

1. Impacts of Natural Disasters by Region, 2008

Among all regions across the world in 2008, Asia not only ranks first but also dominates in all natural disaster's impact categories—occurrence, killed, total affected as well as damage. In terms of share, in Asia, the number of people killed and the total affected people respectively made up more than 80 percent of the world's total. The next most impacted regions in descending order are the Americas, Africa, Europe and Oceania.

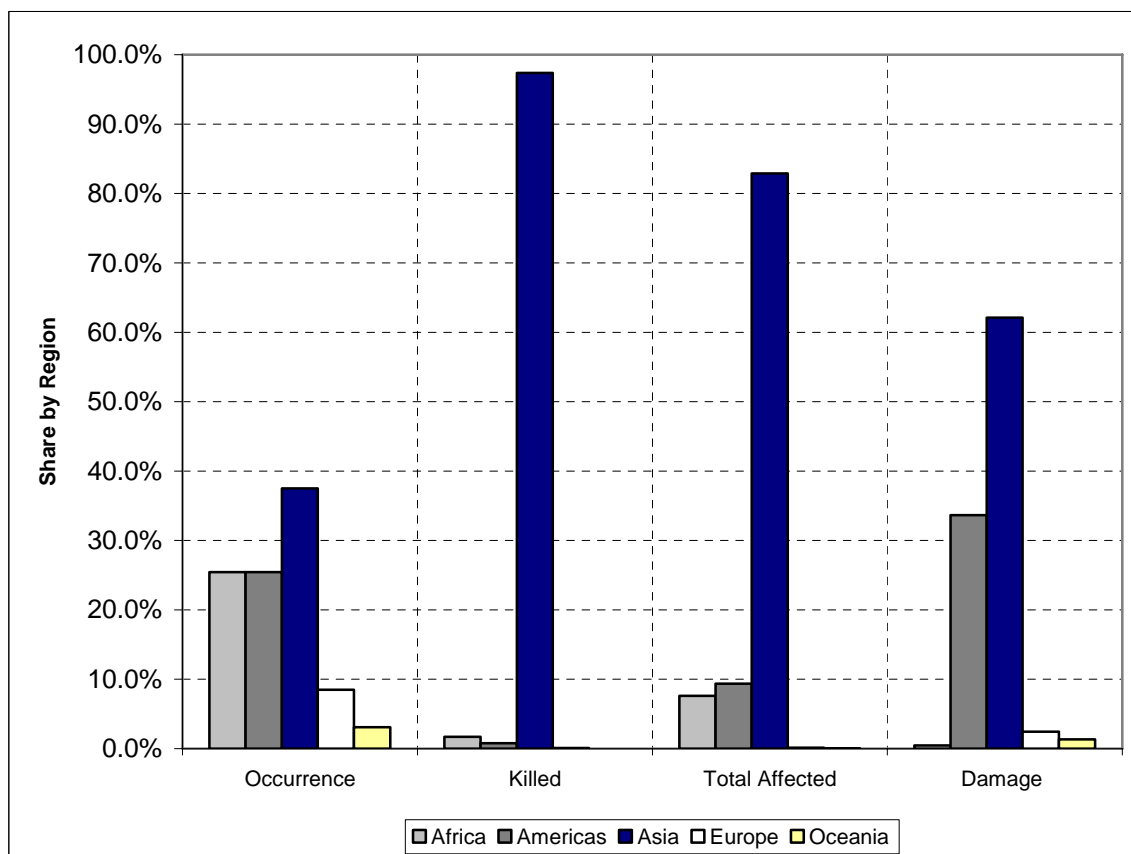


Figure 1: Impacts of Natural Disasters by Region, 2008

Table 1: Impacts of Natural Disasters by Region, 2008

Region	Impact			
	Occurrence (share in %)	Killed (share in %)	Total Affected (in '000s) (share in %)	Damage (US\$ millions) (share in %)
Africa	99 (25.4)	4,050 (1.7)	16,300 (7.6)	866 (0.5)
Americas	99 (25.4)	1,895 (0.8)	20,023 (9.3)	64,041 (33.7)
Asia	146 (37.5)	232,376 (97.4)	177,621 (82.9)	118,231 (62.1)
Europe	33 (8.5)	256 (0.1)	256 (0.1)	4,661 (2.4)
Oceania	12 (3.1)	25 (0.0)	96 (0.0)	2,515 (1.3)
Total	389 (100)	238,602 (100)	214,296 (100)	190,314 (100)

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

2. Impacts of Natural Disasters by Disaster Type, 2008

In terms of disaster type, no single, same disaster dominates all the impact categories. However, storm is rather significant in occurrence (second place), killed (first place), and economic damage (second place). Similarly, earthquake comes in second in terms of killed and affected, and first in damage although it has a relatively low occurrence.

