

Largest Catastrophe Losses since 1990

Year	Event	Area	Curr	Total (in mio)	Total (in mio EUR)
1990	Storm Daria	North-Western Europe	EUR	29	29
1991	Typhoon Mireille	Japan	EUR	85	85
1992	Hurricane Andrew	USA, Caribbean	USD	57	49
1994	Earthquake Northridge	USA, Los Angeles	USD	27	23
1998	Hurricane George	USA, Caribbean	USD	29	24
1999	Typhoon Bart	Japan	EUR	28	28
1999	Storm Lothar	Western Europe	EUR	42	42
1999	Storm Martin	Western Europe	EUR	65	65
2001	World Trade Center	USA, New York	USD	455	389
2002	Flood Europe	Middle-Eastern Europe	EUR	75	75
2004	Hurricane Ivan	USA, Caribbean	USD	30	26
2004	Hurricane Frances	USA, Caribbean	USD	58	50
2004	Typhoon Songda	Japan	EUR	46	46
2005	Hurricane Katrina	USA	USD	410	350
2005	Hurricane Rita	USA	USD	73	62
2005	Hurricane Wilma	USA	USD	46	39
2005	Flood August 2005	Germany	EUR	25	25
2007	Winterstorm Kyrill	Western Europe	EUR	65	65
2008	Hurricane Ike	USA, Caribbean	USD	94	80
2010	Earthquake Chile	Chile	USD	261	223
2010	Earthquake Christchurch (Sept.)	New Zealand	AUD	235	3
2011	Cyclone Yasi	Australia	AUD	56	1
2011	Flood Brisbane	Australia	AUD	34	0
2011	Earthquake Christchurch (Feb.)	New Zealand	AUD	547	7
2011	Earthquake Christchurch (Jun.)	New Zealand	AUD	51	1
2011	Earthquake Japan	Japan	JPY	31,114	244
2011	Tornado	USA	USD	29	25
2011	Flood Thailand	Thailand	EUR	121	121
2012	Hurricane Sandy	USA	USD	175	150
2013	Flood Central Europe, June	Central Europe	EUR	37	37
2013	Hail Germany (July)	Germany	EUR	29	29
2014	Heavy Snowstorm Japan Feb. 1)	Japan	JPY	10,435	82
2016	Wildfire Fort McMurray	Canada	EUR	101	101
2016	EQ New Zealand Nov	New Zealand	AUD	90	1
2016	Hurricane Matthew	USA	USD	46	39
2017	Cyclone Debbie	Australia	AUD	37	0
2017	Hurricane Harvey	USA	USD	163	139
2017	Hurricane Irma	Caribbean, USA	USD	314	268
2017	Hurricane Maria	Caribbean	USD	406	347
2017	EQ Puebla, MX	Mexico	EUR	56	56
2017	Wildfire Northern California	USA	USD	56	48
2018	Typhoon Jebi	Japan	JPY	9,901	78
2018	Hurricane Florence	USA	USD	70	59
2018	Hurricane Michael	USA	USD	nbekend	Onbekend

Occurrence Exceedance Probability Curve

Return Periods	Pdf	North-Atlantic Hurricane	California EQ	European Windstorm	Cascadia EQ	Japan EQ
5	0.5278	94,586,977.88	5,198,876.31	34,576,258.44	60,616.23	-
10	0.2892	196,910,857.03	24,072,485.79	69,641,526.63	861,421.95	-
25	0.0924	437,752,002.10	122,794,432.24	148,346,379.39	10,849,814.97	-
50	0.0455	697,207,535.47	336,521,908.73	240,906,258.20	56,975,001.81	-
100	0.0226	1,019,723,498.98	660,851,095.02	371,872,122.29	198,879,002.84	347,784,843.80
200	0.0045	1,387,259,785.64	1,079,761,268.44	530,956,418.16	507,284,056.25	504,025,050.23
250	0.0090	1,510,946,448.37	1,216,208,207.90	583,774,662.56	653,462,002.39	514,105,551.23
500	0.0045	1,901,328,623.19	1,665,304,824.90	741,582,531.49	1,100,305,232.64	539,810,828.80
1000	0.0045	2,329,186,661.27	2,053,586,886.05	873,147,493.36	1,585,995,204.10	556,005,153.66

Return Periods	Pdf	Caribbean Hurricane	Australia Cyclone	Columbia EQ	New Zealand EQ	New Madrid EQ
5	0.5278	18,342,251.99	-	-	-	-
10	0.2892	52,123,243.46	-	-	-	68.63
25	0.0924	133,788,724.95	-	-	-	585,222.07
50	0.0455	226,417,273.42	230,000,000.00	150,000,000.00	10,000,000.00	3,278,159.01
100	0.0226	335,567,747.79	241,862,768.89	215,000,000.00	130,000,000.00	17,564,908.11
200	0.0045	472,777,253.26	428,620,076.28	234,300,152.59	150,000,000.00	111,076,319.35
250	0.0090	515,438,324.16	487,028,153.61	280,174,405.45	178,699,455.14	160,041,533.18
500	0.0045	663,695,641.24	500,000,000.00	440,643,014.32	500,000,000.00	325,948,872.69
1000	0.0045	818,397,888.99	520,000,000.00	500,000,000.00	500,000,000.00	496,767,246.96

Return Periods	Pdf	Canada EQ	Australia Flood
5	0.5278	-	-
10	0.2892	402.46	-
25	0.0924	794,410.25	-
50	0.0455	5,361,354.43	-
100	0.0226	20,566,097.12	-
200	0.0045	61,813,100.33	-
250	0.0090	83,793,641.16	179,805,374.56
500	0.0045	206,680,552.74	250,733,359.94
1000	0.0045	408,911,635.36	363,349,111.45