

2010

Philippine Disaster Report

Disaster Statistics 2010

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on disasters that occurred in the Philippines in 2010

CDRC
Citizens' Disaster Response Center
2010

Introduction

The 2010 Philippine Disaster Report concisely presents information on disasters that occurred in the Philippines in 2010. 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 Citizens' Disaster Response Network (CDRN), a network of 16 regional centers all over the country. Overview and supporting data were taken from the Department of Social Welfare and Development-Disaster Operations Monitoring and Information Center (DSWD-DROMIC), the National Disaster Risk Reduction and Management Council (NDRRMC), 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.

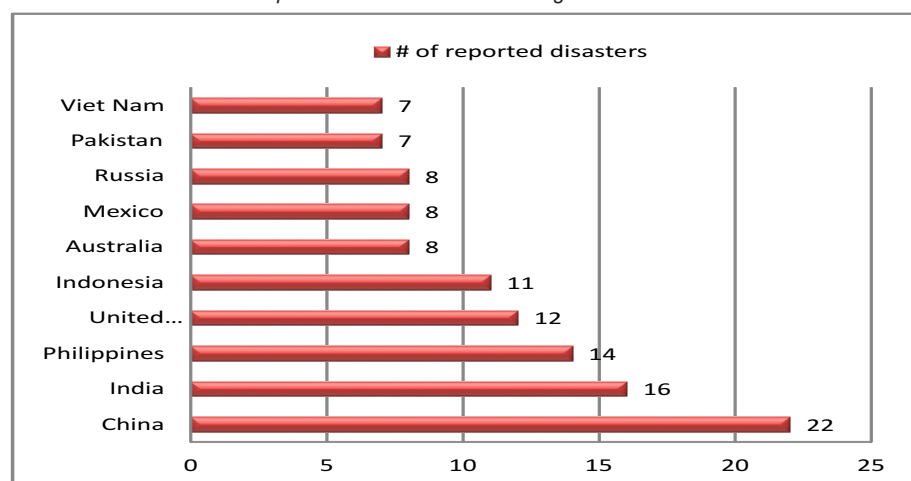
1. How did the Philippines fare in 2010?

In 2010, a total of 202 natural and human-induced disasters were reported in the Philippines. These killed 239 people, and affected more than 1.29 million families or 6.75 million people, and caused over Php 25 billion in economic damages.

These figures once again placed the Philippines on the top 10 list of countries with the most number of reported natural disasters in 2010. The Philippines placed third on the EM-DAT: The OFDA/CRED International Disaster Database, competing closely with India and China. (see Figure 1)

Figure 1: Number of reported natural disasters by country - 2010

Data source: EM-DAT: The OFDA/CRED- International Disaster Database, Université catholique de Louvain Brussels - Belgium

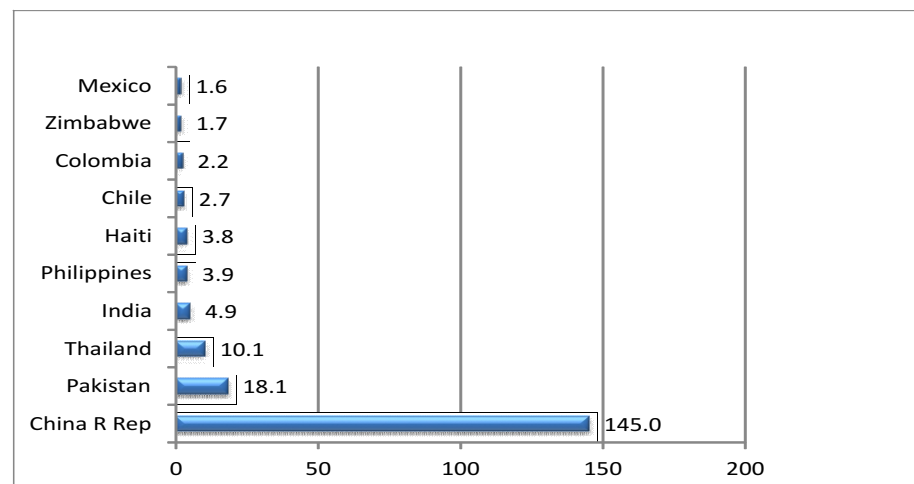


However, this number was down by as much as 46% compared to the 2009 data -- from 26 (year 2009) to 14 (year 2010). The Philippines used to top the list in 2009.

