



INDIA METEOROLOGICAL DEPARTMENT

DISASTROUS WEATHER EVENTS, 2007



ISSUED BY
NATIONAL CLIMATE CENTRE
OFFICE OF THE
ADDITIONAL DIRECTOR GENERAL OF METEOROLOGY (RESEARCH)
PUNE - 411005

Cover Photo : A river Warana flooded due to heavy rainfall in chandoli dam catchment in the dist. Sangli, causing a bridge shittur - Arala inundated.

(Courtesy : The Sakal dt. 8 Aug. 2007)

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भारत सरकार
GOVERNMENT OF INDIA

भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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DISASTROUS WEATHER EVENTS OF 2007

The most striking disastrous weather events of 2007 were the following:

1. Cold wave conditions prevailed over northern parts of the country and claimed 63 human lives.
2. Heat wave swept major portion of Central and North India and a few pockets in peninsular India and claimed 419 human lives, from which 169 were from Andhra Pradesh only.
3. During summer monsoon of 2007, floods and heavy rains have claimed 1287 human lives apart from loss of large number of live stock and extensive damage to public/private property.

The summary of these natural hazards is based on various reports of the India Meteorological Department and press information. The areas affected by the adverse weather conditions are depicted season wise on four maps.

INDEX

Table No.	Event	Page Nos.
I	Snowfall	01
II	Cold Wave	01 - 03
III	Heat Wave	04 - 07
IV	Squall	07 - 08
V	Gale	08 - 09
VI	Duststorm	09 - 10
VII	Lightning	10 - 24
VIII	Thunderstorm	24 - 33
IX	Hailstorm	33 - 37
X	Drought	38
XI	Floods and Heavy Rains	39 - 61
XII	Cyclonic Storm	62

S.N.	Date/Period	Area Affected	Intensity	Casualties	Extent of damage
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TABLE - I : SNOWFALL

CRITERIA

*Moderate : 7.6 to 34.9 cm in 24 hrs.
Heavy : \geq 35.0 cm in 24 hrs.*

1.	11 & 12 Feb.	Shimla (Himachal Pradesh)	Heavy	One person died.	
2.	12 & 13 Mar.	Some parts of Jammu & Kashmir and Uttar Pradesh	Heavy	34 persons died.	i) Landslide reported. ii) Normal life paralysed due to closing of National Highway Jammu – Srinagar for 3 days.
3.	20 Mar.	Kupawara (J&K)	Moderate		i) Landslide reported in Panthihal. ii) Disrupted traffic on National Highway

TABLE – II : COLD WAVE

CRITERIA

(A) *When; Normal minimum temperature is 10°C or more.
Cold wave : Night temperature 5°C to 6°C below normal.
Severe cold wave : Night temperature 7°C or more below normal.*

(B) *When; Normal minimum temperature is less than 10°C.
Cold wave : Night temperature 4°C to 5°C below normal.
Severe cold wave : Night temperature 6°C or more below normal.*

1.	10 & 11 Dec.	Jind (Haryana) Jalandhar (Punjab) and East Uttar Pradesh	Severe cold wave (B)	4 persons died.	
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<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
2.	17 Dec.	Jaipur (Rajasthan)	Severe cold wave (B)	2 persons died.	
3.	21 Dec.	Jaipur (Rajasthan)	Severe cold wave (B)	One person died.	
4.	23 Dec.	Panipat (Haryana)	Severe cold wave (B)	One person died.	
5.	27-29 Dec.	Churu, Jaipu and Pilani (Rajasthan)	Severe cold wave (B)	2 persons died.	
6.	31 Dec.	Champaran, Darbhanga, Forbusganj, Katihar, Navada and Saharsa (Bihar)	Severe cold wave	12 persons died.	
7.	1 Jan.	(a) Rohtas and West Champaran (Bihar)	Severe cold wave (B)	7 persons died.	
		(b) Rupnagar (Punjab)	Severe cold wave (B)	One person died.	
		(c) Barabanki and Jaunpur (Uttar Pradesh)	Severe cold wave (B)	3 persons died of which one in road accident due to fog.	
8.	3 Jan.	(a) Sonipat (Haryana)	Severe cold wave (B)	One person died.	
		(b) Bhatinda (Punjab)	Severe cold wave (B)	3 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
9.	6 & 7 Jan.	Una (Himachal Pradesh)	Severe cold wave (B)	One person died.	
10.	9 Jan.	Kangra (Himachal Pradesh)	Severe cold wave (B)	2 persons died.	
11.	14 Jan.	New Delhi	Severe cold wave (B)	4 persons died.	
12.	Jan. (1 st & 2 nd week)	Bareilly, Basti, Deoria, Jaunpur, Shrawasti and Sultanpur (Uttar Pradesh)	Severe cold wave (B)	11 persons died.	
13.	Jan. (2 nd week)	Alwar, Barmer, Bharatpur, Bhilwara, Bikaner, Churu, Dholpur, Ganganagar, Hanumangarh, Jaipur, Jhunjhunu, Jodhpur, Karoli, Sikar and Udaipur (Rajasthan)	Severe cold wave (Both A & B)	3 persons died.	
14.	11 Feb.	(a) Sonipat (Haryana)	Severe cold wave (B)	2 persons died.	
		(b) Fatehpur (Uttar Pradesh)	Severe cold wave (B)	One person died.	
15.	13 & 14 Feb.	Chandigarh (UT)	Severe cold wave (B)	2 persons died.	

S.N.	Date/Period	Area Affected	Intensity	Casualties	Extent of damage
TABLE – III : HEAT WAVE					
CRITERIA					
			(A)	<i>When; Normal maximum temperature is 40°C or less. Heat wave : Departure from normal is 5°C to 6°C. Severe heat wave : Departure from normal is 7°C or more.</i>	
			(B)	<i>When; Normal maximum temperature is more than 40°C. Heat wave : Departure from normal is 4°C to 5°C. Severe heat wave : Departure from normal is 6°C or more.</i>	
1.	4 Apr.	Palakkad (Kerala)	Severe heat wave (A)	One person died.	
2.	9 Apr.	Wardha (Maharashtra)	Severe heat wave (B)	One woman died.	
3.	13 Apr.	Amritsar (Punjab)	Severe heat wave (A)	One person died.	
4.	23 & 24 Apr.	Birbhum, Kolkata (West Bengal) and Bhubaneswar (Orissa)	Severe heat wave (A)	4 persons died.	
5.	29 Apr.	Ganganagar (Rajasthan)	Severe heat wave (A)	One person died.	
6.	2 May	Bhandara, Chandrapur and Gondia (Maharashtra)	Severe heat wave (B)	5 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
7.	2-6 May	Kamrup, Nalbari and Sibsagar (Assam)	Severe heat wave (A)	6 persons died.	
8.	7 May	Medak (Andhra Pradesh)	Severe heat wave (A)	One person died,	
9.	11 May	Barmer, Jaipur and Jaisalmer (Rajasthan)	Severe heat wave (B)	3 persons died.	
10.	3 rd week of May	(a) Chittoor, Cuddapah, East Godavari, Karimnagar, Khammam, Krishna, Mahabubnagar, Medak, Nalgonda, Nellore, Nizamabad, Prakasam, Visakhapatnam, Warangal and West Godavari (Andhra Pradesh)	Severe heat wave (Both A & B)	167 persons died.	
		(b) Akola, Chandrapur and Yavatmal (Maharashtra)	Severe heat wave (B)	3 persons died.	
		(c) Chennai (Tamil Nadu)	Severe heat wave (A)	2 persons died.	
11.	14-16 May	Morena (Madhya Pradesh)	Severe heat wave (B)	About 100 peacocks perished.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
12.	17 May	Jaipur (Rajasthan)	Severe heat wave (B)	One person died.	
13.	19 May	Chennai (Tamil Nadu)	Severe heat wave (A)	3 persons died.	
14.	26 May	Bhubaneswar (Orissa)	Severe heat wave	3 persons died.	
15.	31 May	Kamrup (Assam)	Severe heat wave (A)	One person died.	
16.	1 st & 2 nd week of Jun.	Part of Himachal Pradesh & Rajasthan, Northern parts of Maharashtra, many parts of Haryana, Uttar Pradesh and Punjab	Severe heat wave (Both A & B)	146 persons died.	
17.	5 Jun.	Vizianagaram (Andhra Pradesh)	Severe heat wave (A)	One person died.	
18.	11 & 12 Jun.	Bhind, Bhopal, Chhatarpur, Damoh, Guna, Gwalior, Morena, Panna and Shirpur (Madhya Pradesh)	Severe heat wave (Both A and B as appropriate)	48 persons died.	
19.	13 Jun.	Chambal and Gwalior (Madhya Pradesh)	Severe heat wave (A)	4 persons died.	

S.N.	Date/Period	Area Affected	Intensity	Casualties	Extent of damage
20.	15 Jun.	Bhiwani, Rohtak and Sirsa (Haryana)	Severe heat wave (B)	5 persons died.	
21.	17 Jun.	Alwar and Ganganagar (Rajasthan)	Severe heat wave (B)	12 persons died.	

TABLE – IV : SQUALL

A sudden increase of wind speed by at least 29 kmph (16 kts), the speed rising to 40 kmph (22 kts) or more and lasting for at least one minute

CRITERIA

Moderate : Surface wind speed (in gusts) up to 80 kmph.

Severe : Surface wind speed (in gusts) > 80 kmph.