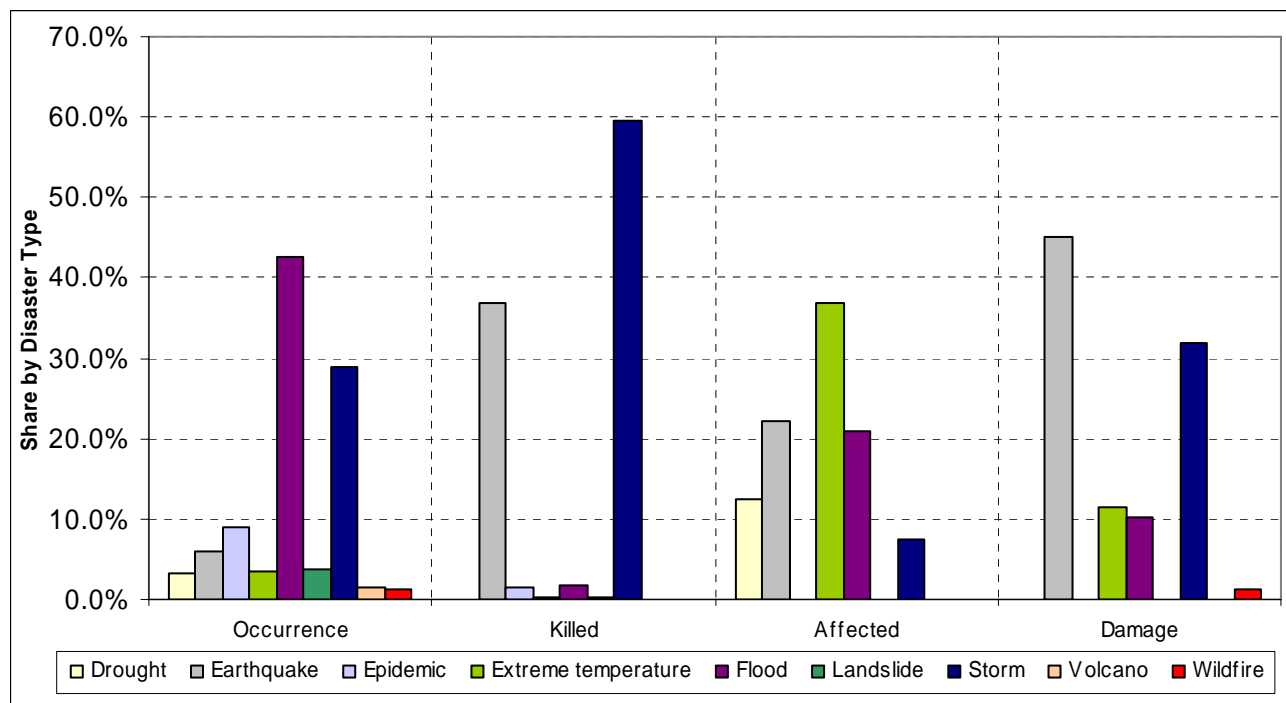


Figure 2: Impacts of Natural Disasters by Disaster Type, 2008

Table 2: Impacts of Natural Disasters by Disaster Type, 2008

Disaster Type	Impact			
	Occurrence (share in %)	Killed (share in %)	Total Affected (in '000s) (share in %)	Damage (US\$ millions) (share in %)
Drought	13 (3.3)	4 (0.0)	26,585 (12.4)	0 (0.0)
Earthquake	23 (5.9)	87,914 (36.8)	47,576 (22.2)	85,796 (45.1)
Epidemic	35 (9.0)	3,338 (1.4)	250 (0.1)	0 (0.0)
Extreme temperature	14 (3.6)	370 (0.2)	79,001 (36.9)	21,940 (11.5)
Flood	166 (42.7)	3,955 (1.7)	44,895 (20.9)	19,475 (10.2)
Landslide	15 (3.9)	624 (0.3)	6 (0.0)	0 (0.0)
Storm	112 (28.8)	142,302 (59.6)	15,799 (7.4)	60,673 (31.9)
Volcano	6 (1.5)	9 (0.0)	127 (0.1)	0 (0.0)
Wildfire	5 (1.3)	86 (0.0)	59 (0.0)	2430 (1.3)
Total	389 (100)	238,602 (100)	214,296 (100)	190,314 (100)

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

3. Impacts of Natural Disasters in Asia by Disaster Type, 2008

In Asia, impact analysis by disaster type shows a similar pattern to the world as a whole. The exception is in damage category, where earthquake is so significant that it occupies more than 70 percent of the total share and the next significant is extreme temperature which has a share of close to 20 percent.

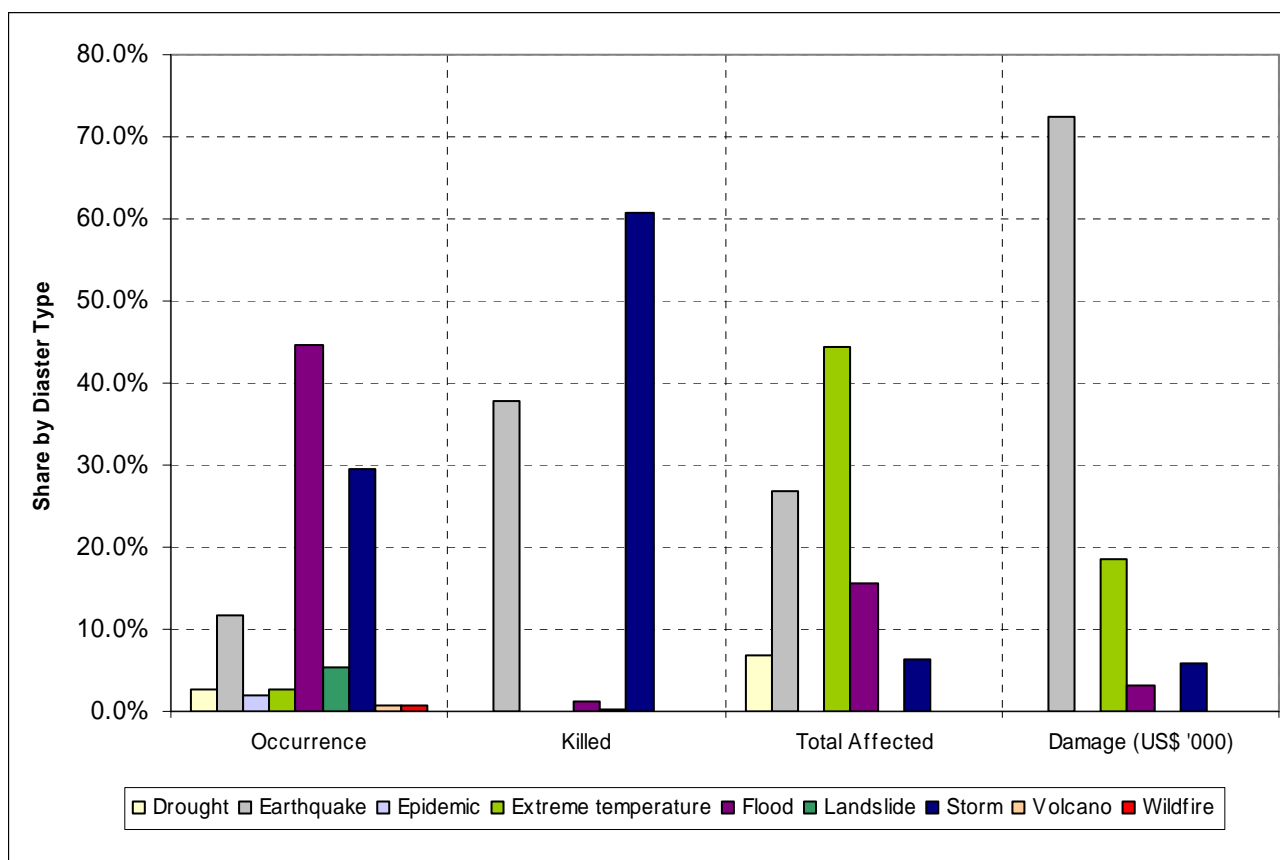


Figure 3: Impacts of Natural Disasters in Asia by Disaster Type, 2008

Table 3: Impacts of Natural Disasters in Asia by Disaster Type, 2008

Disaster type	Impact			
	Occurrence (share in %)	Killed (share in %)	Total Affected (share in %)	Damage (US\$ millions) (share in %)
Drought	4 (2.7)	0 (0.0)	12,080,000 (6.8)	0 (0.0)
Earthquake	17 (11.6)	87,845 (37.8)	47,549,524 (26.8)	85,779,000 (72.6)
Epidemic	3 (2.1)	28 (0.0)	5,143 (0.0)	0 (0.0)
Extreme temperature	4 (2.7)	215 (0.1)	79,000,000 (44.5)	21,940,000 (18.6)
Flood	65 (44.5)	2,763 (1.2)	27,679,909 (15.6)	3,722,183 (3.1)
Landslide	8 (5.5)	418 (0.2)	5,113 (0.0)	0 (0.0)
Storm	43 (29.5)	141,105 (60.7)	11,300,163 (6.4)	6,789,905 (5.7)
Volcano	1 (0.0)	0 (0.0)	600 (0.0)	0 (0.0)
Wildfire	1 (0.0)	2 (0.0)	300 (0.0)	0 (0.0)
Total	146 (100)	232,376 (100)	177,620,752 (100)	118,231,088 (100)

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

4. Cyclone Nargis and Sichuan Earthquake, 2008

In terms of number of people killed, Sichuan Earthquake and Cyclone Nargis combined makes up over 90 percent of the world's total in 2008. Approximately 50 percent of the damage of all disasters in the world in 2008 is caused by these two disasters alone.

