

2008 PHILIPPINE DISASTER REPORT

Disaster Statistical Report '08



Citizens' Disaster Response Center

Address: 72-A Times St., West Triangle Homes, Quezon City, Philippines

Introduction

2008 Philippine Disaster Report concisely presents information on disasters that occurred in the Philippines in 2008. Through graphs, tables, and charts, it provides an overview of the type of disasters that occurred, the frequency of occurrence, as well as the effects of these disasters on communities. Where available, direct economic costs to agriculture and infrastructure are reported. A review of the major disasters that occurred in the Philippine islands within the past decade is also presented.

A substantial portion of the data in this report were gathered through CDRC's disaster monitoring system, which relies on reports from the Citizens' Disaster Response Network (CDRN), a network of 16 regional centers all over the country. Overview and supporting data were taken from the Disaster Response Operations Monitoring and Information Center of the Department of Social Welfare and Development (DROMIC-DSWD), the National Disaster Coordinating Council of the Office of the Civil Defense (NDCC-OCD), and articles in major newspapers. CDRC verified the data in this report through various sources to ensure accuracy. The triangulation method of comparing and contrasting credible sources of data was used.



Citizens' Disaster Response Center 2008

Address: 72-A Times St., West Triangle Homes, Quezon City, Philippines
Telefax: (632) 929-9822
E-mail: cdrc@mydestiny.net, cdrc_1984@yahoo.com
Website: www.cdrc-phil.org

Highlights

- fewer typhoons in 2008 but moderate to heavy rains were frequent even during months when rain should be scarce and in areas that normally have little rainfall, causing massive flooding and landslides
- strongest typhoon was Typhoon Frank, which caused massive flooding in the island of Panay, an area not known for large floods
- landslide incidents in 2008 occurred three times more often than during the previous year
- increase in the number of people affected by armed conflict, while affected areas remained the same as in the past years

Table 1. Comparative Table of Disasters (2007 and 2008)

TYPE OF DISASTER	2007			2008		
	FREQ	AFFECTED		FREQ	AFFECTED	
		FAMILIES	PERSONS		FAMILIES	PERSONS
DEVELOPMENT AGGRESSION	1	750	42,000	5	24,500	122,500
DROUGHT	2	41,240	197,827	0	-	-
EPIDEMIC/OUTBREAK	5	2,254	3,197	3	1,455	2,328
FIRE	138	22,426	112,716	97	10,819	46,681
FISHKILL	1	50	300	4	150	900
FLOOD	24	107,684	504,365	39	377,628	1,844,563
INFESTATION	-	-	-	3	4,895	29,370
LAHAR	-	-	-	0	-	-
LANDSLIDE	7	1,355	6,256	32	2,263	8,961
ARMED CONFLICT	26	39,057	209,652	42	141,418	684,626
REDTIDE	-	-	-	1	37	222
STORM SURGE	7	15,846	76,895	2	569	3,414
TORNADO	7	1,732	8,324	13	531	2,694
TROPICAL CYCLONE	13	890,629	3,027,226	11	1,178,725	5,786,222
VOLCANIC ERUPTION	3	13,798	66,330	0	-	-
EARTHQUAKE	2	4,956	27,675	1	204	1,361
GRAND TOTAL	236	1,141,777	4,282,763	253	1,743,194	8,533,842

2008 Philippine Disaster Report

In 2008, 253 natural and human-induced disasters were reported in the Philippines. These killed 194 persons, affected more than 1.7 million families or 8.5 million people, and caused over P22.074 billion in economic damages.

These figures placed the country on the top five list of the countries most affected by disasters in 2008 (See Table 2). According to the *EM-DAT: The OFDA/CRED International Disaster Database*, the Philippines was also among the countries which reported the largest number of natural disasters that year, competing closely with China, the US, and Indonesia.