According to the EM-DAT: The OFDA/CRED International Disaster Database, the Philippines also placed fifth in the list of countries most affected by natural disasters in 2010. Previously, the country placed 2nd on that list.

Figure 2: Total killed and affected people by disasters in 2010 (in million)

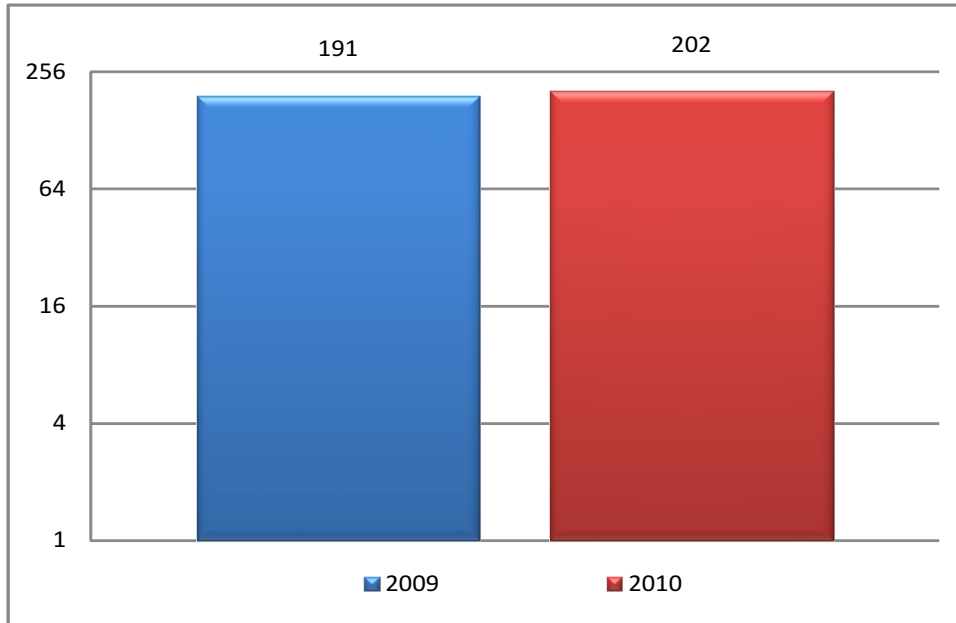
Data source: CRED CRUNCH, Issue No. 23, February 2011



When it comes to both natural and human-induced disasters, CDRC recorded 202 in 2010, slightly higher than the 2009 figure of 191. (see Figure 3)

