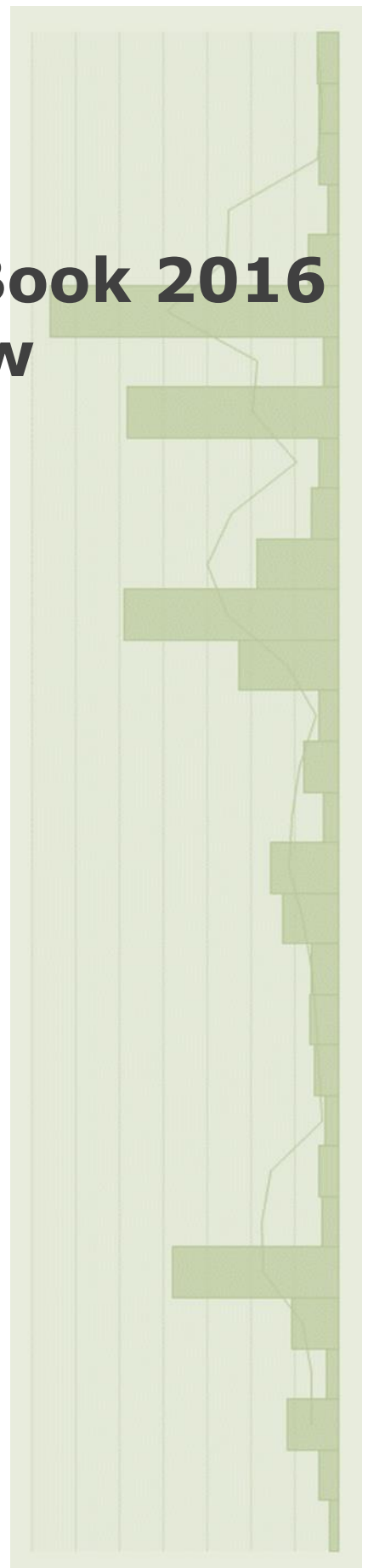


# Natural Disaster Data Book 2016

## An Analytical Overview



Asian Disaster Reduction Center

## Overview

Asian Disaster Reduction Center (ADRC) Natural Disasters Data Book 2016 provides statistical perspectives in figures and tables for 2016 as well as for the period 1987-2016 based on data obtained by EM-DAT.

According to EM-DAT, 350 natural disasters occurred in 2016 worldwide, killing 10,273 people and affecting over 204 million people. The estimated amount of economic damage came close to US\$147.4 billion.

In 2016, the earthquake that hit Ecuador in April brought about serious damages to the country. The disaster claimed nearly 670 people. The storm that hit the United States in January has the largest affected people in the world with over 85.0 million.

On the other hand, the flood that hit China in June caused the largest economic damage worth US\$2.2 billion, which ranked the highest.

By region, Asia is ranked the highest in the indices of disaster occurrences, the number of people killed and economic damage. Asia accounts for 45.1 percent in occurrences; number of people killed, 50.5 percent; and amount of economic damage, 49.5 percent. As for the number of people affected, Americas topped by 46.4 percent.

By disaster types, flood is dominant in occurrence, killed, and economic damage at 45.7 percent, 45.3 percent, and 38.7 percent, respectively, while storm tops in number of people affected by 46.0 percent.

Data Book 2016 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 2016 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 21 December 2017, 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 2016 “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” includes volcanic eruption of lava, ash, hot vapour, gas, and pyroclastic material.

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

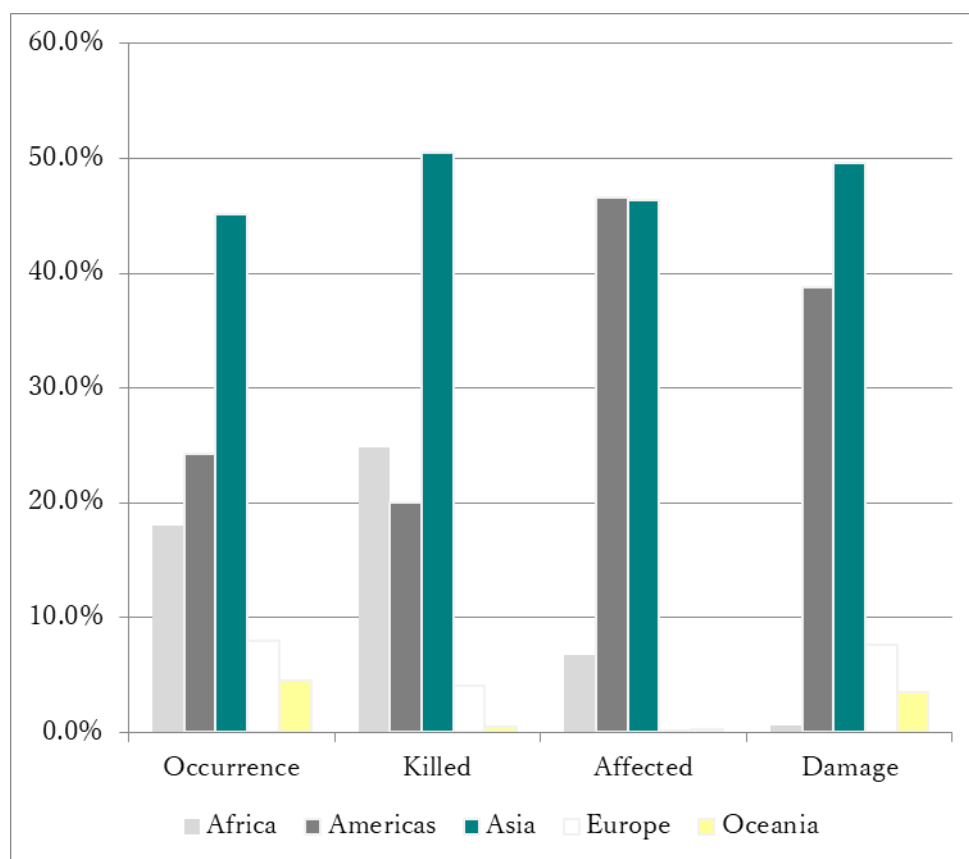
### *Disclaimer:*

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

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## 1. IMPACTS OF NATURAL DISASTERS BY REGION

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 2016. As shown in Figure 1, Asia ranks the first among all regions in the categories of disaster occurrence, the number of killed people, and economic damage, accounting for 45.1 percent, 50.5 percent, and 49.5 percent, respectively. On the other hand, Americas is ranked the highest in the number of affected people, which is largely attributed to storm in Americas.