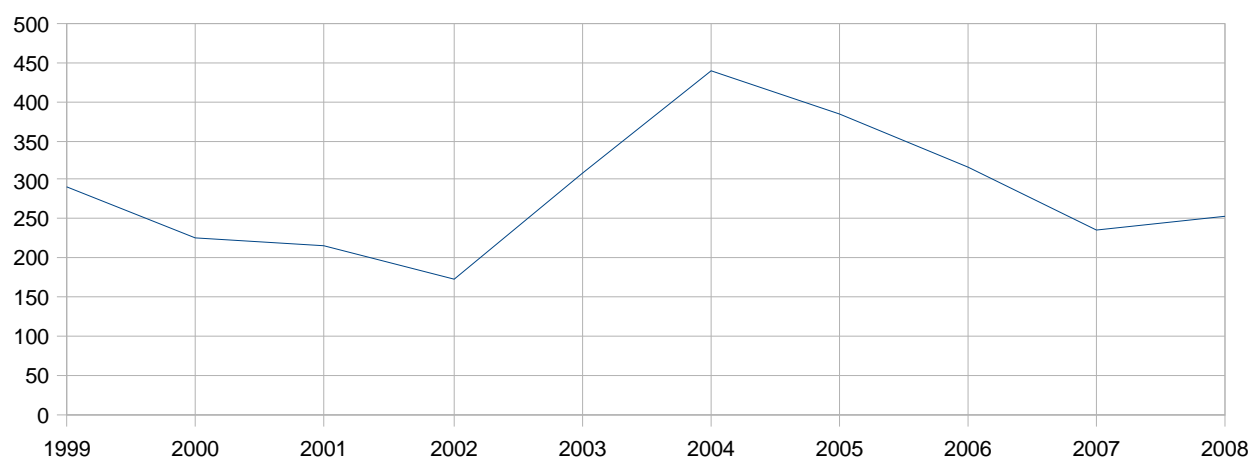
Table 2. Human Impact in 2008

Country	No. of people affected (million)
China P. Rep.	133.3
India	14
United States	13.4
Thailand	11.6
Philippines	8.5

Source: CRED Crunch, April 2009

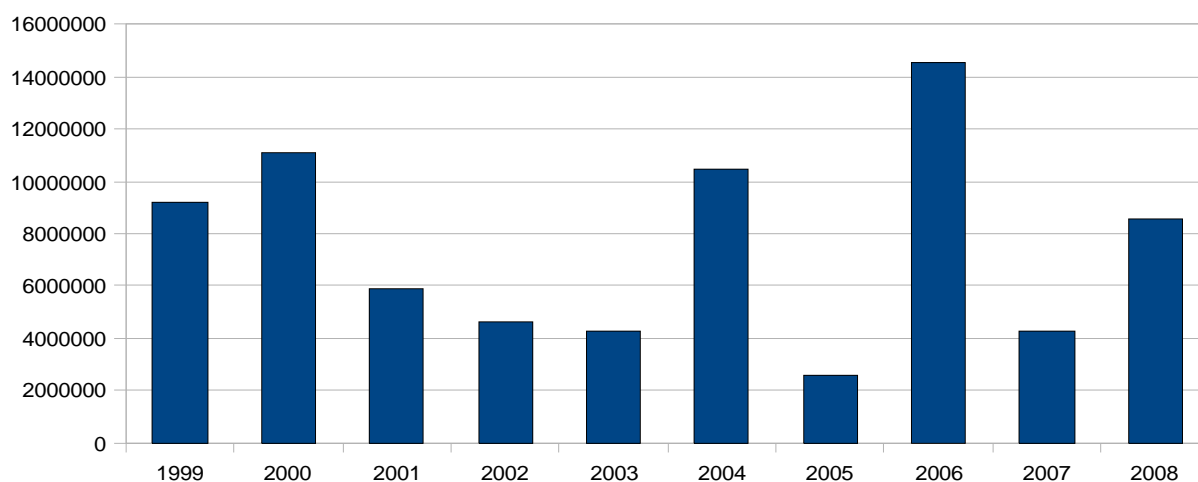
Last year's reported number of disasters was slightly higher than the 2007 figure, and veered away from the downward trend that has been observed since 2005. This slight increase was driven not only by natural disasters, but by human-induced disasters as well. Armed conflict, fire, flood, and tropical cyclone are major contributors to the increase. (See Figure 1)

Figure 1. Frequency of Disasters, 1999-2008



Although no “mega disaster” was reported, the number of affected people increased compared to the 2007 figure. From 4,282,763 affected people in 2007, the number almost doubled to 8,533,842 in 2008. (See Figure 2)

Figure 2. Number of Affected Persons, 1999-2008



Major source of casualties last year were tropical cyclones, floods, and armed conflict. Tropical cyclones alone affected more than 5.7 million people in 2008. Typhoon Frank, which entered the country in June, brought last year's biggest disaster. It affected 150,241 families or 764,380 persons.