Figure 3: Frequency of Disaster Occurrence 2009 and 2010

Source: CDRC Database 2010

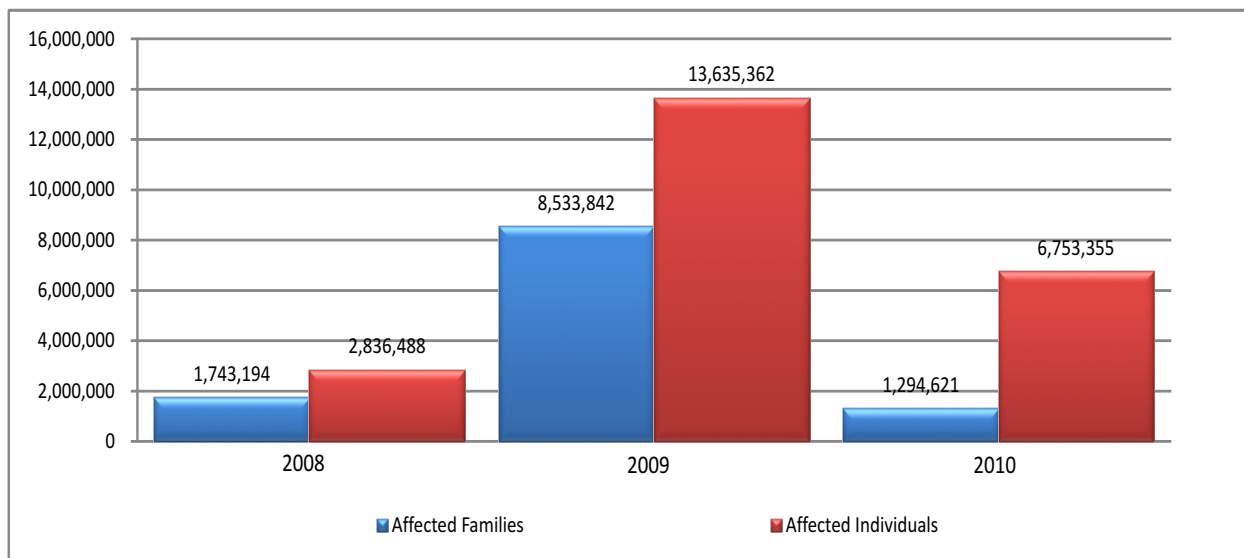


Human impact was also lower in both natural and human-induced disasters, with 6.75 million persons affected compared to the 13.6 million in 2009. (see Figure 4). This is a 50% decrease from the previous year.

This can be attributed primarily to the fact that the country did not experience a disaster as destructive as TS Ondoy and Typhoon Pepeng of 2009.

Figure 4: Disaster Affected Population 2008 – 2010

Source: CDRC Database 2010

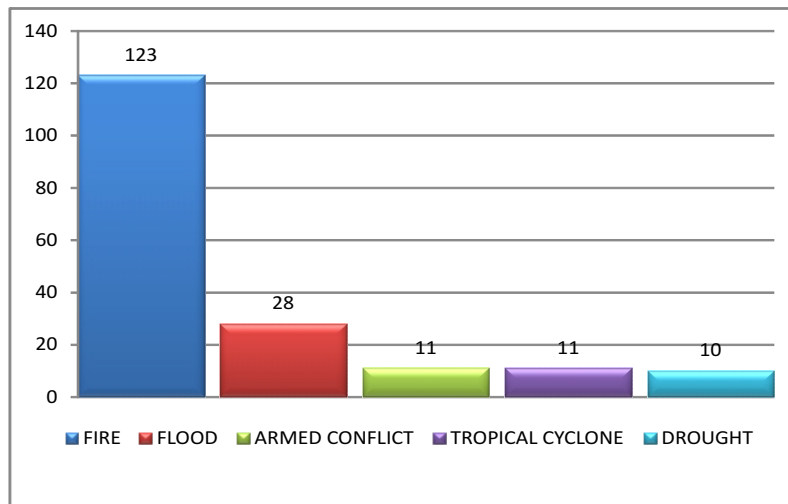


2. What were the top 5 disasters in 2010?

In terms of frequency, fire topped the list again with 123 reported incidents. Majority of these occurred in urban centers, particularly in congested urban poor communities. The total number of fire incidents for 2010 account for 61% of the 202 disaster events monitored. This was followed by flood with 28 reported incidents (14%). Armed conflict and tropical cyclone both have 11 recorded incidents each. Fifth on the list is drought.

Figure 5: Disaster in 2010 in Terms of Frequency

Source: CDRC Database 2010



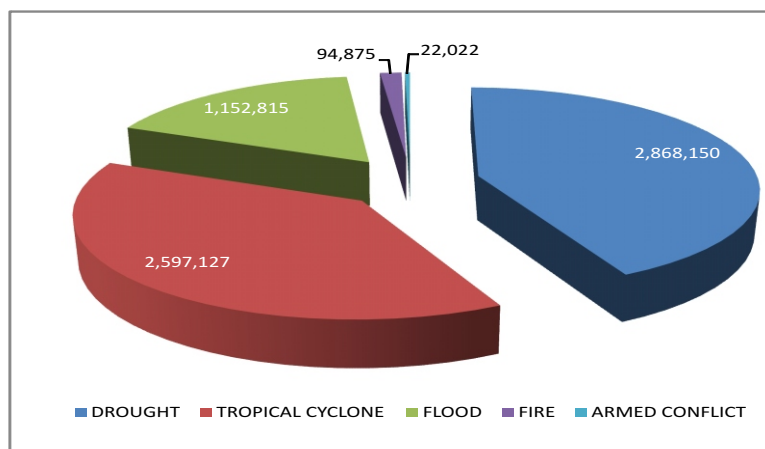
Unlike the previous years, fire made it to the top 5 disasters with the most number of affected persons in the year 2010. Drought topped the list (see Figure 6), followed by tropical cyclone, flood, fire and armed conflict.

