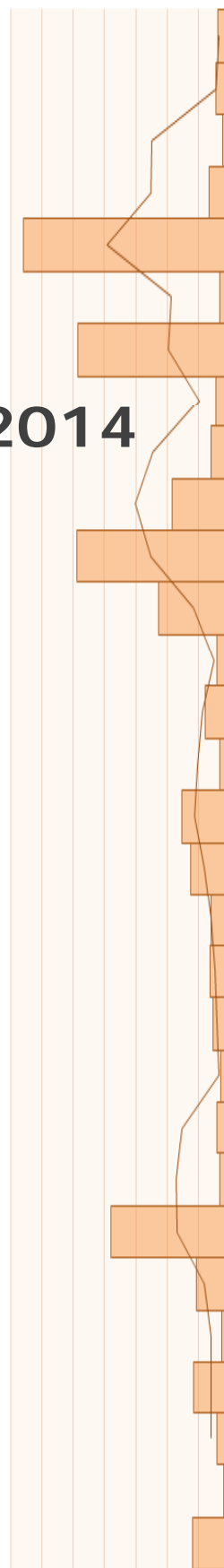


Natural Disaster Data Book 2014

An Analytical Overview



Asian Disaster Reduction Center



Overview

The Asian Disaster Reduction Center (ADRC) Natural Disasters Data Book 2014 provides statistical perspectives in figures and tables for 2014 as well as for the period 1985-2014 based on data obtained by EM-DAT.

According to EM-DAT, 328 natural disasters occurred in 2014 worldwide, killing 18,740 people and affecting over 107.3million people. The estimated amount of economic damage came close to US\$97.6 billion.

In 2014, the earthquake that hit China in August brought about serious damages to the country. The disaster killed 731 people and affected over 1.1 million people. The death toll is the largest in Asia and the fourth in the world following three epidemic events in Africa.

Drought and flood in China have largest affected people in the world with over 27.5 million and 15.0 million people, respectively.

By region, Asia is ranked the highest in disaster occurrences, the number of affected people and economic damage with 43.6 percent in occurrences; number of affected people, 86.2 percent; and amount of economic damage, 65.8 percent. Africa has the largest share in number of killed people with 60.7 percent.

By disaster types, flood is dominant in occurrence and economic damage at 39.3 percent and 34.1 percent, respectively, while epidemics tops in number of people killed by 58.2 percent and so does drought in number of affected people with 37.0 percent.

Data Book 2014 also contains tables of the 25 worst disasters by number of people killed and total affected people, economic damage, and their respective ratios to population and gross domestic product. It also includes tables of 2014 disasters in Asian countries sorted by country and disaster type.

[Notes]

Source:

All disaster data are based on D. Guha-Sapir, R. Below, Ph. Hoyois - EM-DAT: International Disaster Database – www.emdat.be – Université Catholique de Louvain – Brussels – Belgium. Data set was obtained on 12 June 2015, unless otherwise stated.

EM-DAT Criteria:

For a disaster to be entered into the database, at least one of the following criteria must be fulfilled:

- Ten (10) or more people reported killed
- Hundred (100) or more people reported affected
- Declaration of a state of emergency
- Call for international assistance.

In this Data Book 2014 “killed people” are defined as persons confirmed as dead and persons missing and presumed dead. “Affected people” are the sum of injured, homeless, and affected in EM-DAT. EM-DAT defines affected people as people requiring immediate assistance during the period of emergency; it can also include displaced or evacuated people.

Disaster Terms:

“Animal accident” is that human encounters with dangerous or exotic animals in both urban and rural developments.

“Drought” includes an extended period of unusually low precipitation that produces a shortage of water for people, animals and plants.

“Earthquake” includes ground shaking and tsunami.

“Epidemic” includes bacterial and viral infectious diseases.

“Extreme Temperature” includes heat wave, cold wave, and extreme winter conditions.

“Flood” includes general flood, and flash flood.

“Landslide” includes avalanche, debris, and rockfall.

“Storm” includes local storm, tropical cyclone, and winter storm.

“Volcanic activity” means volcanic eruption.

“Wildfire” includes bush/brush fire, forest fire, and scrub/grassland fire.

Disclaimer:

Country and region classification used in this book is based on EM-DAT criteria.

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1. IMPACTS OF NATURAL DISASTERS BY REGION, 2014

This section shows the impacts of natural disasters in four indices, occurrence, number of deaths, number of affected people and economic damage that were reported across the world in 2014. As shown in Figure 1, Asia ranks the first among all regions in the categories of disaster occurrence, the number of affected people and economic damage, accounting for 43.6 percent, 86.2 percent and 65.8 percent respectively. On the other hand, Africa is ranked the highest in the number of killed people, which is largely attributed to epidemics in Africa.

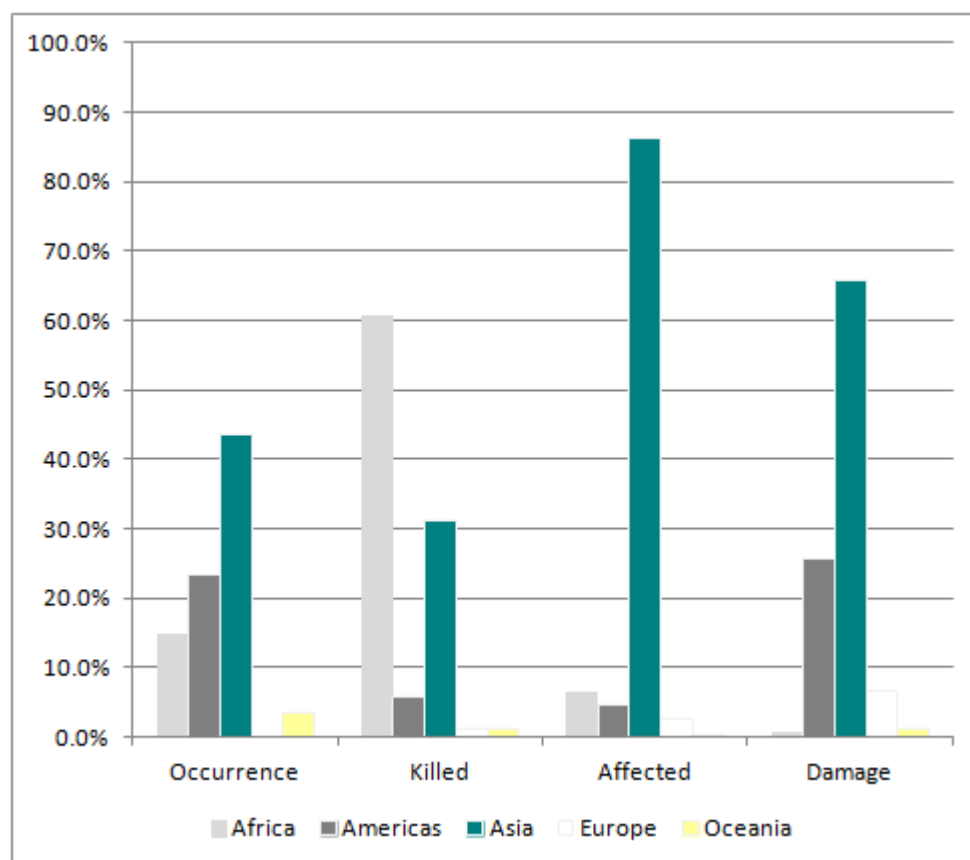


Figure 1: Impacts of Natural Disasters by Region, 2014

Table 1: Impacts of Natural Disasters by Region, 2014

Region	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Africa	49	(14.9%)	11,376	(60.7%)	6,817,848	(6.4%)	640	(0.7%)
Americas	77	(23.5%)	1,095	(5.8%)	4,968,997	(4.6%)	25,159	(25.8%)
Asia	143	(43.6%)	5,861	(31.3%)	92,520,523	(86.2%)	64,265	(65.8%)
Europe			207	(1.1%)	2,864,313	(2.7%)	6,473	(6.6%)
Oceania	11	(3.4%)	201	(1.1%)	170,033	(0.2%)	1,080	(1.1%)
Total	328	(100.0%)	18,740	(100.0%)	107,341,714	(100.0%)	97,616	(100.0%)

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, 2014

Regarding the breakdown of impacts of disasters by disaster type, 2014 sees different patterns of impacts by each index. In occurrence, flood tops at 39.3 percent followed by storm 29.6 percent though in number of killed and affected people, epidemic and drought have the largest shares, 58.2 percent and 37.0 percent, respectively. However, storm brings the heaviest economic damage by 40.9 percent followed by flood, 37.2 percent.