Table 3. Consolidated Disaster Statistical Data 2008

DISASTER	FREQ	TOTAL AFFECTED	
		FAMILIES	PERSONS
DEVELOPMENT AGGRESSION	5	24,500	122,500
DROUGHT			
EPIDEMIC/OUTBREAK	3	1,455	2,328
FIRE	97	10,819	46,681
FISHKILL	4	150	900
FLOOD	39	377,628	1,844,563
INFESTATION	3	4,895	29,370
LAHAR			
LANDSLIDE	32	2,263	8,961
ARMED CONFLICT	42	141,418	684,626
REDTIDE	1	37	222
STORM SURGE	2	569	3,414
TORNADO	13	531	2,694
TROPICAL CYCLONE	11	1,178,725	5,786,222
VOLCANIC ERUPTION			
EARTHQUAKE	1	204	1,361
GRAND TOTAL	253	1,743,194	8,533,842

Top Five Disasters

As in previous years, fire incidents outnumbered other disasters in 2008 (See Table 4). The total number of fire incidents for 2008 account for 97 of the 223 disaster events monitored. However, the number of fire incidents in 2008 is significantly smaller than in 2007's. Only 138 incidents were registered last year. The affected population is also significantly smaller. While there were 22,426 families or 112,716 individuals affected in 2007, there were only 10,819 families or 46,681 individuals affected in 2008 (See Table 1). A total of 6,124 houses were totally destroyed while 194 others were partially damaged. Major fire incidents in 2008 include the fire in Malabon City in Metro Manila last May, which left more than 1,000 families homeless.

Table 4. Top 5 Disasters in Terms of Frequency of Occurrence

DISASTER	FREQ	TOTAL AFFECTED	
		FAMILIES	PERSONS
FIRE	97	10,819	46,681
ARMED CONFLICT	42	141,418	684,626
FLOOD	39	377,628	1,844,563
LANDSLIDE	32	2,263	8,961
TORNADO	13	531	2,694
GRAND TOTAL	223	532,659	2,587,525

Following fire in terms of frequency in 2008 is armed conflict. Several communities were caught in the middle of armed confrontations between government forces and rebel groups. Forty-two (42) armed conflict incidents, which affected 141,418 families or 684,626 individuals, were recorded. This number is higher than the 2007 figure of 26 occurrences and 39,057 families or 209,652 individuals affected. Involved in the conflicts were the Armed Forces of the Philippines, the Moro Islamic Liberation Front (MILF), the New People's Army (NPA), the Moro National Liberation Front (MNLF), and the Abu Sayyaf Group (ASG). In August last year, almost half a million people were displaced when fighting between the AFP and the MILF intensified in Mindanao.

Meanwhile, flood incidents increased from 24 in 2007 to 39 in 2008. The number of people affected dramatically increased from 107,684 families or 504,365 individuals in 2007 to 377,628 families or 1,844,563 individuals in 2008. Floods posted the highest number of casualties with 112 dead and 69 injured, and was second to tropical cyclones in terms of size of affected population (See Tables 5 and 6). Apart from tropical cyclones and typhoons, incessant rains ranging from moderate to heavy and lasting for days, were the causes of floods. Week-long heavy rains in Bicol, Eastern Visayas and parts of Mindanao left 45 people dead in February last

year. Continuous rains in November caused flashfloods in Cagayan and Isabela, affecting 32,575 families or 136,490 persons.

Table 5. Disaster Casualties, Damages and Cost

DISASTER	CASUALTIES			HOUSES DAMAGED		COST	
	DEAD	INJURED	MISSING	TOTAL	PARTIAL	INFRA	AGRI
FIRE	15	22		6,124	194		
FISHKILL							8.5 M
FLOOD	112	69	30	3,844	65,913	894 M	2.017 B
INFESTATION							66M
LANDSLIDE	4	12		93	92	40 M	.7 M
ARMED CONFLICT	19	31		1,223	81		
TORNADO		2		63	152	.2 M	48 M
TROPICAL CYCLONE	44	26	84	106,548	409,464	6 B	13 B
GRAND TOTAL	194	162	114	117,895	475,896	6.934 B	15.140 B

Usually, at least 20 typhoons visit the Philippines each year. In 2008, however, only 11 typhoons entered the Philippine Area of Responsibility (PAR). While only a few typhoons entered the country last year, the impact of these typhoons have been no less destructive. Tropical cyclones tops the list in terms of affected population. The 2008 figures – 1,178,725 families or 5,786,222 individuals affected by typhoons – are much higher than 2007's figures – 890,629 families or 3,027,226 individuals. The damage to agriculture and infrastructure amounted to P19 billion. Typhoons or tropical cyclones are second to floods in terms of number of casualties. In 2008 typhoon-related disasters left 44 dead and 26 injured.