1.	1 Mar.	Udalgiri (Assam)	Moderate	Many persons injured.	In Rowta and Orang area, i) Many roofs of houses blown away. ii) Many trees/electric/telephone poles uprooted. iii) Post of a 33000 volt electric power line blown away near Alisinga village.
2.	9 Apr.	Nagaon and Nalbari (Assam)	Severe	One woman died.	i) Tin roofs blown away. ii) Thatched houses damaged. iii) Trees, electric / telephone poles uprooted. iv) Boro, Ahu crops of several hectares of land damaged.
3.	3 May	(a) Cuddalore and Dharmapuri (Tamil Nadu)	Moderate		Plantain crops in 620 acres of land damaged.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
		(b) Hassan, Mandya and Mysore (Karnataka)	Severe	2 women died.	3 houses damaged.
4.	15 May	Pondicherry	Severe	4 persons died.	Plantain crops in 125 acres of land damaged.
5.	22 Jun.	Bhopal (Madhya Pradesh)	Moderate		Cellular tower / trees / hoardings uprooted.
6.	16 Jul.	Malda (West Bengal)	Moderate		Many houses damaged.

**TABLE – V : GALE
CRITERIA**

Strong : Wind speed \geq 75 kmph

1.	28 Feb.	(a) Wayanad (Kerala)	Strong		In Chethalayam, i) One house collapsed. ii) Extensive damage to 250 plantains reported.
		(b) Jaipur (Rajasthan)	Strong	One person died.	
2.	3 Mar.	Thiruvananthapuram (Kerala)	Strong		In Vithura, i) Extensive damage to agriculture reported. ii) Hundreds of rubber trees destroyed. iii) Electric supply line disrupted.
3.	7 Mar.	Thiruvananthapuram (Kerala)	Strong		i) Extensive damage to agriculture reported. ii) Hundreds of rubber trees destroyed. iii) Damage to many plantains, Tapioca and other vegetable plants reported.

S.N.	Date/Period	Area Affected	Intensity	Casualties	Extent of damage
4.	13 Mar.	Dausa (Rajasthan)	Strong	One woman partially burnt due to fall of electric wire.	
5.	13 & 14 Apr.	Kasaragode and Wayanad (Kerala)	Strong	One person died.	i) A mango tree uprooted. ii) Extensive damage to agriculture reported.
6.	18 May	Entire State (Jammu & Kashmir)	Strong	5 persons died and 100 injured.	i) Houses damaged. ii) Roads/ power / telecommuni-cation disrupted.

**TABLE – VI : DUSTSTORM
CRITERIA**

Moderate : Wind speed between 39 to 74 kmph and horizontal visibility up to 500 metres.

Severe : Wind speed \geq 75 kmph and horizontal visibility up to 50 metres

1.	19 Apr.	Jhunjhunu (Rajasthan)	Moderate		Electric poles uprooted.
2.	8-9 May	Amritsar (Punjab)	Severe	A boy died due to house collapse.	
3.	9 May	St.Ravidasnagar, Jaunpur, Kaushambi and Lucknow (Uttar Pradesh)	Severe	7 persons died and 14 injured.	i) Hoardings and trees uprooted. ii) Heavy loss to mango crop reported.
4.	11 May	Barabanki, Pratapgarh and Sultanpur (Uttar Pradesh)	Severe	13 persons died.	i) Electric poles and trees uprooted. ii) 100 huts razed to ground. iii) Wall of a house collapsed.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
5.	12 May	Some parts of Uttar Pradesh	Severe	37 persons died and many other injured.	A house collapsed.
6.	17 May	Jaipur (Rajasthan)	Moderate	5 persons injured due to wall collapse.	
7.	28 May	Basti, Deoria and Gorakhpur (Uttar Pradesh)	Moderate	i) 17 persons injured. ii) 7 goats perished.	i) Severe damage to transmission lines reported. ii) Electric poles / trees uprooted.
8.	11 Jun.	Nagpur (Maharashtra)	Severe	One person died.	
9.	16 & 17 Jun.	Panipat (Haryana)	Severe	i) 11 persons injured due to house collapse. ii) 40,000 chickens died when poultry farm building collapsed.	i) Electric poles and hundreds of trees uprooted. ii) Two houses collapsed.