**Figure 1: Impacts of Natural Disasters by Region, 2016**

**Table 1: Impacts of Natural Disasters by Region, 2016**

Region	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Africa	63	(18.0%)	2,554	(24.9%)	13,760,813	(6.7%)	867	(0.6%)
Americas	85	(24.3%)	2,062	(20.1%)	95,038,986	(46.6%)	57,148	(38.8%)
Asia	158	(45.1%)	5,186	(50.5%)	94,718,029	(46.4%)	73,017	(49.5%)
Europe	28	(8.0%)	415	(4.0%)	93,426	(0.0%)	11,179	(7.6%)
Oceania	16	(4.6%)	56	(0.5%)	490,911	(0.2%)	5,160	(3.5%)
Total	350	(100.0%)	10,273	(100.0%)	204,102,165	(100.0%)	147,371	(100.0%)

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

## 2. IMPACTS OF NATURAL DISASTERS BY DISASTER TYPE, 2016

Regarding the breakdown of impacts of disasters by disaster type, two disasters, flood and storm, are dominant in all categories. Flood tops at 45.7 percent and 45.3 percent while in the number of occurrence and killed people. The number of affected people, storm has the largest shares, 46.0 percent followed by flood, 38.3 percent. Flood brings the heaviest economic damage by 38.7 percent followed by storm, 30.6 percent.

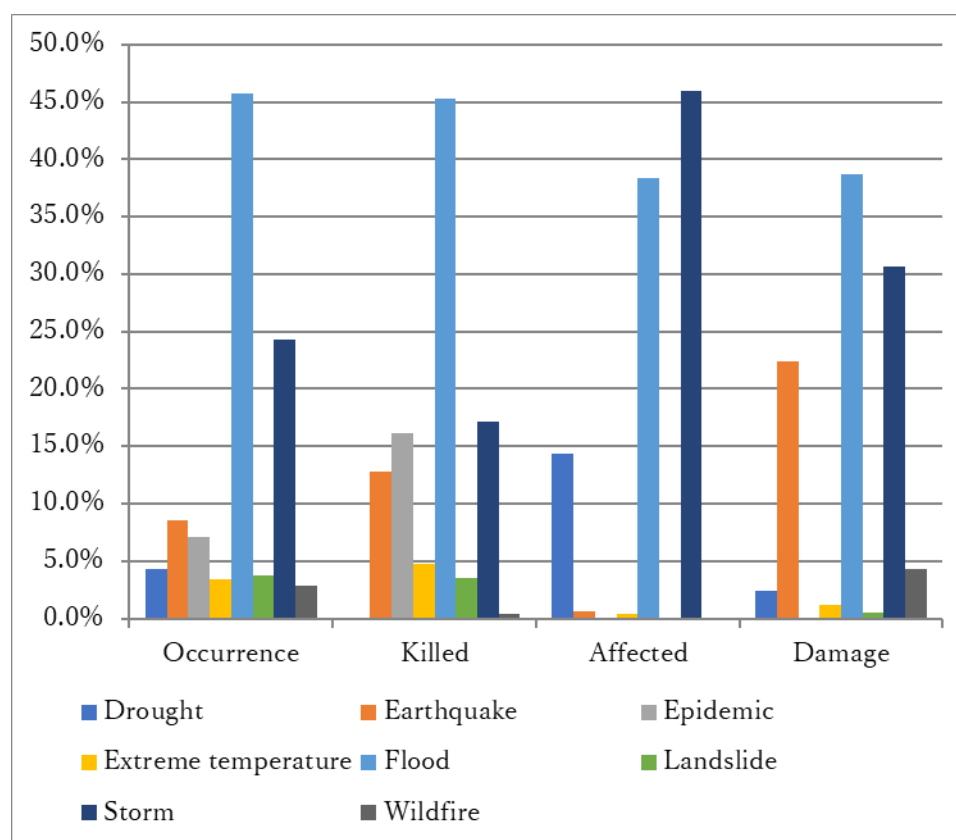


Figure 2: Impacts of Natural Disasters by Disaster Type, 2016

Table 2: Impacts of Natural Disasters by Disaster Type, 2016

Disaster Type	Impact			
	Occurrence (share in %)	Killed (share in %)	Affected (share in %)	Damage (US\$ million) (share in %)
Drought	15 (4.3%)		29,417,000 (14.4%)	3,554 (2.4%)
Earthquake	30 (8.6%)	1,311 (12.8%)	1,185,081 (0.6%)	32,995 (22.4%)
Epidemic	25 (7.1%)	1,656 (16.1%)	130,641 (0.1%)	
Extreme temperature	12 (3.4%)	490 (4.8%)	908,120 (0.4%)	1,727 (1.2%)
Flood	160 (45.7%)	4,656 (45.3%)	78,213,354 (38.3%)	56,972 (38.7%)
Landslide	13 (3.7%)	361 (3.5%)	243,443 (0.1%)	725 (0.5%)
Storm	85 (24.3%)	1,760 (17.1%)	93,846,236 (46.0%)	45,111 (30.6%)
Wildfire	10 (2.9%)	39 (0.4%)	158,290 (0.1%)	6,287 (4.3%)
<b>Total</b>	<b>350 (100.0%)</b>	<b>10,273 (100.0%)</b>	<b>204,102,165 (100.0%)</b>	<b>147,371 (100.0%)</b>

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

### 3. IMPACTS OF NATURAL DISASTERS IN ASIA BY DISASTER TYPE, 2016

Regarding the overview of impacts of disasters sorted by disaster type in Asia, Figure 3 shows a similar pattern to Figure 2. However, in number of the affected people, flood has the largest shares, 78.3 percent followed by drought, 14.3 percent.