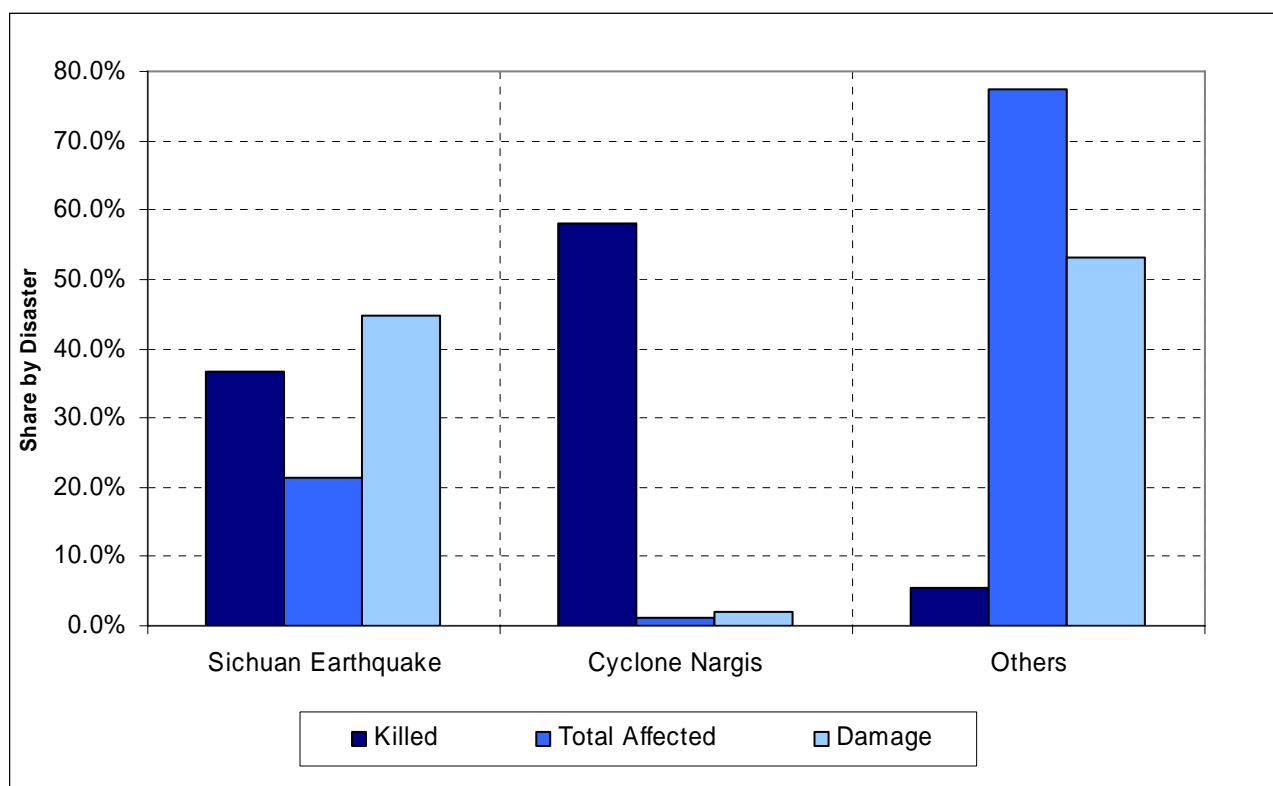


Figure 4: Impacts of Cyclone Nargis and Sichuan Earthquake, 2008

Table 4: Impacts of Cyclone Nargis and Sichuan Earthquake, 2008

Disaster Event	Impact		
	Killed (in '000s) (share in %)	Total Affected (in millions) (share in %)	Damage (US\$ millions) (share in %)
Sichuan Earthquake	87 (36.7)	46 (21.5)	85,000 (44.7)
Cyclone Nargis	138 (58.0)	2 (1.1)	4,000 (2.1)
Others	13 (5.3)	166 (77.4)	101,314 (53.2)
Total	239 (100)	214 (100)	190,314 (100)

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

5. Impacts of World Natural Disasters by Region, 1975-2008

For the period 1975-2008, Asia dominates and ranks first in all natural disaster's impact categories across regions of the world. This is similar to the trend for 2008.

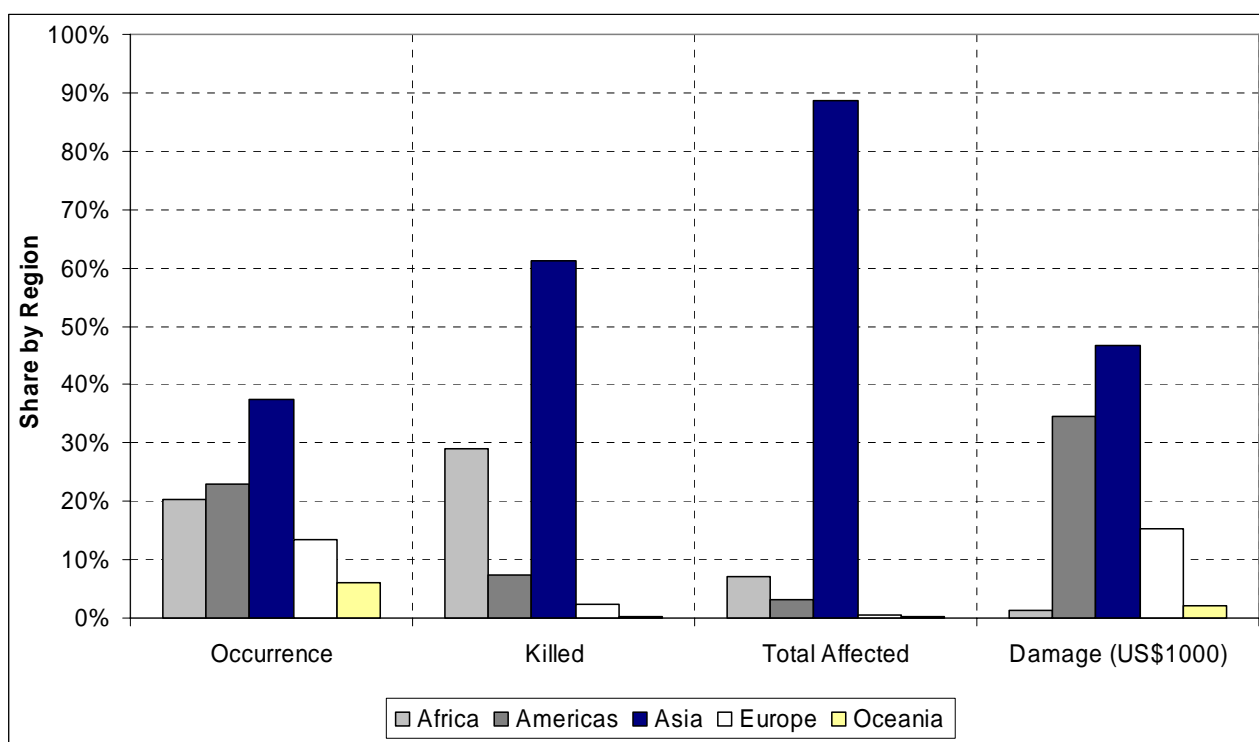


Figure 5: Impacts of World Natural Disasters by Region, 1975-2008

Table 5: Impacts of World Natural Disasters by Region, 1975-2008

Region	Impact			
	Occurrence (share in %)	Killed (in '000s) (share in %)	Total Affected (in millions) (share in %)	Damage (US\$ millions) (share in %)
Africa	1,959 (20.4)	717 (29.0)	426 (7.2)	20,398 (1.3)
Americas	2,191 (22.8)	185 (7.5)	186 (3.2)	528,477 (34.7)
Asia	3,584 (37.3)	1,514 (61.1)	5,225 (88.7)	712,565 (46.8)
Europe	1,280 (13.3)	56 (2.2)	32 (0.5)	231,969 (15.2)
Oceania	582 (6.1)	5 (0.2)	20 (0.3)	30,262 (2.0)
Total	9,596 (100)	2,477 (100)	5,890 (100)	1,523,671 (100)

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

6. Trends of World Natural Disasters, 1975-2008

The number of disasters in general follows an upward trend. Since 1998, the trend undergoes a level shift and the number has increased without falling back to pre-1998 levels. The highest value was recorded in 2000 with over 500 disasters.