TABLE – VII : LIGHTNING

1.	29 Jan.	Jaipur and Sikar (Rajasthan)		2 persons died.	
2.	9 Feb.	Ganganagar, Jaipur, and Kota (Rajasthan)		i) 2 persons died. ii) 18 cattle perished.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
3.	10 Feb.	Bhopal, Gwalior, Indore and Jabalpur (Madhya Pradesh)		7 persons died.	Damage to crops reported.
4.	11 Feb.	(a) Barabanki (Uttar Pradesh)		One person died.	
		(b) Rohtak (Haryana)		2 persons died.	
5.	12 Feb.	Bhopal, Chhatrapur, Datia, Guna, Gwalior, Hoshangabad, Indore, Jabalpur, Mandasour, Narsinghpur, Raisen, Rewa, Satna, Shajapur, Shivpuri, Ujjain and Vidihsha (Madhya Pradesh)		3 persons died.	Damage to agriculture reported.
6.	13 Feb.	(a) Dausa (Rajasthan)		One person died.	
		(b) Jaunpur (Uttar Pradesh)		One person died.	
7.	14 Feb.	Panchkula (Haryana)			i) 5 transformers damaged. ii) Electricity and water supply disrupted.
8.	24 Feb.	(a) Bhopal, Gwalior Jabalpur, and Shivpur (Madhya Pradesh)		One person died.	Damage to crops reported.
		(b) Kota and Tonk (Rajasthan)		3 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
9.	25 Feb.	Bhilwara (Rajasthan)		One person died.	
10.	28 Feb.	Nagaur (Rajasthan)		2 persons died.	
11.	3 Mar.	Thiruvananthapuram (Kerala)		One person died.	
12.	12 Mar.	Many parts of Uttar Pradesh		15 persons died.	
13.	13 Mar.	Balia, Balarampur, Basti, Gazipur, Gonda, Gorakhpur, Maharajganj, Mainpuri, Mirzapur, Sonbhadra and Varanasi (Uttar Pradesh)		28 persons died.	
14.	14 Mar.	Dindori, Jabalpur, Katni, Mandla, Narsinghpur, Rewa, Sagar, Satna and Sidhi (Madhya Pradesh)		15 persons died.	
15.	21 Mar.	(a) Kullu (Himachal Pradesh)			Damage to telephone exchange / transformers/electronic gadgets reported.
		(b) Haveri (Karnataka)		One girl died.	
16.	27 Mar.	Belgaum (Karnataka)		2 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
17.	1 Apr.	Kottayam and Thiruvananthapuram (Kerala)			One person died and 4 other injured due to house collapse.
18.	5 Apr.	Dhubri (Assam)			One person died.
19.	11 Apr.	Villupuram and Virudhunagar (Tamil Nadu)			3 persons died.
20.	12 Apr.	(a) Mandya and Tumkur (Karnataka)			3 persons died.
		(b) Hooghly, North 24 Parganas and South 24 Parganas (West Bengal)			3 persons died.
21.	13 Apr.	Palakkad (Kerala)			One woman died.
22.	14 Apr.	Dakshina Kannada and Dharwad (Karnataka)			One child and a woman died and 3 persons injured.
23.	16 Apr.	Amravati (Maharashtra)			One child died.
24.	17 Apr.	(a) Nagaon (Assam)			One girl died.
		(b) Wayanad (Kerala)			One child died and 2 persons injured.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
25.	18 Apr.	Villupuram (Tamil Nadu)		9 persons died.	
26.	19 Apr.	(a) Ganganagar (Rajasthan)		One person died.	
		(b) Hassan (Karnataka)		One woman died.	
		(c) Mainpuri (Uttar Pradesh)		5 persons died and 4 others injured.	
27.	21 Apr.	(a) Nagpur (Maharashtra)		52 goats and a pair of bull perished.	
		(b) Kancheepuram (Tamil Nadu)		3 persons died.	
		(c) Malappuram (Kerala)		4 persons died and 9 other injured.	
28.	22 Apr.	Nandurbar (Maharashtra)		One person died.	
29.	23 Apr.	Chandrapur (Maharashtra)		One person died.	
30.	27 Apr.	Kozhikode (Kerala)		One child died.	
31.	28 Apr.	North 24 Parganas (West Bengal)		One child died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
32.	29 Apr.	Darrang (Assam)		One person died and 2 other severely burnt.	
33.	2 May	Mysore (Karnataka)		One person died and 4 other injured.	
34.	3 May	(a) Koppal (Karnataka)		One person died.	
		(b) Dharmapuri, Perambalur, Thiruvallur, Tiruchirappalli and Villupuram (Tamil Nadu)		6 persons died.	
35.	4 May	Chittoor, Guntur, Hyderabad, Nellore and Warangal (Andhra Pradesh)		14 persons died.	
36.	9 May	Thiruvananthapuram (Kerala)		One person died.	
37.	11 May	Yamuna Nagar (Haryana)		One girl died.	
38.	12 May	Darbhanga (Bihar)		5 persons died.	
39.	19 May	Buldhana (Maharashtra)		3 persons died and 2 other injured.	
40.	21 May	Cuddalore (Tamil Nadu)		2 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
41.	24 May	(a) East Godavari (Andhra Pradesh)		4 children died.	
		(b) Thrissur (Kerala)		One woman died and 6 other injured.	
42.	26 & 27 May	Chitradurga, Davanagere, , Hassan, Kolar and Shimoga (Karnataka)		6 persons including one girl died.	
43.	28 May	Villupuram (Tamil Nadu)		2 persons died.	
44.	1 Jun.	(a) Hingoli, Jalna, Nashik and Parbhani (Marathawada)		i) 12 persons including one girl died. ii) Several cattleheads perished.	
		(b) Ganjam, Jajpur and Khurda (Orissa)		6 persons died.	
45.	3 Jun.	Prakasam (Andhra Pradesh)		5 persons died.	
46.	4 Jun.	(a) Medak (Andhra Pradesh)		One person died.	
		(b) Bidar (Karnataka)		5 persons died and one injured.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
47.	5 Jun.	Karimnagar and Mehboobnagar (Andhra Pradesh)		5 persons died.	
48.	6 Jun.	(a) Srikakulam (Andhra Pradesh)		One person died.	
		(b) Koppal (Karnataka)		One person died and two injured.	
		(c) Kaira, Vadodara (Gujarat)		i) 4 persons died. ii) 4 peacocks and 4 cattleheads died.	
49.	7 Jun.	Wayanad (Kerala)		One person died.	
50.	8 Jun.	Yavatmal (Maharashtra)		3 persons died.	
51.	9 Jun.	Ranchi (Jharkhand)		i) 2 persons died. ii) 3 animals perished.	
52.	10 Jun.	(a) Hazaribagh, Lohardaga and Ranchi (Jharkhand)		13 persons died.	
		(b) Bidar, Kolar and Tumkur (Karnataka)		i) 4 persons died. ii) About 55 sheep perished.	
53.	11 Jun.	Chandrapur (Maharashtra)		2 persons seriously injured.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
54.	13 Jun.	Khurda (Orissa)		One person died.	
55.	14 Jun.	(a) Yavatmal (Maharashtra)		i) One person injured. ii) 7 goats perished.	
		(b) Bhopal (Madhya Pradesh)		One person died.	
56.	16 Jun.	Birbhum and Nadia (Many parts of West Bengal)		10 persons died.	
57.	19 Jun.	Medinipur (West Bengal)		One person died.	
58.	21 Jun.	(a) Karimnagar (Andhra Pradesh)		3 persons died.	
		(b) Akola, Bhandara, Buldhana and Chandrapur (Maharashtra)		i) 9 persons died and 4 injured. ii) 4 cattle perished.	
59.	22 Jun.	Bhopal (Madhya Pradesh)		One person died.	
60.	25 Jun.	Bhandara (Maharashtra)		4 buffalos perished.	
61.	26 Jun.	Sonepat (Haryana)		One person died and 2 seriously burnt.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
62.	27 Jun.	South 24 Parganas (West Bengal)		4 persons died.	
63.	28 Jun.	Nagpur (Maharashtra)		2 persons died and 6 injured.	
64.	29 Jun.	Dholpur (Rajasthan)		One person died.	
65.	30 Jun.	(a) Rajnandgaon (Chhattisgarh)		2 persons died.	
		(b) Raigad (Maharashtra)		25 persons died.	
66.	Jun. (Whole month)	Aurangabad, Konkan and Nashik (Maharashtra)		245 persons died.	
67.	1 Jul.	Nagpur (Maharashtra)		One person died in Kondhali Tehsil.	
68.	2 Jul.	(a) Buldhana (Maharashtra)		5 persons died.	
		(b) Bhilwara and Chittorgarh (Rajasthan)		5 persons died.	
		(c) Murshidabad (West Bengal)		3 persons died.	
		(d) Vadodara (Gujarat)		One person died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
69.	3 Jul.	(a) Basti (Uttar Pradesh)		One woman died.	
		(b) Southern parts of West Bengal		12 persons died.	
70.	8 Jul.	Dehradun (Uttaranchal)		4 persons died.	
71.	10 Jul.	Chittorgarh (Rajasthan)		One woman died.	
72.	13 Jul.	Nashik (Maharashtra)		2 persons died and one injured.	
73.	15 Jul.	Guwahati (Assam)		One person died.	
74.	18 Jul.	North 24 Parganas (West Bengal)		2 persons died.	
75.	19 Jul.	Godda (Jharkhand)		5 persons killed.	
76.	27 Jul.	(a) Chandrapur (Maharashtra)		5 persons died and 3 other injured.	
		(b) Angul (Orissa)		One person died.	
77.	29 Jul.	Bhandara and Wardha (Maharashtra)		4 persons died.	
78.	1 Aug.	(a) Bhandara and Nagpur (Maharashtra)		2 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
		(b) Murshidabad (West Bengal)		7 persons died and 8 other injured.	
79.	2 Aug.	Chandrapur (Maharashtra)		2 persons died.	
80.	3 Aug.	Amravati, Bhandara and Nagpur (Maharashtra)		5 persons died.	
81.	11 Aug.	Mohali (Punjab)		11 cattle heads perished.	
82.	13 Aug.	Panchkula (Haryana)		One person died and 3 other injured.	
83.	20 Aug.	Nagapattinam (Tamil Nadu)		One person died.	
84.	25 Aug.	Panchkula (Haryana)		6 persons injured.	
85.	27 Aug.	Beed, Buldhana, Dhule and Nagpur (Maharashtra)		5 persons died.	
86.	30 Aug.	Kota (Rajasthan)		2 persons died.	
87.	6 Sep.	Wardha (Maharashtra)		One person died.	
88.	7 Sep.	(a) Bhandara (Maharashtra)		One person died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
		(b) Bhopal and Mandsaur (Madhya Pradesh)		2 persons died.	
89.	9 Sep.	(a) Madurai (Tamil Nadu)		3 persons died.	
		(b) Medinipur (West Bengal)		6 persons died at Kharagpur.	
90.	12 Sep.	Pune (Maharashtra)		One person died.	
91.	15 Sep.	Akola, Chandrapur and Gadchiroli (Maharashtra)		5 persons died.	
92.	18 Sep.	Birbhum (West Bengal)		2 persons died.	
93.	19 Sep.	Akola and Washim (Maharashtra)		4 person died.	
94.	20 Sep.	Nashik (Maharashtra)		One woman died.	
95.	22 Sep.	Hingoli (Maharashtra)		2 persons died and 2 other injured.	
96.	30 Sep.	Gondia and Wardha (Maharashtra)		3 persons including a child died.	
97.	4 Oct.	Shimla (Himachal Pradesh)		One person died and 3 other injured.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
98.	6 Oct.	Gondia (Maharashtra)		7 persons died and 9 injured.	
99.	19 Oct.	Shimoga (Karnataka)		2 persons died.	
100.	20 Oct.	Davanagere (Karnataka)		One person died.	
101.	21 Oct.	Villupuram (Tamil Nadu)		2 persons died.	
102.	22 Oct.	Guntur (Andhra Pradesh)		2 persons died.	
103.	1 Nov.	Amravati, Buldhana, Dhule, Jalgaon, Wardha and Yavatmal (Maharashtra)		i) 10 persons died and 13 injured. ii) 3 cattle perished.	
104.	4 Nov.	Alappuzha (Kerala)		One woman died.	i) Electric / telephone lines disrupted. ii) Damage to televisions, cable network and electrical equipments reported.
105.	5 Nov.	Trivandrum (Kerala)		2 persons died and a woman injured.	
106.	6 Nov.	(a) Malappuram (Kerala)		One girl died.	
		(b) Kanyakumari (Tamil Nadu)		2 persons died.	
107.	12 Nov.	Kozhikode (Kerala)		One person died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
108.	2 Dec.	Sikar (Rajasthan)		One person died.	

TABLE –VIII : THUNDERSTORM

CRITERIA

Moderate : Loud peals of thunder with frequent lightning flashes, moderate to heavy rains and maximum wind speed 29 to 74 kmph.

Severe : Continuous thunder and lightning, heavy rains and maximum wind speed \geq 75 kmph.

1.	28 Jan.	Thiruvananthapuram (Kerala)	Moderate		<ul style="list-style-type: none"> i) Roof of a house collapsed. ii) Hundreds of rubber plants and plantains uprooted. iii) Electric lines disrupted.
2	5 Feb.	Marigaon (Assam)	Severe	One person died.	
3.	28 Feb.	Wayanad (Kerala)	Moderate		<ul style="list-style-type: none"> i) One house collapsed. ii) Damage to around 250 plantains reported.
4.	3 Mar.	Thiruvananthapuram (Kerala)	Moderate		<ul style="list-style-type: none"> i) Extensive damage to agriculture reported. ii) Hundreds of rubber trees destroyed. iii) Electric lines disrupted.
5.	7 Mar.	Thiruvananthapuram (Kerala)	Moderate		Damage to plantains, tapioca and vegetable plants reported.
6.	8 Mar.	Bhandara and Gondia (Maharashtra)	Moderate		<ul style="list-style-type: none"> i) 100 acres of chilly crop damaged. ii) Wheat, gram and ragi crops badly damaged.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
7.	11 & 12 Mar.	Faridabad, Gurgaon, Mahendergarh and Rewari (Haryana)	Moderate		<ul style="list-style-type: none"> i) Damage to window frames of the vehicles, plastic tank, sign boards reported. ii) Electric supply disrupted. iii) Damage to 100 acres of agricultural crops reported.
8.	22 Mar.	Howrah and South 24 Parganas (West Bengal)	Severe	2 persons died.	<ul style="list-style-type: none"> i) Many thatched houses damaged. ii) Extensive damage to agriculture reported.
9.	2 Apr.	(a) Districts of lower and middle Assam (Assam)	Severe	6 persons died.	<ul style="list-style-type: none"> i) Extensive damage to agriculture reported. ii) Roofs of houses blown away. iii) Trees, electric/telephone poles uprooted. iv) House hold properties damaged.
		(b) East Sikkim	Severe	2 persons died and 3 others injured.	Many houses damaged.
10.	5 Apr.	Dhubri (Assam)	Moderate		<ul style="list-style-type: none"> i) Tin roofs blown away. ii) Trees, electric / telephone poles uprooted. iii) Telecommunication, power supply disrupted. iv) Damage to jute, ahu, paddy crops and vegetable crops reported.
11.	7 Apr.	Thiruvananthapuram (Kerala)	Moderate		A house collapsed.
12.	8 Apr.	(a) Broak valley (Assam)	Severe	One person died and several others injured.	<ul style="list-style-type: none"> i) Large number of thatched houses damaged. ii) Trees, telephone / electric poles uprooted. iii) Tin roofs of Badarpur railway colony, Patherkandy blown away. iv) Standing crops damaged.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
		(b) Medinipur (West Bengal)	Moderate		Many huts damaged at Gopiballabpur.
13.	9 Apr.	(a) Nagaon and Nalbari (Assam)	Severe	One person died.	i) Damage to boro and ahu crops in several hectares of land reported. ii) Tin roofs blown away, thatched houses damaged. iii) Many trees uprooted.
		(b) Hazaribagh (Jharkhand)	Moderate	Few persons injured.	Many trees uprooted.
		(c) Kolkata, Medinipur and South 24 Parganas (West Bengal)	Moderate		Many shops and houses damaged.
14.	10 Apr.	Darrang, Nalbari and Nagaur (Assam)	Severe	One child died.	i) Roofs of houses blown away. ii) Many trees uprooted. iii) Standing crops damaged.
15.	12 Apr.	Guntur, Hyderabad and Warangal (Andhra Pradesh)	Severe	One person died.	Hoarding board collapsed.
16.	13 Apr.	Wayanad (Kerala)	Moderate		i) Extensive damage to agriculture reported. ii) A house damaged due to uprooted tree. iii) Telephone / electric lines disrupted. iv) Damage to 10,000 plantations of coconut trees, palm trees and rubber plants reported.
17.	15 Apr.	Guntur (Andhra Pradesh)	Severe	One person died.	