Drought in the Philippines was caused by El Nino, a phenomenon brought about by the warming of the Pacific Ocean.

Drought may only be 5th in terms of the number of disaster occurrence, and yet the most number of people were affected. Thousands of farmers in 10 regions suffered from the dry spell. It should be noted though that because drought is a slow-onset disaster, exact figures are difficult to monitor.

Figure 6: Disaster in 2010 in Terms of Affected Population

Source: CDRC Database 2010



3. What types of hazards were dominant in 2010?

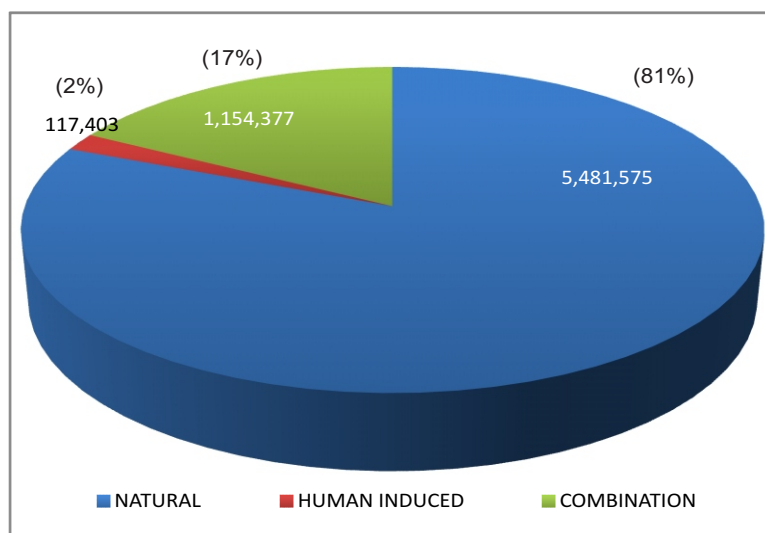
Natural hazards continued to be the leading cause of massive disasters in 2010. There were 5,481,575 people affected by natural disasters, or 81 % of the total number of people affected (see Figure 7). Natural disasters include drought, tropical cyclone, tornado and storm surge.

Disasters caused by both humans and natural hazards (combination) affected 1,154,377 people or 17% of the disaster-affected population. These disasters include fishkill, floods, landslide, and red tide.

Human-induced disasters, namely armed conflict, fire, and development aggression affected 117,403 people or only 2% of the total disaster-affected population in 2010.

Figure 7: Affected Population by Types of Hazards

Source: CDRC Database 2010



El Nino-induced Drought

People affected: 2.9 million

Economic Losses: 12.1 billion

Last year, 478,025 families or 2,868,150 persons were affected, and 57 provinces in at least 10 regions were gripped by drought due to El Nino phenomenon. El Nino is an abnormal weather pattern caused by the warming of the Pacific Ocean.



Though El Nino started in June 2009, the effects of drought were felt more during the first half of 2010.

In a report by the National Disaster Risk Reduction and Management Council, 542,067 ha of farmland were damaged. A total of 788,738 metric tons of palay, corn and other crops worth Php12,107,125,788 billion were damaged.

Region II was one of the regions which suffered the most from the dry spell. Crop losses amounted to Php6,841,438,730.90 from 569,858 metric tons of damaged crops and stocks. One of its provinces, Isabela, was the first one to be placed under state of calamity due to these losses.

Several other areas in Regions I, II, V, VI, VII, XII and CAR were also declared under state of calamity.

In Cordillera Autonomous Region (CAR), at least 17,085 hectares of rice and HVCC lands also dried up. Moreover, water levels in Magat dam dropped, causing not only loss in agricultural produce but also blackouts.