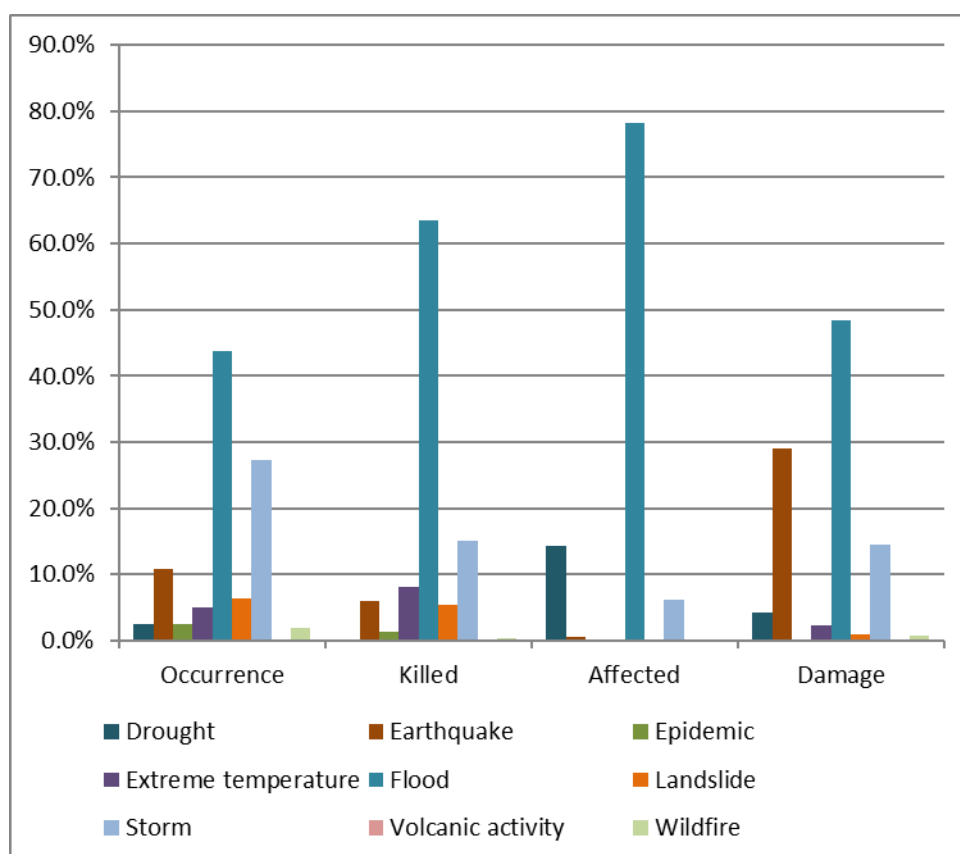


Figure 3: Impacts of Natural Disasters by Disaster Type in Asia, 2016

Table 3: Impacts of Natural Disasters by Disaster Type in Asia, 2016

Disaster Type	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Drought	4	(2.5%)			13,520,000	(14.3%)	3,020	(4.1%)
Earthquake	17	(10.8%)	313	(6.0%)	603,727	(0.6%)	21,207	(29.0%)
Epidemic	4	(2.5%)	72	(1.4%)	92,435	(0.1%)		
Extreme temperature	8	(5.1%)	421	(8.1%)	158,100	(0.2%)	1,727	(2.4%)
Flood	69	(43.7%)	3,296	(63.6%)	74,156,199	(78.3%)	35,278	(48.3%)
Landslide	10	(6.3%)	282	(5.4%)	238,397	(0.3%)	725	(1.0%)
Storm	43	(27.2%)	784	(15.1%)	5,889,034	(6.2%)	10,541	(14.4%)
Wildfire	3	(1.9%)	18	(0.3%)	60,137	(0.1%)	520	(0.7%)
<b>Total</b>	<b>158</b>	<b>(100.0%)</b>	<b>5,186</b>	<b>(100.0%)</b>	<b>94,718,029</b>	<b>(100.0%)</b>	<b>73,017</b>	<b>(100.0%)</b>

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

#### 4. TRENDS OF WORLD NATURAL DISASTERS, 1987-2016

##### 4-1 NUMBER OF DISASTERS IN THE WORLD (1987-2016)

In terms of number of disasters, the year 2016 sees a decrease from the previous year. 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 2002-2006 period.

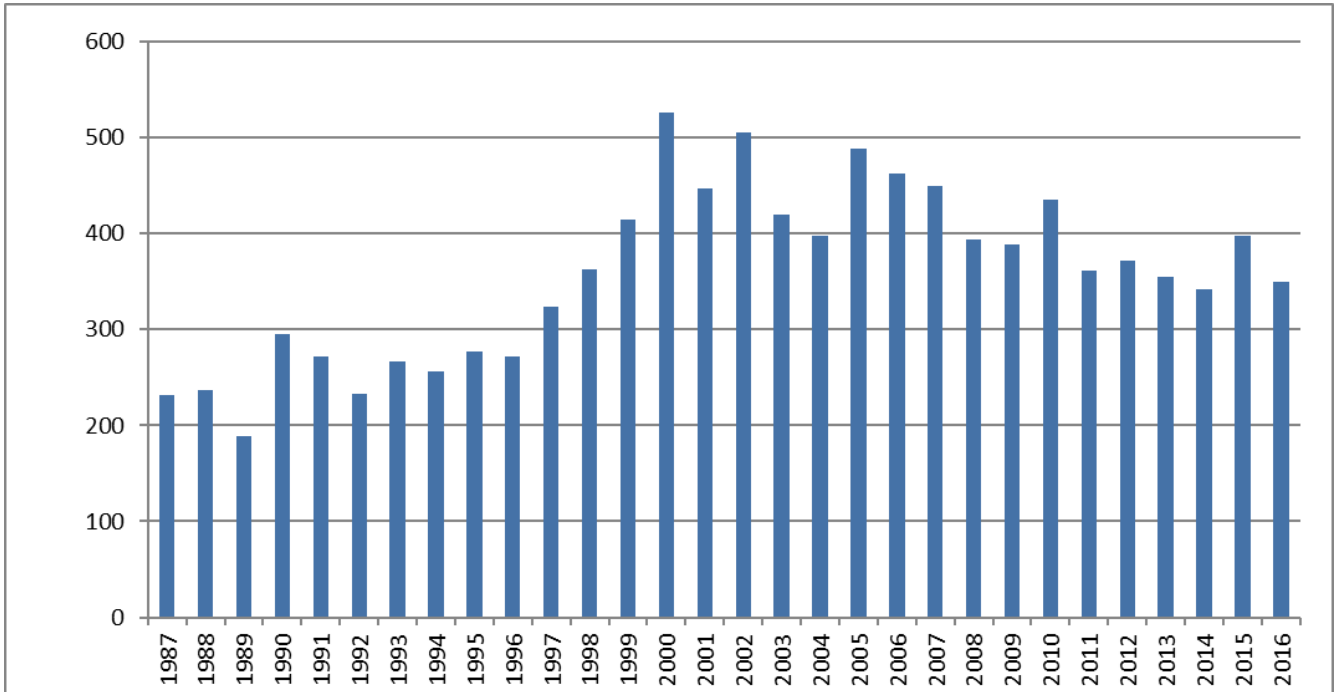


Figure 4-1: Disaster Occurrence, 1987-2016

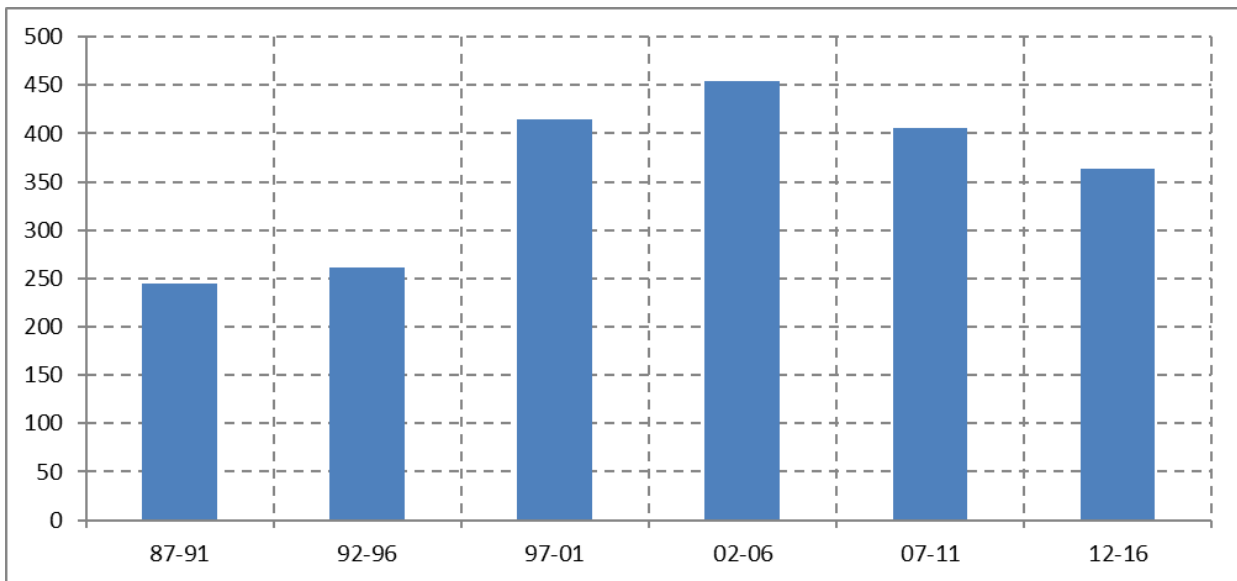


Figure 4-2: Disaster Occurrence (Average of 5-year period), 1987-2016

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

#### 4-2 NUMBER OF PEOPLE KILLED IN THE WORLD (1987-2016)

The year 2016 shows a decrease of death toll from the previous year. As seen in Figure 4-4 about the trend of the 5-year period average, the number of people killed for the period 2012-2016 shows drastic decrease from 128,948 to 17,813.