S.N.	Date/Period	Area Affected	Intensity	Casualties	Extent of damage
18.	16 Apr.	(a) Dibrugarh, Golaghat, Jorhat, Lakhimpur, Sibsagar and Sonitpur (Assam)	Severe	i) 5 persons died. i) Number of cattle heads perished.	i) Many trees uprooted. ii) Roofs of houses blown away. iii) Power and telecommunications disrupted. iv) Standing Ahu crop damaged. v) A Maruti car completely damaged.
		(b) Nagpur (Maharashtra)	Moderate	One child injured.	i) Many trees uprooted. ii) Roofs of many houses blown away. iii) Many shops damaged.
19.	16 & 17 Apr.	Gumla, Hazaribagh, Lohardaga and Ranchi (Jharkhand)	Severe	i) One person died and few others injured. ii) Few cattles perished.	Many trees and electric poles uprooted.
20.	17 Apr.	(a) Nagaon and Sibsagar (Assam)	Severe	5 persons severely injured.	i) Ahu and other standing crops damaged. ii) The office complex of Panidihing bird sanctuary of Sibsagar district completely damaged.
		(b) Nagpur (Maharashtra)	Moderate		Standing crops damaged.
21.	17-18 Apr.	Chandigarh (UT)	Moderate		i) Many trees uprooted. ii) Electricity and telephonic services badly affected.
22.	20 Apr.	Nagaon (Assam)	Severe		i) Tin roofs blown away. ii) Many trees uprooted. iii) Many dwelling houses destroyed. iv) Power and telecommunications disrupted. v) Standing crops damaged.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
23.	22 Apr.	Barpeta, Kamrup, Nagaon, Nalbari and Tinsukia (Assam)	Moderate		<ul style="list-style-type: none"> i) Several dwelling houses destroyed. ii) Trees and electric/telephone poles uprooted. iii) Tin roofs blown away. iv) A school building completely damaged.
24.	23 & 24 Apr.	Darrang, Dhubri, Nagaon and Sonitpur (Assam)	Severe	One person died and 11 others injured.	<ul style="list-style-type: none"> i) Damage to private properties reported. ii) About 250 valuable trees uprooted. iii) 800 houses damaged and roofs of many houses blown away. iv) Trees, electric/telephone poles uprooted. v) Standing crop damaged.
25.	24 Apr.	(a) Wayanad (Kerala)	Moderate		<ul style="list-style-type: none"> i) A house collapsed. ii) Many trees uprooted.
		(b) Coochbehar (West Bengal)	Moderate		<ul style="list-style-type: none"> i) Many houses damaged. ii) Damage to crops reported.
26.	25 Apr.	Wayanad (Kerala)	Moderate		<ul style="list-style-type: none"> i) Many houses damaged. ii) Extensive damage to agriculture reported. iii) Around 2000 plantains destroyed.
27.	28 Apr.	(a) Sangli (Maharashtra)			<ul style="list-style-type: none"> i) Roofs of many houses blown away. ii) Many trees uprooted.
		(b) North 24 Parganas (West Bengal)	Moderate		Many trees uprooted.
28.	30 Apr.	Darbhanga and Madhepura (Bihar)	Severe	2 persons died and 6 others injured.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
29.	2 May	Mysore (Karnataka)	Severe	3 persons died.	i) Few trees / electric poles uprooted. ii) Low lying areas flooded.
30.	3 May	(a) Wayanad (Kerala)	Moderate		i) Extensive damage to agriculture reported. ii) Vast destruction to plantains reported.
		(b) Jalpaiguri (West Bengal)	Moderate	5 wild elephant perished in Alipurduar.	
31.	6 May	Malda (West Bengal)	Severe	2 persons died.	
32.	7 May	(a) Darrang, Kamrup and Marigaon (Assam)	Moderate		i) Damage to house due to uprooting of tree reported. ii) Several valuable trees of the Dharamtul reserve forest destroyed. iii) Trees, electric / telephone poles uprooted.
		(b) Araria, Gopalganj, Khagaria, Saharsa and Siwan (Bihar)	Severe	8 persons died.	
33.	9 May	Thiruvananthapuram (Kerala)	Moderate	3 persons injured.	A house collapsed.
34.	12 May	Ranchi (Jharkhand)	Severe	One person died and one injured.	In Hatia and Bero, i) Many trees uprooted. ii) Roof tops blown away.
35.	15 May	Puducherry	Severe	4 persons died and 2 other injured.	i) A wall of shop collapsed. ii) Many trees uprooted.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
36.	16 May	Ranchi (Jharkhand)	Moderate		Roof of huts blown away.
37.	18 May	South Tripura	Moderate		Many electric poles and telecommunication system damaged.
38.	18-19 May	Kangra (Himachal Pradesh)	Moderate		Damage to buildings reported due to trees uprooted.
39.	19 May	Shimla (Himachal Pradesh)	Moderate		i) Tin roofs of houses blown off. ii) Many trees uprooted. iii) Power supply disrupted.
40.	19-20 May	(a) Chamba (Himachal Pradesh)	Moderate		i) Roofs of several houses and cow sheds blown off. ii) Heaps of wheat crop and grass lying in the fields blown away. iii) Several trees and electricity poles uprooted.
		(b) Gurudaspur (Punjab)	Moderate		Roofs of several houses blown off.
41.	21 May	Dakshin Dinajpur, Howrah, Murshidabad and North 24 Parganas (West Bengal)	Severe	10 persons died.	Heavy losses to agriculture reported.
42.	23 May	Pune (Maharashtra)	Moderate		i) Many trees uprooted. ii) Roofs of houses blown away.
43.	24 May	North Tripura	Moderate		i) Many houses and electric poles damaged. ii) Telecommunication system failed.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
44.	25 May	(a) Wayanad (Kerala)	Moderate		i) Electronic equipments damaged. ii) Electric lines disrupted.
		(b) Chandigarh and neighbourhood (U.T.)	Moderate		i) Several trees uprooted. ii) Road communication disrupted. iii) Electricity cut off due to snapping of wires.
		(c) Amritsar and Hoshiarpur (Punjab)	Severe	One boy died and one injured.	4 poultry farms and 4 houses burnt.
		(d) West Tripura	Severe	3 persons died and 2 other injured.	
45.	26 May	Hassan and Haveri (Karnataka)	Severe	2 persons including one child died.	Few houses collapsed.
46.	26-29 May	Bongaigaon and Nagaon (Assam)	Severe	2 persons died.	
47.	28 May	Pahalgam (Jammu & Kashmir)	Severe	4 persons died and 2 other injured.	
48.	29 May	North Tripura	Severe	One person died.	
49.	2 & 3 Jun.	Dhubri, Kamrup and Marigon (Assam)	Severe	i) One person died and 4 injured. ii) 2 cattle perished.	i) A few residential complex and school buildings damaged and a roof of houses blown away/. ii) Few trees uprooted. iii) Electric and telecommunication lines disrupted.
50.	5 Jun.	Bellary and Tumkar (Karnataka)	Severe	4 persons died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
51.	7 Jun.	Bangalore (Karnataka)	Severe	2 persons electrocuted.	
52.	10 Jun.	Kolar and Tumkur (Karnataka)	Severe	4 persons died.	
53.	13 Jun.	(a) Gadag (Karnataka)	Moderate	Many live stocks died and 14 washed away.	
		(b) Kolkata (west Bengal)	Severe	5 persons died.	Normal life out of gear.
54.	19 Jun.	Nalbari (Assam)	Severe	One farmer died and 16 injured.	
55.	22 Jun.	Karbi-Anglong (Assam)	Severe	One person died at Bakuliaghat.	
56.	28 & 29 Jun.	Kamrup and Karbi-Anglong (Assam)	Severe	i) 2 persons died. ii) 3 cattle perished.	
57.	7 Jul.	Goalpara (Assam)	Severe	One person died and 3 other injured.	
58.	14 Aug.	Barpeta and Nagaon (Assam)	Severe	i) One person died and 5 others injured. ii) 2 cattle heads perished.	
59.	18 Aug.	Kamrup (Assam)	Severe	One person died.	