In Bulacan (Region IV), water levels in Angat Dam which irrigates thousands of rice lands in the area and delivers 97 percent of Manila's water supply also receded to critically low levels.

During El Nino, the following abnormalities can be observed according to PAGASA: delayed onset of the rainy season, early termination of the rainy season, weak monsoon activity, weak tropical cyclone activity, below normal rainfall, and above normal temperature. This El Niño warming episode brings drought to some areas in the world.

The drought the Philippines has just experienced is not the first one. The country experienced severe droughts in 1982-1983, 1992-1993 and 1997-1998 and the effects of this have been clear in many years--shortage of water supply, damage to agriculture, and cuts in power supply.

Drought is a slow onset disaster. It takes months or years to unfold. Through careful monitoring, this character of drought allows us to recognize it in its early stage and gives us more time to plan and implement the necessary responses to mitigate its negative impacts.

But the Php12,107,125,788 billion worth of losses incurred last year only tells us that so much more still has to be done.

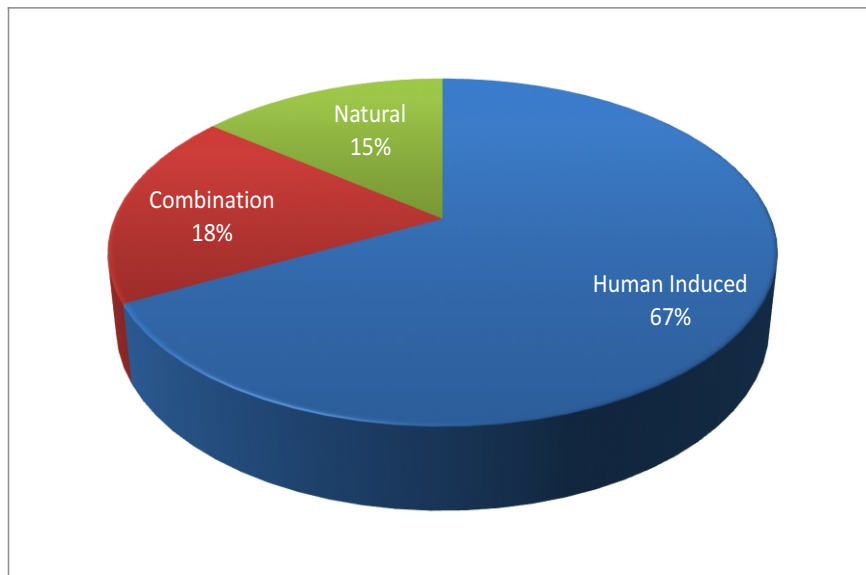
In terms of frequency, however, 67% were human-induced disasters (see Figure 8). This is fueled by the high number of fire incidents which happened mostly in urban poor communities. In these communities, fire frequently occur because of faulty electrical wiring, ruptured or leaking gas tanks, and spread quickly because of congestion and poor housing materials.

Natural disasters account for only 15% of disaster incidents but it affected the most number of people (see Figure 7).

The remaining 18% of the disasters is caused by a combination of human-induced and natural hazards.