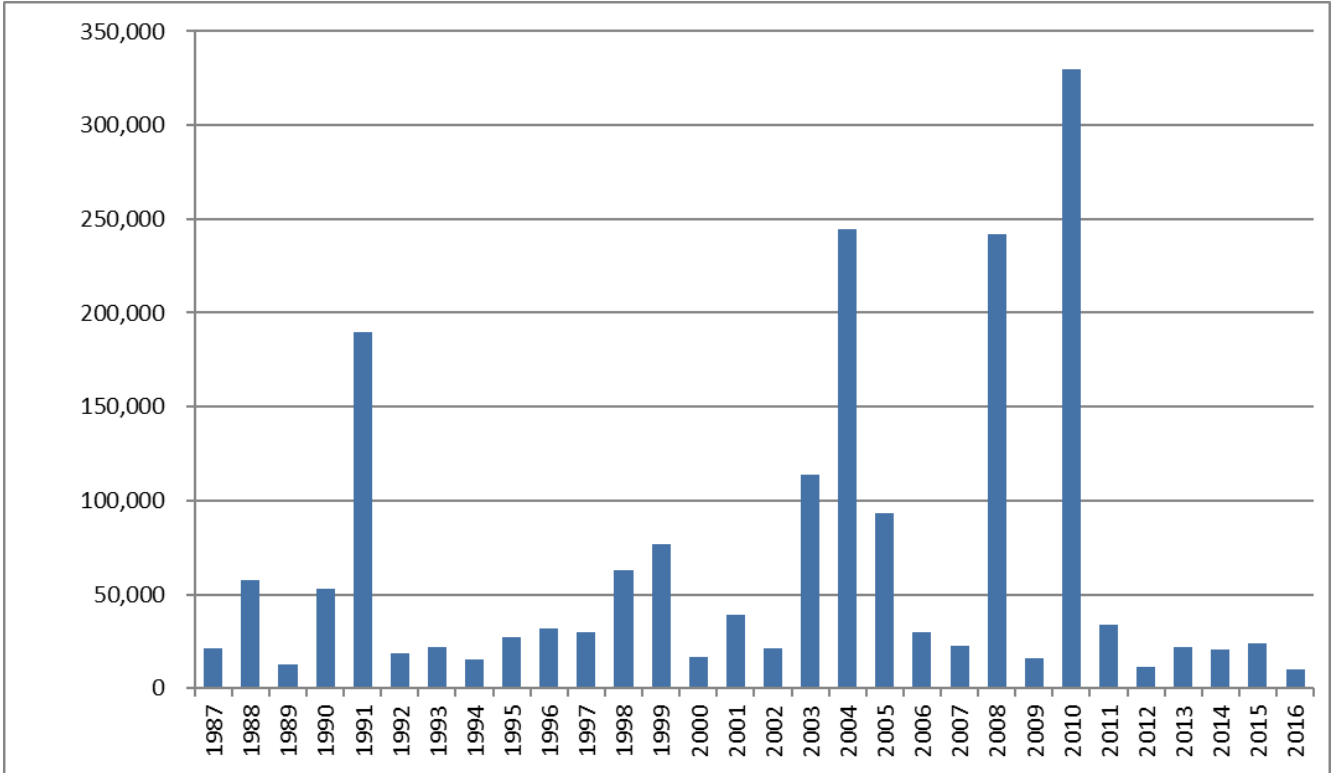


Figure 4-3: Number of People Killed, 1987-2016

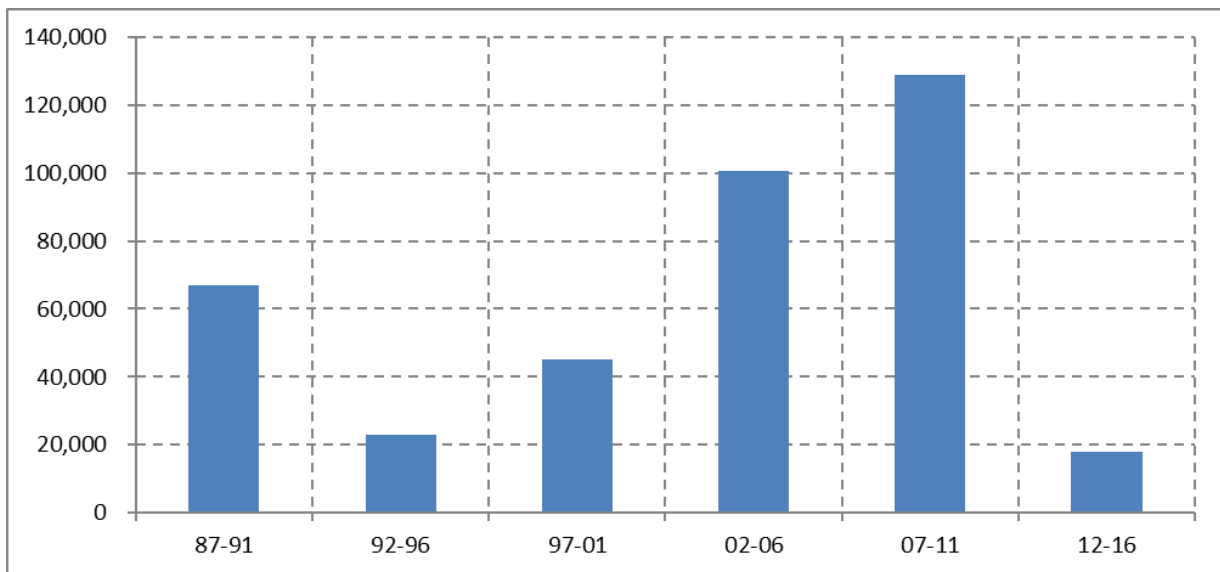


Figure 4-4: Number of People Killed (Average of 5-year period), 1987-2016

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



### 4-3 NUMBER OF PEOPLE AFFECTED IN THE WORLD (1987-2016)

In terms of number of the affected people, the year 2016 sees a decrease from the previous year. The 5-year period average representation shows that the number of affected people continues to decrease in the last 15 years.