Table 6. Top 5 Disasters in Terms of Size of Affected Population

DISASTER	FREQ	TOTAL AFFECTED	
		FAMILIES	PERSONS
TROPICAL CYCLONE	11	1,178,725	5,786,222
FLOOD	39	377,628	1,844,563
ARMED CONFLICT	42	141,418	684,626
DEVELOPMENT AGGRESSION	5	24,500	122,500
FIRE	97	10,819	46,681
GRAND TOTAL	194	1,733,090	8,484,592

Landslide incidents in 2008 occurred three times more often than during the previous year. There were 32 in 2008, while only seven were recorded in 2007. Landslides affected 2,263 families or 8,961 persons, which are more than the 1,355 families or 6,256 persons affected in 2007. Continuous rain and typhoons were the main triggers for landslides.

Thirteen (13) tornadoes hit different parts of the country in 2008, a number significantly higher than that recorded in 2007, which was only seven (7). The number of persons affected by tornadoes, however, decreased from 8,324 in 2007 to 2,694 in 2008.

Development aggression incidents increased as well from only one (1) incident in 2007 to five (5) incidents in 2008. The number of affected population went up from 42,000 in 2007 to 122,500 in 2008.

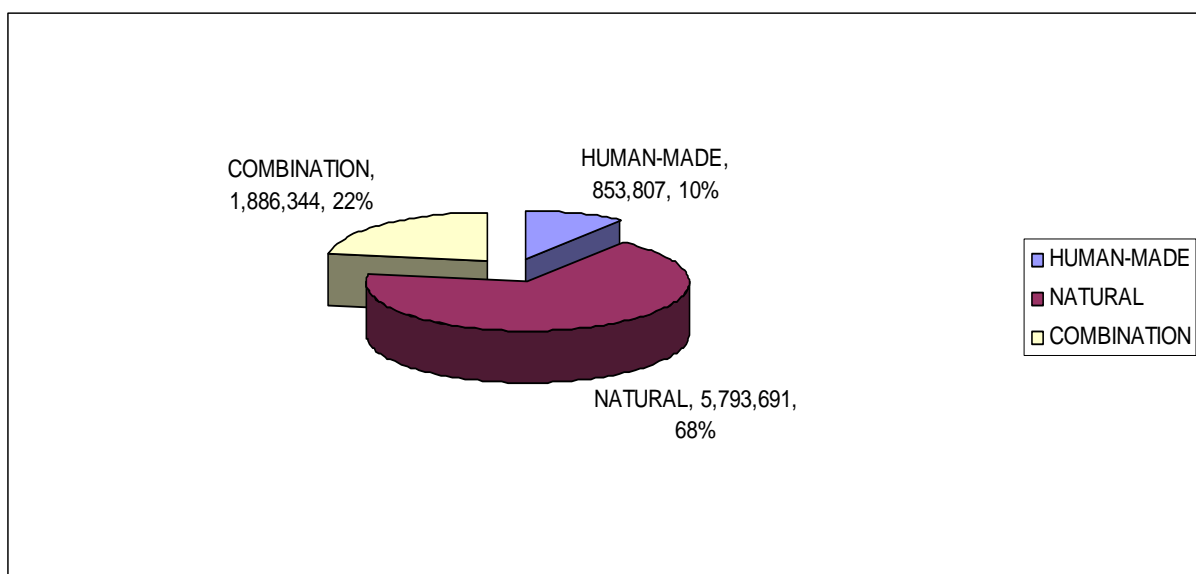
Types of Hazards

Natural hazards remained the leading cause of massive disasters in the Philippines in 2008. There were 5,793,691 people affected by natural disasters in 2008. This number is 68% of the total number of people affected by disasters in 2008. Natural disasters include drought, lahar, storm surge, tornado, tropical cyclone, earthquake and volcanic eruption (See Figure 3).

Disasters caused by both humans and natural hazards affected 1,886,344 people or 22% of the disaster-affected population. These disasters include fishkill, floods, landslide, epidemic, infestation, and red tide.

Human-made disasters, namely armed conflict, fire, and development aggression affected 853,807 people or 10% of the total disaster-affected population in 2008.

