

# Global Catastrophe Recap

November 2018



# **Table of Contents**

3
4
5
5
5
6
6
6
7
8
16

# **Executive Summary**

- Catastrophic wildfires lead to minimal USD10 billion economic cost in California
- Cyclone Gaja makes landfall in India as economic toll tops USD775 million
- M7.0 earthquake strikes near Anchorage, Alaska; widespread infrastructure & property damage

A series of major wildfires burned across Northern and Southern California throughout the month of November. The most catastrophic fire was the Camp Fire in Butte County, where the city of Paradise was largely destroyed. CalFire cited that 19,357 homes and other structures were damaged or destroyed, making the Camp Fire the most destructive on record in California. The fire also left 88 people dead and dozens of others unaccounted for. Additionally, three people were killed in the Woolsey Fire as the fire damaged or destroyed nearly 2,000 structures in Ventura and Los Angeles counties. The total aggregated economic loss was expected to minimally exceed USD10 billion; likely higher.

2018 is expected to mark the second consecutive year in which insurance claims payouts from annual wildfire events will exceed USD10 billion in the United States.

Cyclone Gaja made landfall in southern India and caused widespread impacts across the states of Tamil Nadu and Kerala. The cyclone was blamed on at least 46 fatalities as damage was incurred to more than 117,500 homes. The overall economic impact was listed in excess of INR54 billion (USD775 million).

Two other notable tropical cyclones made landfalls in November; both in Vietnam. Tropical Depression Toraji left 19 people dead as damage reached at least VND396 billion (USD17.2 million). A weakened Typhoon Usagi brought record rainfall to the greater Ho Chi Minh metro area. Minimum economic damage was listed at VND347 billion (USD15 million).

A major magnitude-7.0 earthquake struck just north of Anchorage, Alaska on November 30, causing widespread damage to residential and commercial property in addition to local transportation and utility infrastructure. The tremor struck at 8:29 AM local time (17:29 UTC) with an epicenter located 13 kilometers (8 miles) northwest of Anchorage. Dozens of aftershocks were recorded, including three stronger than magnitude-5.0. Total economic losses were expected to exceed USD100 million.

Parts of Italy and Spain dealt with complex storm systems and flooding during the end of October into November. In Italy alone, dozens of fatalities were recorded as the inclement weather caused the deaths of dozens of people. Economic damage was expected to top EUR3.0 billion (USD3.4 billion). In Spain, one person was killed as flooding caused severe damage to infrastructure and agriculture. Crop damage in the Valencian region alone will range from EUR70-120 million (USD80-140 million).

Strong thunderstorms impacted central portions of Chile with large hail and intense rainfall, causing notable agricultural damage. Agricultural industry authorities estimated that economic losses were likely to approach USD200 million. Among the worst affected areas were the O'Higgins and Maule regions.

Severe weather events also occurred in the United States and Australia.

Heavy rainfall swept across parts of the Middle East, prompting flash flooding and dozens of casualties. Damage in Kuwait alone was listed at KWD100 million (USD330 million).

Winter storm events caused notable damage and disruption in the United States and China.

#### **United States**

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/05-11/06	Severe Weather	Southeast, Mid-Atlantic	1	Thousands	50+ million
11/08-11/21	Wildfire (Woolsey)	California	3	10,000+	Billions
11/08-11/25	Wildfire (Camp)	California	88	25,000+	10+ billion
11/14-11/16	Winter Weather	Northeast, Mid-Atlantic, Midwest	10	30,000+	250+ million
11/25-11/27	Winter Weather	Plains, Midwest, Northeast	2	Thousands	Millions
11/30	Earthquake	Alaska	0	Thousands	100+ million

Severe thunderstorms swept across parts of the Eastern U.S. on November 5-6, leading to widespread damage in multiple states. At least one person was killed and dozens of others were injured. Among the hardest-hit areas came in the Southeast and Mid-Atlantic as nearly two-dozen tornadoes touched down and damaging straight-line winds topped 60 mph (95 kph). Tennessee, Louisiana, Mississippi, Alabama, and Georgia each cited physical damage to homes, businesses, and vehicles. Total economic and insured losses were expected to reach into the millions (USD).

A series of major wildfires burned across Northern and Southern California throughout the month of November, as powerful offshore winds – known as Santa Ana winds in the south and Diablo winds in the north – helped spawn the blazes. The most catastrophic fire was the Camp Fire in Butte County, where the city of Paradise was largely destroyed. CalFire cited that 19,357 homes and other structures were damaged or destroyed, making the Camp Fire the most destructive on record in California. The fire also left 88 people dead and dozens of others unaccounted for; becoming the deadliest fire on record in the state. Additionally, three people were killed in the Woolsey Fire as the fire damaged or destroyed nearly 2,000 structures in Ventura and Los Angeles counties. The total aggregated economic loss was expected to minimally exceed USD10 billion; likely higher. A majority of these losses will be covered by insurance.