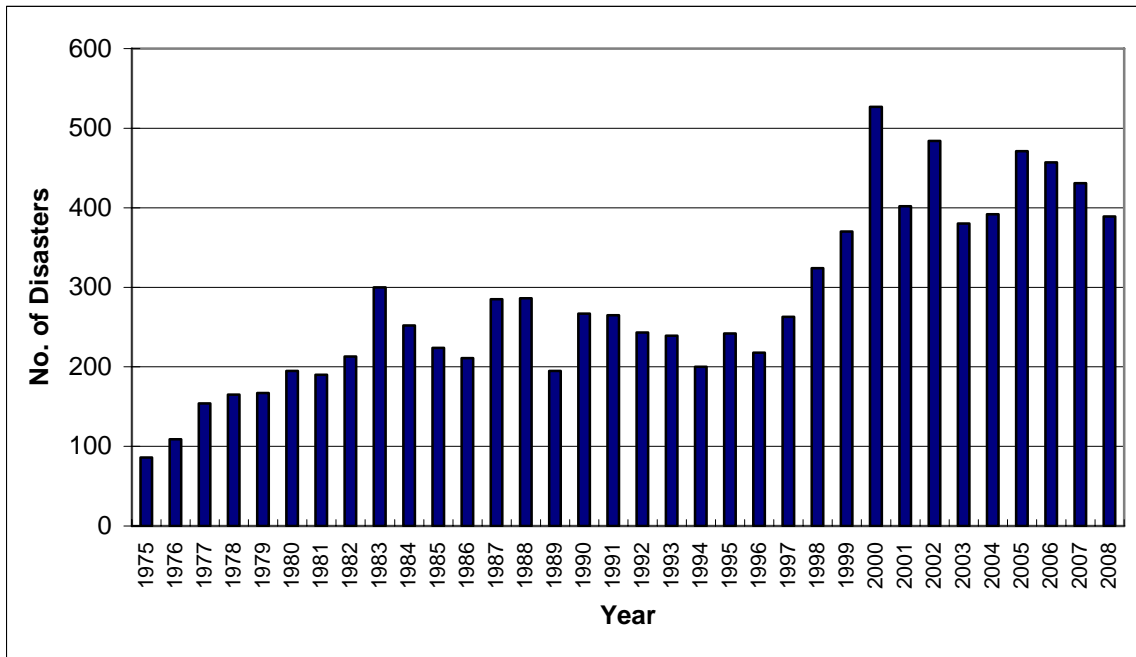


Figure 6-1: Disaster Occurrence, 1975-2008

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

In terms of number of people killed, in general, the number remains well below 100,000 except for a few spikes in 1976, 1984, 1985, 2004, and 2008. The highest value was recorded in 1984 (over 400,000 people).

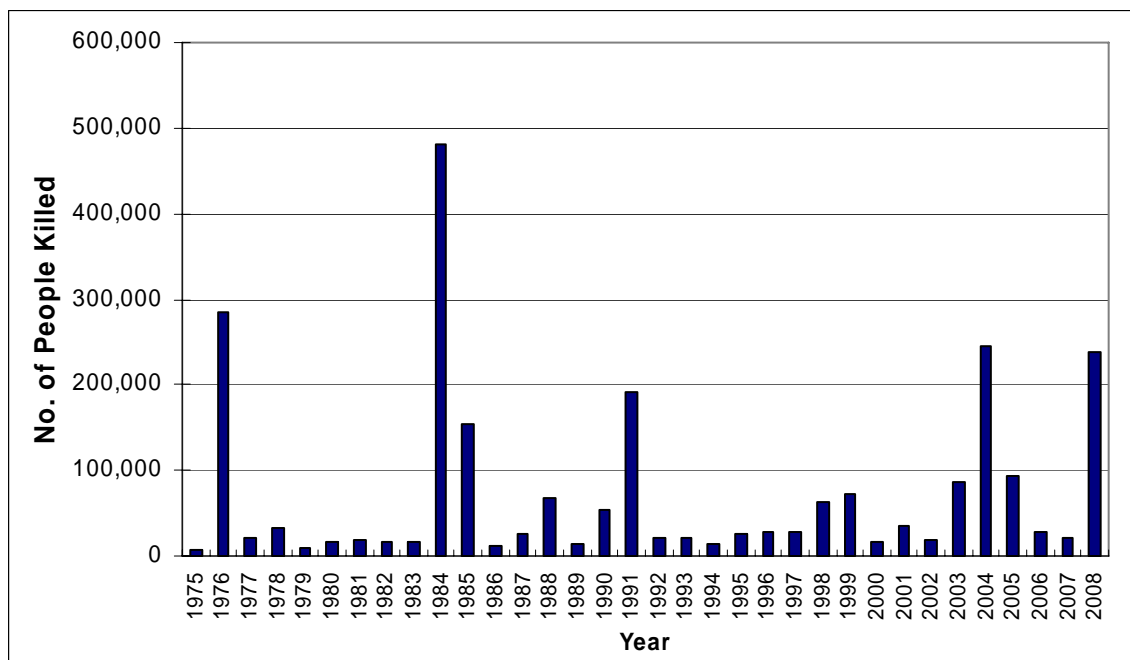


Figure 6-2: Number of People Killed, 1975-2008

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

6. Trends of World Natural Disasters, 1975-2008 (continued)

In terms of total affected people, the trend fluctuates and goes sideways with a spike in 2002. The highest value was over 600 million people.

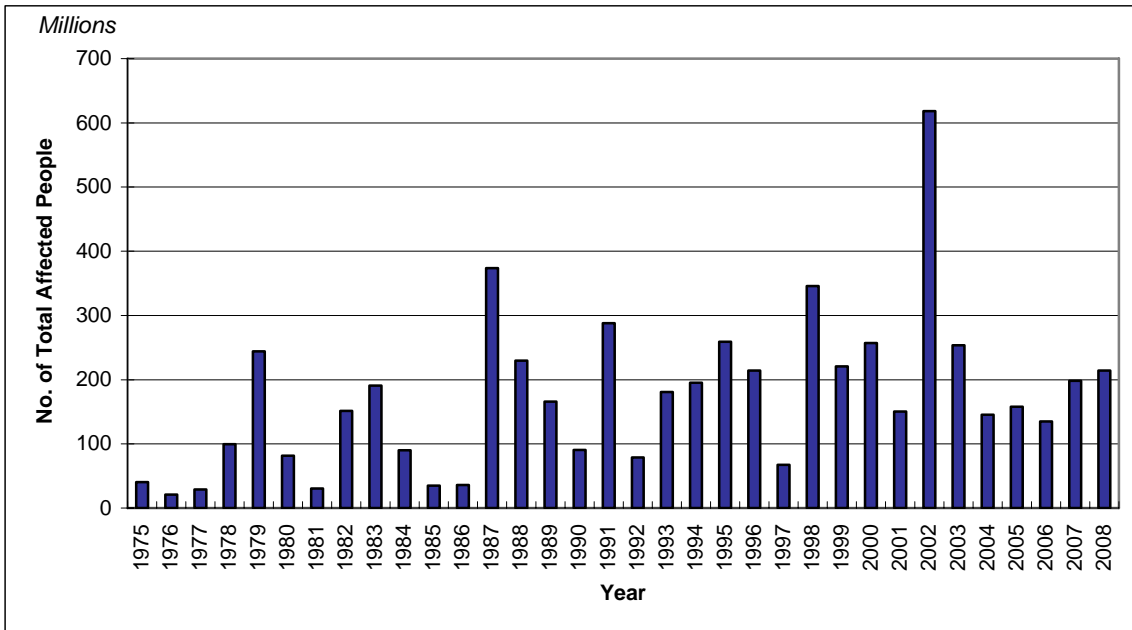


Figure 6-3: Number of Total Affected People, 1975-2008

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

For damage, before 1991, the recorded values were below US\$40,000 million. However, since then, damage in some years exceeded US\$40,000 million and even US\$140,000 million (1995, 2005, and 2008). 2008 saw the highest recorded damage in the period of interest at approximately USD\$180,000 million.