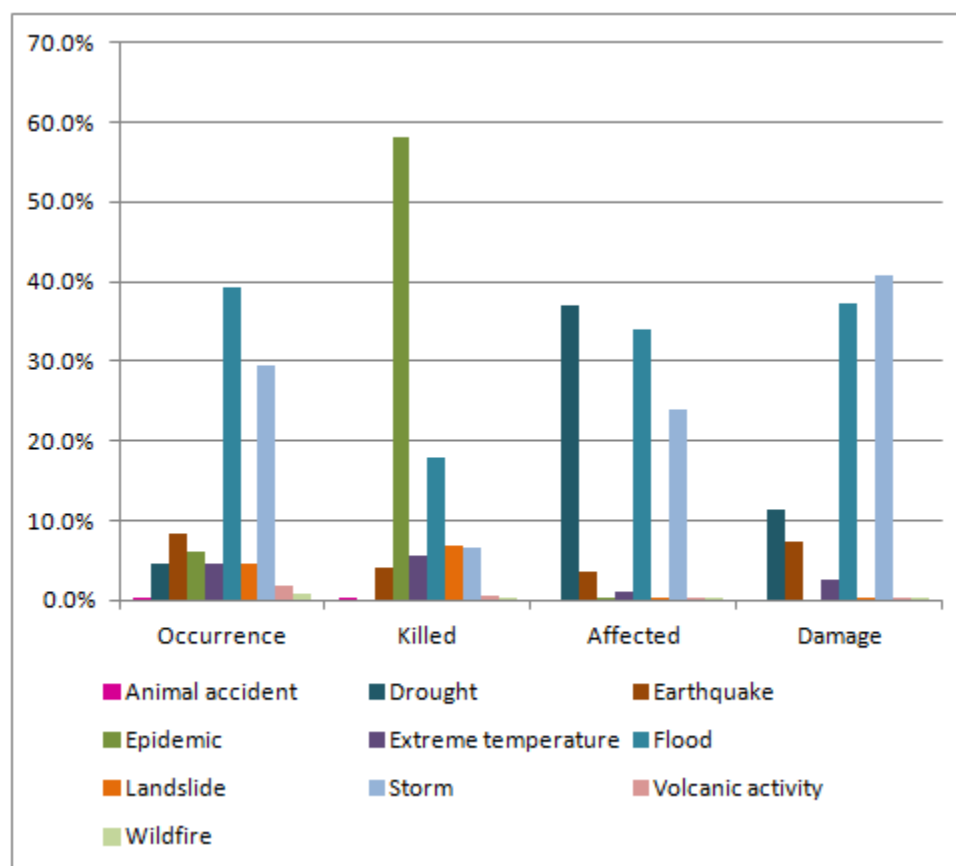


Figure 2: Impacts of Natural Disasters by Disaster Type, 2014

Table 2: Impacts of Natural Disasters by Disaster Type, 2014

Disaster Type	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Animal accident	1	(0.3%)	12	(0.1%)	5	(0.0%)		(0.0%)
Drought	15	(4.6%)		(0.0%)	39,724,280	(37.0%)	11,005	(11.3%)
Earthquake	27	(8.2%)	778	(4.2%)	3,695,051	(3.4%)	7,274	(7.5%)
Epidemic	20	(6.1%)	10,909	(58.2%)	157,199	(0.1%)		(0.0%)
Extreme temperature	15	(4.6%)	1,049	(5.6%)	1,101,441	(1.0%)	2,518	(2.6%)
Flood	129	(39.3%)	3,344	(17.8%)	36,556,893	(34.1%)	36,338	(37.2%)
Landslide	15	(4.6%)	1,303	(7.0%)	201,898	(0.2%)	258	(0.3%)
Storm	97	(29.6%)	1,228	(6.6%)	25,713,696	(24.0%)	39,878	(40.9%)
Volcanic activity	6	(1.8%)	101	(0.5%)	179,654	(0.2%)	186	(0.2%)
Wildfire	3	(0.9%)	16	(0.1%)	11,597	(0.0%)	159	(0.2%)
Total	328	(100.0%)	18,740	(100.0%)	107,341,714	(100.0%)	97,616	(100.0%)

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, 2014

Regarding the overview of impacts of disasters by disaster type in Asia, flood tops in all indices. Storm is ranked the second in occurrence and economic damage at around 36-39 percent. Landslide and drought have the second largest shares in number of killed and affected, respectively.

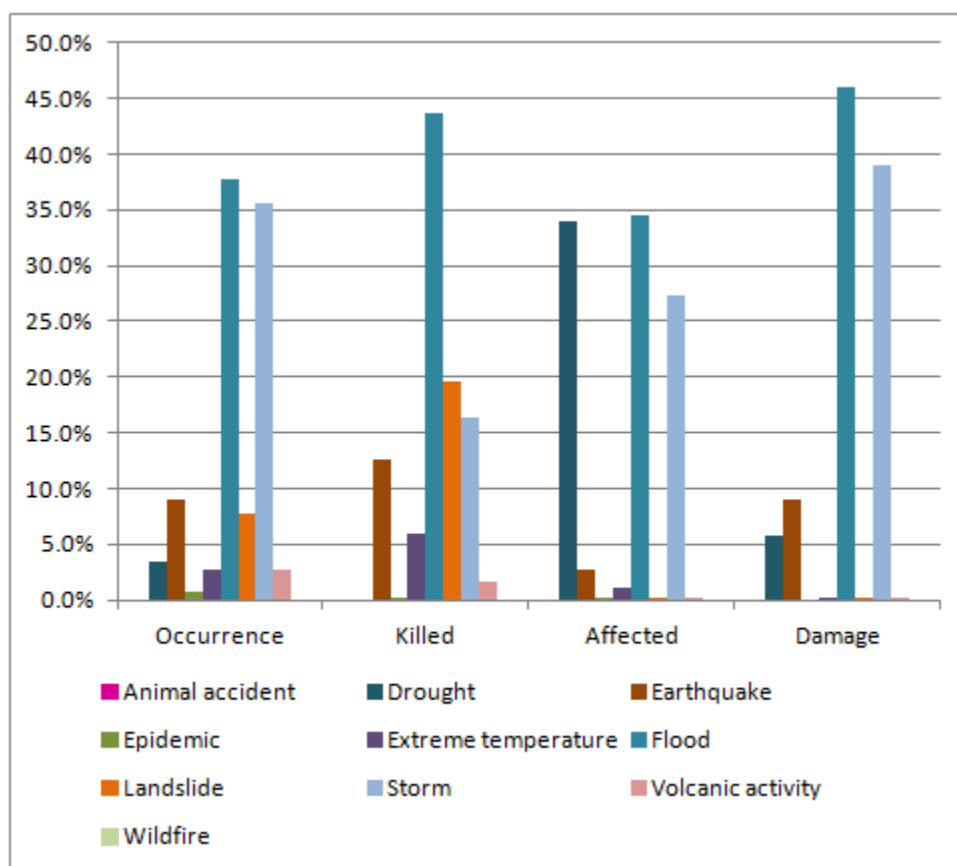


Figure 3: Impacts of Natural Disasters by Disaster Type in Asia, 2014

Table 3: Impacts of Natural Disasters by Disaster Type in Asia, 2014

Disaster Type	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Animal accident								
Drought	5	(3.5%)		(0.0%)	31,500,000	(34.0%)	3,705	(5.8%)
Earthquake	13	(9.1%)	739	(12.6%)	2,470,711	(2.7%)	5,743	(8.9%)
Epidemic	1	(0.7%)	2	(0.0%)	197	(0.0%)		(0.0%)
Extreme temperature	4	(2.8%)	351	(6.0%)	1,000,000	(1.1%)	18	(0.0%)
Flood	54	(37.8%)	2,560	(43.7%)	31,879,425	(34.5%)	29,559	(46.0%)
Landslide	11	(7.7%)	1,151	(19.6%)	189,998	(0.2%)	38	(0.1%)
Storm	51	(35.7%)	957	(16.3%)	25,304,418	(27.4%)	25,016	(38.9%)
Volcanic activity	4	(2.8%)	101	(1.7%)	175,774	(0.2%)	186	(0.3%)
Wildfire								
Total	143	(100.0%)	5,861	(100.0%)	92,520,523	(100.0%)	64,265	(100.0%)

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

4. TRENDS OF WORLD NATURAL DISASTERS, 1985-2014

4-1 NUMBER OF DISASTERS IN THE WORLD (1985-2014)

In terms of number of disasters, the year 2014 sees a slight decline from the previous year's 361 to 328. In the long run, the upward trend continues from the late 1980s till 2000 and the downward trend follows. In the collective 5-year period representation of data in Figure 4-2, a downward trend is observed in the last 15 years starting from 2000-2004 period.