Notable damage and disruption was caused by a powerful winter storm that swept across northern and eastern sections of the U.S. from November 14-16. Significant snowfall, which peaked at 16 inches in Sweet Valley, Pennsylvania, resulted in widespread disruption. Storm totals widely exceeded 10 inches of fresh snow across the state of New York. The number of power outages reached at least 400,000 across the entire Northeast. Snowfall and freezing rain elsewhere in the Midwest and Mid-Atlantic States caused problems on roads and resulted in hundreds of weather-related accidents and at least 10 deaths. Total economic losses were estimated at USD250 million, with public and private insurers likely to cover up to USD175 million.

A potent winter storm brought heavy snowfall, powerful wind gusts, and ice across parts of the Central and Eastern United States from November 25-27, leading to the deaths of two people. Winds gusting to nearly 70 mph (110 kph) led to blizzard conditions in Kansas which prompted a state of emergency declaration. Snow totals exceeded 12 inches (31 centimeters) from Kansas to New Hampshire. Total economic and insured losses were estimated to reach into the millions (USD).

A major magnitude-7.0 earthquake struck just north of Anchorage, Alaska on November 30, causing widespread damage to residential and commercial property in addition to local transportation and utility infrastructure. A state of emergency was declared for the Anchorage metro region. No serious injuries or fatalities were reported. The tremor struck at 8:29 AM local time (17:29 UTC) with an epicenter located 13 kilometers (8 miles) northwest of Anchorage, Alaska. Dozens of aftershocks were recorded, including three stronger than magnitude-5.0. Total economic losses were expected to exceed USD100 million.

# Remainder of North America (Non-U.S.)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/01-11/04	Severe Weather	Canada	0	Thousands	10s of Millions

A slow-moving storm system brought periods of heavy rainfall and gusty winds across eastern Canada from November 1-4. Some of the hardest-hit areas were in parts of Ontario, Quebec, and Atlantic Canada as winds gusted up to 130 kph (80 mph) and isolated flooding occurred. This caused trees to fall and power lines to snap (which included more than 100,000 electricity outages). Total economic and insured losses were expected to reach into the tens of millions (USD).

### South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/10	Landslide	Brazil	10	Hundreds	Negligible
11/12	Severe Weather	Chile	0	Thousands	200+ million
11/24	Landslide	Ecuador	9	Dozens	Negligible

At least 10 people were killed by a landslide in Brazil's Rio metro area on November 10. All of the fatalities occurred in Niterói, located on the eastern shores of the Guanabara Bay following days of abundant rainfall.

Strong thunderstorms impacted central portions of Chile on November 12 with large hail and intense rainfall, causing notable agricultural damage. Local agricultural industry authorities estimated that economic losses were likely to approach USD200 million, notably to the fruit sector. Among the worst affected areas was the O'Higgins region with approximately 30,000 hectares (74,000 acres) of agricultural extent damaged or destroyed. Other damage was noted in the Maule region.

Heavy rainfall in Southern Ecuador triggered a landslide in the province of Morona Santiago on November 24. The National Service of Risk Management and Emergencies reported that the landslide destroyed 6 homes in the Limón Indanza Canton, resulting in nine deaths and eight injuries.

# Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
10/28-11/04	Severe Weather	Italy	29	Thousands	3.5+ billion
11/15-11/20	Severe Weather	Spain	1	Hundreds	100+ million

A complex pattern of severe weather impacted much of Italy from October 28 to November 4, leading to the deaths of at least 41 people. The inclement weather led to significant incidents of flash flooding, landslides, strong winds, waves, hail, and heavy snowfall that caused major damage in the regions of Veneto, Sicily, Liguria, Toscana, Piemonte, Lazio, Sardegna, and elsewhere. Total economic losses resulting from physical damage to homes, businesses, vehicles, agriculture, and infrastructure were estimated to approach EUR3.0 billion (USD3.4 billion). An initial report from Veneto alone cited minimal economic damage at EUR1 billion (USD1.1 billion).

Intense storms affected parts of nine provinces in southeastern Spain from November 15-20. The heavy rain triggered a landslide near Barcelona on November 20, causing a commuter train to be derailed and resulted in one death and 44 injuries. The flooding damaged roads and affected the local transportation. According to local agricultural associations, crop damage in the Valencian region alone will range from EUR70-120 million (USD80-140 million). Elsewhere in the Canary Islands, severe winds and high waves led to property damage on Tenerife, which amounted to at least EUR1.5 million (USD1.7 million). Total insured losses in the agricultural sector are likely to approach EUR50 million (USD57 million).

### Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/09-11/10	Flooding	Jordan, Kuwait, Saudi Arabia, Iraq	44	Thousands	330+ million
11/22-11/23	Flooding	Iraq	21	300+	Unknown

Heavy rainfall swept across parts of the Middle East on November 9-10, prompting flash flooding. Among the hardest-hit areas came in Jordan, where at least 13 people were killed in flood-related incidents. In Kuwait, one person was killed and more than 400 others were injured as flash floods caused substantial infrastructure and property damage. Local officials cited that infrastructure damage alone w KWD100 million (USD330 million). In Saudi Arabia, as many as 30 fatalities were reported.

At least 21 people were killed and 180 were injured in severe flash flooding that impacted northern Iraq on November 22-23. The floods resulted in roughly 300 homes being damaged and several bridges and roads affected. The regions of Niniveh, Salah ad Din and Kirkuk were among the worst affected.

### **Africa**

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)

No significant natural disasters were recorded in Africa during the month of November.

### Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/01-11/31	Drought	India	0	N/A	3+ billion
11/02	Severe Weather	Indonesia	5	1.400+	Unknown
11/02-11/11	Winter Weather	China	0	2,700+	Millions
11/08-11/11	Flooding	Thailand	3	1,000+	Unknown
11/16-18	Cyclone Gaja	India	46	117,000+	775+ million
11/17-11/18	TD Toraji	Vietnam	19	Hundreds	17+ million
11/25	TS Usagi	Vietnam, Philippines	2	5,000+	15+ million

Drought conditions continued to impact several Indian states following a further lack of seasonal precipitation. The drought has been prevalent since June 1 as no fewer than seven states – Gujarat, Maharashtra, Bihar, Jharkhand, Telangana, Chhattisgarh, Andhra Pradesh – were impacted by reduced monsoon season rainfall. Millions of acres of agricultural land suffered crop loss as the aggregate economic loss was estimated at INR235 billion (USD3.0 billion).

Heavy rainfall on November 2 in Indonesia's West Java and West Sumatra regions caused several rivers to overflow. At least five people were killed. Rain in the upper reaches of the Pesanggrahan River damaged the Pesanggrahan bridge and left several communities isolated. No fewer than 1,400 homes were damaged or destroyed.

Wintry weather affected the Chinese provinces of Heilongjiang and Xinjiang from November 2-11. The combination of heavy rain, sleet, snow, and strong winds led to at least 2,700 homes being damaged and agricultural impacts. Economic losses were minimally estimated at CNY12.3 million (USD2 million).

Monsoonal rains and gusty winds impacted southern Thailand from November 8-11, leading to at least three fatalities. More than 600 villages were impacted by floodwaters as hundreds of homes, 690 sections of roadways, and 56 bridges were damaged or destroyed. The hardest-hit provinces were Prachuap Khiri Khan and Chumphon.

Cyclone Gaja made landfall in southern India and caused widespread impacts across the states of Tamil Nadu and Kerala from November 15-18. The Joint Typhoon Warning Center noted that Gaja was a Category 1 storm at landfall as the cyclone was blamed on at least 46 fatalities. More than 117,500 homes were damaged or destroyed and a minimum of 88,000 hectares (217,000 acres) of cropland affected. As many as 7.5 million coconut palms were toppled or damaged and nearly 170,000 other trees were uprooted. The storm damaged nearly 85,000 electric poles and hundreds of transformers. The overall economic impact was listed in excess of INR54 billion (USD775 million).

Tropical Depression Toraji made landfall in Vietnam's Khanh Hoa province and led to subsequent flooding across eastern sections of the country from November 17-18. At least 19 people were left dead or missing and 28 others injured. Most of the damage was due to heavy flooding as some areas received up to 380 millimeters (14.96 inches) of rain. Thousands of properties were damaged. Total economic loss was assessed to be at least VND396 billion (USD17.2 million).

A weakened Typhoon Usagi made landfall in southern Vietnam on November 25, bringing record rainfall and severe flooding to some areas. At least one person was killed. Usagi officially came ashore as a strong tropical storm just south of Ho Chi Minh City and prompted 407 millimeters (16.02 inches) of rainfall in parts of the city – a record. Total economic losses in Vietnam were minimally listed at VND347 billion (USD15 million). Prior to coming ashore in Vietnam, the initial area of low pressure which became Usagi led to flood damage in the Philippines. Nearly 2,000 homes were damaged or destroyed.

# Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/28-11/29	Severe Weather	Australia	3	2,750+	25+ million

A potent storm system spawned a series of thunderstorms that affected Sydney and parts of New South Wales between November 28-29, killing at least three people. Flash floods and strong winds led to widespread reports of damage to properties and vehicles. Data from the Insurance Council of Australia cited at least 2,750 claims filed with a minimum payout of AUD13.5 million (USD10 million). Total economic losses were even higher.