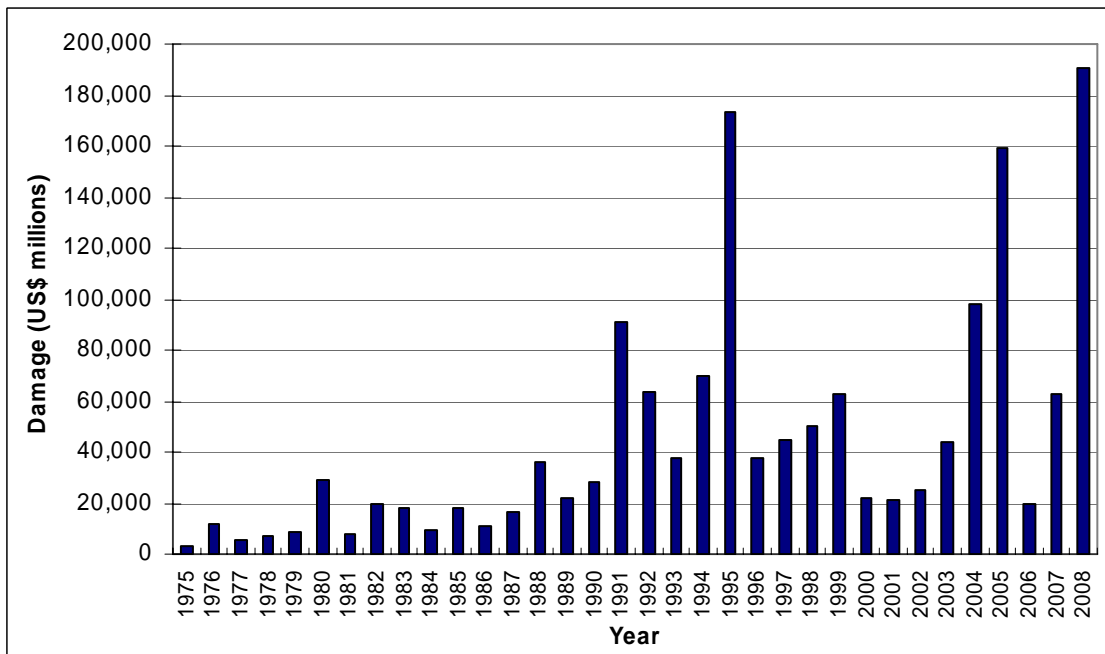


Figure 6-4: Amount of Damage (US\$ millions), 1975-2008

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

7. Trends of World Disaster Occurrence by Disaster Type, 1975-2008

Flood and storm are observed to be the most prevalent forms of disaster in terms of occurrence throughout the period 1975-2008. Starting at the end of the 20th century, there is an upward trend for these two disaster types, especially flood. Trends for the other disaster types are sideways in this period and remain relatively.

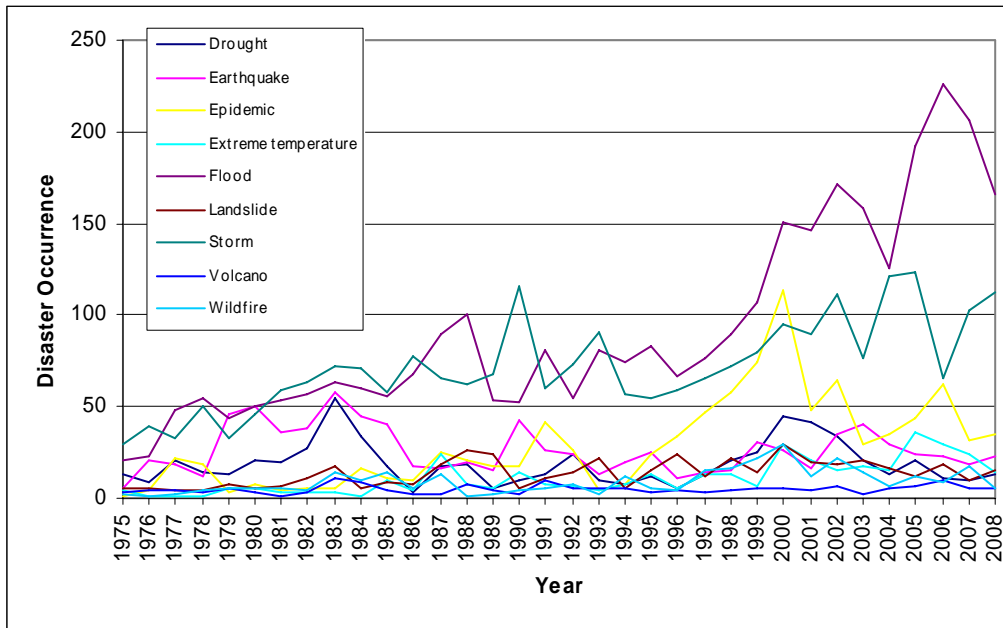


Figure 7: Trends of Disaster Occurrence by Disaster Type

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

8. Trends of World Disaster Occurrence by Fatality Size, 1975-2008

By fatality size, natural disasters with fatalities of less than 100 and fatalities from 100-999 are relatively few and have a rather stable trend in terms of occurrence in the period 1975-2008. However, for fatalities more than 100, the trend increases sharply at the end of the 20th century and remains at a significantly higher level since.

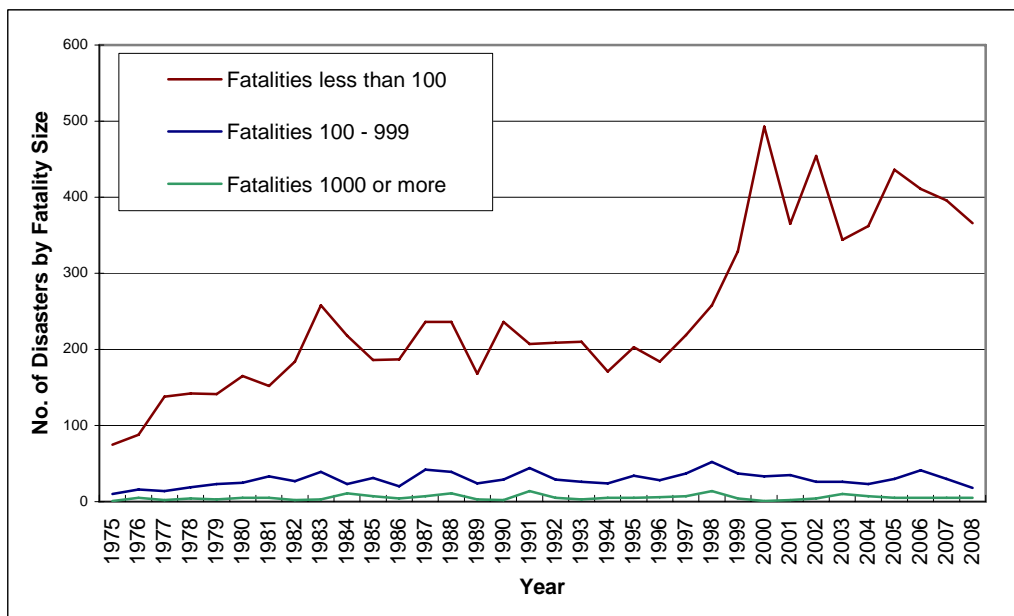


Figure 8: Trends of Disasters by Fatality Size

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

9. The 25 Worst Disasters by Number of People Killed, 2008

In 2008, with over 138,000 deaths from Cyclone Nargis, Myanmar tops the list of the 25 worst disasters using the index of the number of people killed. The earthquake in Sichuan, China, also in the same month, comes second with a death toll of over 87,000 people; while the landslide that hit the same country in September ranks eighth. The epidemic in Zimbabwe comes third, while two more epidemic disasters in Burkina Faso and Angola rank ninth and tenth respectively. Three more storms in Afghanistan (cold wave), Philippines (Typhoon Fengshen) and Haiti (Tropical Storm Hanna) round up the top ten, ranking fourth, sixth and seventh respectively.