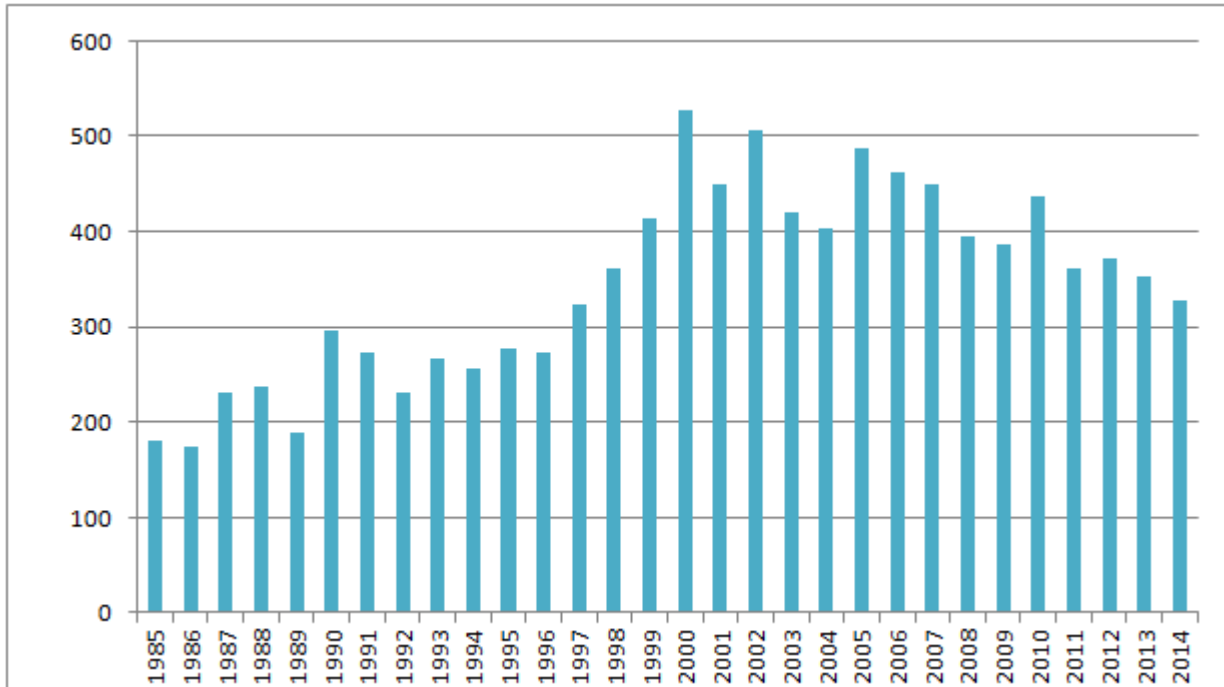


Figure 4-1: Disaster Occurrence, 1985-2014

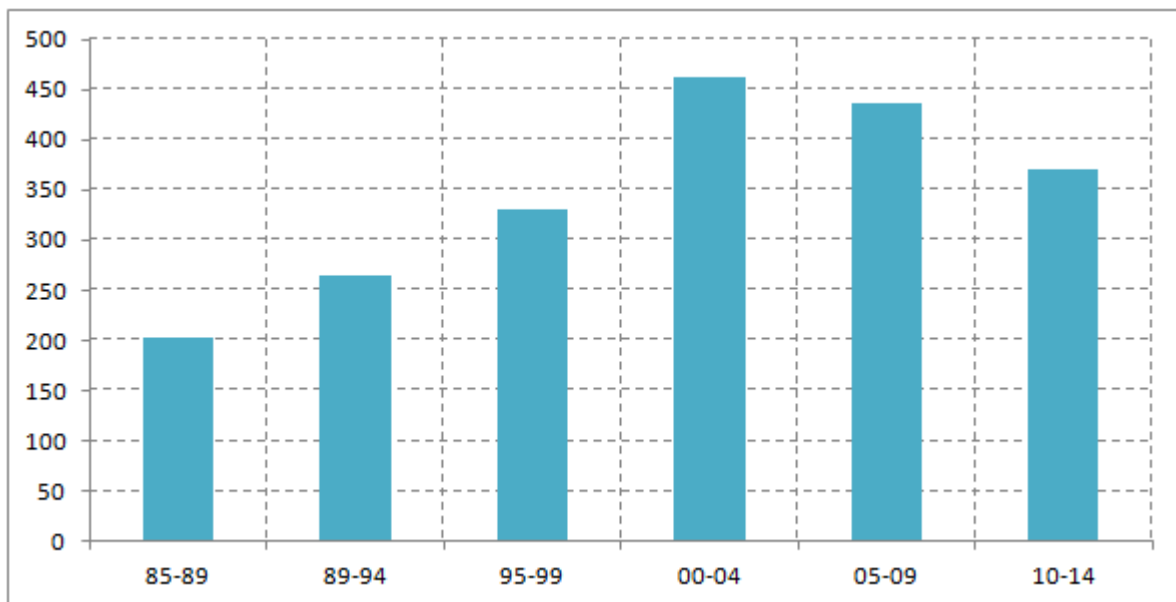


Figure 4-2: Disaster Occurrence (Average of 5-year period), 1985-2014

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

4-2 NUMBER OF PEOPLE KILLED IN THE WORLD (1985-2014)

The death toll in 2014 shows a decrease from the previous year's 23,538 to 18,740. As seen in Figure 4-4 about the trend of the 5-year period average, the number of people killed for the period 2010-2014 remains high at around 80,000 people in the last 15 years.