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
60.	29 Sep.	Medak (Andhra Pradesh)	Severe	3 persons died.	
61.	7 Oct.	Barpeta, Bongaigaon and Nagaon (Assam)	Severe	5 persons died.	

TABLE – IX : HAILSTORM

CRITERIA

Slight : Sparse, usually small size and often mixed with rain

Moderate : Fall abundant enough to whiten ground

Heavy : Includes at least a proportion of large stones

1.	4 Feb.	Lunglei (Mizoram)	Moderate		Standing crops damaged.
2.	5 Feb.	Dhalai and West Tripura (Tripura)	Moderate		Heavy damage to crops including potatoes and vegetables, reported.
3.	9 Feb.	Ajmer (Rajasthan)	Moderate		Mustard and Cumin seed crops damaged.
4.	10 Feb.	Ajmer, Bharatpur, Bikaner, Churu. Dausa, Jaipur, Jhunjhunu, Sawai Madhopur. Sikar and Tonk (Rajasthan)	Heavy	6 persons died due to house collapse.	i) 100 kutcha houses damaged. ii) Coriander, methi, sauf, mustard, gram, barley and wheat crops damaged in Bikaner, Churu, Bharatpur, Dausa and Jaipur.
5.	11-12 Feb.	Bokaro, Hazaribag and Ranchi (Jharkhand)	Heavy	3 persons died.	Widespread damage to agriculture reported.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
6.	12 Feb.	(a) Ferozepur (Punjab)	Moderate		In Abohar, wheat and cotton crops damaged.
		(b) Many parts of Madhya Pradesh	Moderate		Damage to crops reported.
7.	13 Feb.	(a) Barabanki and Lucknow (Uttar Pradesh)	Heavy	One person died due to wall collapse.	Rabbi crop damaged.
		(b) Ganganagar (Rajasthan)	Moderate		Standing crops damaged.
8.	15 Feb.	Rohtak (Haryana)	Moderate		Standing crops 61,000 tones have been affected and 35,000 tones are feared to badly damaged.
9.	2 Mar.	Morena (Madhya Pradesh)	Moderate		i) Hailstones weighing about 100 gm. Reported. ii) Heavy damage to crops reported.
10.	10 Mar.	(a) Bilaspur (Himachal Pradesh) and Yamunanagar (Haryana)	Moderate		Damage to wheat and vegetable crops reported.
		(b) Patiala (Punjab)			Extensive damage to agriculture reported.
11.	11 & 12 Mar.	Faridabad, Gurgaon, Mahendergarh and Rewari (Haryana)			i) Hailstones weighing 50 to 250 gms. Reported. ii) Heavy damage to crops reported. iii) Window panes of the vehicles, plastic tank, signboards broken. iv) Cracks occurred in the houses. v) Electric poles uprooted.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
12.	12 Mar.	Chandigarh	Moderate		Some vehicles damaged.
13.	13 Mar.	(a) Nagaur (Rajasthan)	Heavy	24 cattle heads perished.	Harvested crops damaged in the North and East parts of the state.
14.	13-15 Mar.	(b) Many districts of Uttar Pradesh	Moderate		Standing crops damaged.
		(a) Betul, Bhind, Datia, Dindori, Guna, Gwalior, Jabalpur, Katni, Mandla, Morena, Narsinghpur, Panna, Rewa, Satna, Sagar, Sidhi, Ujjain and Umaria (Madhya Pradesh)	Moderate		i) Extensive damage to crops reported. ii) Damage to dwelling houses reported.
		(b) Ranchi (Jharkhand)	Heavy		i) Hailstones weighing about 200 gms reported. ii) Damage to crops reported. iii) Many trees uprooted.
15.	20 & 21 Mar.	Sonepat (Haryana)	Moderate		Extensive damage to agriculture reported.
16.	21 Mar.	(a) Morena (Madhya Pradesh)	Moderate		Standing crops damaged.
		(b) Mohali (Punjab)	Moderate		Standing crops damaged.
		(c) Chandigarh (UT)	Moderate		i) Standing wheat crops damaged. ii) Many trees uprooted.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
17.	22 Mar.	Roopnagar (Punjab)	Moderate		3500 acres of standing crop, mainly wheat crop damaged.
18.	8 Apr.	Ranchi (Jharkhand)	Heavy	2 persons died.	i) Many crops damaged. ii) Telephone and electric poles damaged.
19.	10-15 Apr.	Chittoor, Guntur, Karimnagar, Krishna, Nalgonda, Ongle, Prakasam and Warangal (Andhra Pradesh)	Moderate	3 persons died.	Rice, mango and orange, banana and chili crops damaged.
20.	17-18 Apr.	(a) Bhatinda, Mansa, Patiala and Hoshiarpur (Punjab)	Moderate		Wheat and cotton crops damaged.
		(b) Kangra, Kullu and Shimla (Himachal Pradesh)	Moderate		i) About 50-70% of apple crops damaged. ii) Extensive damage to agriculture reported in Narkanda and Chajpur.
21.	21 & 28 Apr.	Wayanad (Kerala)	Moderate		Extensive damage to agriculture reported.
22.	23 Apr.	Lohardaga (Jharkhand)	Moderate		Damage to crops and trees reported.
23.	1-2 May	Chamba (Himachal Pradesh)	Moderate	134 sheep, goats and pet animals perished.	i) Hailstones weighing about 100 gms. reported. ii) Roofs of many houses blown away. iii) Heavy damage to fruit and vegetable crops reported.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
24.	5 May	Adilabad, Ananthapur and Cuddapah (Andhra Pradesh)	Moderate		i) Thousand acres of Banana and Mango crops damaged. ii) 150 acres crops of paddy and chilly damaged.
25.	8-9 May	Kullu, Shimla (Himachal Pradesh)	Moderate		Apple crops damaged.
26.	24 May	East Godavari (Andhra Pradesh)	Moderate		850 acres of mango crop damaged.
27.	16 Oct.	(a) Chandigarh (b) Fatehgarh Sahib (Punjab)	Moderate Moderate		Harvested paddy crop damaged. Paddy crop damaged.
28.	19 Oct.	East Siang (Arunachal Pradesh)	Moderate		i) Large number of trees uprooted. ii) Many houses damaged. iii) Bamboo and banana grooves damaged.

<i>S.N.</i>	<i>Date/Period</i>	<i>Area Affected</i>	<i>Intensity</i>	<i>Casualties</i>	<i>Extent of damage</i>
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TABLE - X : DROUGHT

CRITERIA

Moderate : When seasonal (SW monsoon) rainfall departure is between -26% and -50%

Severe : When seasonal (SW monsoon) rainfall departure is less than -50%

S.N.	Area affected (Subdivision)	Seasonal rainfall departure (%)	Intensity
1.	West Uttar Pradesh	-39	Moderate
2.	Haryana, Chandigarh and Delhi	-34	Moderate
3.	Punjab	-29	Moderate
4.	Himachal Pradesh	-36	Moderate
5.	East Madhya Pradesh	-30	Moderate

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
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TABLE XI – FLOODS AND HEAVY RAINS

As per data available from Central Water Commission, total damage for the whole season for entire state has been incorporated.

STATES

ANDHRA PRADESH

1.	23 Jun.	Ananthapur, East Godvari, Guntur, Krishna, Kurnool, Mahaboobnagar and Prakasam	Heavy rains	50 persons died.	i) Many houses, road, rail lines damaged. ii) Damage to crops reported.
2.	1 & 2 Aug.	Kurnool and Vizianagaram	Heavy rains	4 persons died.	Thousand acres of crop submerged.
3.	8 Aug.	Khammam, Kurnool and Srikakulam	Flood (Krishna, Nagavalli, Tungabhadra and Vamsadhara)	2 persons died.	i) 40 acres of paddy and sugarcane crop submerged. ii) Hundreds of villages submerged. iii) Breach of roads reported and houses collapsed. iv) 3,000 acres of land submerged.
4.	24 Aug.	Hyderabad	Heavy rains		300 kutcha houses submerged.
5.	28 Aug.	Khammam	Heavy rains	2 persons died.	
6.	1 Sep.	Hyderabad	Heavy rains		i) Fly over at Punajagutta fallen, traffic and transport disrupted. ii) Many houses inundated.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
7.	16-24 Sep.	Rayalaseema and Telangana	Heavy rains	21 persons died and 2 other injured.	i) Thousand acres of paddy, groundnut, chilly, cotton and onion crops damaged. ii) Hundreds of villages submerged. iii) Hundreds of houses collapsed. iv) Mantralyam and many temples submerged. v) Roads and bridges breached at some points. vi) Jammalamadugu-Pulivendula road cut off.
8.	5 Oct.	East Godavari, Khammam, Visakhapatnam and Vizianagaram	Heavy rains	6 persons died.	i) Many villages and houses inundated. ii) 3000 acres of sugarcane and 4000 acres of paddy damaged. iii) Visakhapatnam airport submerged.
9.	14 Oct.	Nellore	Heavy rains	22 persons died.	i) 15 villages marooned. ii) 9000 acres of paddy, blackgram and tobacco damaged. iii) Road traffic disrupted.
10.	28-30 Oct.	Chittoor, Cudapah and Nellore	Heavy rains	21 persons died.	i) Roads washed away, traffic and transport disrupted. ii) Extensive damage to crops reported. iii) Many houses damaged. iv) Nellore district worst affected.
*	<i>Whole year</i>	-	-	<i>i) 54 human lives lost ii) 47172 cattle lost</i>	<i>i) 0.938 million population affected ii) 200607 houses damaged.</i>

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
ASSAM					
1.	13-18 Jun.	Darrang, Dhemaji, Dhubri, Karimganj, Lakhimpur, Nagaon and Sonitpur	Moderate flood		<ul style="list-style-type: none"> i) Mizoram and Tripura cut off from rest of the country. ii) Landslide reported. iii) Road communication on N.H. 44 disrupted. iv) Road communication to other NE states cut off. v) 146 villages submerged. vi) Nearly 42,386 people affected. vii) Vast area of cultivating land inundated and standing crops damaged.
2.	12 & 13 Jul.	Dhemaji and Kamrup	Flash flood (Dhal, Jia and Kumtia)		<ul style="list-style-type: none"> i) Due to breach in embankment.60 villages inundated. ii) Thatched houses inundated. iii) Crops and vegetables damaged. iv) Road/Rail communication cut off for 3 days. v) 40,000 people of 120 villages affected.
3.	19 Jul.	Kamrup	Heavy rains	7 persons buried in landslide.	