Figure 8: Frequency of Disasters by Types of Hazards

Source: CDRC Database 2010

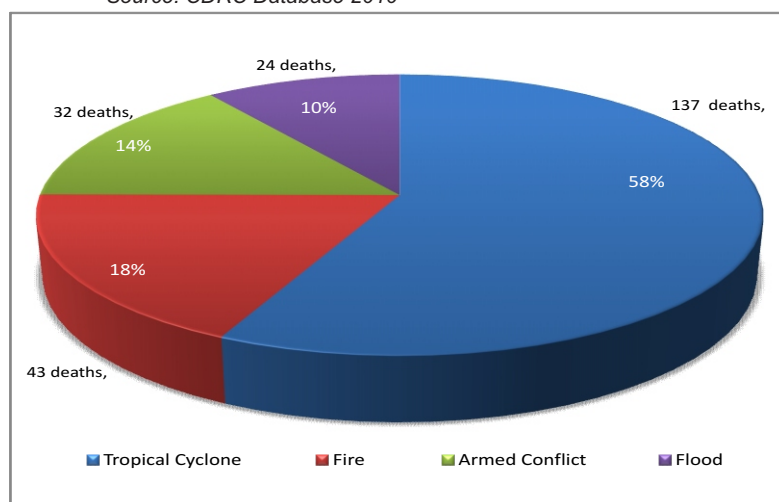


4. What disasters had the highest mortality rate?

The major cause of mortality rate last year was tropical cyclone, fire, armed conflict and floods. Tropical cyclone alone affected almost 2.6 million people, and killed 137 (58%) in 2010 (see Figure 9; 133 of these were due to the combined effects of typhoons Juan and Basyang. This is followed by fire (43 deaths), armed conflict (32 deaths), and flood (24 deaths).

Figure 9: Top 4 Disasters in Terms of Casualties

Source: CDRC Database 2010



5. What regions were most affected by disasters?

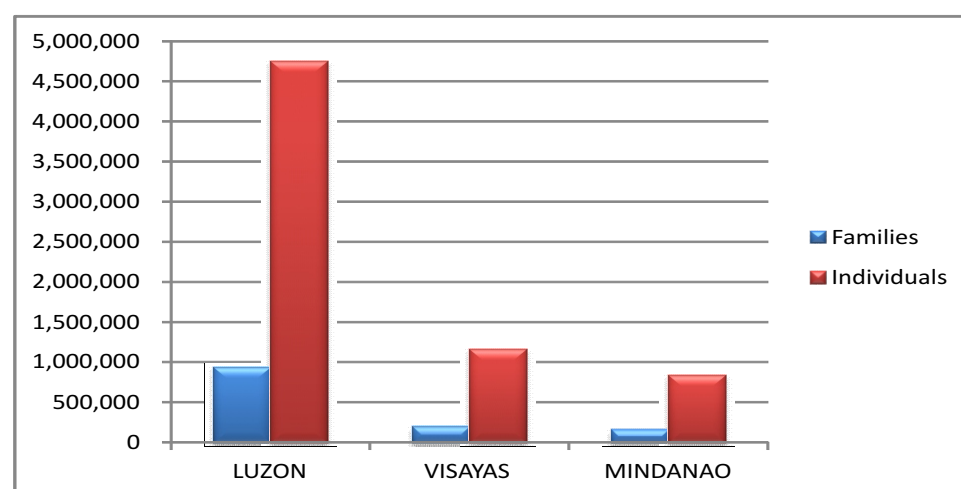
The Philippines experienced 202 disaster incidents this year, with Luzon having the greatest number of people affected by disasters, followed by Visayas and then by Mindanao (see Figure 10). Luzon registered a total of 943,077 families or 4,758,836 individuals who were affected by disasters, 71% of the total affected population in the country.

Visayas' affected population was pegged at 195,654 families or 1,158,691 individuals, which is 17% of the total affected population in the country.

In Mindanao, 155,890 families or 835,828 individuals were affected. This is 12% of the total affected population.

Figure 10: Graphical Distribution of Affected Population

Source: CDRC Database 2010



Supertyphoon Juan (Megi)

People Killed: 31

People Affected: 2 million

Economic Losses: 12 billion

The Philippines barely recovered from three extreme events in the past – Tropical Cyclones Ondoy (Ketsana) and Pepeng (Parma) in 2009, and El Nino-induced drought in 2010 – when another disaster, the Supertyphoon Juan hit.



Typhoon Juan is the most destructive tropical cyclone which entered the Philippine Area of Responsibility (PAR) in 2010. Its maximum sustained winds ranged from 175-225 kph.

The typhoon exited on October 20 and left a trail of destruction in 3,434 barangays in Regions I, II, III, IV-A, CAR and NCR.

A total of 427,962 families or 2,008,984 persons were affected. These numbers comprise 556,688 individuals in Region I, 892,844 in Region II, 237,872 in Region III and 319,920 in CAR. Region IV and NCR were likewise affected – 783 individuals in Region IV and 877 in NCR. Of these, 16,065 families/69,279 persons rescued and evacuated to 454 evacuation centers.