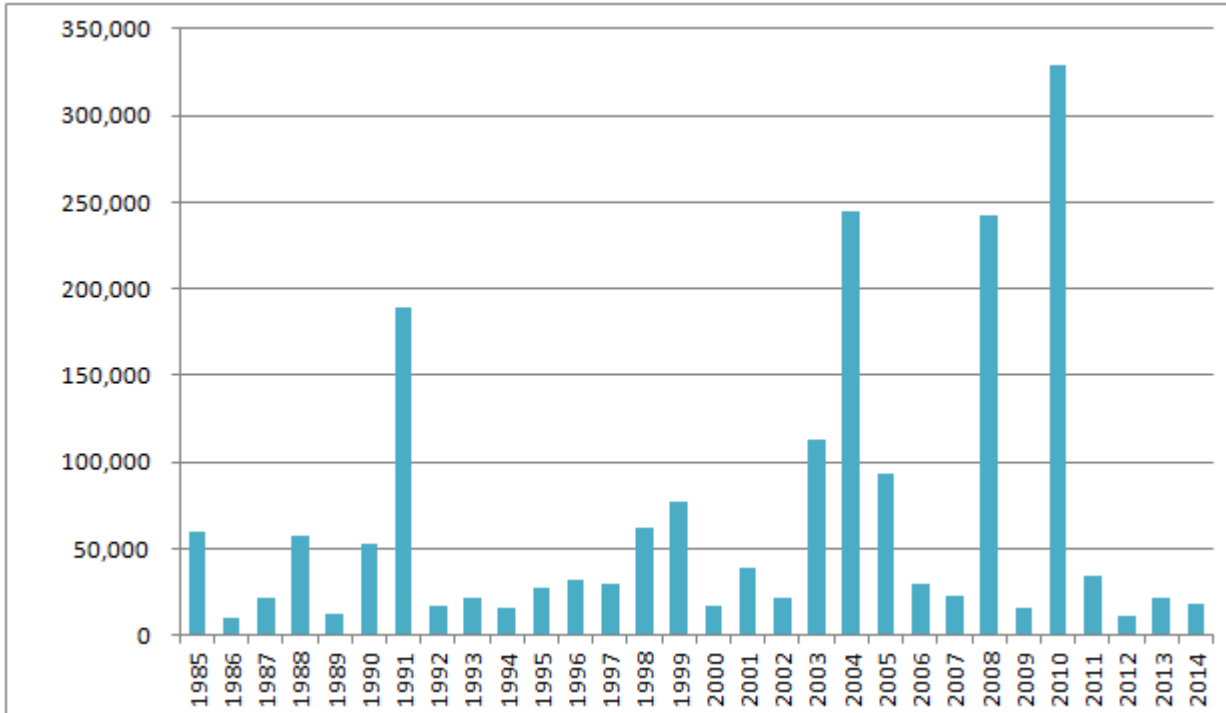


Figure 4-3: Number of People Killed, 1985-2014

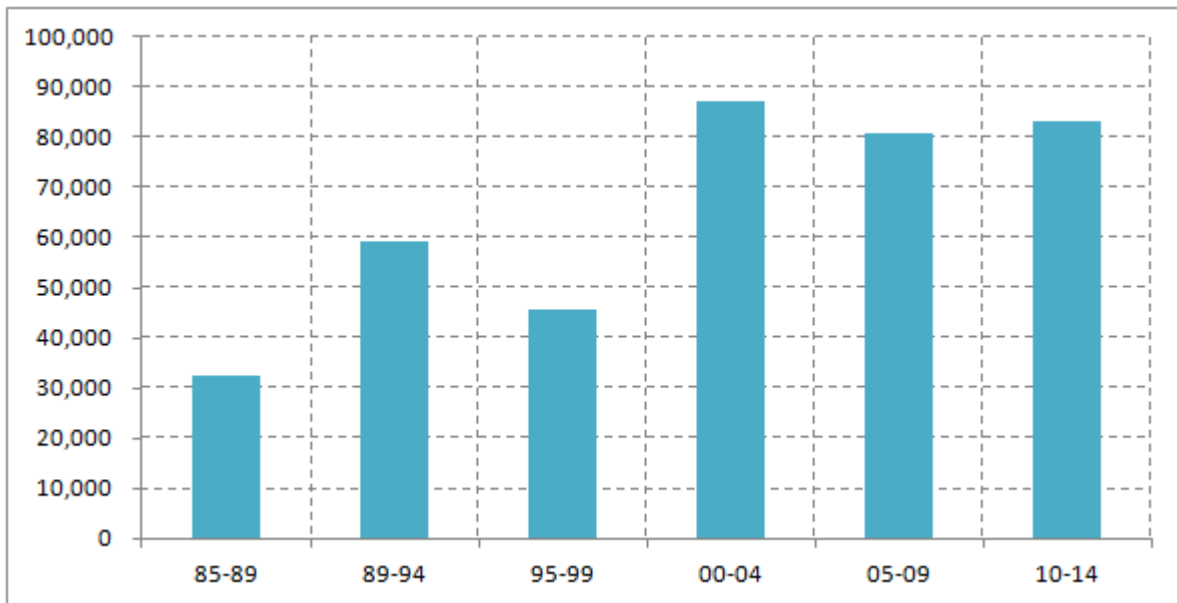


Figure 4-4: Number of People Killed (Average of 5-year period), 1985-2014

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

4-3 NUMBER OF PEOPLE AFFECTED IN THE WORLD (1985-2014)

In terms of number of the affected people, 2014 sees a slight increase from the previous year's 99,908,268 people to 107,341,714. The 5-year period average representation shows that the number of affected people continues to decrease in the last 15 years.

