

2021

Philippine Disaster Report

Citizens' Disaster Response Center



The Philippine Disaster Situation in 2021

In 2021, the Philippines experienced 80 disastrous events related to natural, 392 human-induced, and 548 both natural and disasters from human-induced hazards. Overall, these claimed the lives of 75,216 across the country, affected more than 20.5 million people, displaced over 5 million persons, and recorded approximately Php60.6 billion in economic losses.

Disasters from natural causes caused the most severe impact, accounting for 99% of the total number of fatalities, 82% of the total number of people affected, 50% of the total population displaced, and 98% of the recorded damage to agriculture, infrastructure, and private properties. Of these fatalities, COVID-19 accounted for 98% or a total of 74,008 deaths.

On a global scale, the Philippines ranked among the ten countries most severely impacted by natural events in 2021. Typhoon Odette (I.N. Rai), which struck the country in December, [ranked fourth in top ten disasters from natural causes mortality in 2021 and fourth in terms of the number of people affected in the world](#). The Philippines also had one of the highest numbers of internal displacements due to disasters from natural causes in 2021, with Typhoon Odette resulting in the [largest number of disaster displacements of the year worldwide](#).

The Philippines' susceptibility to disasters is a combination of several factors. Its geographical and physical characteristics, the continuing environmental destruction, and worsening impacts of climate change make it perennially vulnerable to disaster events. The country's chronic socio-economic crisis and political situation exacerbate these vulnerabilities. The Filipino people have been reeling from [low incomes, lack of education, insufficient nutrition and poor health, poor housing, lack of clean water, sanitation and electricity, lack of assets, and even violence](#) even before the COVID-19 pandemic hit the nation in 2019.

Highlights

Of the total 1,020 recorded disaster events, those from natural causes accounted for 8%, human-induced for 38%, and combination of both natural and man-made for 54 percent. The number of incidents in 2021 is 164% higher than previous year's recorded total of 386 disaster events. Luzon was the worst hit among the island groups. **(Table 1)**

Table 1. Number of Recorded Incidents

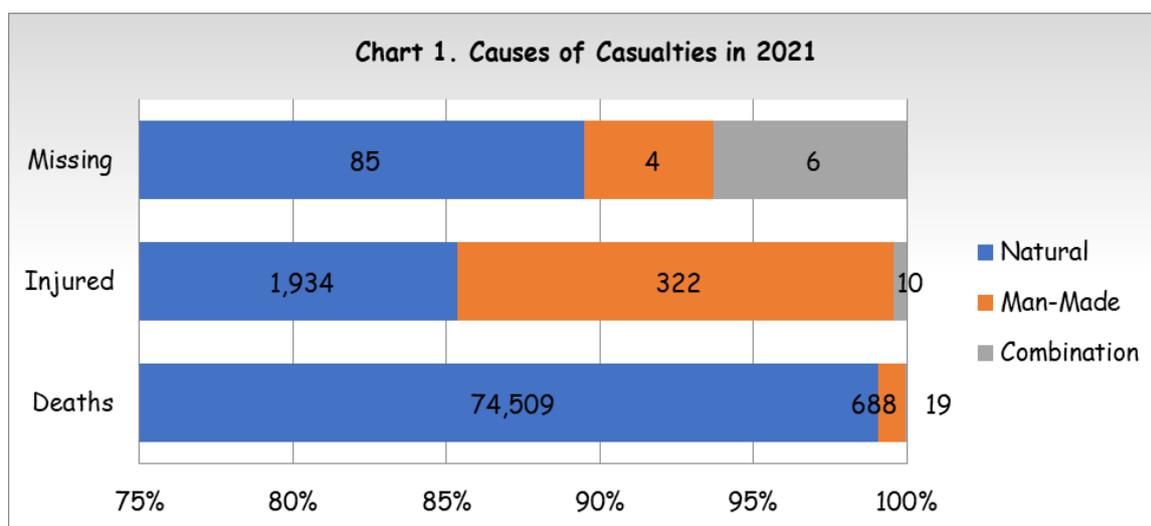
	Total	Natural	Man-Made	Combination
Number of Incidents	1,020	69	392	548
Major Islands Hit				
Luzon	373	14	243	114
Visayas	208	11	60	137
Mindanao	223	27	89	98
Luzon and Visayas	7	4		3
Luzon and Mindanao	1	1		
Visayas and Mindanao	1	1		
Luzon, Visayas, Mindanao	202	6		196
None	5	5		

These resulted in 77, 577 casualties of which 75,216 died, 2,266 injured, and 95 are missing persons. The total death in 2021 is 639% higher than the previous year and the highest in three years. (Table 2)