Figure 3. Distribution of Affected Population According to Types of Hazards

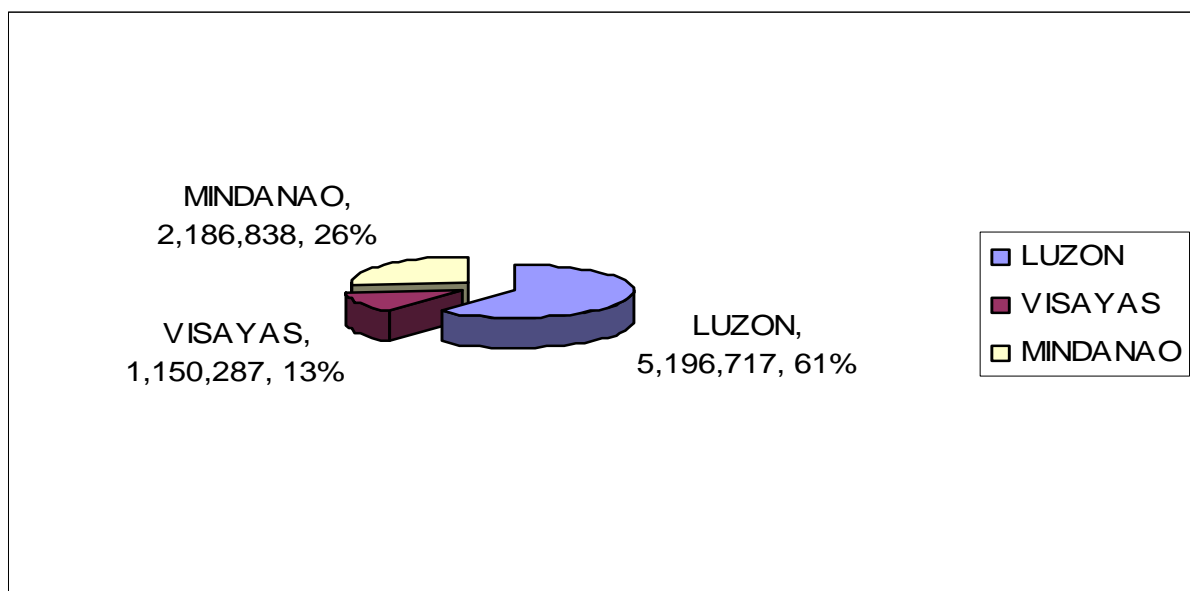


Geographical Distribution

The 253 disaster incidents were spread out all over the country, with Luzon having the greatest number of people affected by disasters, followed by Mindanao and then by the Visayas (See Figure 4). Luzon was also home to the most number of those affected by natural disasters. Those harmed by human-induced disasters, particularly caused by armed conflict, were concentrated in Mindanao.

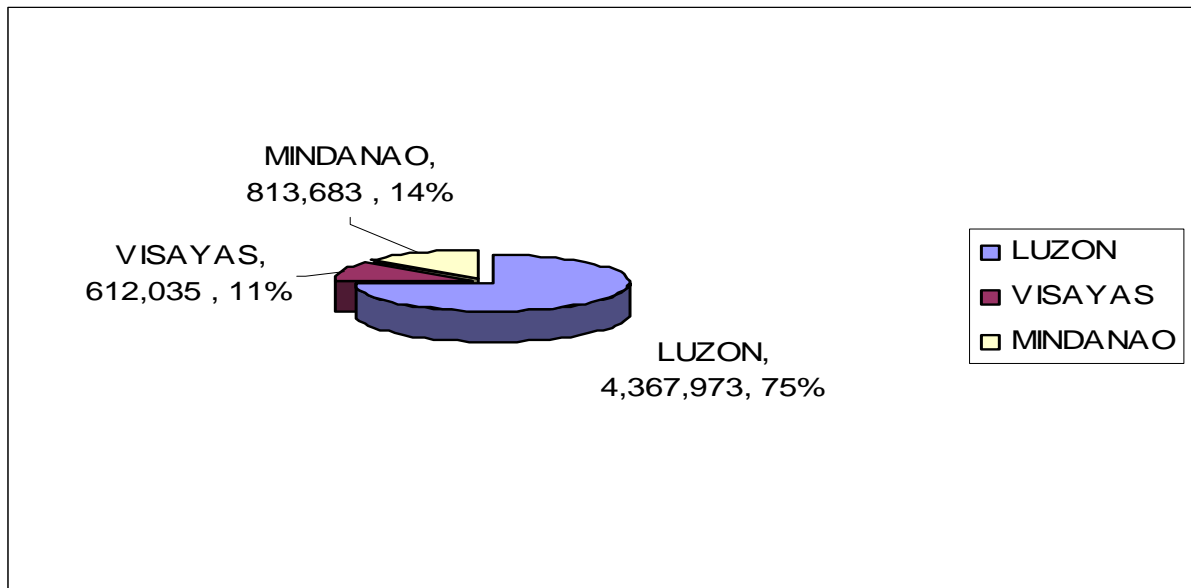
Luzon residents made up 5,196,717 of the 8,533,842 people affected by disasters in 2008. This is 61% of the total number of persons affected by both natural and human-made disasters. Mindanao residents made up 2,186,838 or 26% of the total disaster-affected population, while Visayas residents accounted for 1,150,287 people or 13% of the total disaster-affected population (See Figure 4).