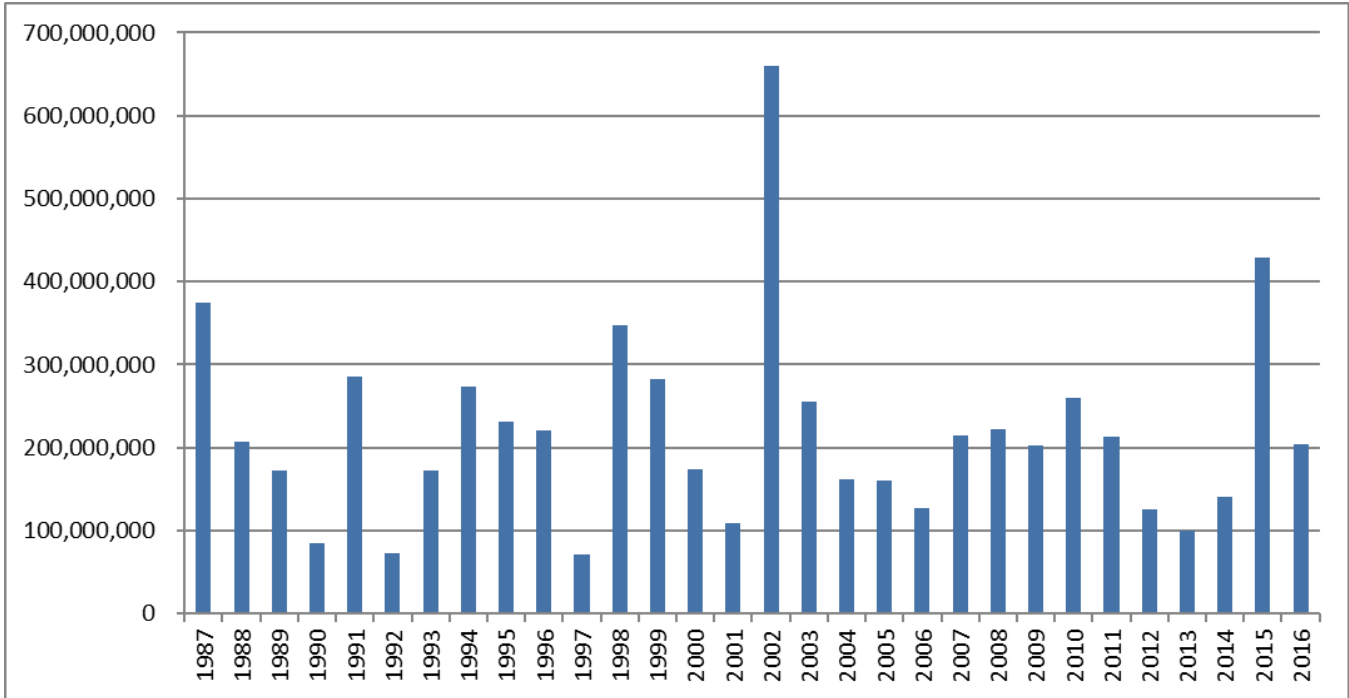


Figure 4-5: Total Number of Affected People, 1987-2016

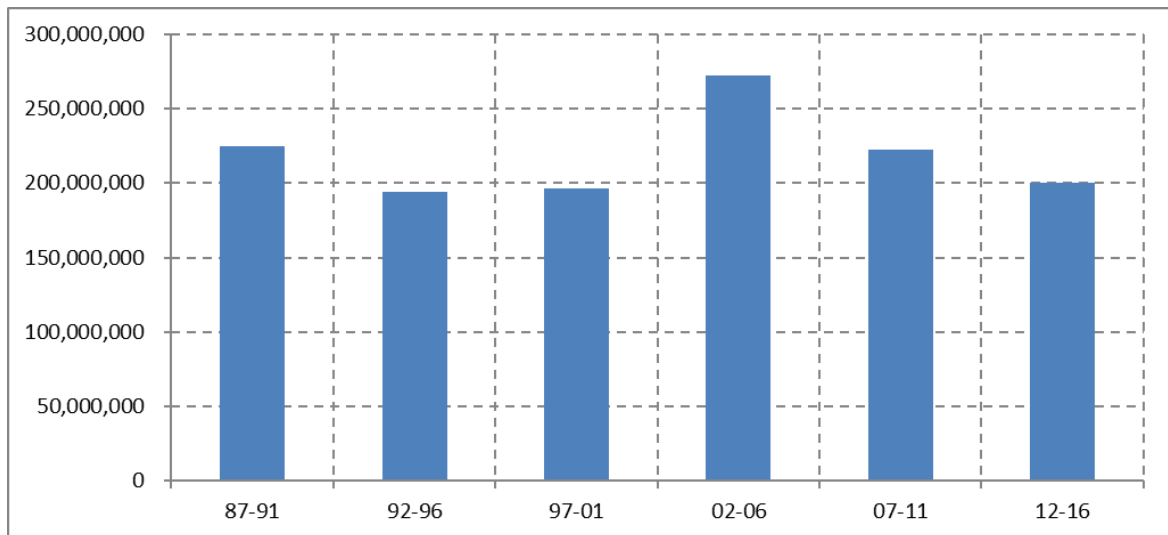


Figure 4-6: Number of Affected People (Average of 5 year period), 1987-2016

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

#### 4-4 ECONOMIC DAMAGE IN THE WORLD (1987-2016)

Economic damage caused by natural disasters, the year 2016 sees an increase from the year 2015. By contrast, in the 5-year period average analysis, the 2012-2016 average sees a decrease.