In the table below, although storm and earthquake top the list of death toll, epidemic dominates the list (garnering eight spots out of 25). See Table 6 for more details.

Table 6. The 25 Worst Disasters by Number of People Killed, 2008

Rank	Disaster Type	Country	Date Started	Killed	Total Affected	Damage (US\$ millions)
1	Storm (name: Nargis)	Myanmar	2-May	138,366	2,420,000	4,000
2	Earthquake (in Sichuan)	China P. Rep.	12-May	87,476	45,976,596	85,000
3	Epidemic	Zimbabwe	26-Aug	1,561	29,522	0
4	Storm (cold wave)	Afghanistan	5-Jan	1,317	170,684	0
5	Flood	India	11-Jun	1,063	7,900,000	123
6	Storm (name: Fengshen)	Philippines	21-Jun	644	4,785,460	285
7	Storm (name: Hanna)	Haiti	2-Sep	529	48,000	0
8	Landslide	China P. Rep.	8-Sep	277	35	0
9	Epidemic	Burkina Faso	Jan	250	2,000	0
10	Epidemic	Angola	1-Jan	229	9,942	0
11	Epidemic	Guinea-Bissau	May	221	14,004	0
12	Flood	China P. Rep.	7-Jun	176	1,600,000	2,200
13	Flood	India	14-Sep	173	2,400,000	0
14	Epidemic	Sierra Leone	June	170	1,746	0
15	Earthquake (in Balochistan)	Pakistan	29-Oct	166	75,320	10
16	Storm (name: Kammuri)	Viet Nam	8-Aug	162	57,630	120
17	Flood	Brazil	22-Nov	151	1,500,015	750
18	Flood	India	20-Jul	142	225,000	0
19	Extreme temperature	China P. Rep.	Jan	129	77,000,000	21,100
20	Epidemic	Brazil	Mar	123	162,701	0
21	Epidemic	Mozambique	1-Nov	113	10,066	0
22	Storm (dust storm)	India	May	111	50	0
23	Epidemic	Niger	1-Jan	111	1,991	0
24	Flood	Viet Nam	27-Oct	99	600,000	479
25	Landslide	Egypt	6-Sep	98	697	0

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

10. The 25 Worst Disasters by Number of People Killed per Million Population, 2008

With over 2,700 deaths per one million population, Cyclone Nargis that hit Myanmar in May again tops the list of the 25 worst disasters using the index of the ratio of number of people killed to total population of country. The Sichuan earthquake in China came fourth with (66 deaths per million population). Four epidemic disasters in different countries (Guinea-Bissau in second place; Zimbabwe, third; Sierra Leone, seventh; Burkina Faso, tenth) were also among the ten deadliest in this index. The remaining spots in the top ten belong to four storms (Haiti, fifth; Afghanistan sixth; Belize, eighth; and Mongolia, ninth).

Not only does storm top the list using the index of ratio of deaths to population, it also dominates the list with eleven incidences in nine countries (Haiti has three).

Table 7. The 25 Worst Disasters by Number of People Killed per Million Population, 2008

Rank	Disaster Type	Country	Date Started	Killed	Population* (in '000s)	Killed (per million)
1	Storm	Myanmar	2-May	138,366	49,563	2,792
2	Epidemic	Guinea-Bissau	May	221	1,575	140
3	Epidemic	Zimbabwe	26-Aug	1,561	12,463	125
4	Earthquake	China P. Rep.	12-May	87,476	1,324,655	66
5	Storm	Haiti	2-Sep	529	9,876	54
6	Storm	Afghanistan	5-Jan	1,317	29,021	45
7	Epidemic	Sierra Leone	June	170	5,560	31
8	Storm	Belize	31-May	7	322	22
9	Storm	Mongolia	26-May	52	2,641	20
10	Epidemic	Burkina Faso	Jan	250	15,234	16
11	Earthquake	Kyrgyzstan	5-Oct	74	5,278	14
12	Epidemic	Angola	1-Jan	229	18,021	13
13	Flood	Honduras	19-Oct	67	7,319	9
14	Storm	Haiti	26-Aug	85	9,876	9
15	Flood	Namibia	30-Jan	18	2,130	8
16	Storm	Fiji	28-Jan	7	844	8
17	Epidemic	Niger	1-Jan	111	14,704	8
18	Storm	Haiti	6-Sep	74	9,876	7
19	Storm	Philippines	21-Jun	644	90,348	7
20	Epidemic	Congo	Feb	25	3,615	7
21	Epidemic	Mozambique	1-Nov	113	22,383	5
22	Flood	El Salvador	3-Jul	30	6,134	5
23	Storm	Madagascar	17-Feb	93	19,111	5
24	Flood	Panama	3-Sep	16	3,399	5
25	Storm	Jamaica	28-Aug	12	2,687	4

Sources:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

*World Bank: <http://data.worldbank.org/>

11. The 25 Worst Disasters by Total Number of People Affected, 2008

Using the index of number of people affected, extreme temperature in China ranks first with over 77 million affected people. Given its huge population, China again comes second with the Sichuan earthquake in May affecting more than 45 million people. In this index, the worst flood of 2008 occurred in the United States (ranked third overall) in June; while the worst storm in the list occurred in the Philippines (ranked seventh overall) also in June. The highest-ranking drought occurred in Thailand in April affecting approximately 10 million people.

Although extreme temperature is the worst disaster in this index, flood is the most prevalent with 10 incidences in eight countries (India has three).

Table 8. The 25 Worst Disasters by Total Number of People Affected, 2008

Rank	Disaster Type	Country	Date Started	Total Affected (in '000s)	Killed	Damage (US\$ millions)
1	Extreme temperature	China P. Rep.	10-Jan	77,000	129	21,100
2	Earthquake	China P. Rep.	12-May	45,977	87,476	85,000
3	Flood	United States	9-Jun	11,000	24	10,000
4	Drought	Thailand	Apr	10,000	0	0
5	Flood	India	11-Jun	7,900	1,063	123
6	Drought	Ethiopia	May	6,400	0	0
7	Storm	Philippines	21-Jun	4,785	644	285
8	Drought	Somalia	Jan	3,300	0	0
9	Flood	China P. Rep.	7-Jul	3,000	19	102
10	Flood	India	30-Aug	2,600	47	20
11	Storm	Myanmar	2-May	2,420	138,366	4,000
12	Flood	India	14-Sep	2,400	173	0
13	Storm	United States	1-Sep	2,100	43	7,000
14	Extreme temperature	Tajikistan	Jan	2,000	0	840
15	Drought	Eritrea	Oct	1,700	0	0
16	Flood	China P. Rep.	7-Jun	1,600	176	2,200
17	Flood	Brazil	22-Nov	1,500	151	750
18	Storm	Philippines	18-May	1,497	64	99
19	Drought	Kenya	Jul	1,400	4	0
20	Flood	Colombia	15-Sep	1,200	76	0
21	Earthquake	China P. Rep.	30-Aug	1,001	40	492
22	Drought	Syrian Arab Rep.	Oct	1,000	0	0
23	Storm	China P. Rep.	22-Aug	900	4	58
24	Flood	Philippines	12-Feb	875	63	31
25	Flood	Thailand	13-Sep	840	18	16

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

12. The 25 Worst Disasters by Affected People per Thousand Population, 2008

In terms of ratio of affected people to population, the July drought in Djibouti tops the list with 400 affected people for every 1,000 population or 40 percent of the whole population. Two more droughts rank second and third: in Somalia, affecting approximately 37 percent of the population and in Eritrea, 34.5 percent. Three more droughts (in Thailand, Tajikistan and Ethiopia) rank within the top ten. The storm in Antigua and Barbuda is the highest-ranking storm (fourth overall), while the highest-ranking flood occurred in Guyana (seventh overall).