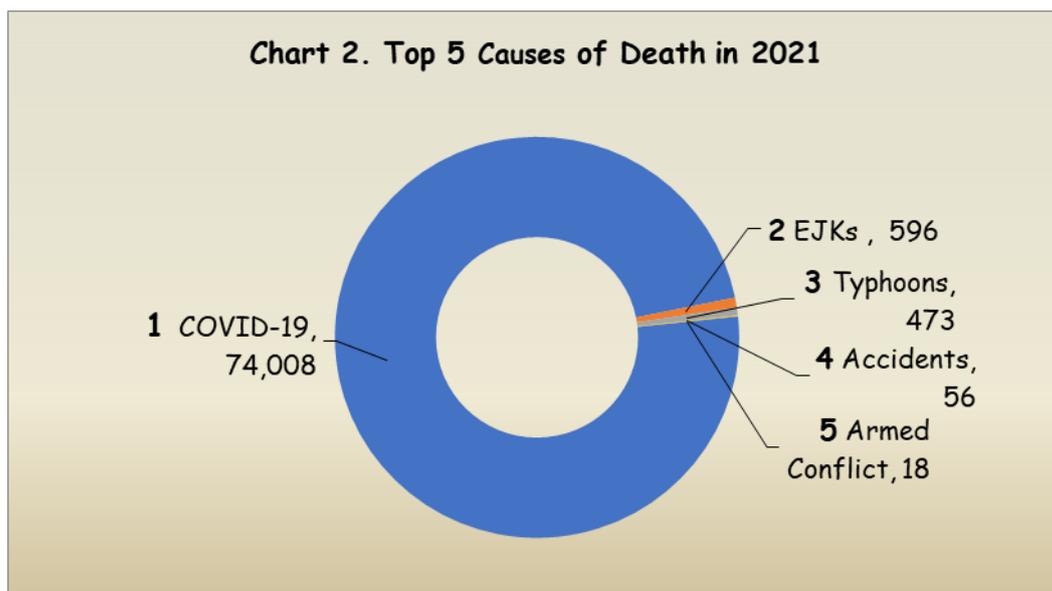
Table 2. Number of Recorded Casualties

		2021	2020	2019
Casualties		77,577	11,100	6,127
	Deaths	75,216	10,181	2,679
	Injured	2,266	889	3,403
	Missing	95	30	45

Disasters from natural causes accounted for 74,509 or 99% of total fatalities, 85% of injured at 1,934 people, and 89% of total missing persons at 85. (Chart 1)



Fatalities due to COVID-19 was the highest among disasters in 2021, accounting for 98% of the total. Extra-judicial killings (EJK) of activists, critics, and drug suspects was second with 596 people executed, followed by storms at 473 fatalities, accidents at 56, and armed conflict at 18 recorded deaths. Official number of extra-judicial killings vary depending on who is counting. Government reports tend to be understated. (Chart 2)



Compared with the previous year, deaths due to COVID-19 and extra-judicial killings remained on ranks 1 and 2 respectively, while typhoon fatalities which ranked fourth in 2021 is now on rank 3. (Table 3)