# Appendix

# Updated 2018 Data: January-October

# **United States**

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Nationwide	N/A	N/A	3.0+ billion
01/03-01/05	Winter Weather	Eastern & Central U.S.	22	60,000+	1.1+ billion
01/08-01/09	Flooding	California	21	6,500+	900+ million
01/14-01/17	Winter Weather	Plains, Midwest, Northeast, Southeast	16	Thousands	Millions
01/21-01/24	Winter Weather	Plains, Midwest	10	Hundreds	Millions
02/03-02/07	Winter Weather	Plains, Midwest, Northeast	7	Thousands	50+ million
02/07-02/10	Winter Weather	Plains, Midwest, Northeast	5	Thousands	50+ million
02/19-02/22	Flooding	Plains, Midwest, Southeast	10	25,000+	400+ million
02/23-02/27	Severe Weather	Plains, Midwest, Southeast	5	15,000+	175+ million
03/01-03/03	Winter Weather	Northeast	9	325,000+	2.3+ billion
03/07-03/08	Winter Weather	Northeast	1	60,000+	525+ million
03/12-03/15	Winter Weather	Northeast	0	Thousands	Millions
03/18-03/21	Severe Weather	Plains, Southeast, Northeast	0	100,000+	1.5+ billion
03/21-03/22	Flooding	California	0	Hundreds	Millions
04/03-04/04	Severe Weather	Plains, Midwest, Southeast	1	40,000+	335+ million
04/06-04/07	Severe Weather	Texas, Louisiana, Mississippi	0	80,000+	825+ million
04/07	Severe Weather	Idaho	0	12,500+	150+ million
04/13-04/17	Severe Weather	Plains, Midwest, Southeast, Northeast	6	110,000+	1.3+ billion
04/14-04/15	Flooding	Hawaii	0	1,000+	125+ million
04/17-04/18	Severe Weather	Rockies, Plains	0	20,000+	135+ million
04/22-04/23	Severe Weather	Southeast	0	Thousands	Millions
04/28-05/05	Severe Weather	Plains, Midwest	0	125,000+	1.4+ billion
05/03-07/30	Volcano	Hawaii	0	Hundreds+	Millions
05/12-05/16	Severe Weather	Rockies, Plains, Midwest, Northeast	5	115,000+	1.45+ billion
05/13-05/15	Flooding	Florida	0	Hundreds	Millions
05/19-05/20	Severe Weather	Plains, Midwest	0	30,000+	500+ million
05/28-06/01	Severe Weather	Rockies, Plains, Midwest, Mid-Atlantic	1	45,000+	525+ million
05/27-05/28	Flooding	Maryland	1	5,000+	100+ million
05/27-05/30	STS Alberto	Southeast, Midwest	5	10,000+	125+ million
06/03-06/07	Severe Weather	Plains, Midwest, Southeast	0	95,000+	1.1+ billion
06/11-06/13	Severe Weather	Rockies, Plains	0	60,000+	980+ million
06/13-06/14	Severe Weather	Northeast	0	2,000+	75+ million
06/17-06/21	Severe Weather	Rockies, Plains, Midwest	3	190,000+	2.4+ billion
06/19-06/21	Flooding	Texas	0	11,000+	225+ million
06/23-06/26	Severe Weather	Central/Eastern U.S.	0	20,000+	195+ million
06/23-07/10	Wildfires	West	0	Hundreds+	100s of Millions
06/27-06/29	Severe Weather	Plains, Midwest, Southeast	1	15,000+	150+ million
06/29-07/04	Severe Weather	Plains, Midwest	1	20,000+	250+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/01-07/31	Wildfire	Western U.S.	1	Hundreds	100s of Millions
07/08-07/10	Flooding	Arizona	0	15,000+	200+ million
07/19-07/22	Severe Weather	Plains, Midwest, Southeast	18	85,000+	1.43+ billion
07/21-07/26	Flooding	Northeast, Mid-Atlantic, Southeast	1	30,000+	450+ million
07/22-07/24	Severe Weather	Colorado	0	12,500+	140+ million
07/26-07/29	Severe Weather	Rockies, Plains, Southwest	0	65,000+	890+ million
07/24-08/31	Wildfire	California	6	Thousands	400+ million
08/01-08/31	Wildfire	California	14	12,000+	1.8+ billion
08/06-08/08	Severe Weather	Rockies, Plains	0	65,000+	800+ million
08/11-08/15	Flooding	Northeast, Mid-Atlantic	0	10,000+	400+ million
08/14-08/16	Severe Weather	Oklahoma, Texas	0	Hundreds	Millions
08/20	Flooding	Wisconsin	0	2,000+	108+ million
08/22-08/26	HU Lane	Hawaii	0	Thousands	100s of Millions
08/27-08/29	Severe Weather	Midwest	0	35,000+	725+ million
09/04-09/09	TS Gordon	Southeast	2	15,000+	250+ million
09/01-09/15	Flooding	Midwest	2	Hundreds	100s of millions
09/12	HU Olivia	Hawaii	0	Unknown	Negligible
09/14-09/19	HU Florence	Southeast, Mid-Atlantic	53	400,000+	10-15+ billion
09/20-09/21	Severe Weather	Midwest	0	13,000+	200+ million
09/21-09/24	Severe Weather	Plains, Southeast	2	13,000+	250+ million
09/24-09/26	Severe Weather	Midwest, Northeast	1	10,000+	250+ million
10/01-10/03	Flooding	Arizona, New Mexico, California	3	Hundreds	Millions
10/02	Severe Weather	Northeast	0	Hundreds	10s of millions
10/10-10/12	HU Michael	Southeast, Mid-Atlantic, Central America	45	350,000+	15+ billion
10/15-10/20	Flooding	Texas	2	20,000+	350+ million
10/31-11/01	Severe Weather	Plains, Southeast	2	Thousands	Millions