Figure 4. Geographical Distribution of Affected Population



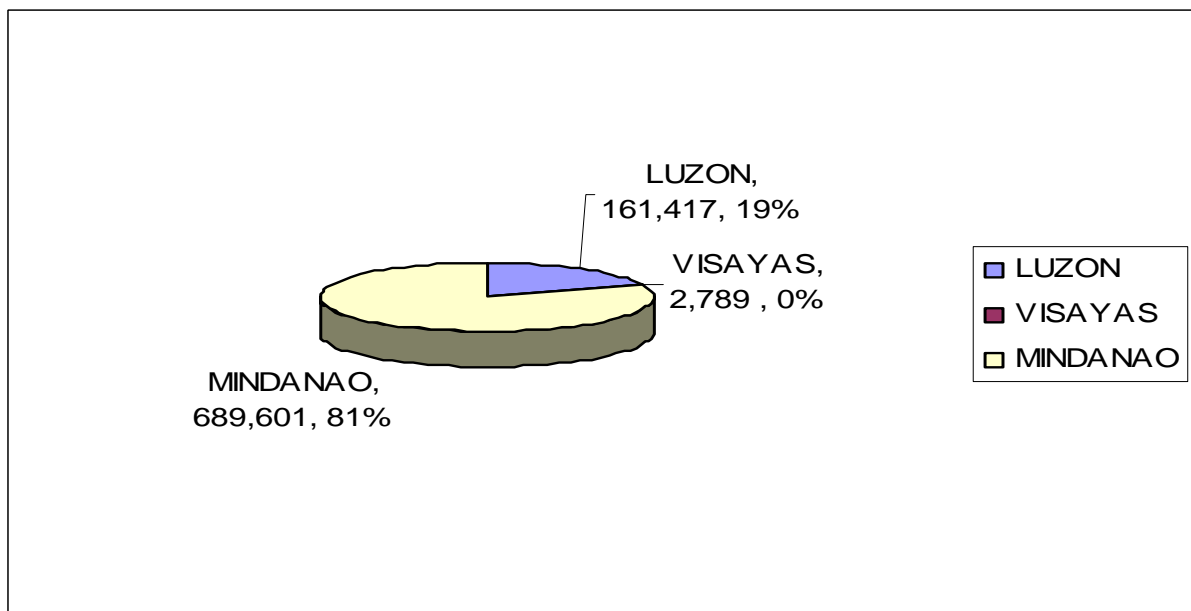
In terms of natural disasters, 75% (4,367,973) of those affected in 2008 were in Luzon. Mindanao accounted for 14% (813,683) of the population, and Visayas accounted for 11% (612,035). (See Figure 5)

Figure 5. Geographical Distribution of Population Affected by Natural Disasters



The greatest number of people affected by human-induced disasters were living in Mindanao (81% or 689,601 people out of the 853,807 affected by human-made disasters). Luzon was home to the rest (161,417 people). (See Figure 6)

Figure 6. Geographical Distribution of Population Affected by Human-made Disasters



For combination disasters, Mindanao accounted for 37%, Luzon 35% and Visayas 28% (See Figure 7).