Table 3. Top 5 Causes of Death, Comparative, 2021 and 2020

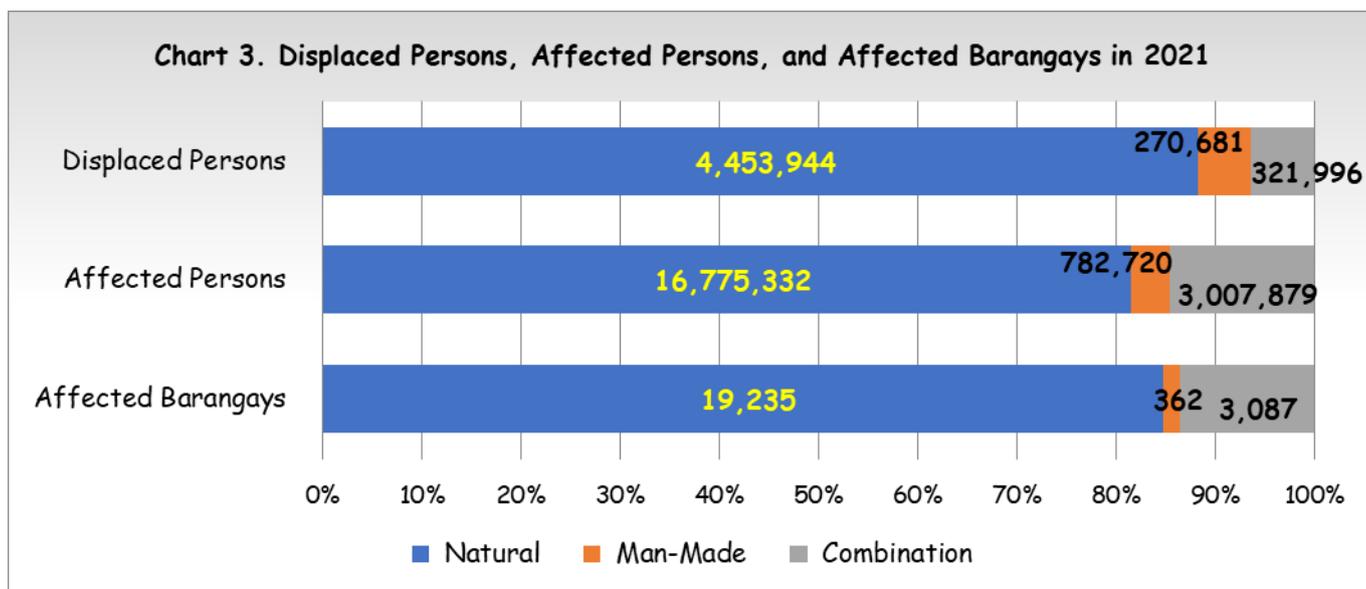
	2021	Rank	2020	Rank
COVID-19	74,008	1	9,248	1
EJKs	596	2	460	2
typhoons	473	3	162	4
accidents	56	4		
armed conflict	18	5		
diseases outbreak			267	3
flash floods, landslides, floodings			15	5

The human impacts of these disasters were severe with 22,684 barangays affected, over 5 million families or 20.6 million people affected, and 1.25 million families or 5 million people forced to flee to safer grounds. The number of affected people is 60% higher in 2021 compared with the previous year, but still lower than in 2019. (Table 4)

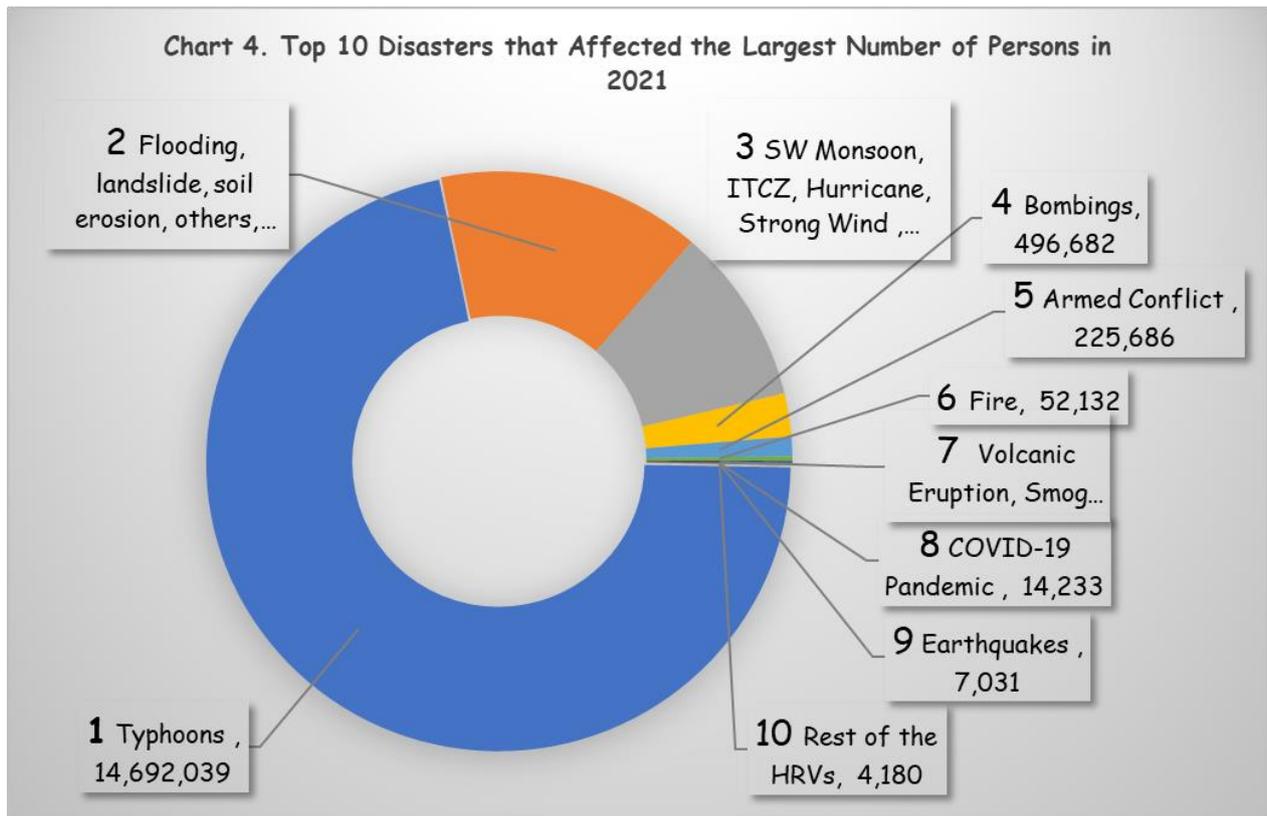
Table 4. Number of Affected and Displaced Population, Comparative, 2019 to 2021