# Rest of North America (Non-U.S.)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/11-0/14	Flooding	Canada	0	5,000+	90+ million
02/16	Earthquake	Mexico	0	18,000+	Millions
02/19-02/22	Flooding	Canada	0	Thousands	75+ million
04/04-04/05	Winter Weather	Canada	0	15,000+	115+ million
04/14-04/17	Winter Weather	Canada	0	15,000+	295+ million
04/26-05/17	Flooding	Canada	0	Hundreds	10s of Millions
05/04-05/05	Severe Weather	Canada	3	70,000+	720+ million
05/26-05/29	STS Alberto	Cuba	7	Thousands	Millions+
06/03	Volcano	Guatemala	122	Thousands	Millions
06/13	Severe Weather	Canada	0	Unknown	10s of Millions
06/14	Severe Weather	Canada	0	10,000+	110+ million
06/28-06/30	Severe Weather	Canada	0	Thousands	Millions
07/01-07/31	Drought	Central America	0	Unknown	200+ million
07/07-07/10	Severe Weather	Canada	0	4,000+	45+ million
07/09-07/11	HU Beryl (Remnants)	Puerto Rico, Hispaniola	0	2,000+	Millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/13-07/14	Severe Weather	Canada	0	Thousands	Millions
08/02	Severe Weather	Canada	0	15,000+	100+ million
08/07-08/08	Flooding	Canada	0	4,500+	150+ million
09/05-09/07	Flooding	Mexico	3	2,500+	53+ million
09/20-09/23	Flooding	Mexico	20	300,000+	100s of millions
09/21	Severe Weather	Canada	0	15,000+	325+ million
10/06-10/07	Flooding	Central America	15	Thousands	100+ million
10/07	Earthquake	Haiti	18	20,000+	Millions
10/23	HU Willa	Mexico	0	Hundreds	50+ million
10/23	TS Vicente	Mexico	14	Unknown	Millions

# South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/14	Earthquake	Peru	2	2,541+	Millions
01/29-02/08	Flooding	Bolivia, Argentina	7	Thousands	138+ million
02/09	Severe Weather	Argentina	0	Thousands	Millions
02/15-02/21	Flooding	Brazil	4	Thousands	10s of Millions
01/01-03/31	Drought	Uruguay	N/A	N/A	500+ million
01/01-03/31	Drought	Argentina	N/A	N/A	3.4+ billion
03/20-03/21	Flooding	Brazil	3	Thousands	43+ million
03/12-04/17	Severe Weather	Colombia	14	Unknown	Millions
06/12	Severe Weather	Brazil	2	2,630+	Millions
10/19-10/24	Flooding	Trinidad & Tobago	0	4,300+	10s of millions

# Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/04	WS Eleanor & Carmen	Western & Central Europe	7	200,000+	1.3+ billion
01/06-01/07	Severe Weather	Spain	0	Hundreds	60+ million
01/08	Earthquake	Netherlands	0	3,000+	Millions
01/18	WS Friederike	Western & Central Europe	13	100,000+	2.75+ billion
01/20-02/01	Flooding	France	0	30,000+	500+ million
02/23-03/02	Winter Weather	Western, Central & Eastern EU	88	Thousands	1.6+ billion
03/09-03/14	WS Felix & Gisele	Portugal, Spain	0	Hundreds	10s of Millions
03/28	Flooding	Russia	2	1224	Unknown
03/25-04/05	Flooding	Greece, Turkey, Bulgaria	15	Thousands	Millions
04/29	Severe Weather	Germany, France, Belgium	0	Thousands	10s of Millions
05/10-05/16	Severe Weather	Central Europe	0	Thousands	10s of Million
05/25-05/31	Severe Weather	Western & Central Europe	1	30,000+	500+ million
06/01-06/07	Severe Weather	Central & Western Europe	2	Thousands	150+ million
06/08-06/13	Severe Weather	Central, Western & SE Europe	6	Thousands	100s of Millions
06/28-06/29	Flooding	Romania, Bulgaria, Ukraine	3	2,000+	50+ million
05/01-08/31	Drought	Northern & Central Europe	0	Unknown	7.5+ billion
07/03-07/05	Severe Weather	France, Germany, Italy	0	Hundreds	10s of millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/08-07/25	Wildfire	Sweden	0	Unknown	102+ million
07/15	Severe Weather	France, Germany	0	Hundreds	Millions
07/18-07/19	Flooding	Poland, Slovakia	0	Hundreds	50+ million
07/23-07/24	Wildfire	Greece	92+	1,645+	10s of millions
08/03-08/04	Wildfire, Heatwave	Portugal, Spain	1	Hundreds	25+ million
08/20	Flooding	Italy	10	N/A	N/A
08/23-08/25	Severe Weather	Central Europe	0	Thousands	Millions
09/19-09/22	WS Ali & Bronagh	Western & Northern Europe	1	Hundreds	10s of millions
09/23-09/24	WS Fabienne	Central Europe	1	Hundreds	10s of millions
09/29	Severe Weather	Greece	2	2,000+	Millions
10/04-10/05	Flooding	Italy	3	Hundreds	130+ million
10/08-10/10	Flooding	Spain	13	5,500+	150+ million
10/12-10/15	Flooding	Norway	0	500+	10s of millions
10/14-10/16	Ex-HU Leslie	Portugal, Spain, France	14	18,500+	500+ million
10/17-10/21	Flooding	Spain	0	10,000+	100+ million
10/24-10/25	Flooding	Russia	6	2,600+	10s of millions
10/28-11/04	Severe Weather	Italy, Austria	29	Thousands	3.7+ billion

### Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-05/31	Drought	South Africa	N/A	N/A	1.2+ billion
01/03-01/07	Flooding	Democratic Republic of Congo	51	465	Millions
01/12-01/13	CY Ava	Madagascar	73	4,800+	Millions
01/15-01/18	CY Berguitta	Mauritius, La Reunion	0	Thousands	10s of Millions
01/16-01/22	Flooding	Mozambique	11	15,000+	5.1+ million
02/07-02/09	Flooding	Malawi	1	2,000+	Unknown
02/22-03/07	Flooding	Angola, Malawi, Rwanda	8	6,500+	Millions
03/17-03/18	CY Eliakim	Madagascar	21	17,228+	Millions
03/22-03/23	Flooding	South Africa, Lesotho	7	Thousands	Millions
01/01-05/31	Flooding	Rwanda	134	6,000+	28+ million
03/14-05/31	Flooding	Kenya	226	Thousands	350+ million
03/14-05/31	Flooding	Uganda	N/A	Thousands	150+ million
04/01-05/31	Flooding	Somalia	5	Thousands	80+ million
04/14-04/16	Flooding	Tanzania	15	Hundreds	Unknown
04/14-04/17	Flooding	Ethiopia	2	Thousands	Millions
04/24	TS Fakir	Réunion	2	Hundreds	18+ million
05/19	TS Sagar	Somalia, Djibouti, Yemen	55	Thousands	Millions
05/28	Flooding	Ethiopia	23	Unknown	Unknown
06/18-06/29	Flooding	Ivory Coast, Ghana, Nigeria	38	Thousands	Millions
07/13-07/16	Flooding	Nigeria	71	600+	Unknown
07/01-08/31	Flooding	Niger	22	18,140+	Millions
07/15-08/15	Flooding	Sudan	23	8,900+	Millions
08/31-09/20	Flooding	Niger, Ghana, Burkina Faso	39	Hundreds	Unknown
09/01-09/30	Flooding	Nigeria	199	17,816+	275+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
09/04	Landslide	Ethiopia	12	Unknown	Negligible
09/22	Flooding	Tunisia	5	2,500+	36+ million
10/11	Flooding	Uganda	51	Hundreds	Unknown

# Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/19-01/20	Winter Weather	Lebanon	15	N/A	Negligible
02/16-02/18	Flooding	Turkey, Iran, Iraq, Lebanon	3	Hundreds	Millions
03/07	Earthquake	Iran	0	5,500+	Millions
03/24	Severe Weather	Turkey	0	Thousands	Millions
04/25-04/26	Flooding	Israel	11	Hundreds	Millions
05/17-05/21	Flooding	Tajikistan	6	1,145+	Millions
05/23-05/27	TS Mekunu	Yemen, Oman, Saudi Arabia	30	5,000+	400+ million
07/08	Landslide	Turkey	24	N/A	Unknown
07/22	Earthquake	Iran	0	1,000+	Millions
08/26	Earthquake	Iran	2	2,600+	Millions
10/05-10/06	Flooding	Iran	9	2,650+	166+ million
10/14	Cyclone Luban	Yemen, Oman	14	Hundreds	Millions
10/26	Flooding	Jordan	21	N/A	Millions

# Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/07	Winter Weather	India, Nepal	94	N/A	Negligible
01/02-01/05	Winter Weather	China	21	3,500+	854+ million
01/13-01/17	Flooding	Philippines	11	1,900+	Millions
01/21-01/25	Winter Weather	Japan, China	5	Unknown	Millions
01/23	Earthquake	Indonesia	0	9,291+	Millions
01/24-01/29	Winter Weather	China	2	2,500+	1.45+ billion
02/03-02/12	Flooding	Malaysia	0	Hundreds	Millions
02/05-02/06	Flooding	Indonesia	4	7,228+	Millions
02/06	Earthquake	Taiwan	17	Thousands	100+ million
02/12-02/14	TS Sanba	Philippines	0	2,000+	<10 million
02/21-02/23	Flooding	Indonesia	20	20,000+	Millions
03/03	Severe Weather	China	14	59,000+	147+ million
03/10	Wildfire	India	17	N/A	N/A
03/15-03/18	Severe Weather	China	5	2,000+	50+ million
03/22-03/26	Flooding	Indonesia	3	1,092+	Unknown
03/29	Severe Weather	China	0	200+	30+ million
04/02-04/18	Winter Weather	China	0	Thousands	3.4+ billion
04/11	Severe Weather	India	42	Thousands	100+ million
04/17	Severe Weather	India	18	4,446+	100+ million
04/19-04/25	Severe Weather	China	1	2,200+	91+ million
04/29-04/30	Severe Weather	Bangladesh	33	Unknown	Unknown

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/02-05/03	Severe Weather	India	143	Thousands	24+ Million
05/06-05/09	Severe Weather	India	32	4,200+	Millions
05/07-05/15	Flooding	Afghanistan, Pakistan	78	Thousands	Millions
05/07-05/14	Flooding	China	2	2,000+	31+ million
05/12-05/17	Severe Weather	China	2	2,000+	67+ Million
05/13-05/16	Severe Weather	India	95	Hundreds	Millions+
05/17-05/20	Flooding	India	6	2,422+	10+ Million
05/28-05/29	Severe Weather	India	54	Thousands	Millions
05/28	Earthquake	China	0	15,900+	7+ Million
05/29-05/31	Flooding	India	12	1,000+	Millions+
05/29-05/30	Severe Weather	Myanmar	5	1,400+	Unknown
05/07-07/10	Flooding	China	108	150,000+	1.75+ billion
06/01-10/31	Drought	China	N/A	Unknown	3.55+ billion
06/01-06/06	Severe Weather	India	42	Hundreds	Millions
06/06-06/07	Severe Weather	China	2	800+	31+ Million
06/02-06/07	TS Ewiniar	Vietnam, China	15	5,400+	573+ Million
06/09-06/12	Severe Weather	China	0	Thousands	91+ Million
06/08-06/12	Severe Weather	India	61	16,000+	100+ million
06/05-06/14	Flooding	Bangladesh, Myanmar	26	1,540+	Unknown
06/12-06/21	Severe Weather	China	2	12,000+	317+ million
06/18	Earthquake	Japan	4	166,000+	3.25+ billion
06/23-06/27	Flooding	Vietnam	33	3,776 +	23+ million
06/24-07/03	Flooding	India	52	Hundreds	Millions
06/28-07/05	Flooding	China	11	12,000+	278+ million
06/29-07/03	Severe Weather	China	5	8,000+	157+ million
07/02-07/03	TY Prapiroon	Japan, South Korea	4	Hundreds	10s of Millions
07/05-07/08	Flooding	Japan	230	65,000+	7.0+ billion
07/01-07/25	Heatwave	Japan, Korea, China	150+	N/A	Unknown
07/01-07/03	Flooding	Pakistan, India, Nepal	21	Hundreds	Millions
07/01-09/30	Flooding	China (south), Vietnam	38	50,000+	2.0+ billion
07/01-09/30	Flooding	China (north)	50+	175,000+	5.75+ billion
07/07-07/11	Severe Weather	China	1	300+	33+ million
07/08-07/25	Flooding	Russia	0	6,000+	16+ million
07/10-07/11	Flooding	China	19	18,300+	580+ million
07/10-07/12	STY Maria	China, Taiwan	2	15,000+	490+ million
07/13-07/20	Flooding	China	0	500+	53+ million
07/17-07/24	TS Sonh-Tinh	Vietnam, China, Laos	34	32,000+	235+ million
07/17-07/31	Flooding	Philippines	13	5,050+	88+ million
07/17-07/26	Flooding	Laos, Cambodia	150	2,000+	Millions
07/20-07/24	Flooding	India	20	8,300+	Unknown
07/22-07/25	TS Ampil	China	1	6,000+	175+ million
07/22-07/25	Severe Weather	China	6	15,000+	295+ million
07/27-08/03	TY Jongdari	Japan, China	0	Thousands	100+ Million
07/27-07/29	Flooding	India	33	300+	Unknown
07/28	Earthquake	Indonesia	17	15,000+	23+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/28-07/30	Flooding	Myanmar, Thailand	19	Thousands	Unknown
08/05, 08/09	Earthquake	Indonesia	560	90,000+	528+ million
08/02-08/06	Flooding	India	5	1,100+	Millions
08/03-08/08	Severe Weather	China	6	1,000+	39+ million
08/07-08/20	Flooding	India	500	30,000+	5.5+ billion
08/13	Earthquake	China	0	6,000+	Millions
08/09-08/15	TS Yagi	Philippines, China	7	Thousands	74+ million
08/13-08/19	TS Bebinca	China, Vietnam	16	8,000+	236+ million
08/16-08/18	TY Rumbia	China	22	20,000+	4.3+ billion
08/19	Earthquake	Indonesia	12	Thousands	10s of millions
08/19-08/23	Flooding	China	5	3,100+	33+ million
08/23-08/25	TY Soulik	Japan, Korea Peninsula, China, Russia	71	2,000+	81+ million
08/23-08/26	TY Cimaron	Japan	0	Hundreds	Millions
08/23-08/26	Flooding	Taiwan	7	Hundreds	34+ million
08/24	Flooding	Afghanistan	11	Hundreds	Millions
08/28-08/29	Flooding	South Korea	1	Hundreds	Millions
06/01-10/01	Drought	India	N/A	N/A	1.1+ billion
08/29-09/07	Flooding	North Korea	150	12,000+	Unknown
09/01-09/06	Flooding	India	46	160+	10s of millions
09/03	Earthquake	China	0	2,630+	5.2+ million
09/04-09/05	TY Jebi	Japan	17	486,000+	Billions
09/06	Earthquake	Japan	41	36,000+	1.25+ billion
09/08-09/19	Winter Weather	China	0	N/A	23+ million
09/15-09/18	STY Mangkhut	N. Mariana Islands, Philippines, China, HK	102	250,000+	Billions
09/23-09/24	Flooding	India	25	Hundreds	Millions
09/28	Earthquake	Indonesia	2,256	70,000+	1.45+ billion
09/28-10/02	Typhoon Trami	Japan	4	Thousands	1+ billion
10/06-10/12	Flooding	Sri Lanka	12	2,700+	Millions
10/06-10/07	Typhoon Kong-Rey	South Korea, Japan	3	1,400+	Millions
10/11-10/13	Cyclone Titli	India	85	Thousands	920+ million
10/12	Flooding	Indonesia	27	500+	Unknown
10/30	Typhoon Yutu	Philippines	27	8,000+	75+ million

# Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-08/01	Drought	Australia	N/A	Thousands	1.2+ billion
01/04-01/07	Flooding	New Zealand	0	3,600+	50+ million
01/31-02/02	Flooding (Fehi)	New Zealand	0	Thousands	67+ million
02/09-02/20	CY Gita	Tonga, Fiji, Samoa, New Zealand	1	10,000+	225+ million
02/18-02/20	TS Kelvin	Australia	0	4,000+	25+ million
02/26	Earthquake	Papua New Guinea	160	Thousands	190+ million
03/03	CY Hola	Vanuatu, N. Caledonia, NZ	3	Unknown	Unknown
03/05-03/08	Earthquake	Papua New Guinea	36	Unknown	Millions
03/09-03/11	Flooding	Australia	0	2,000+	40+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
03/17-03/19	Wildfire	Australia	0	1,039+	90+ million
03/17	CY Marcus	Australia	0	6,218+	75+ million
03/24-03/27	CY Nora	Australia	0	2,000+	25+ million
03/31	CY Josie	Fiji	6	Unknown	10+ million
04/10	CY Keni	Fiji	0	804+	Unknown
04/10-04/11	Severe Weather	New Zealand	0	12,523+	87+ million
04/27-04/29	Flooding	New Zealand	0	2,000+	25+ million
05/10-05/14	Flooding	Australia	0	8,800+	130+ million
06/11	Flooding	New Zealand	0	Unknown	10s of Millions
10/11	Severe Weather	Australia	0	1,000+	Millions
10/24	Typhoon Yutu	Northern Mariana Islands	2	Hundreds	Millions

#### Additional Report Details

TD = Tropical Depression, TS = Tropical Storm, HU = Hurricane, TY = Typhoon, STY = Super Typhoon, CY = Cyclone

Fatality estimates as reported by public news media sources and official government agencies.

Structures defined as any building – including barns, outbuildings, mobile homes, single or multiple family dwellings, and commercial facilities – that is damaged or destroyed by winds, earthquakes, hail, flood, tornadoes, hurricanes or any other natural-occurring phenomenon. Claims defined as the number of claims (which could be a combination of homeowners, commercial, auto and others) reported by various public and private insurance entities through press releases or various public media outlets.

Damage estimates are obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases and official government agencies. Damage estimates are obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases and official government agencies. Economic loss totals include any available insured loss estimates, which can be found in the corresponding event text. Specific events may include modeled loss estimates determined from utilizing Impact Forecasting's suite of catastrophe model products.

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