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
4.	4 th week of Jul. – 1 st week of Aug.	Entire state	Severe flood (Dikhow, Desang, Brahmaputra)	40 persons died.	<ul style="list-style-type: none"> i) 44 lakh people of 24 districts affected. ii) More than 8.82 lakh hectares of land damaged including 1.55 lakh hectares crop land. iii) More than 10,991 houses damaged. iv) 52 breaches of embankment took place. v) Road communication severely affected as 25 concrete bridges, 66 timber bridges, 45 approaches to the bridges damaged, NH-52 breached at 4 places on the way to Dhemaji district.
5.	17 Aug.	Barpeta and Nalbari	Flood (Beki and Puthimari)	2 children died.	Road communication disrupted on NH 31.
6.	29 Aug.	Sibsagar	Flood (Dikhow)	5 persons washed away.	<ul style="list-style-type: none"> i) Standing crops damaged. ii) A large area inundated by surging water of the river Dikhow.
7.	3-10 Sep.	Barpeta, Baska, Cachar, Dhemaji, Kamrup and Nalbari	Flood		NH 37 and 52 remained under water at several places.
8.	9 Sep.	Barpeta, Golaghat and Sonitpur	Flood	5 persons washed away.	<ul style="list-style-type: none"> i) Road communication affected. ii) Standing crops damaged.
9.	15 Sep.	(a) Cachar	Heavy rains		The Lanka-Haflong road completely blocked due to landslide.
		(b) 21 districts of Assam	Flood	10 persons died.	More than 50 lakh people affected throughout the state.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
*	Whole year	1.504 m. ha.	-	i) 37 human lives lost 149 cattle lost	i) 1.087 million population affected ii) 15393 houses damaged iii) Crops in 0.664 m. ha. damaged
BIHAR					
1.	13 Jun.	Bhagalpur and Patna	Heavy rains	19 persons died and 3 injured.	
2.	16 Jun.	Sitamarhi	Flash flood (Bagmati)		i) 50,000 people affected. ii) Flood water inundated 40 villages.
3.	26 Jul.	Supaul and West Champaran	Flood	7 persons died.	Many houses and crops damaged.
4.	29 Jul.	Darbhanga, Madhubani and Muzaffarpur	Flood	18 persons died.	i) Many houses damaged. ii) 45 lakh people affected.
5.	1 st & 2 nd week of Aug.	Begusarai, Bhagalpur, East Champaran, Gopalganj, Khagaria, Madhubani, Muzaffarpur, Samastipur, Supaul and West Champaran	Heavy rains	i) 68 persons died including a woman and 3 children. ii) 100 persons including 3 women washed away.	i) Many villages inundated. ii) Large number of houses damaged. iii) Crops of 60 villages damaged.
6.	27 Aug.	Begusarai, Darbhanga, East Champaran, Madhubani, Muzaffarpur and Samastipur	Flood	23 persons died.	

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
7.	9 Sep.	Some parts of Bihar	Flood	9 persons died.	
8.	26 Sep.	Darbhanga, Madhubani, Muzaffarpur, Patna, Samastipur and Sitamarhi	Flood	20 persons died.	Thousands of houses inundated in Samastipur and crops damaged.
*	<i>Whole year</i>	<i>1.662 m. ha.</i>	-	<i>i) 988 human lives lost. ii) 998 cattle lost.</i>	<i>i) 24.558 million population affected. ii) 691416 houses damaged. iii) Crops in 1.662 m. ha. Damaged</i>
CHHATISGARH					
1.	30 Jun.	Raipur	Heavy rains		<i>i) Low lying areas inundated. ii) One tank in the district breached, inundating more than 200 houses. iii) 20,000 people have been evacuated to safer places.</i>
GUJARAT					
1.	3 Jul.	Ahmedabad, Bharuch, Bhavnagar, Junagarh, Narmada, Surat and Surendranagar	Heavy rains	63 people died.	6000 people evacuated to safer places.
*	<i>Whole year</i>	-	-	<i>i) 311 human lives lost ii) 9707 cattle lost.</i>	<i>i) 0.800 million population affected. ii) 28157 houses damaged. iii) Crops in 0.470 m. ha. Affected</i>

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
HARYANA					
1.	10 Feb.	Ambala and Karnal	Heavy rains		Thousand acres of wheat and cauliflower crop damaged.
2.	7-11 Mar.	Ambala and Yamunanagar	Heavy rains		Crops of 2 lakh acres of land in more than 16 districts damaged.
3.	15 Jun.	Ambala	Heavy rains	2 persons died.	
4.	16 & 17 Jun.	Bhiwani, Jind and Sirsa	Heavy rains	6 persons injured in Sirsa.	i) Several areas flooded in Jind and Bhiwani district. ii) Dozen of earthen houses lashed to ground.
5.	12 Sep.	Bhiwani	Moderate flood		i) Electric supply disrupted due to hundreds of trees and electric poles uprooted. ii) Normal life paralysed.
HIMACHAL PRADESH					
1.	11 & 12 Feb.	Solan	Heavy rains		Electric poles and hundreds of trees uprooted.
2.	1 Mar.	(a) Kullu	Heavy rains		i) Landslide reported. ii) Trees uprooted.
		(b) Solan	Heavy rains		Landslide reported.
3.	13 Mar.	Kullu	Heavy rains		Landslide reported.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
4.	1 May	Mandi	Heavy rains	About 21 goats, sheep and 5 pet animals perished.	About five flour mills damaged.
5.	16 May	Shimla	Heavy rains	5 persons died.	
6.	14 Jun.	Solan	Heavy rains		i) Cloud burst reported. ii) Large number of houses damaged.
7.	8 & 9 Jul.	Dharamsala, Kangra, Kinnaur, Mandi and Shimla	Heavy rains (Cloud burst)	4 persons died and 4 other injured in 2 separate incidents of landslide.	i) Landslide reported. ii) A portion of highway washed away. iii) A bridge, machinery of a power project destroyed. iv) Stretch of National Highway 88 washed away.
8.	12 Jul.	Kullu	Heavy rains	2 children died and one injured.	Extensive damage to agriculture reported.
9.	21 Jul.	Lahaul & Spiti	Heavy rains (Cloud burst)		i) Few acres of land washed away. ii) Damage to 3 small bridges, 6 canals and one primary school reported.
10.	6-8 Aug.	Kinnaur	Flash flood	3 persons died and 7 injured.	i) Landslide reported. ii) A truck, car, two shops and some agricultural land washed away.
11.	2 nd week of Aug.	Kinnaur and Lahul & Spiti	Flood (Cloud burst)		i) About 240 visitors stranded. ii) One bridge damaged.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
12.	12 Aug.	Bilaspur, Kangra, Kinnaur, Hamirpur, Lahul & Spiti, Mandi, Solan and Sundernagar	Flash flood	11 persons died and 2 persons missing.	<ul style="list-style-type: none"> i) Landslide reported. ii) 24 houses collapsed. iii) 7 bridges washed away. iv) Normal life disrupted. v) Telecommunication. Network, roads, water supply schemes affected. vi) Mandi-Hamirpur bridge damaged.
13.	13 Aug.	Hamirpur, Kangra, Kinnaur, Mandi, Shimla and Solan	Flood (Cloud burst)	21 persons died.	<ul style="list-style-type: none"> i) Landslide reported. ii) Shimla-Kalka NH blocked and trains disrupted. iii) Traffic / power supply disrupted. iv) 10 houses completely damaged.
14.	14 Aug.	Shimla	Severe flood	At least 65 persons washed away.	<ul style="list-style-type: none"> i) Landslide reported. ii) Extensive damage to standing crops damaged. iii) 14 houses swept away and 13 partially damaged. iv) Train services on Kalka-Shimla railway line remain suspended for at least 10-12 days.
15.	16 Aug.	Bilaspur and Una	Heavy rains	2 persons including a woman died.	
16.	6 Sep.	(a) Kangra	Heavy rains	2 persons injured.	<ul style="list-style-type: none"> i) Landslide reported. ii) The control room of power project affected.
		(b) Pithoragarh	Heavy rains	15 persons died.	<ul style="list-style-type: none"> i) Landslide reported. ii) 3 houses swept away.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
JAMMU & KASHMIR					
1.	19-22 Mar.	Anantnag and Doda	Flood (Cloud burst)	i) 2 persons died in Anantnag. ii) 4 persons including 2 women washed away in Doda.	i) Landslide reported. ii) Several low lying areas inundated and water logged. iii) Several residential houses damaged. iv) Many people shifted to safer places.
JHARKHAND					
1.	4 Jul.	Bokaro, Chatra, Giridih and Ranchi	Heavy rains	15 persons died.	
2.	8 Jul.	Godda	Heavy rains	4 persons died.	
3.	13-15 Jul.	Garhwa, Godda, Hazaribagh, Lohardaga and Ranchi	Heavy rains	17 persons died.	
4.	5 & 10 Aug.	Bokaro and Hazaribagh	Heavy rains	10 persons died.	
5.	23 & 26 Aug.	Hazaribagh, Palamau and Ranchi	Heavy rains	23 persons died.	
KARNATAKA					
1.	21 Apr.	Mysore	Heavy rains		i) A house collapsed. 15 huts and petty shops damaged. ii) About 25 trees uprooted.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
2.	22 Apr.	Bangalore	Flash flood	One woman washed away.	i) Heavy damage to private and public property reported. ii) Hundreds of houses in the low lying areas flooded.
3.	27 May	Bagalkot	Heavy rains	3 woman died and 8 missing.	A dam breached.
4.	18 Jun.	Dakshina Kannada and Udupi	Heavy rains		19 houses and mosque damaged.
5.	21-24 Jun.	Belgaum, Bijapur, Dakshina Kannada, Gulbarga, Hassan, Kodagu, Koppal, Mangalore and Raichur	Heavy rains	39 persons died and 20 injured.	i) About 1300 houses completely/ partially damaged. ii) Several trees uprooted and 400 electric poles uprooted and 12 transformers damaged. iii) 10 villages marooned.
6.	27 Jun.	Raichur	Heavy rains	One girl died and 3 other injured.	Few houses collapsed.
7.	30 Jun.	Belgaum, Kodagu, Raichur and Uttara Kannada,	Heavy rains		i) Hundreds of acres of paddy field inundated. ii) Road / rail communication affected due to inundation of several bridges and roads. iii) Power and phone links snapped. iv) Few number of houses partially / fully collapsed. v) Low lying areas flooded.
8.	1 Jul.	Kodagu	Heavy rains	One person died due to wall collapse.	
9.	4 Jul.	Belgaum	Heavy rains	2 persons died.	