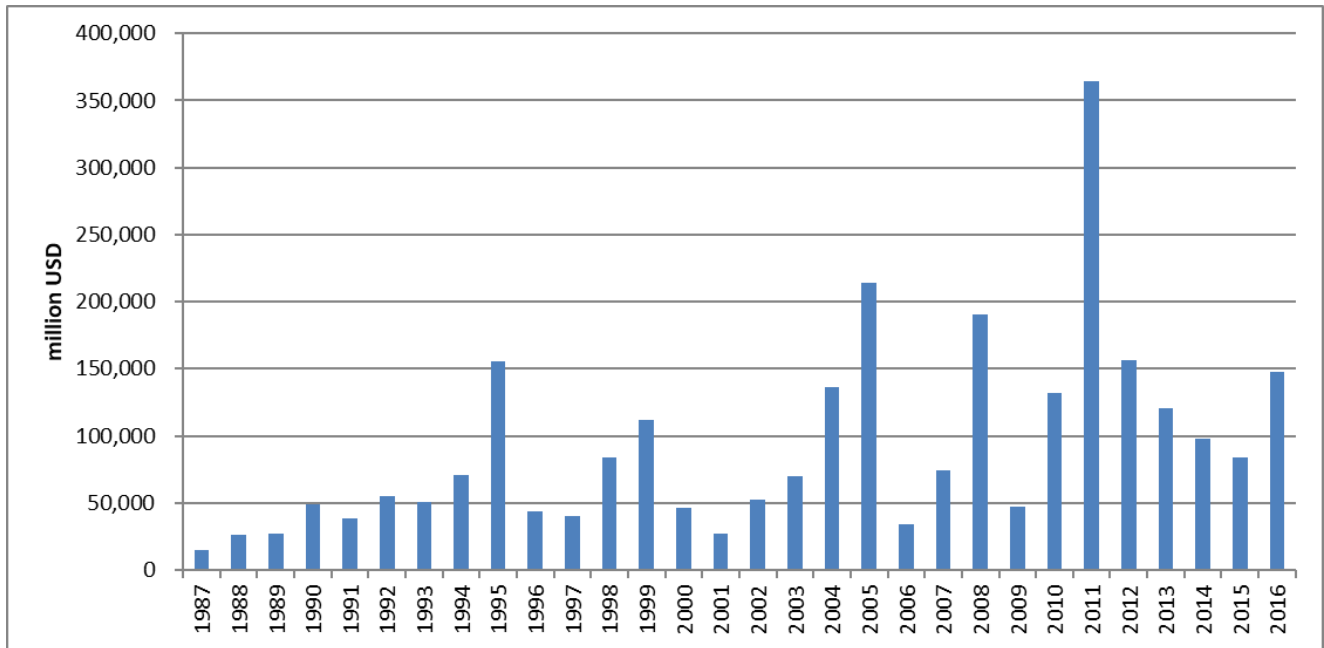


Figure 4-7: Amount of Damage (million USD), 1987-2016

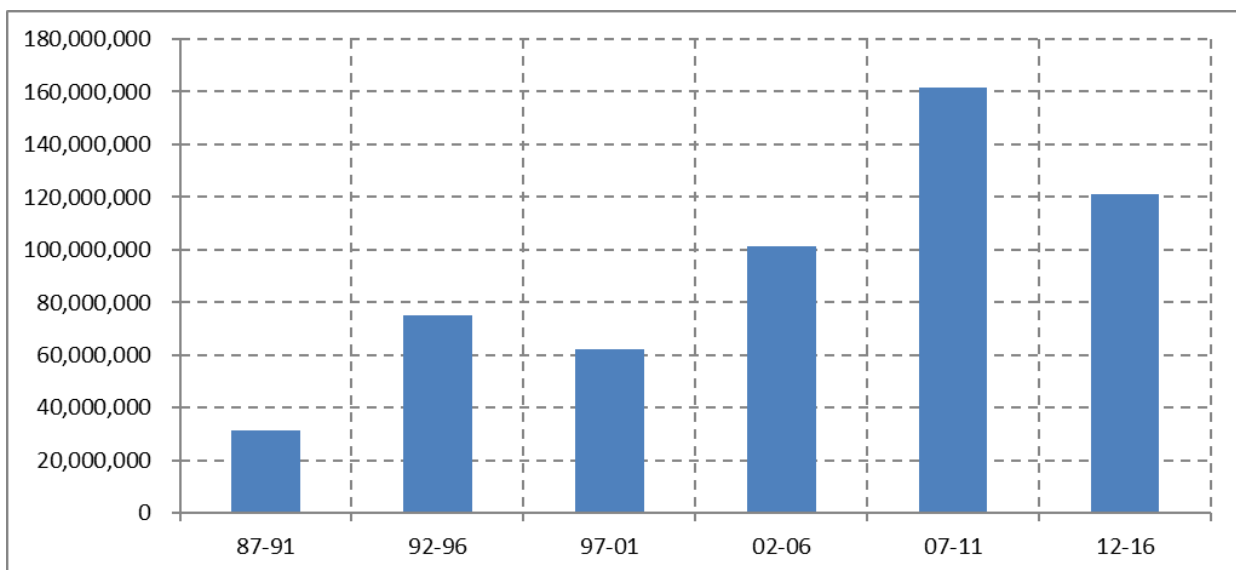


Figure 4-8: Economic Damage (Average of 5-year period), 1987-2016

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

## 5. IMPACTS OF WORLD NATURAL DISASTERS BY REGION, 1987-2016

For the period 1987-2016, Asia dominates and ranks the first in all natural disasters' impact categories across regions of the world, especially in terms of the number of killed and affected.

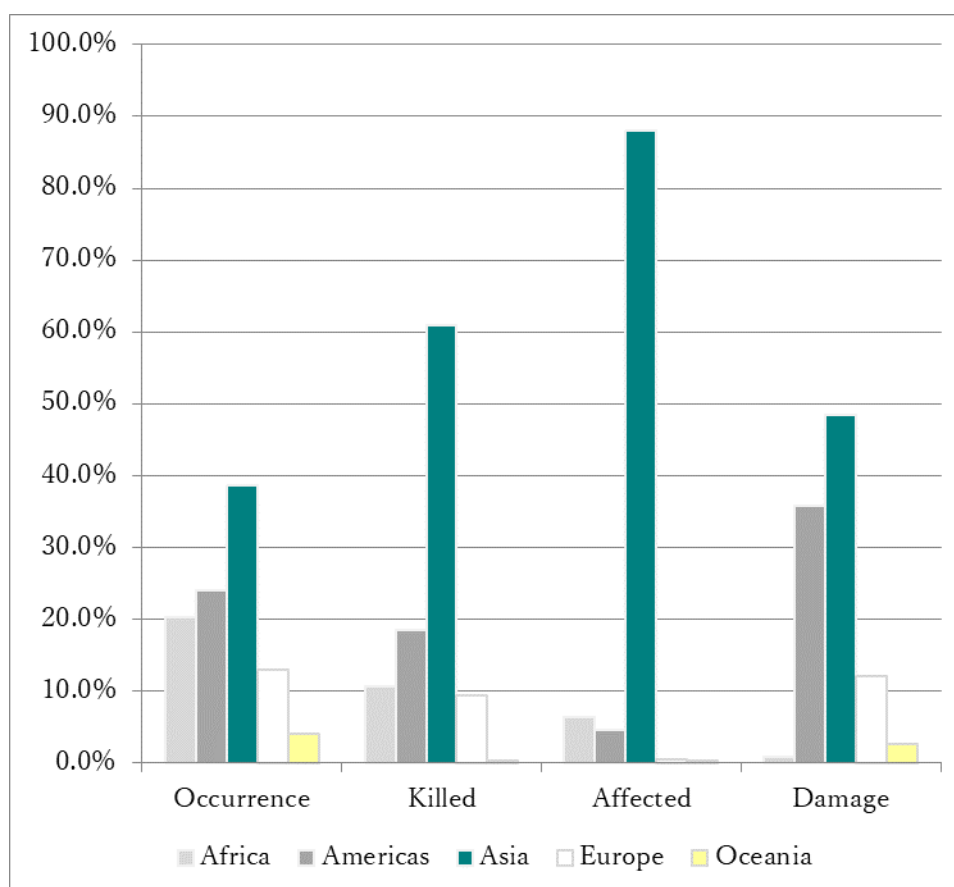


Figure 5: Impacts of World Natural Disasters by Region, 1987-2016

Table 5: Impacts of Natural Disasters by Region, 1987-2016

Region	Impact							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US\$ million) (share in %)	
Africa	2,172	(20.3%)	205,545	(10.7%)	423,688,214	(6.5%)	22,690	(0.8%)
Americas	2,571	(24.0%)	354,543	(18.5%)	297,061,881	(4.5%)	991,851	(35.9%)
Asia	4,151	(38.7%)	1,166,202	(61.0%)	5,750,586,898	(88.1%)	1,340,762	(48.5%)
Europe	1,387	(12.9%)	180,192	(9.4%)	36,032,240	(0.6%)	334,818	(12.1%)
Oceania	439	(4.1%)	5,680	(0.3%)	23,110,498	(0.4%)	73,154	(2.6%)
Total	10,720	(100.0%)	1,912,162	(100.0%)	6,530,479,731	(100.0%)	2,763,275	(100.0%)

