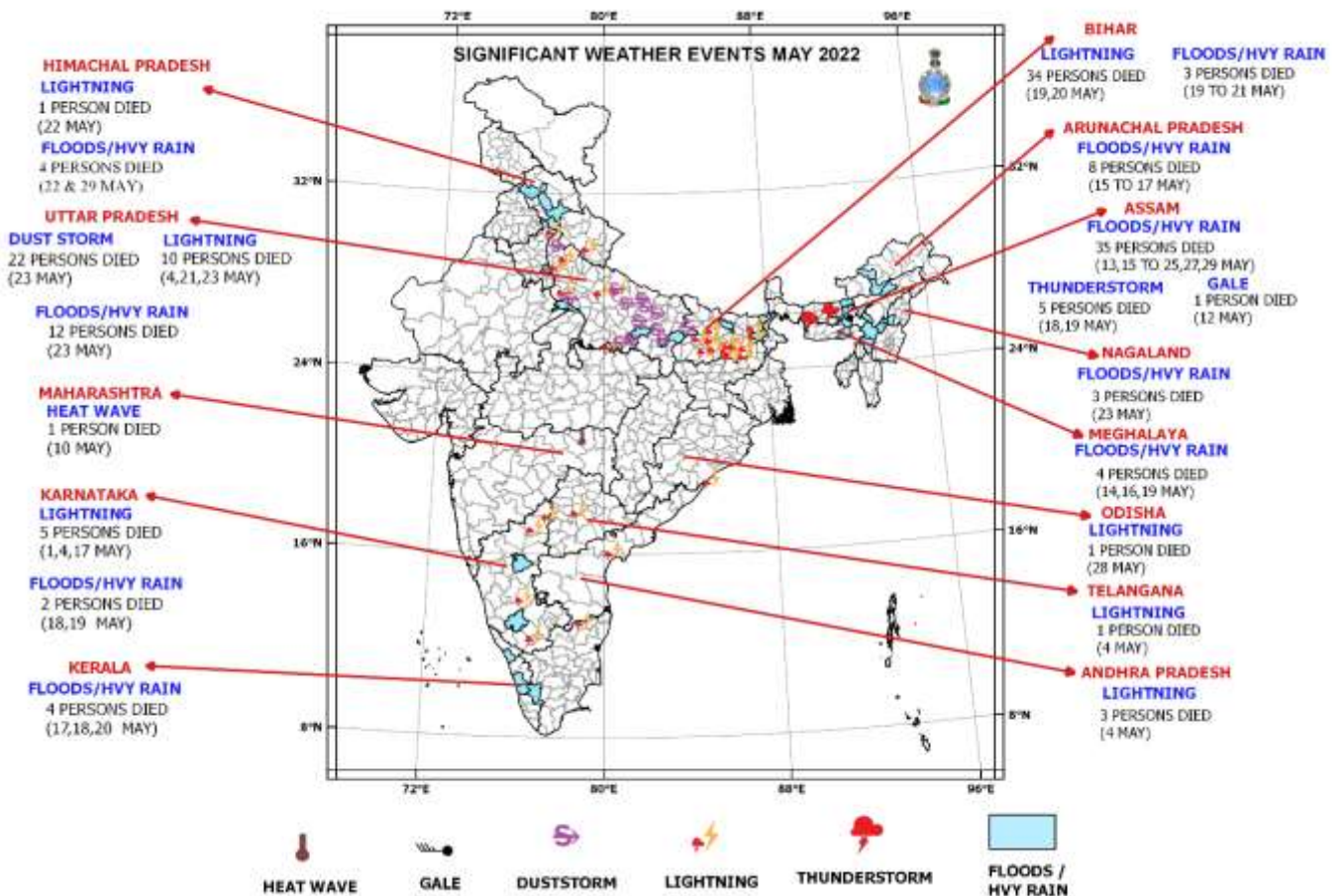


Fig 6: Significant weather events during May 2022 (Based on real-time media report)