Figure 7. Geographical Distribution of Population Affected by Combination Disasters

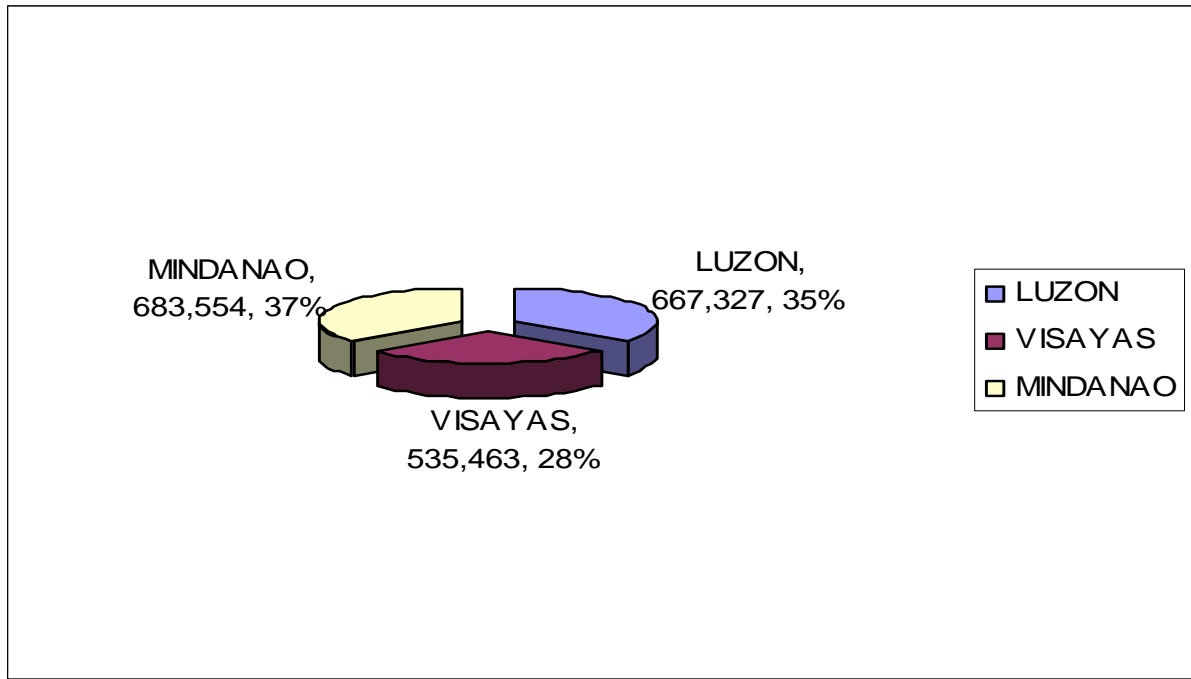


Table 7. Disasters in the Philippines (1999-2008)

TYPE OF DISASTER	1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		GRAND TOTAL	
	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS	FREQ	PERSONS
Armed Conflict	39	231,695	17	743,035	9	303,253	28	100,082	80	585,107	12	63,036	23	180,503	27	114,045	26	209,652	42	684,626	303	3,215,034
Development Aggression	39	139,147	39	32,815	9	26,846	22	49,487	40	87,895		1165	11	131,313	18	91,342	1	42,000	5	122,500	184	724,510
Drought						653	1	185,385	1	55,212			6	280			2	197,827			10	439,357
Earthquake	3	61,182	33	15,769			1	71,757	1	7,965	4	1500					2	27,675	1	1,361	45	187,209
Epidemic	40	12,608	12	4,770	44	8,152	19	2,685	32	17,108	11	10,062	24	91,244	12	88,686	5	3,197	3	2,328	202	240,840
Fire	40	44,629	32	58,787	49	95,555	53	96,138	69	111,160	295	102,468	254	97,349	169	87,876	138	112,716	97	46,681	1,196	853,359
Fishkill	14	17,174	2	8,568	1		2	128	1				7	248	13	4,359	1	300	4	900	45	31,677
Flood	31	5,763,650	13	1,115,344	14	714,204	6	3,285,749	39	1,426,318	41	3,166,915	28	964,927	31	1,916,187	24	504,365	39	1,844,563	266	19,275,904
Industry Related	14	33,616	4	93	11	235	5	25,370													34	59,314
Infestation	32	173,208	26	317,890	11	18,579	7	4,233	3	575	5	69,276			3	11,981			3	29,370	90	625,112
Lahar	1				1	36,760	1	1,521							1	55					4	38,336
Landslide	14	285,396	23	9,516	41	3,890	17	83	12	19,563	17	25,948	15	116,747	15	24,144	7	6,256	32	8,961	193	500,504
Redtide	1	6	2	13,221	4		2	17	1	3,853					1				1	222	12	17,319
Storm Surge	4	10,937	3	4,003	7	22,796	3	488	6	357	1	220	1	8,535	7	69,396	7	76,895	2	3,414	41	197,041
Tornado	8	761	8	4,764	7	6,479	4	630	3	882	29	58,051	9	1,276	7	1,106	7	8,324	13	2,694	95	84,967
Toxic Waste	1	30	1	1,014					1	423											3	1,467
Tropical Cyclones	7	2,299,126	9	8,681,040	6	4,612,624	3	783,605	19	3,362,991	25	6,966,136	6	1,019,646	11	12,030,904	13	3,027,226	11	5,786,222	110	48,569,520
Volcanic Eruption	2	91,184	1	92,743	1	56,808	0								2	66,709	3	66,330			9	373,774
TOTAL	290	9,164,349	225	11,103,372	215	5,906,834	174	4,607,358	308	4,253,091	440	10,464,777	384	2,612,068	317	14,506,790	236	4,282,763	253	8,533,842	2,842	75,435,244