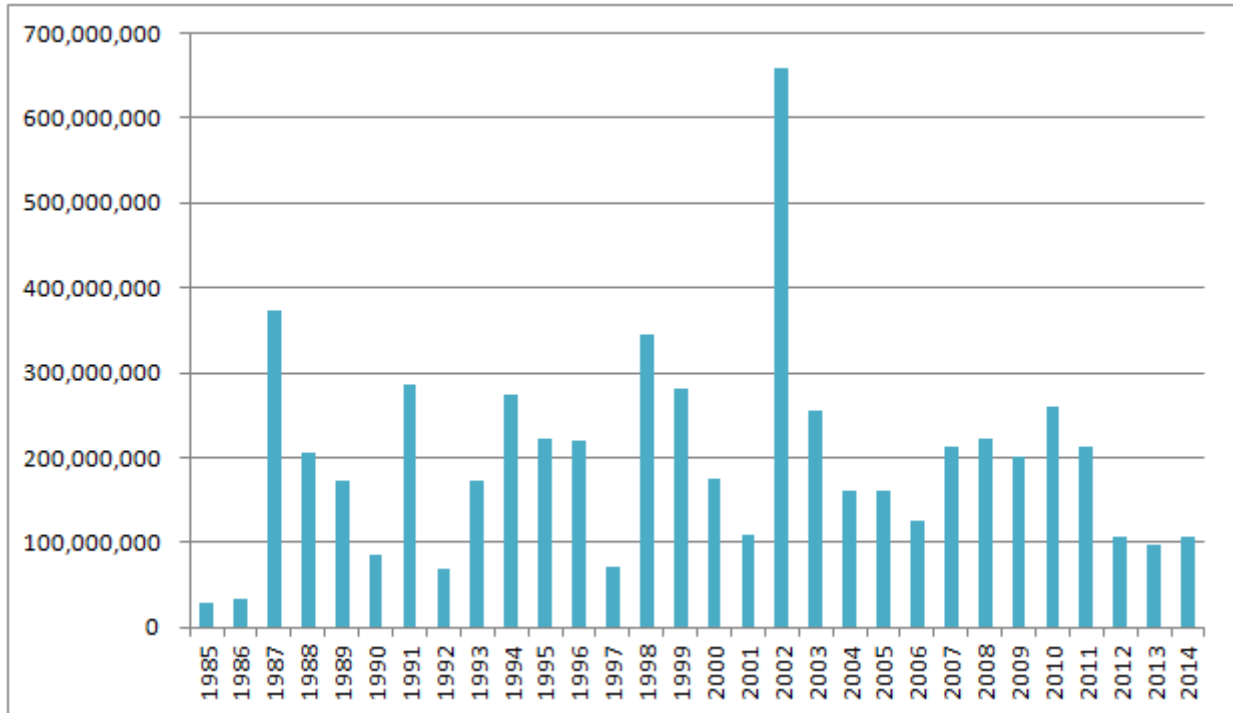


Figure 4-5: Total Number of Affected People, 1985-2014

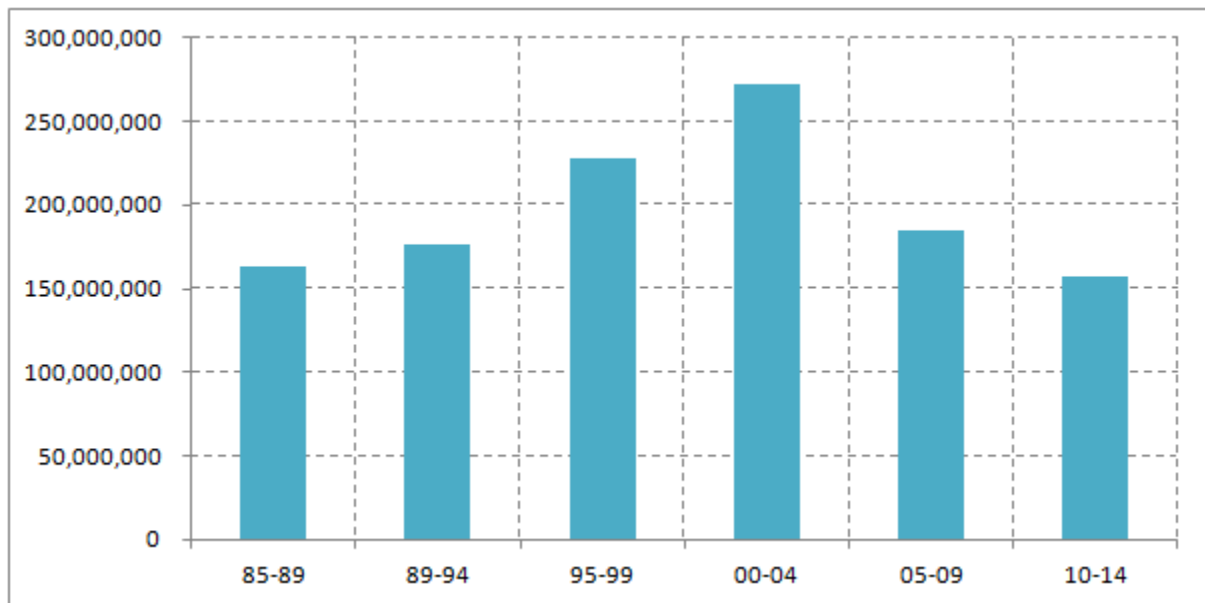


Figure 4-6: Number of Affected People (Average of 5 year period), 1985-2014

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

4-4 ECONOMIC DAMAGE IN THE WORLD (1985-2014)

Economic damage caused by natural disasters declines from some US\$119 billion in 2013 to US\$ 97.6 billion in 2014, the lowest in the last five years. By contrast, in the 5-year period average analysis, the 2010-2014 average reached a record high level in the last 30 years.

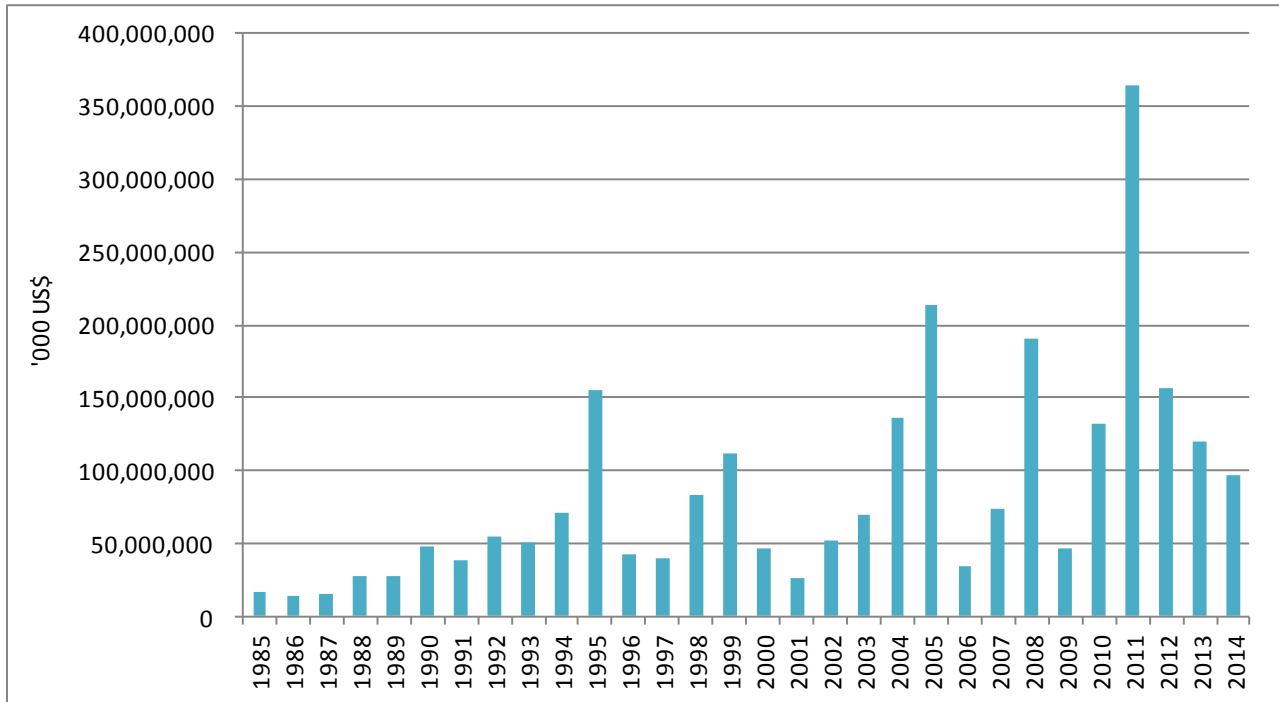


Figure 4-7: Amount of Damage, 1985-2014

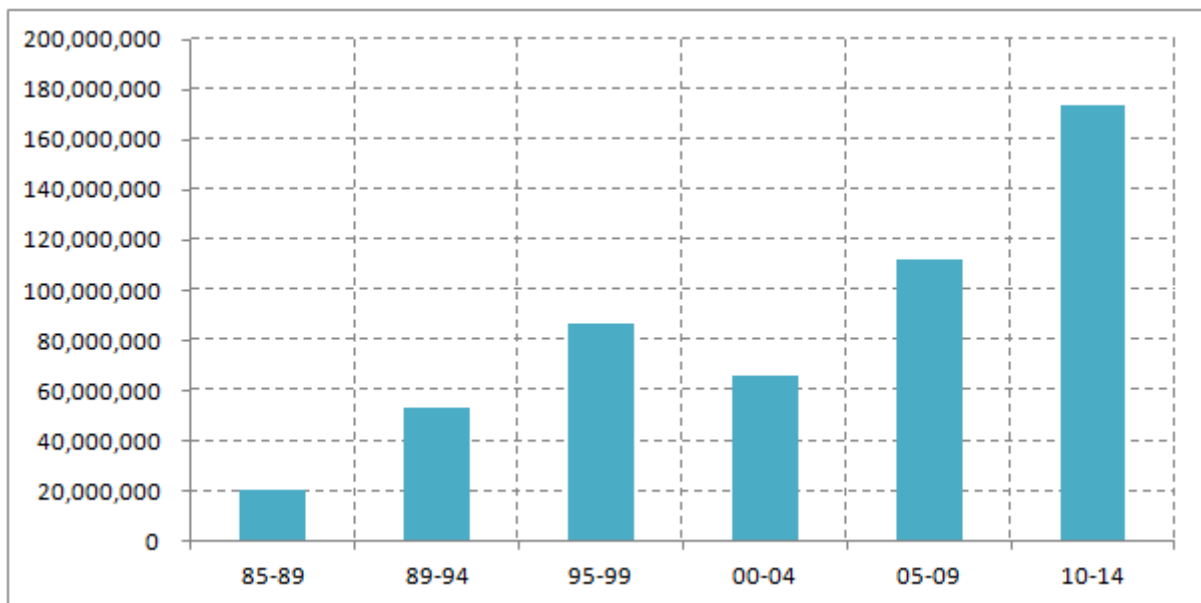


Figure 4-8: Economic Damage (Average of 5-year period), 1985-2014

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, 1985-2014

For the period 1985-2014, Asia dominates and ranks the first in all natural disaster's impact categories across regions of the world, especially in terms of the number of killed and affected.