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
10.	8 Jul.	Belgaum	Heavy rains	One person died due to wall collapse.	
11.	14-15 Jul.	Dakshinna Kannada and Kodagu	Heavy rains		<ul style="list-style-type: none"> i) Few acres of paddy field and coffee plantains inundated. ii) One bridge submerged.
12.	18-21 Jul.	Bangalore, Hassan, Mandya and Mysore	Flash flood (Hemavathi and Kapila)	5 persons drowned.	<ul style="list-style-type: none"> i) Large number of temples flooded and a church partially submerged. ii) Heavy loss to coffee, cardamom, pepper plantains reported. iii) Hundreds of houses inundated. iv) Few trees uprooted. v) A big portion of road washed away. vi) Few vehicles damaged due to compound wall collapsed.
13.	31 Jul.	Kolar	Heavy rains	3 women died due to hut collapse.	
14.	8-12 Aug.	Entire State	Heavy rains	<ul style="list-style-type: none"> i) 28 persons died due to house collapse. ii) 1200 livestock washed away. 	<ul style="list-style-type: none"> i) Extensive damage to agriculture reported. 60,000 acres of fields inundated. 14,000 acres of maize, 15,000 acres of paddy and 20,000 acres of cotton affected. ii) Low lying areas flooded. 50 houses collapsed. iii) Coconut and arecanut trees uprooted. iv) Virupaksha temple submerged. v) In Bellary, 16 villages inundated.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
15.	9 Sep.	Bellary, Davangere and Shimoga	Heavy rains	2 persons died.	i) About 235 houses inundated and 500 houses damaged. ii) 750 acres of field inundated.
16.	17-20 Sep.	Bellary, Chitradurga, Davanagere, Dharwad, Gadag, Koppal and Raichur	Heavy rains	14 persons died.	i) 28,493 houses collapsed. ii) A wall collapsed in chemical factory.
17.	22 Sep.	Bangalore	Flash flood	i) 3 children died. ii) A cow washed away.	i) 12 trees uprooted. ii) 32 shops of hardware, TV, furniture, plywood, tiles, electrical goods damaged.
18.	20 Oct.	Davanagere and Hassan	Heavy rains	7 persons died.	About 511 houses damaged.
19.	22 Oct.	Hassan and Mysore	Heavy rains	2 persons died and a girl injured due to wall collapse.	Damage to pepper, cardamom, maize and sunflower crops reported.
20.	25 Oct.	Hassan and Raichur	Heavy rains	3 children died due to house collapse.	110 houses collapsed.
*	<i>Whole year</i>	-	-	<i>i) 172 human lives lost. ii) 3451 cattle lost.</i>	<i>i) 0.825 million population affected. ii) 57147 houses damaged. iii) Crops in 0.039 m. ha. affected.</i>
KERALA					
1.	26 Feb.	Kollam	Heavy rains	2 persons died and 5 injured.	A cashew nut factory completely damaged.
2.	21 Apr.	Wayanad	Moderate		i) Roads flooded. ii) Roofs of houses collapsed. iii) Electric lines disrupted.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
3.	7 Jun.	Wayanad	Heavy rains		<ul style="list-style-type: none"> i) Extensive damage to buildings and agriculture reported. ii) 600 plantains destroyed, rubber trees broken and coconut & palm trees uprooted.
4.	10 Jun.	Wayanad	Heavy rains		5000 plantains destroyed.
5.	14 Jun.	Kasaragode	Heavy rains	One youth died.	
6.	4 th week of Jun.	Alappuzha, Ernakulam, Idukki, Kannur, Kasaragode, Kottayam, Kozhikode, Malappuram, Palakkad, Pathanamthitta Thrissur, Thiruvananthapuram and Wayanad	Heavy rains	77 persons died, 66 injured in different incidents and 27 reported missing.	<ul style="list-style-type: none"> i) Landslide reported in Wayanad district. ii) More than 10,000 palm trees uprooted in Wayanad district. iii) 1766 houses completely and 1240 partially damaged. iv) Extensive damage to agriculture reported. v) Traffic and electric lines disrupted. vi) Roofs of houses/school blown away. vii) Bridge flooded and low lying areas submerged.
7.	28 & 29 Jun.	Wayanad	Heavy rains		<ul style="list-style-type: none"> i) 33 houses completely and about 1759 houses partially damaged. ii) Extensive damage to agriculture reported. Around 518 hectares of land destroyed. iii) Trees uprooted and large number of plantains destroyed.
8.	1 Jul.	Idukki	Heavy rains	3 persons injured.	<ul style="list-style-type: none"> i) A police camp and workshed of power house damaged. ii) Road transport disrupted. iii) Widespread damage to agriculture and property reported. iv) 11 houses fully and 88 houses partially damaged.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
9.	2 Jul.	Ernakulam, Idukki, Kollam, Trissur and Wayanad	Heavy rains	i) One person died. ii) Few animals washed away.	Few houses and agricultural areas washed away.
10.	4 & 5 Jul.	Wayanad	Heavy rains	2 persons injured due to landslide.	i) 12 houses completely and 487 partially damaged. ii) Low lying areas submerged. iii) Roads flooded, trees uprooted and traffic disrupted.
11.	14-18 Jul.	Alappuzha, Idukki, Kannur, Kottayam, Kozhikode, Malappuram, Pathanamthitta, Thiruvananthapuram and Wayanad	Heavy rains	30 persons died and 2 reported missing.	i) 67 houses completely and 645 partially damaged. 14,800 houses flooded. ii) Extensive damage to agriculture (around 8000 hectares of land) reported. Plantains destroyed iii) Low lying areas and bridges flooded. iv) Electric/telephone lines disrupted and trees uprooted.
12.	26-28 Jul.	Wayanad	Heavy rains		i) Extensive damage to paddy and ginger reported. Field in acres submerged. ii) One house and a hotel destroyed.
13.	9 Sep.	Thiruvananthapuram	Heavy rains		i) First floor of a hospital submerged. ii) Road traffic disrupted. iii) Many houses and vehicles submerged under water.
14.	21 Oct.	Thiruvananthapuram	Heavy rains		Around 70,000 plantains in around 60 acres of land destroyed.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
15.	3-9 Nov.	Alappuzha, Malappuram, Pathanamthitta, Thiruvananthapuram and Wayanad	Heavy rains	5 persons injured.	<ul style="list-style-type: none"> i) Extensive damage to agriculture reported. ii) 15 houses and a school inundated. Roofs of houses collapsed. iii) Roads, rail tracks, canals and low lying areas flooded. iv) National highway submerged. v) Several trees uprooted. vi) Road traffic and electric supply disrupted.
*	<i>Whole year</i>	-	-	<ul style="list-style-type: none"> i) 233 human lives lost. ii) 2769 cattle lost. 	<ul style="list-style-type: none"> i) 1.720 million population affected. ii) 50053 houses damaged.
MADHYA PRADESH					
1.	10 & 11 Jul.	Dhar, Hoshangabad, Jabalpur, Katni, Khandwa, Khargone, Mandsaur, Sehore, Shivpuri, Ujjain and Vidisha	Heavy rains	42 persons died.	
2.	9 Aug.	Indore, Khandawa, Khargone and Mandsaur	Heavy rains	3 persons washed away.	The wall of Maheshwar fort collapsed.
MAHARASHTRA					
1.	1 Jun.	Nashik	Heavy rains	3 persons died and 20 other injured.	