Sources: CDRC Data Base Monitoring 2008, CDRC Disaster Alert 2008, DROMIC-DSWD 2008 Annual Disaster Occurrences Statistical Consolidation, CDRN and PO Reports, Kadamay QC-CBD Primer 2008, NDCC-OCD Summary of Man-made and Natural Incidents, January-December 2008 News clippings from the following broadsheets: Philippine Star and Philippine Daily Inquirer

CDRC and CDRN Response

CDRC was able to serve 13,685 families and 214 individuals in 2008. Majority of the families served were those affected by typhoons (7,970 families), floods and landslides (2,894 families), and armed conflict (2,151 families). Out of the 107 Relief Delivery Operations (RDOs) conducted, 81 (75%) were for typhoon victims. There were also 214 individuals served during a cholera outbreak in General Nakar in Quezon province in December 2008.

Table 8. RDOs Conducted by Disaster Type

Type of Disaster	No. of RDOs	No. of families served	No. of individuals served
TYPHOON	81	7,970	
FLOODS AND LANDSLIDES	15	2,894	
ARMED CONFLICT	7	2,151	
FIRE	2	600	
DEVELOPMENT AGGRESSION	1	70	
EPIDEMIC	1		214
TOTAL	107	13,685	214

Two types of responses were extended by CDRC and the rest of the CDRN regional centers in 2008 for the different disaster events that happened. One was through the Emergency Relief Assistance Fund (ERAF), a stand-by fund built-in in CDRC's Core Program. ERAF is designed to enable CDRC and its regional centers to quickly respond after each disaster event. It is disbursed by CDRC 24 hours after each disaster. The other type was the Major Emergency Response (MER). This applied to major disasters whose effects were severe and the costs beyond the capacity of CDRC's Core Program to shoulder. Because of the large amounts needed, MERs are appealed to funding donors.

CDRC, together with the regional centers concerned, conducted 19 RDOs under ERAF which benefited 4,200 families and 214 individuals. For MER, there were 88 RDOs conducted which served 9,485 families.

Table 9. RDOs by Type of Assistance

Type of Assistance	No. of RDOs	No. Families Served	No. of Individuals Served
ERAF	19	4,200	214
MER	88	9,485	
TOTAL	107	13,685	214

The bulk of the relief delivery operation took place in Luzon and Visayas, where 92 (46 for each island group) out of the 107 Relief Delivery Operations (RDO) happened. Majority of the beneficiaries are in the Visayas (43% or 5,862 families), followed closely by Luzon (40% or 5,482 families), and lastly Mindanao (17% or 2,341 families).

Table 10. RDOs Conducted by Island Group

Island Group	No. of RDOs	No. of families served	No. of individuals served
LUZON	46	5,482	214
VISAYAS	46	5,862	
MINDANAO	15	2,341	
TOTAL	107	13,685	214



Aside from food and clothing, materials for shelter were also provided especially for those whose homes were destroyed by fire or strong typhoons.

Damage, Needs, and Capacities Assessment (DNCA) were conducted in the affected communities to serve as concrete basis for relief and rehabilitation responses.

Trainings on Community-Based Disaster Management (CBDM), Disaster Management Information System (DMIS), Forest Management (FM), Emergency Response (ER), Sustainable Agriculture (SusAg), Sloping Agriculture Land Technology (SALT), and livelihood-related Skills Trainings were conducted as well in the communities.

For 2008, CDRC and its regional centers, through the support of local and international donors, were able to respond to communities affected by typhoons, fire, armed conflict, floods, landslides, epidemic, and development aggression in all three island groups: Luzon, Visayas and Mindanao.

The success of the emergency relief assistance and rehabilitation efforts was achieved through the assistance of CDRC's regional partners or the Citizens' Disaster Response Network (CDRN).



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