Source:  
EM-DAT: The OFDA/CRED International Disaster Database – [www.emdat.be](http://www.emdat.be),  
Université Catholique de Louvain, Brussels (Belgium) 20180327

## 6. THE 25 WORST DISASTERS IN ASIA 2016

### 6-1 THE 25 WORST DISASTERS IN ASIA BY NUMBER OF PEOPLE KILLED, 2016

The death toll by the flood in Korea DPR in August tops at 538 in Asia in 2016, followed by the Heat wave in India at 300. There are 13 disaster events in Asia found in the list which claimed more than 100 lives. Flood occupies fourteen ranks in the worst 25 list.

**Table 6-1: The 25 Worst Disasters in Asia by Number of People Killed, 2016**

	Disaster type	Country	Date	Killed	Affected	Economic Damage (US\$ Million)
1	Flood	Korea DPR	29/08/2016	538	667,715	61
2	Extreme temperature	India	01/04/2016	300		
3	Flood	China P Rep	28/06/2016	289	60,000,000	22,000
4	Flood	China	18/07/2016	289	375,000	4,500
5	Flood	India	15/07/2016	254	1,600,000	350
6	Flood	Sri Lanka	14/05/2016	203	301,602	1,200
7	Flood	India	09/07/2016	184	100,000	160
8	Flood	Pakistan	09/03/2016	141	4,412	2
9	Flood	Nepal	25/07/2016	138	10,551	15
10	Earthquake	Taiwan (China)	06/02/2016	117	525	700
11	Flood	Bangladesh	19/07/2016	106	1,900,000	150
12	Earthquake	Indonesia	07/12/2016	104	86,018	100
13	Storm	China P Rep	24/06/2016	102	46,000	302
14	Storm	China P Rep	16/06/2016	99	45,846	500
15	Storm	India	20/06/2016	93		
16	Flood	Pakistan	02/04/2016	92	77	
17	Extreme temperature	Taiwan (China)	20/01/2016	85		
18	Storm	China P Rep	09/07/2016	75	24,900	1,511
19	Flood	China P Rep	18/06/2016	68	165,000	3,000
20	Landslide	China P Rep	04/05/2016	66	237,600	700
21	Landslide	Indonesia	17/06/2016	62		25
22	Flood	India	25/06/2016	61		100
23	Storm	Bangladesh	13/05/2016	59		
24	Flood	Indonesia	20/09/2016	53	8,920	22
25	Flood	India	28/07/2016	50	2,000,000	150

Source:

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

## 6-2 THE 25 WORST DISASTERS IN ASIA BY NUMBER OF PEOPLE AFFECTED, 2016

In terms of the number of people affected, the flood in China ranks the first with 60.0 million people affected. In 2016, the number of disaster events that affected more than one million amounts to 10. By country, China has six ranks in the list. By disaster type, flood amounts to 16 out of the 25 disasters followed by 4 storms.

**Table 6-2: The 25 Worst Disasters in Asia by Total Number of People Affected, 2016**

	Disaster type	Country	Date	Killed	Affected	Economic Damage (US\$ Million)
1	Flood	China P Rep	28/06/2016	289	60,000,000	22,000
2	Drought	China P Rep	00/06/2016		10,000,000	3,000
3	Drought	Cambodia	00/05/2016		2,500,000	
4	Flood	India	28/07/2016	50	2,000,000	150
5	Flood	Bangladesh	19/07/2016	106	1,900,000	150
6	Storm	Philippines	25/12/2016	24	1,893,404	104
7	Flood	India	15/07/2016	254	1,600,000	350
8	Flood	Philippines	18/08/2016	19	1,300,000	
9	Flood	Philippines	08/08/2016	26	1,263,098	9
10	Storm	Bangladesh	21/05/2016	28	1,203,555	600
11	Storm	Philippines	19/10/2016	8	981,154	51
12	Drought	Sri Lanka	00/10/2016		900,000	20
13	Flood	Korea DPR	29/08/2016	538	667,715	61
14	Flood	Viet Nam	09/10/2016	35	659,615	104
15	Storm	Viet Nam	13/10/2016	34	610,000	350
16	Flood	Thailand	01/12/2016	14	582,343	25
17	Flood	Viet Nam	12/12/2016	27	562,121	35
18	Flood	Myanmar	00/07/2016	5	474,560	2
19	Flood	Myanmar	01/06/2016	14	377,667	
20	Flood	China P Rep	18/07/2016	289	375,000	4,500
21	Flood	Sri Lanka	14/05/2016	203	301,602	1,200
22	Earthquake	Japan	16/04/2016	49	298,432	20,000
23	Flood	China P Rep	09/06/2016	25	254,400	664
24	Landslide	China P Rep	04/05/2016	66	237,600	700
25	Flood	China P Rep	19/03/2016	5	219,300	170

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

### 6-3 THE 25 WORST DISASTERS IN ASIA BY ECONOMIC DAMAGE, 2016

According to the EM-DAT database, the flood in China tops in the 25 ranks of the worst economic damage in Asia in 2016 with US\$ 2.2 billion. By disaster type, storm and flood have the largest shares with 11 and 9, ranks respectively.

**Table 6-3: The 25 Worst Disasters in Asia by Economic Damage, 2016**

	Disaster type	Country	Date	Killed	Affected	Economic Damage (US\$ Million)
1	Flood	China P Rep	28/06/2016	289	60,000,000	22,000
2	Earthquake	Japan	16/04/2016	49	298,432	20,000
3	Flood	China P Rep	18/07/2016	289	375,000	4,500
4	Drought	China P Rep	00/06/2016		10,000,000	3,000
5	Flood	China P Rep	18/06/2016	68	165,000	3,000
6	Storm	China P Rep	15/09/2016		205,500	2,300
7	Extreme temperature	China P Rep	20/01/2016	5		1,600
8	Storm	China P Rep	09/07/2016	75	24,900	1,511
9	Flood	Sri Lanka	14/05/2016	203	301,602	1,200
10	Storm	India	12/12/2016	24		1,000
11	Storm	China P Rep	16/10/2016			890
12	Storm	China P Rep	28/09/2016	35	36,000	830
13	Storm	China P Rep	02/06/2016	12	150,000	768
14	Landslide	China P Rep	04/05/2016	66	237,600	700
15	Earthquake	Taiwan (China)	06/02/2016	117	525	700
16	Flood	China P Rep	23/06/2016	34	150,000	675
17	Flood	China P Rep	09/06/2016	25	254,400	664
18	Storm	Bangladesh	21/05/2016	28	1,203,555	600
19	Flood	India	21/09/2016	28	3,000	589
20	Storm	China P Rep	16/06/2016	99	45,846	500
21	Flood	China P Rep	18/05/2016	12	44,100	447
22	Flood	India	15/07/2016	254	1,600,000	350
23	Storm	Viet Nam	13/10/2016	34	610,000	350
24	Storm	China P Rep	24/06/2016	102	46,000	302
25	Storm	China P Rep	24/04/2016		6,049	202