Casualties have reached 77 -- 31 dead, and 42 injured and 4 missing.

Losses to the agriculture sector is estimated at Php11.53 Billion while damage in Infrastructure amounted to Php 485,586,056 Million.

Several roads and bridges in Regions I, II, III, IV-A and CAR were closed due to landslides, fallen trees and electric posts, and swelling rivers affecting more than a thousand passengers.

Power transmissions of 17 electric cooperatives covering Regions I, II, and CAR were also interrupted.

According to officials of PAGASA, Juan is the world's strongest typhoon to hit 2010. It may also be stronger than typhoon "Reming" that hit the Philippines last 2006 in the Bicol region.

As in the past emergency situations, CDRC and its local partners assisted the affected families, particularly the most affected and least served families. The response is aimed at helping them cope with the situation and prevent the further deterioration of their lives.

CITIZENS' DISASTER RESPONSE CENTER
DISASTER IN THE PHILIPPINES 2010
 ANNUAL STATISTICAL REPORT

DISASTER	FREQ	TOTAL AFFECTED		LUZON		VISAYAS		MINDANAO		CASUALTIES			HOUSES DAMAGED		COST	
		FAMILIES	PERSONS	FAMILIES	PERSONS	FAMILIES	PERSONS	FAMILIES	PERSONS	DEAD	INJURED	MISSING	TOTAL	PARTIAL	INFRA	AGRI
DEVELOPMENT AGGRESSION	2	136	506					136	506		10		107			
DROUGHT	10	478,025	2868150	251,470	1508820	180,865	1085190	45,690	274140							12,017,000,000
EPIDEMIC/OUTBREAK		-	-													
FIRE	123	19,224	94875	13,968	70,411	3,595	16489	1,661	7975	43	57		8645	140	95,000,000	
FISHKILL	3	-	-													
FLOOD	28	244,956	1152815	131,454	568155	11,109	56,604	102,393	528056	24	8	3	329	984	33,300,000	419,852,796
INFESTATION		-	-													
LAHAR																
LANDSLIDE	6	225	1562			11	48	214	1514	2	2		29	2		
ARMED CONFLICT	11	5,436	22022					5,436	22022	32	22		170			
REDTIDE																
STORM SURGE	1	323	1,427					323	1,427				78	219		
TORNADO	6	145	710	34	162	74	360	37	188		2		45	75		
TROPICAL CYCLONE	11	543,317	2,597,127	543,317	2,597,127					137	133	65	37,425	184,082	624,152,056	11,767,399,644
VOLCANIC ERUPTION/ACTIVITY	1	2,834	14,161	2,834	14,161					1						
EARTHQUAKE																
GRAND TOTAL	202	1,294,621	6,753,355	943,077	4,758,836	195,654	1,158,691	155,890	835,828	239	234	68	46,828	185,302	752,452,056	24,204,252,440

Sources: CDRC Data Base Monitoring 2010, CDRC Disaster Alert 2010, DROMIC-DSWD 2010 Annual Disaster Occurrences Statistical Consolidation, CDNR and PO Reports
 NDCC-OCDC Summary of Man-made and Natural Incidents, January-December 2010 News clippings from the following broadsheets: Philippine Star, Philippine Daily Inquirer, Manila Standard Today

References:

1. CDRC Databank 2010
2. 2010 Disaster Alerts, Citizens' Disaster Response Center, Inc.
3. Reports from Citizens' Disaster Response Network (CDRN) member-organizations
4. 2009 Annual Report, Citizens' Disaster Response Center, Inc.
5. Monthly Reports [2010], Department of Social Welfare and Development, Disaster Response Operations Monitoring and Information Center (DSWD-DROMIC)
6. Incidents Monitored from January 1 - December 31, 2009, National Disaster Risk Reduction and Management Council, Camp General Emilio Aguinaldo, Quezon City
7. 2010 Reports and News clippings from The Philippine Star, Philippine Daily Inquirer and Manila Bulletin
8. 2010 Disaster in Numbers, Centre for Research on the Epidemiology of Disasters – CRED
9. disaster.dswd.gov.ph
10. www.ndcc.gov.ph
11. <http://www.pagasa.dost.gov.ph/>