Drought is the worst disaster in this index in terms of people affected (relative to population) as well as in terms of prevalence in the top 25 (10 disasters in 10 different countries).

Table 9. The 25 Worst Disasters by Affected People per Thousand Population, 2008

Rank	Disaster Type	Country	Date Started	Total Affected	Population* (in '000s)	Total Affected (per '000)
1	Drought	Djibouti	Jul	340,000	849	400
2	Drought	Somalia	Jan	3,300,000	8,926	370
3	Drought	Eritrea	Oct	1,700,000	4,927	345
4	Storm	Antigua and Barbuda	15-Oct	25,800	87	298
5	Extreme temperature	Tajikistan	Jan	2,000,000	6,836	293
6	Drought	Thailand	Apr	10,000,000	67,386	148
7	Flood	Guyana	8-Dec	100,000	763	131
8	Flood	Belize	19-Oct	38,000	322	118
9	Drought	Tajikistan	Oct	800,000	6,836	117
10	Drought	Ethiopia	May	6,400,000	80,713	79
11	Extreme temperature	China P. Rep.	10-Jan	77,000,000	1,324,655	58
12	Storm	Philippines	21-Jun	4,785,460	90,348	53
13	Storm	Myanmar	2-May	2,420,000	49,563	49
14	Drought	Syrian Arab Rep.	Oct	1,000,000	20,581	49
15	Flood	Honduras	19-Oct	313,357	7,319	43
16	Storm	Cuba	29-Aug	450,000	11,205	40
17	Flood	United States	9-Jun	11,000,148	304,060	36
18	Drought	Kenya	Jul	1,400,000	38,765	36
19	Earthquake	China P. Rep.	12-May	45,976,596	1,324,655	35
20	Flood	Lao P. Dem. Rep.	12-Aug	204,190	6,205	33
21	Storm	Belize	31-May	10,000	322	31
22	Storm	Madagascar	17-Feb	524,153	19,111	27
23	Flood	Colombia	15-Sep	1,200,091	45,012	27
24	Drought	Uganda	Jul	750,000	31,657	24
25	Drought	Mozambique	Dec	500,000	22,383	22

Sources:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

*World Bank: <http://data.worldbank.org/>

13. The 25 Worst Disasters by Economic Damage, 2008

In terms of estimated economic damage incurred in 2008, the Sichuan earthquake in China (the only earthquake in the list) tops the list with approximately US\$85 billion. The worst-hit countries in this index are China (with 3 disasters in top 10, and 5 disasters in top 25), and the United States (with 5 in top 10, and 10 in top 25).

Using this index, storms are the most devastating disasters (with 15 incidences in the table below, affecting five countries), followed by floods (with six, all in different countries).

Table 10. The 25 Worst Disasters by Economic Damage, 2008

<i>Rank</i>	<i>Disaster Type</i>	<i>Country</i>	<i>Date Started</i>	<i>Killed</i>	<i>Total Affected</i>	<i>Damage (US\$ millions)</i>
1	Earthquake	China P. Rep.	12-May	87,476	45,976,596	85,000
2	Storm	United States	12-Sep	82	200,000	30,000
3	Extreme temperature	China P. Rep.	10-Jan	129	77,000,000	21,100
4	Flood	United States	9-Jun	24	11,000,148	10,000
5	Storm	United States	1-Sep	43	2,100,000	70,000
6	Storm	Myanmar	2-May	138,366	2,420,000	4,000
7	Flood	China P. Rep.	7-Jun	176	1,600,000	2,200
8	Storm	Cuba	29-Aug	0	450,000	2,072
9	Wildfire	United States	13-Nov	0	55,020	2,000
10	Storm	United States	22-May	7	70	1,600
12	Storm	Germany	29-May	3	0	1,500
11	Storm	Cuba	8-Sep	7	0	1,500
13	Storm	United States	5-Feb	59	150	1,300
14	Storm	Germany	Feb-29	5	0	1,200
15	Storm	United States	23-Jul	0	0	1,200
16	Flood	Australia	13-Feb	2	1,000	1,100
17	Storm	United States	9-Apr	3	0	1,100
18	Flood	Ecuador	30-Jan	41	289,122	1,000
19	Flood	Ukraine	26-Jul	38	224,725	1,000
20	Storm	United States	4-Jan	12	0	1,000
21	Extreme temperature	Tajikistan	Jan	0	2,000,000	840
22	Storm	China P. Rep.	24-Sep	12	0	824
23	Flood	Brazil	22-Nov	151	1,500,015	750
24	Storm	China P. Rep.	17-Apr	0	0	733
25	Storm	United States	10-May	22	150	700

Source:

*EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)*

14. The 25 Worst Disasters by Ratio of Economic Damage to GDP, 2008

In terms of estimated economic damage incurred relative to gross domestic product (GDP), the extreme temperature in Tajikistan tops the list, accounting for over 16 percent of its total GDP in 2008. All the other disasters account for less than two percent of the GDP. The Sichuan earthquake in China comes second with an economic damage amounting to 1.96 percent of GDP. Floods are the most prevalent in this index (12 spots in the list), followed by storms (eight).

Table 11. The 25 Worst Disasters by Ratio of Economic Damage to Gross Domestic Product, 2008

Rank	Disaster Type	Country	Date Started	Damage (US\$ millions)	GDP* (US\$ billions)	Damage (as % of GDP)
1	Extreme temperature	Tajikistan	Jan	840	5.13	16.36
2	Earthquake	China P. Rep.	12-May	85,000	4,327.00	1.96
3	Flood	Ecuador	30-Jan	1,000	54.69	1.83
4	Flood	Yemen	23-Oct	400	26.58	1.51
5	Flood	Belize	19-Oct	9	1.36	0.66
6	Storm	Madagascar	17-Feb	60	9.46	0.63
7	Flood	Ukraine	26-Jul	1,000	180.35	0.55
8	Flood	Viet Nam	27-Oct	479	90.64	0.53
9	Extreme temperature	China P. Rep.	10-Jan	21,100	4,327.00	0.49
10	Storm	United States	12-Sep	30,000	14,093.31	0.21
11	Flood	Algeria	1-Oct	348	166.55	0.21
12	Storm	Mozambique	8-Mar	20	9.85	0.20
13	Storm	Philippines	21-Jun	284	166.91	0.17
14	Wildfire	South Africa	30-Aug	430	276.45	0.16
15	Storm	Viet Nam	8-Aug	120	90.64	0.13
16	Storm	Austria	Feb-29	500	413.50	0.12
17	Flood	Australia	13-Feb	1,100	1,015.22	0.11
18	Flood	Kazakhstan	20-Feb	130	133.44	0.10
19	Flood	United States	9-Jun	10,000	14,093.31	0.07
20	Storm	Viet Nam	25-Sep	63	90.64	0.07
21	Flood	Pakistan	2-Aug	103	164.54	0.06
22	Earthquake	Congo Dem. Rep.	3-Feb	7	11.67	0.06
23	Storm	Philippines	18-May	99	166.91	0.06
24	Flood	Australia	14-Jan	600	1,015.22	0.06
25	Flood	China P. Rep.	7-Jun	2,200	4,327.00	0.05

Sources:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
 Université Catholique de Louvain, Brussels (Belgium)