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

## 7. DISASTERS IN ASIA BY COUNTRY, 2016

country	disaster type	occurrence	Total deaths	Total affected	damage ('000 US\$)
Afghanistan	Flood	4	84		
Armenia	Landslide	1		750	
Bangladesh	Earthquake	1	5	70	
	Flood	1	106	1,900,000	150,000
	Storm	2	87	1,203,555	600,000
Cambodia	Drought	1		2,500,000	
China P Rep	Drought	1		10,000,000	3,000,000
	Earthquake	3	3	51,320	200,500
	Extreme temperature	1	5		1,600,000
	Flood	12	816	61,297,200	31,793,000
	Landslide	3	123	237,607	700,000
	Storm	13	346	604,695	7,624,160
India	Earthquake	1	8	10,808	75,000
	Extreme temperature	1	300		
	Flood	8	679	3,806,000	1,499,000
	Landslide	2	20	5	
	Storm	3	128		1,000,000
	Wildfire	1	7		
Indonesia	Earthquake	3	104	89,796	100,000
	Flood	10	89	392,009	108,000
	Landslide	2	77		25,000
Iran Islam Rep	Storm	1	4	2,000	
Israel	Wildfire	1		60,137	520,000
Japan	Earthquake	3	58	419,725	20,100,000
	Extreme temperature	2	11	1,100	
	Flood	1	7	6,000	
	Storm	4	25	9,703	100,000
Korea Dem P Rep	Flood	2	552	667,715	61,000
Korea Rep	Earthquake	1		29,832	21,000
	Extreme temperature	1	6		127,000
	Storm	1	10	1,500	126,000
Lao P Dem Rep	Flood	1	5	26,328	50
Malaysia	Flood	4		31,841	132,000
Mongolia	Extreme temperature	1		157,000	

<b>country</b>	<b>disaster type</b>	<b>occurrence</b>	<b>Total deaths</b>	<b>Total affected</b>	<b>damage ('000 US\$)</b>
Myanmar	Earthquake	1	4	1,152	10,000
	Epidemic	1	34		
	Flood	2	19	852,227	2,000
	Landslide	1	42	15	
	Storm	2	32	99,956	4,600
Nepal	Flood	2	163	20,574	15,000
	Wildfire	1	11		
Oman	Flood	1	2		
Pakistan	Earthquake	1	6	142	
	Flood	7	369	10,762	2,000
	Storm	1	34	191	
Philippines (the)	Earthquake	1	8	202	
	Flood	2	45	2,563,098	9,320
	Storm	8	34	2,971,512	170,754
Saudi Arabia	Flood	2	21	915	
	Storm	1	3	122	50,000
Singapore	Epidemic	1		13,051	
Sri Lanka	Drought	1		900,000	20,000
	Flood	1	203	301,602	1,200,000
Taiwan (China)	Earthquake	1	117	525	700,000
	Extreme temperature	1	85		
	Storm	3	10	460	180,000
Tajikistan	Earthquake	1		155	
	Flood	1	4	12,750	
Thailand	Extreme temperature	1	14		
	Flood	3	21	808,843	145,000
Timor-Leste	Drought	1		120,000	
Viet Nam	Epidemic	1	27	79,204	
	Flood	4	91	1,428,585	161,280
	Storm	4	71	995,340	685,157
Yemen	Epidemic	1	11	180	
	Flood	1	20	29,750	
	Landslide	1	20	20	
<b>total</b>		<b>158</b>	<b>5,186</b>	<b>94,718,029</b>	<b>73,016,821</b>

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



## 8. DISASTERS IN ASIA BY DISASTER TYPE, 2016

<b>disaster type</b>	<b>country</b>	<b>occurrence</b>	<b>Total deaths</b>	<b>Total affected</b>	<b>damage ('000 US\$)</b>
Drought	Cambodia	1		2,500,000	
	China P Rep	1		10,000,000	3,000,000
	Sri Lanka	1		900,000	20,000
	Timor-Leste	1		120,000	
Earthquake	Bangladesh	1	5	70	
	China P Rep	3	3	51,320	200,500
	India	1	8	10,808	75,000
	Indonesia	3	104	89,796	100,000
	Japan	3	58	419,725	20,100,000
	Korea Rep	1		29,832	21,000
	Myanmar	1	4	1,152	10,000
	Pakistan	1	6	142	
	Philippines	1	8	202	
	Taiwan (China)	1	117	525	700,000
	Tajikistan	1		155	
Epidemic	Myanmar	1	34		
	Singapore	1		13,051	
	Viet Nam	1	27	79,204	
	Yemen	1	11	180	
Extreme temperature	China P Rep	1	5		1,600,000
	India	1	300		
	Japan	2	11	1,100	
	Korea Rep	1	6		127,000
	Mongolia	1		157,000	
	Taiwan (China)	1	85		
	Thailand	1	14		
Flood	Afghanistan	4	84		
	Bangladesh	1	106	1,900,000	150,000
	China P Rep	12	816	61,297,200	31,793,000
	India	8	679	3,806,000	1,499,000
	Indonesia	10	89	392,009	108,000
	Japan	1	7	6,000	
	Korea Dem P Rep	2	552	667,715	61,000
	Lao P Dem Rep	1	5	26,328	50
	Malaysia	4		31,841	132,000
	Myanmar	2	19	852,227	2,000

<b>disaster type</b>	<b>country</b>	<b>occurrence</b>	<b>Total deaths</b>	<b>Total affected</b>	<b>damage ('000 US\$)</b>
	Nepal	2	163	20,574	15,000
	Oman	1	2		
	Pakistan	7	369	10,762	2,000
	Philippines	2	45	2,563,098	9,320
	Saudi Arabia	2	21	915	
	Sri Lanka	1	203	301,602	1,200,000
	Tajikistan	1	4	12,750	
	Thailand	3	21	808,843	145,000
	Viet Nam	4	91	1,428,585	161,280
	Yemen	1	20	29,750	
Landslide	Armenia	1		750	
	China P Rep	3	123	237,607	700,000
	India	2	20	5	
	Indonesia	2	77		25,000
	Myanmar	1	42	15	
	Yemen	1	20	20	
Storm	Bangladesh	2	87	1,203,555	600,000
	China P Rep	13	346	604,695	7,624,160
	India	3	128		1,000,000
	Iran Islam Rep	1	4	2,000	
	Japan	4	25	9,703	100,000
	Korea Rep	1	10	1,500	126,000
	Myanmar	2	32	99,956	4,600
	Pakistan	1	34	191	
	Philippines	8	34	2,971,512	170,754
	Saudi Arabia	1	3	122	50,000
	Taiwan (China)	3	10	460	180,000
	Viet Nam	4	71	995,340	685,157
Wildfire	India	1	7		
	Israel	1		60,137	520,000
	Nepal	1	11		
total		158	5,186	94,718,029	73,016,821

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

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