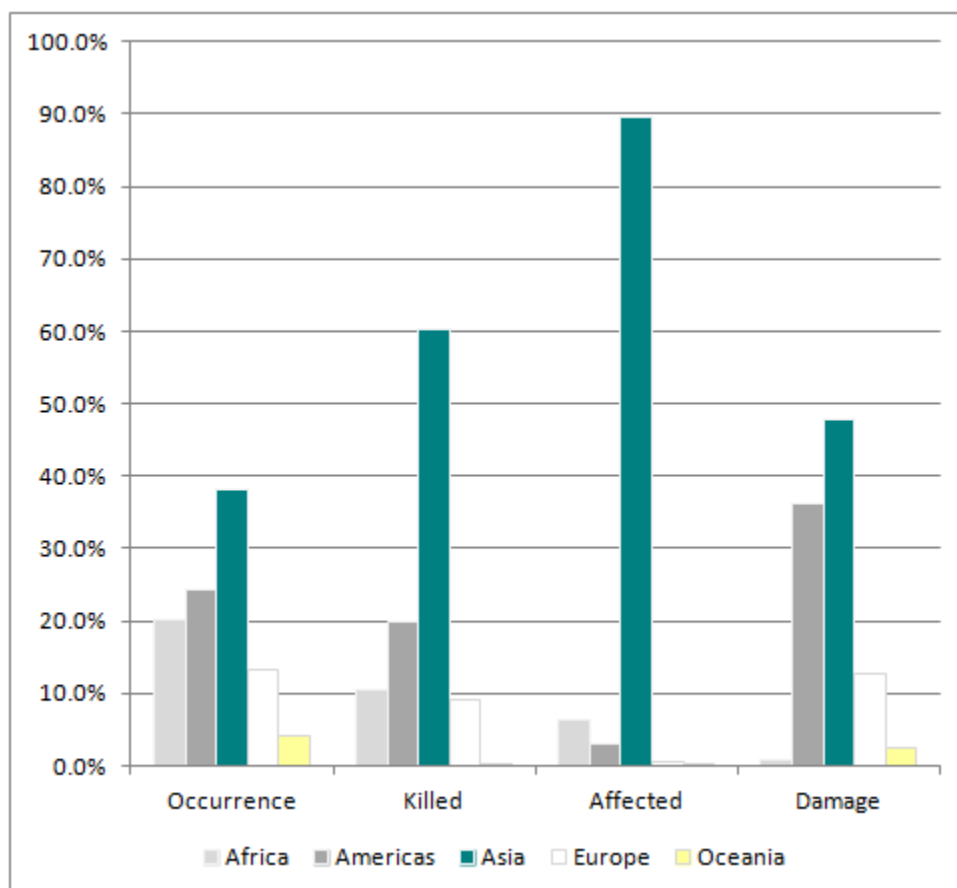


Figure 5: Impacts of World Natural Disasters by Region, 1985-2014

Table 5: Impacts of Natural Disasters by Region, 1985-2014

Region	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Africa	2,069	(20.1%)	202,563	(10.4%)	376,889,879	(6.4%)	19,051	(0.7%)
Americas	2,503	(24.3%)	385,930	(19.9%)	175,459,552	(3.0%)	926,238	(36.1%)
Asia	3,949	(38.3%)	1,171,945	(60.3%)	5,294,962,652	(89.7%)	1,226,204	(47.9%)
Europe	1,374	(13.3%)	176,139	(9.1%)	37,593,587	(0.6%)	325,781	(12.7%)
Oceania	424	(4.1%)	5,757	(0.3%)	20,328,057	(0.3%)	65,116	(2.5%)
Total	10,319	(100.0%)	1,942,334	(100.0%)	5,905,233,727	(100.0%)	2,562,390	(100.0%)

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

6. THE 25 WORST DISASTERS IN ASIA 2014

6-1 THE 25 WORST DISASTERS IN ASIA BY NUMBER OF PEOPLE KILLED, 2014

The death toll by the earthquake in China in August tops at 731 in Asia in 2014, followed by the landslide in Nepal at 450. There are 11 disaster events in Asia found in the list which claimed more than 100 lives. Flood occupies ten ranks in the worst 25 list.

Table 6-1: The 25 Worst Disasters in Asia by Number of People Killed, 2014

	Disaster Type	Country	Date	Killed	Affected	Economic Damage (US\$ Million)
1	Earthquake	China P Rep	03/08/2014	731	1,120,513	5,000
2	Landslide	Nepal	02/08/2014	450	184,894	
3	Flood	Afghanistan	24/04/2014	431	140,100	
4	Flood	Pakistan	01/09/2014	367	2,470,673	2,000
5	Flood	India	00/09/2014	298	275,000	16,000
6	Extreme temperature	Pakistan	00/01/2014	248		18
7	Flood	Nepal	12/08/2014	217	28,279	
8	Landslide	India	30/07/2014	209		
9	Landslide	Sri Lanka	29/10/2014	196		
10	Storm	Philippines	15/07/2014	111	4,654,966	821
11	Landslide	Indonesia	12/12/2014	108	3,900	
12	Flood	India	24/09/2014	95	650,000	163
13	Storm	Nepal	14/10/2014	83	175	
14	Landslide	Japan	20/08/2014	82	67	38
15	Flood	Afghanistan	03/06/2014	81	10,035	
16	Storm	Philippines	19/01/2014	79	1,148,707	13
17	Storm	Philippines	28/12/2014	72	578,549	18
18	Storm	China P Rep	18/07/2014	71	9,960,099	4,233
19	Flood	China P Rep	13/07/2014	66	110,500	1,250
20	Flood	China P Rep	01/09/2014	65	300,000	570
21	Storm	Afghanistan	01/02/2014	63		
22	Extreme temperature	Thailand	00/01/2014	63	1,000,000	
23	Volcanic activity	Japan	27/09/2014	62	69	
24	Flood	Bangladesh	11/08/2014	59	2,800,447	160
25	Flood	China P Rep	12/05/2014	53		700

Source:

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

6-2 THE 25 WORST DISASTERS IN ASIA BY NUMBER OF PEOPLE KILLED PER MILLION POPULATION, 2014

Using the ratio of the number of people killed to total country population, the landslide in Nepal tops with 16 persons killed per one million. By disaster type, floods occupy the largest share in the 25 Worst Disasters in Asia by number of people killed per population in 2014 with ten disaster events listed in the list.

Table 6-2: The 25 Worst Disasters in Asia by Number of People Killed per Million Population, 2014

	Disaster Type	Country	Date	Killed per million	Killed	Population
1	Landslide	Nepal	02/08/2014	16.19	450	27,797,457
2	Flood	Afghanistan	24/04/2014	14.11	431	30,551,674
3	Landslide	Sri Lanka	29/10/2014	9.57	196	20,483,000
4	Flood	Nepal	12/08/2014	7.81	217	27,797,457
5	Storm	Nepal	14/10/2014	2.99	83	27,797,457
6	Flood	Cambodia	30/07/2014	2.97	45	15,135,169
7	Flood	Afghanistan	03/06/2014	2.65	81	30,551,674
8	Flood	Tajikistan	22/04/2014	2.44	20	8,207,834
9	Storm	Afghanistan	01/02/2014	2.06	63	30,551,674
10	Flood	Pakistan	01/09/2014	2.01	367	182,142,594
11	Flood	Sri Lanka	01/12/2014	2.00	41	20,483,000
12	Landslide	Sri Lanka	28/10/2014	1.86	38	20,483,000
13	Epidemic	Timor-Leste	00/01/2014	1.70	2	1,178,252
14	Extreme temperature	Pakistan	00/01/2014	1.36	248	182,142,594
15	Flood	Sri Lanka	04/06/2014	1.32	27	20,483,000
16	Storm	Philippines	15/07/2014	1.13	111	98,393,574
17	Extreme temperature	Thailand	00/01/2014	0.94	63	67,010,502
18	Storm	Philippines	19/01/2014	0.80	79	98,393,574
19	Storm	Philippines	28/12/2014	0.73	72	98,393,574
20	Landslide	Nepal	02/08/2014	0.65	18	27,797,457
21	Landslide	Japan	20/08/2014	0.64	82	127,338,621
22	Landslide	Nepal	18/04/2014	0.58	16	27,797,457
23	Flood	Nepal	01/07/2014	0.58	16	27,797,457
24	Flood	Malaysia	16/12/2014	0.57	17	29,716,965
25	Earthquake	China P Rep	03/08/2014	0.54	731	1,357,380,000

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)
*Data from World Bank 2012

6-3 THE 25 WORST DISASTERS IN ASIA BY NUMBER OF PEOPLE AFFECTED, 2014

In terms of the number of people affected, the drought in China ranks the first with 27.5 million people affected. In 2014, the number of disaster events that affected more than one million amounts to 18. By country, China has nine ranks in the list. By disaster type, flood amounts to 12 out of the 25 disasters followed by 8 storms .