*World Bank: <http://data.worldbank.org/>

15. Disasters in Asia by Country, 2008

Table 12. Disasters in Asia by Country, 2008

Country	Disaster Type	Occurrence	Killed	Total Affected	Damage (US\$ '000s)
Afghanistan	Drought	1	0	280,000	0
	Epidemic	1	17	1,100	0
	Flood	1	0	1,180	0
	Storm	1	1,317	170,684	0
Bangladesh	Flood	2	28	635,640	0
	Landslide	1	13	50	0
	Storm	2	27	400	0
China P. Rep.	Earthquake	7	87,564	47,437,647	85,492,000
	Extreme Temperature	2	145	77,000,000	21,100,000
	Flood	7	352	7,189,166	2,392,000
	Landslide	4	323	35	0
	Storm	9	66	1,649,106	2,015,000
Hong Kong (China)	Storm	3	2	207	380
India	Extreme Temperature	1	70	0	0
	Flood	8	1,590	13,989,018	145,000
	Landslide	1	37	0	0
	Storm	1	111	50	0
Indonesia	Earthquake	3	11	10,727	0
	Flood	12	112	476,195	1,733
	Landslide	1	21	0	0
	Volcano	1	0	600	0
Iran Islam. Rep.	Earthquake	2	6	20,715	0
	Flood	2	22	1,480	0
	Storm	1	28	0	0
Iraq	Epidemic	1	11	892	0
	Flood	1	4	600	0
Japan	Earthquake	2	24	918	277,000
	Flood	1	5	50,003	0
Kazakhstan	Flood	1	1	13,000	130,000
Korea Rep.	Flood	1	10	13	0
Kyrgyzstan	Earthquake	2	74	4,197	0
Lao P. Dem. Rep.	Flood	1	6	204,190	0
Malaysia	Flood	2	0	8,000	0
Mongolia	Epidemic	1	0	3,151	0
	Storm	1	52	0	0
Myanmar	Storm	1	138,366	2,420,000	4,000,000
Nepal	Flood	2	115	250,003	29
Pakistan	Earthquake	1	166	75,320	10,000
	Flood	3	83	290,764	103,000
Palestine (West Bank)	Flood	1	0	0	0
Papua New Guinea	Flood	1	0	75,300	0
	Landslide	1	10	0	0
Philippines	Flood	8	116	1,602,889	39,577
	Landslide	1	24	5,028	0
	Storm	11	819	6,851,979	441,625
Russia	Earthquake	1	13	5,235	0
Sri Lanka	Flood	3	33	738,043	0
	Storm	1	9	50,000	0
Syrian Arab Rep.	Drought	1	0	1,000,000	0
Taiwan (China)	Storm	5	54	88	142,400
Tajikistan	Drought	1	0	800,000	0
	Extreme Temperature	1	0	2,000,000	840,000
Thailand	Drought	1	0	10,000,000	0
	Flood	3	39	1,572,157	27,844
	Storm	2	0	1,000	0
Turkey	Wildfire	1	2	300	0
Viet Nam	Flood	5	157	632,504	483,000
	Storm	5	254	156,649	190,500
Yemen	Flood	1	90	25,064	400,000
Grand Total		149	232,399	177,701,287	118,231,088

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

Among the 149 disasters recorded in 2008, China, one of the biggest countries in the world both in land area and population, has the most incidences of disasters (29). The Philippines comes second with 20, while Indonesia ranks third with 17 disasters. The world's second most populous country, India, recorded 11 disasters in 2008, Vietnam with 10, and Thailand 6. Taiwan, Bangladesh and Iran all had five disasters, while Sri Lanka, Pakistan and Afghanistan all recorded four disasters in the same year.

In other indexes, Myanmar (with only one disaster) accounts for 60 percent of all disaster-related deaths in Asia in 2008, while China accounts for 38 percent. Moreover, China has the most number of people affected (75 percent of all affected population) in Asia in 2008, as well as incurred the most economic damage (94 percent).

16. Disasters in Asia by Disaster Type, 2008

Table 13. Disasters in Asia by Disaster Type, 2008

Disaster Type	Country	Occurrence	Killed	Total Affected	Damage (US\$ '000s)
Drought	Afghanistan	1	0	280,000	0
	Syrian Arab Rep.	1	0	1,000,000	0
	Tajikistan	1	0	800,000	0
	Thailand	1	0	10,000,000	0
Earthquake	China P. Rep.	7	87,564	47,437,647	85,492,000
	Indonesia	3	11	10,727	0
	Iran Islam. Rep.	2	6	20,715	0
	Japan	2	24	918	277,000
	Kyrgyzstan	2	74	4,197	0
	Pakistan	1	166	75,320	10,000
	Russia	1	13	5,235	0
Epidemic	Afghanistan	1	17	1,100	0
	Iraq	1	11	892	0
	Mongolia	1	0	3,151	0
Extreme temperature	China P. Rep.	2	145	77,000,000	21,100,000
	India	1	70	0	0
	Tajikistan	1	0	2,000,000	840,000
Flood	Afghanistan	1	0	1,180	0
	Bangladesh	2	28	635,640	0
	China P. Rep.	7	352	7,189,166	2,392,000
	India	8	1,590	13,989,018	145,000
	Indonesia	12	112	476,195	1,733
	Iran Islam. Rep.	2	22	1,480	0
	Iraq	1	4	600	0
	Japan	1	5	50,003	0
	Kazakhstan	1	1	13,000	130,000
	Korea Rep.	1	10	13	0
	Lao P. Dem. Rep.	1	6	204,190	0
	Malaysia	2	0	8,000	0
	Nepal	2	115	250,003	29
	Pakistan	3	83	290,764	103,000
	Palestine (West Bank)	1	0	0	0
	Papua New Guinea	1	0	75,300	0
	Philippines	8	116	1,602,889	39,577
	Sri Lanka	3	33	738,043	0
	Thailand	3	39	1,572,157	27,844
Viet Nam	5	157	632,504	483,000	
Yemen	1	90	25,064	400,000	
Landslide	Bangladesh	1	13	50	0
	China P. Rep.	4	323	35	0
	India	1	37	0	0
	Indonesia	1	21	0	0
	Papua New Guinea	1	10	0	0
	Philippines	1	24	5,028	0
Storm	Afghanistan	1	1,317	170,684	0
	Bangladesh	2	27	400	0
	China P. Rep.	9	66	1,649,106	2,015,000
	Hong Kong (China)	3	2	207	380
	India	1	111	50	0
	Iran Islam. Rep.	1	28	0	0
	Mongolia	1	52	0	0
	Myanmar	1	138,366	2,420,000	4,000,000
	Philippines	11	819	6,851,979	441,625
	Sri Lanka	1	9	50,000	0
	Taiwan (China)	5	54	88	142,400
	Thailand	2	0	1,000	0
	Viet Nam	5	254	156,649	190,500
	Volcano	Indonesia	1	0	600
Wildfire	Turkey	1	2	300	0
Grand Total		149	232,399	177,701,287	118,231,088

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)

Among the 149 disasters recorded in 2008, flood accounts for 44 percent (66 incidences) of the total disasters. Storm (43) and earthquake (18) account for 29 and 12 percent respectively. Landslide (9) account for 6 percent, drought (4) and extreme temperature (4), 2.7 percent each. In 2008, there are only three epidemic disasters, one wildfire (Turkey) and one volcanic eruption (Indonesia).

Earthquake and landslide struck China the most (seven and four times respectively) in 2008; flood affected Indonesia the most (12 times); and storm, the Philippines (11 times).

Storm and earthquake account for 61 and 38 percent respectively of all disaster-related deaths in Asia in 2008. Extreme temperature and earthquake are the most pervasive disasters in terms of total affected population (accounting for 43 and 27 percent respectively), while earthquake is the most destructive disaster in terms of economic damage (73 percent).