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
2.	24 Jun.	(a) Amravati	Heavy rains	One woman died and 4 other injured due to wall collapse at Gonapur.	
		(b) Mumbai	Heavy rains	6 persons died due to landslide.	Wall collapse, house crash reported.
3.	30 Jun.	Mumbai, Ratnagiri and Satara	Heavy rains	16 persons died.	1500 people evacuated from Mumbai and 550 from Ratnagiri.
4.	1 & 2 Jul.	Amravati, Chandrapur, Gondiya, Nagpur and Thane	Heavy rains	70 persons died and 9 persons injured due to wall collapse.	i) Railway bridge and 50 houses washed away. ii) Trees uprooted.
5.	6 Jul.	Gadchiroli	Flash flood	5 persons died as their car drowned in Vainganga river.	
6.	9 & 10 Jul.	Amravati and Nagpur	Flash flood	9 persons died.	
7.	1-9 Aug.	Amravati, Bhandara, Chandrapur, Gadchiroli, Gondia, Marathwada region, Mumbai, Nagpur, Nashik, Sindhudurg, Thane, Wardha and Washim	Flood (Cloud burst)	i) 32 persons died and 3 other injured. ii) 19 persons washed away. iii) More than 100 cattle heads perished.	i) Standing crops at Nilanga damaged. ii) Low lying areas of Pathari inundated. iii) Walls of houses and hotels collapsed in Kudala taluka. iv) More than 500 villages marooned. v) 715 houses damaged.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
8.	26 Aug.	Solapur	Heavy rains	4 children died due to wall and roof of house collapse.	
9.	7 Sep.	Bhandara and Nagpur	Heavy rains	4 persons died due to wall collapse.	
10.	14 & 15 Sep.	Bhandara	Heavy rains	3 persons died due to wall collapse.	
*	<i>Whole year</i>	-	-	<i>i) 133 human lives lost. ii) 1477 cattle lost.</i>	<i>i) 0.176 million population affected. ii) 47045 houses damaged.</i>
MANIPUR					
1.	3-11 Sep.	Imphal	Heavy rains		i) More than 400 houses submerged. ii) National Highway 39 over topped at several places. iii) Standing crops damaged. iv) Landslide reported. v) 48 houses damaged. vi) State highway connecting Manipur to Nagaland affected.
*	<i>Whole year</i>	-	-	<i>10 human lives lost.</i>	<i>3000 houses damaged.</i>
NAGALAND					
1.	18 Oct.	Kohima	Heavy rains		Landslide on NH 155 and NH 39 reported.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
ORISSA					
1.	4-9 Jul.	Balasore, Bhadrak and Keonjhar	Flood	17 persons died.	Large number of villages and crops damaged.
2.	5 & 6 Aug.	Balasore, Bhadrak, Cuttack, Kendrapara and Keonjhar	Flood	18 persons died.	
3.	21-24 Sep.	Balasore, Bhadrak, Cuttack, Jaipur, Kalahandi, Kandhamal, Keonjhar, Khurda, Mayurbhanj and Rayagada	Flood	39 persons died.	Large number of houses damaged and many people affected.
*	<i>Whole year</i>	-	-	<i>i) 170 human lives lost ii) 141 cattle lost</i>	<i>i) 3.0 million population affected ii) 203700 houses damaged. iii) Crops in 2.955 m. ha. affected.</i>
PUNJAB					
1.	14 Mar	Jalandhar	Heavy rains	4 persons died and 2 injured.	i) Roof of a house collapsed. ii) Crops of about 347 acres of land from 10 villages damaged.
2.	1 Jul.	Amritsar	Heavy rains	2 boys died.	i) Many acres of land with paddy and jowar submerged. ii) 4 villages submerged.
3.	9 Jul.	Hoshiarpur	Heavy rains		i) Many places inundated. ii) One bridge washed away. iii) Crops on 55 acres of land damaged due to breach in canal.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
4.	16 Aug.	Sangrur	Heavy rains		i) 2000 acres of paddy fields submerged. ii) Trees uprooted. iii) Electric supply disrupted.
5.	19 Aug.	Gurdaspur	Heavy rains	One person died and 3 other injured.	
6.	20 Sep.	Amritsar	Heavy rains		Nearly 100 acres of paddy field inundated.
RAJASTHAN					
1.	29 Jun.	Alwar and Dholpur	Heavy rains	2 persons died due to wall collapse.	
2.	10 Jul.	Ajmer, Banswara and Jodhpur	Heavy rains	One persons died due to house collapse.	Embankment of Jaswant Sagar breached.
3.	12 Sep.	Bikaner	Heavy rains	3 children died.	5 kutcha houses washed away.
SIKKIM					
1.	23 & 26 May	East Sikkim	Heavy rains		Landslide reported.
2.	2 Jun.	East Sikkim	Heavy rains	2 persons died.	Large number of houses damaged.
3.	13 Jun.	Sikkim	Heavy rains		Landslide reported.
4.	27 Jun.	Gangtok	Heavy rains	2 persons died.	

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
5.	16-18 Jul.	North and South Sikkim	Heavy rains		i) Landslide reported. ii) Roads blocked due to landslide
6.	25 Aug.	North Sikkim	Flood		Two bailey bridges swept away.
7.	7,9 & 11 Sep.	East and West Sikkim	Heavy rains		i) Landslide reported. ii) Road communication disrupted.
TAMIL NADU					
1.	24 Oct.	Cuddalore and Nagapattinam	Heavy rains		Paddy field in 1500 acres of land submerged.
2.	29 Oct.	Chennai, Kumbhkonom, Tiruvallur and Villupuram	Heavy rains	15 persons died.	
3.	6 Nov.	Kanyakumari	Heavy rains	6 persons died.	
4.	19 & 20 Dec.	Chennai	Heavy rains	30 persons died.	In Tanjavur delta region, 100 of hectares of paddy field destroyed.
*	Whole year	0.292 m. ha.	-	i) 119 human lives lost. ii) 195 cattle lost.	i) 5924 houses damaged. ii) Crops in 0.029 m. ha. affected.
TRIPURA					
1.	10 Jun.	Agartala and South Tripura	Heavy rains	One person died and 2 children injured.	i) Main wooden bridge over Muhuri river washed away. ii) Mudslide reported.

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
2.	12 Jun.	West Tripura	Heavy rains	One person died and 3 injured in Sonamura.	Vast areas of Indo-Bangla border fencing damaged.
3.	17 Jun.	Entire State	Heavy rains		Landslide reported. Road link with rest of the country cut off.
4.	26 Jul.	South Tripura	Heavy rains		Crops and vegetables damaged.
UTTAR PRADESH / UTTARANCHAL					
1.	11 Feb.	Barabanki, Chitrakut and Varanasi	Heavy rains	4 persons died due to house collapse and 5 persons injured.	
2.	4 th week of Jul. and 1 st week of Aug.	Balrampur, Basti, Gonda, Gorakhpur, Kushinagar, Lakhimpur Kheri, Lucknow, Maharajganj, Shahjahanpur, Shravasti and Siddharthnagar	Flood	52 persons died and 53 others washed away.	i) 2455 villages marooned. ii) About 2.75 lakh acres of standing crop damaged. iii) Standing crops more than 19,868 hectare affected.
3.	19 Aug.	Basti	Flood	2 persons died.	A house collapsed.
4.	20 Aug.	Gorakhpur and Moradabad	Flood	12 persons died.	
5.	21 Aug.	Baharich, Ballia, Pilibhit, Shahjahanpur and Rampur	Flood	8 persons died.	

S. N.	Date/Period	Area affected	Intensity [River(s)]	Casualties	Extent of damage
*	<i>Whole year</i>	-	-	<i>i) 170 human lives lost. ii) 141 cattle lost</i>	<i>i) 3.0 million population affected. ii) 203700 houses damaged. iii) Crops in 2.955 m. ha. affected</i>
WEST BENGAL					
1.	14 Feb.	Many districts of South Bengal	Heavy rains		Extensive damage to potato crops and vegetables reported.
2.	17 Jun.	Kolkata	Flash flood	6 persons died.	
3.	3-11 Jul.	Many areas of South Bengal	Flood	51 persons died.	<i>i) Large number of thatched houses damaged. ii) Extensive damage to crops reported.</i>
4.	13 Aug.	Medinipur	Heavy rains	2 persons died.	
5.	17-19 Aug.	Most parts of South Bengal	Flood	4 persons died.	
6.	7 Sep.	Darjeeling	Heavy rains	5 persons died.	
7.	23 Sep.	Coastal districts of West Bengal	Heavy rains	5 persons died.	
8.	28-30 Sep.	Kolkata and Medinipur	Heavy rains	28 persons died.	Several houses damaged.
*	<i>Whole year</i>	<i>0.091 m. ha.</i>	-	<i>i) 175 human lives lost. ii) 3728 cattle lost.</i>	<i>i) 6.871 million population affected. ii) 357857 houses damaged. iii) Crops in 0.221 m. ha. Affected</i>

S. N.	Date/Period	Area affected	Intensity	Casualties	Extent of damage
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TABLE XI – FLOODS AND HEAVY RAINS

During 2007, one supercyclonic storm, 'GONU' and a cyclonic storm 'Yengin' formed over the Arabian Sea. One cyclonic storm 'Akash' and one very severe cyclonic Storm 'SIDR' formed over the Bay of Bengal. No system crossed the Indian coast. Details of the same are outlined below :

BAY CYCLONE

1.	11-16 Nov..	<p><u>Formation</u> Near Lat. 10.0°N / Long. 92.0°E at 0900 UTC of 11th Nov.</p> <p><u>Landfall</u> Crossed West Bangladesh coast near Long. 89.8°E around 1700 UTC on 15th Nov.</p> <p><u>Dissipation</u> Weakened into low pressure area about 50 kms. North of Agartala at 0300 UTC of 16th Nov.</p>	Very severe cyclonic Storm (SIDR)	One person died in West Bengal.	<ul style="list-style-type: none"> i) Crops damaged in thousands of hectares of land. ii) 46 villages affected. iii) Few houses partially /totally damaged in Mizoram. iv) The Guwahati – Shillong road affected at several places. v) Electric supply disrupted in coastal belt due to breaking of dam of Bidyadhari river.
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