Table 6-3: The 25 Worst Disasters in Asia by Total Number of People Affected, 2014

	Disaster Type	Country	Date	Killed	Affected	Economic Damage (US\$ Million)
1	Drought	China P Rep	00/08/2014		27,500,000	2,500
2	Flood	China P Rep	17/06/2014	24	15,000,000	900
3	Storm	China P Rep	18/07/2014	71	9,960,099	4,233
4	Storm	Philippines	15/07/2014	111	4,654,966	821
5	Storm	Philippines	12/12/2014	18	4,150,400	114
6	Flood	India	09/08/2014	47	3,600,000	100
7	Flood	Bangladesh	11/08/2014	59	2,800,447	160
8	Flood	Pakistan	01/09/2014	367	2,470,673	2,000
9	Drought	Malaysia	00/03/2014		2,200,000	
10	Storm	Philippines	17/09/2014	22	2,052,157	76
11	Drought	Sri Lanka	00/01/2014		1,800,000	25
12	Storm	Philippines	19/01/2014	79	1,148,707	13
13	Earthquake	China P Rep	03/08/2014	731	1,120,513	5,000
14	Flood	Sri Lanka	01/12/2014	41	1,100,020	
15	Flood	China P Rep	10/09/2014	50	1,065,000	1,400
16	Extreme temperature	Thailand	00/01/2014	63	1,000,000	
17	Storm	India	12/10/2014	45	920,000	7,000
18	Flood	China P Rep	01/06/2014	33	720,000	677
19	Flood	India	24/09/2014	95	650,000	163
20	Storm	Philippines	28/12/2014	72	578,549	18
21	Flood	Cambodia	30/07/2014	45	530,450	
22	Flood	China P Rep	24/05/2014	37	475,000	1,200
23	Flood	China P Rep	04/06/2014	37	450,000	1,100
24	Earthquake	China P Rep	12/02/2014		450,000	174
25	Flood	Iran Islam Rep	01/06/2014	37.00	440,000	49

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

6-4 THE 25 WORST DISASTERS IN ASIA BY AFFECTED PEOPLE PER THOUSAND POPULATION, 2014

Using the index of the affected people per thousand population, the drought in Malaysia results in 74 affected person per thousand population. Among top 25 countries, flood and storm disasters occupy 14 and 7 ranks in the list, respectively.

Table 6-4: The 25 Worst Disasters in Asia by Total Number of People Affected per Thousand Population, 2014

Disaster Type	Country	Date	Affected per thousand	Affected	Population
1 Drought	Malaysia	00/03/2014	74.03	2,200,000	29,716,965
2 Flood	Sri Lanka	01/12/2014	53.70	1,100,020	20,483,000
3 Storm	Philippines	15/07/2014	47.31	4,654,966	98,393,574
4 Storm	Philippines	12/12/2014	42.18	4,150,400	98,393,574
5 Flood	Cambodia	30/07/2014	35.05	530,450	15,135,169
6 Storm	Philippines	17/09/2014	20.86	2,052,157	98,393,574
7 Drought	China P Rep	00/08/2014	20.26	27,500,000	1,357,380,000
8 Flood	Bangladesh	11/08/2014	17.88	2,800,447	156,594,962
9 Extreme temperature	Thailand	00/01/2014	14.92	1,000,000	67,010,502
10 Flood	Pakistan	01/09/2014	13.56	2,470,673	182,142,594
11 Storm	Philippines	19/01/2014	11.67	1,148,707	98,393,574
12 Flood	China P Rep	17/06/2014	11.05	15,000,000	1,357,380,000
13 Flood	Malaysia	16/12/2014	7.74	230,000	29,716,965
14 Storm	China P Rep	18/07/2014	7.34	9,960,099	1,357,380,000
15 Landslide	Nepal	02/08/2014	6.65	184,894	27,797,457
16 Storm	Philippines	28/12/2014	5.88	578,549	98,393,574
17 Flood	Iran Islam Rep	01/06/2014	5.68	440,000	77,447,168
18 Flood	Sri Lanka	04/06/2014	5.08	104,009	20,483,000
19 Flood	Afghanistan	24/04/2014	4.59	140,100	30,551,674
20 Storm	Philippines	10/09/2014	4.38	431,086	98,393,574
21 Flood	India	09/08/2014	2.88	3,600,000	1,252,139,596
22 Flood	Georgia	21/09/2014	2.68	12,000	4,476,900
23 Flood	Thailand	01/09/2014	1.09	73,260	67,010,502
24 Flood	Indonesia	24/01/2014	1.04	260,350	249,865,631
25 Flood	Nepal	12/08/2014	1.02	28,279	27,797,457

Source:

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,

Université Catholique de Louvain, Brussels (Belgium)

*Data from World Bank 2012

6-5 THE 25 WORST DISASTERS IN ASIA BY ECONOMIC DAMAGE, 2014

According to the EM-DAT database, flood in India tops in the 25 ranks of the worst economic damage in Asia in 2014 with US\$ 16,000 million. By country, China occupies as many as 19 out of 25 ranks. By disaster type, flood and storm have the largest shares with 15 and 7 ranks respectively.

Table 6-5: The 25 Worst Disasters in Asia by Economic Damage, 2014

	Disaster Type	Country	Date	Total deaths	Total affected	Economic Damage (US\$ Million)
1	Flood	India	00/09/2014	298.00	275000	16,000
2	Storm	India	12/10/2014	45.00	920000	7,000
3	Storm	Japan	08/02/2014	37.00		5,900
4	Earthquake	China P Rep	03/08/2014	731.00	1120513	5,000
5	Storm	China P Rep	18/07/2014	71.00	9960099	4,233
6	Storm	China P Rep	10/09/2014	9.00	394000	2,900
7	Drought	China P Rep	00/08/2014		27500000	2,500
8	Flood	Pakistan	01/09/2014	367.00	2470673	2,000
9	Flood	China P Rep	10/09/2014	50.00	1065000	1,400
10	Flood	China P Rep	13/07/2014	66.00	110500	1,250
11	Flood	China P Rep	24/05/2014	37.00	475000	1,200
12	Drought	China P Rep	00/06/2014			1,180
13	Flood	China P Rep	04/06/2014	37.00	450000	1,100
14	Flood	China P Rep	17/06/2014	24.00	15000000	900
15	Storm	Philippines	15/07/2014	111.00	4654966	821
16	Flood	China P Rep	12/05/2014	53.00		700
17	Flood	China P Rep	01/06/2014	33.00	720000	677
18	Storm	China P Rep	07/02/2014	10.00	100090	675
19	Flood	Indonesia	08/01/2014	32.00	20000	600
20	Flood	China P Rep	22/08/2014	10.00	50000	600
21	Flood	China P Rep	01/09/2014	65.00	300000	570
22	Flood	China P Rep	03/07/2014	23.00	25000	500
23	Storm	China P Rep	22/07/2014	14.00		500
24	Flood	China P Rep	11/08/2014	27.00	150000	487
25	Flood	China P Rep	25/06/2014	24.00	150000	483

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

6-6 THE 25 WORST DISASTERS IN ASIA BY RATIO OF ECONOMIC DAMAGE TO GDP, 2014

In terms of economic damage incurred relative to gross domestic product (GDP), two disasters, the floods in Pakistan and India result in the highest damage with 0.861 percent and 0.853 percent of the individual GDP. Flood and storm have the highest ranks with 12 and 7 ranks, respectively. China shares nine ranks in the list.

Table 6-6: The 25 Worst Disasters in Asia by Ratio of Economic Damage to GDP, 2014

	Disaster Type	Country	Date	Economic Damage / GDP (as per cent)	Economic Damage (US\$ Million)	GDP (US\$ Million)
1	Flood	Pakistan	01/09/2014	0.8610	2,000	232,287
2	Flood	India	00/09/2014	0.8525	16,000	1,876,797
3	Storm	India	12/10/2014	0.3730	7,000	1,876,797
4	Storm	Philippines	15/07/2014	0.3016	821	272,067
5	Storm	Japan	08/02/2014	0.1199	5,900	4,919,563
6	Flood	Bangladesh	11/08/2014	0.1067	160	149,990
7	Flood	Malaysia	16/12/2014	0.0907	284	313,159
8	Flood	Indonesia	08/01/2014	0.0691	600	868,346
9	Earthquake	China P Rep	03/08/2014	0.0541	5,000	9,240,270
10	Storm	China P Rep	18/07/2014	0.0458	4,233	9,240,270
11	Storm	Philippines	12/12/2014	0.0419	114	272,067
12	Drought	Sri Lanka	00/01/2014	0.0372	25	67,182
13	Storm	China P Rep	10/09/2014	0.0314	2,900	9,240,270
14	Storm	Philippines	17/09/2014	0.0279	76	272,067
15	Drought	China P Rep	00/08/2014	0.0271	2,500	9,240,270
16	Flood	Indonesia	24/01/2014	0.0199	173	868,346
17	Flood	Indonesia	14/01/2014	0.0176	153	868,346
18	Earthquake	Thailand	05/05/2014	0.0160	62	387,252
19	Flood	China P Rep	10/09/2014	0.0152	1,400	9,240,270
20	Flood	China P Rep	13/07/2014	0.0135	1,250	9,240,270
21	Flood	Iran Islam Rep	01/06/2014	0.0133	49	368,904
22	Flood	China P Rep	24/05/2014	0.0130	1,200	9,240,270
23	Drought	China P Rep	00/06/2014	0.0128	1,180	9,240,270
24	Flood	China P Rep	04/06/2014	0.0119	1,100	9,240,270
25	Volcanic activity	Indonesia	14/02/2014	0.0119	103	868,346

Source:
EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be,
Université Catholique de Louvain, Brussels (Belgium)
*Data from World Bank 2012

7. DISASTERS IN ASIA BY COUNTRY, 2014

Country	Disaster Type	Occurrence	Total deaths	Total affected	Damage ('000 US\$)
Afghanistan	Flood	2	512	150,135	
	Storm	1	63		
Bangladesh	Flood	1	59	2,800,447	160,000
	Storm	2	20	5,262	
Cambodia	Flood	1	45	530,450	
China	Drought	2		27,500,000	3,680,000
	Earthquake	8	737	2,437,673	5,638,000
	Flood	13	473	18,556,500	9,867,000
	Landslide	1	8	407	
	Storm	15	174	11,209,694	9,969,973
Georgia	Flood	1		12,000	
India	Extreme temperature	2	40		
	Flood	8	586	4,726,500	16,263,000
	Landslide	1	209		
	Storm	4	84	931,564	7,000,000
Indonesia	Flood	7	80	437,087	926,000
	Landslide	2	127	3,900	
	Volcanic activity	2	39	115,160	186,000
Iran Islam Rep	Earthquake	2	1	12,580	43,000
	Flood	1	37	440,000	49,000
Japan	Earthquake	1		2,611	
	Landslide	1	82	67	38,000
	Storm	9	129	38,482	6,541,000
	Volcanic activity	1	62	69	
Kazakhstan	Flood	1	5	2,709	
Korea Rep	Flood	1	17		
	Storm	2	24	101	11,000
Kyrgyzstan	Storm	1			
Lao P Dem Rep	Flood	1		750	
Malaysia	Drought	1		2,200,000	
	Flood	1	17	230,000	284,000
Myanmar	Flood	2		40,000	
Nepal	Flood	3	241	30,679	
	Landslide	3	484	184,894	
	Storm	1	83	175	
Pakistan	Extreme temperature	1	248		18,000
	Flood	1	367	2,470,673	2,000,000
	Storm	1	16	82	
Philippines	Flood	2	4	102,955	
	Storm	9	326	13,068,983	1,062,899
	Volcanic activity	1		60,545	

Country	Disaster Type	Occurrence	Total deaths	Total affected	Damage ('000 US\$)
Sri Lanka	Drought	1		1,800,000	25,000
	Flood	2	68	1,204,029	
	Landslide	3	241	730	
Taiwan (China)	Storm	2			420,000
Tajikistan	Flood	2	20	13,223	
Thailand	Drought	1			
	Earthquake	1	1	17,523	62,000
	Extreme temperature	1	63	1,000,000	
	Flood	4	29	131,288	10,000
	Storm	1		2,000	
Timor-Leste	Epidemic	1	2	197	
Turkey	Earthquake	1		324	
Viet Nam	Storm	3	38	48,075	10,700
Total		143	5861	92,520,523	64,264,572

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

This table shows sum of disaster impacts in Asia in 2014.

In 2014, China accounts for the highest in all indices in Asia, occurrence, number of killed people, number of affected people and economic damage by 27 percent, 24 percent, 65 percent and 45 percent, respectively.

While India has the second largest shares after China by 10 percent, in number of killed people, Nepal and Pakistan follow China by 14 and 11 percent.

On the other hand, the Philippines has the second largest number of people affected by 14 percent after China.

Similar to disaster occurrence, India follows China in economic damage by 36 percent.

8. DISASTERS IN ASIA BY DISASTER TYPE, 2014

Disaster Type	Country	Occurrence	Total deaths	Total affected	Damage ('000 US\$)
Drought	China P Rep	2		27,500,000	3,680,000
	Malaysia	1		2,200,000	
	Sri Lanka	1		1,800,000	25,000
	Thailand	1			
Earthquake	China P Rep	8	737	2,437,673	5,638,000
	Iran Islam Rep	2	1	12,580	43,000
	Japan	1		2,611	
	Thailand	1	1	17,523	62,000
	Turkey	1		324	
Epidemic	Timor-Leste	1	2	197	
Extreme temperature	India	2	40		
	Pakistan	1	248		18,000
	Thailand	1	63	1,000,000	
Flood	Afghanistan	2	512	150,135	
	Bangladesh	1	59	2,800,447	160,000
	Cambodia	1	45	530,450	
	China P Rep	13	473	18,556,500	9,867,000
	Georgia	1		12,000	
	India	8	586	4,726,500	16,263,000
	Indonesia	7	80	437,087	926,000
	Iran Islam Rep	1	37	440,000	49,000
	Kazakhstan	1	5	2,709	
	Korea Rep	1	17		
	Lao P Dem Rep	1		750	
	Malaysia	1	17	230,000	284,000
	Myanmar	2		40,000	
	Nepal	3	241	30,679	
	Pakistan	1	367	2,470,673	2,000,000
	Philippines	2	4	102,955	
	Sri Lanka	2	68	1,204,029	
Tajikistan	2	20	13,223		
Thailand	4	29	131,288	10,000	
Landslide	China P Rep	1	8	407	
	India	1	209		
	Indonesia	2	127	3,900	
	Japan	1	82	67	38,000
	Nepal	3	484	184,894	
	Sri Lanka	3	241	730	
Storm	Afghanistan	1	63		
	Bangladesh	2	20	5,262	
	China P Rep	15	174	11,209,694	9,969,973
	India	4	84	931,564	7,000,000
	Japan	9	129	38,482	6,541,000
	Korea Rep	2	24	101	11,000

Disaster Type	Country	Occurrence	Total deaths	Total affected	Damage ('000 US\$)
	Kyrgyzstan	1			
	Nepal	1	83	175	
	Pakistan	1	16	82	
	Philippines	9	326	13,068,983	1,062,899
	Taiwan (China)	2			420,000
	Thailand	1		2,000	
	Viet Nam	3	38	48,075	10,700
Volcanic activity	Indonesia	2	39	115,160	186,000
	Japan	1	62	69	
	Philippines	1		60,545	
Total		143	5861	92,520,523	64,264,572

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

This table shows disasters in Asia in 2014 by disaster type.

Flood makes up for the largest shares in all indices of occurrence, the number of people killed, the number of people affected and economic damage, by 38 percent, 44 percent, 34 percent and 46 percent, respectively. A total of 19 countries have impacts by flood.

Then storm ranks second in occurrence, number of killed people and economic damage by 36 percent, 16 percent and 39 percent respectively with 13 countries.

In number of affected people, drought has second largest at 34 percent followed by storm by 27 percent.

The Asian Disaster Reduction Center was established in Kobe, Japan in 1998 with the mission to enhance disaster resilience of its member-countries, to build safe communities, and to create a society where sustainable development is possible. The Center works to build disaster resilient communities and to establish networks among countries through many programs including personnel exchanges in this field.



Asian Disaster Reduction Center