	2021	2020	2019
Affected barangays	22,684	19,368	
Affected families	5,255,163	2,989,855	5,618,175
Affected persons	20,565,931	12,829,226	26,592,376
Displaced families	1,254,257	234,241	460,236
Displaced people	5,046,621	4,485,105	2,145,998

From a total recorded displacement of over 5 million people, 88% of them was due to disasters from natural causes, wherein Typhoon Odette (I.N. Rai) accounted for 78% or almost 4 million people internally displaced. The combination of both natural and man-made disasters accounted for 6% and man-made for 5% during the course of 2021. **(Chart 3)** [Worldwide, 70% of internal displacement related to disasters from natural causes in 2021 was recorded in China, the Philippines and India.](#)

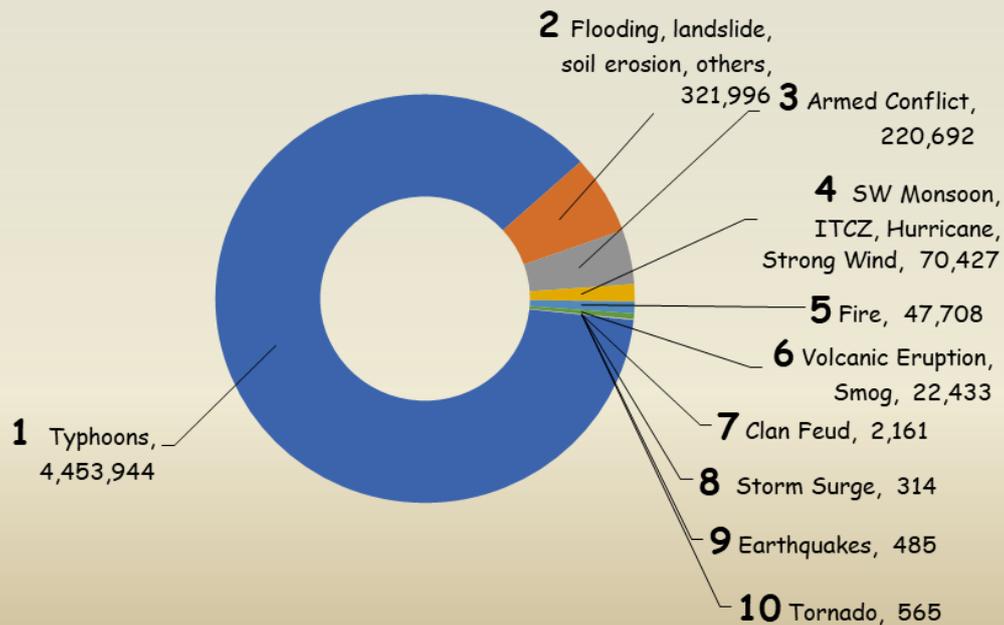


Typhoons affected the greatest number of people at 14.7 million or 71%, followed by flooding, landslides, and soil erosion at more than 3 million or 15%, and southwest monsoon, ITCZ, hurricane, and strong wind at over 2 million people or 10%. Bombings disrupted the lives of almost half a million people or 2% of total affected while armed conflict between government forces (AFP and PNP) and the New People’s Army, MILF, BIFF, and Dawlah Islamiyah-ISIS affected a quarter of a million people. **(Chart 4)**



Typhoons triggered more than 4.45 million to be internally displaced across the regions in 2021, the highest figure in three years, an increase of 13% on the year before, and 135% increase from 2019. It was followed by flooding, landslides, soil erosion at 321,996 people displaced, armed conflict with almost a quarter of a million forced to flee, southwest monsoons, ITCZ, hurricanes at 70,427 people, residential and commercial fires with 47,708 people, and Taal volcanic eruption and smog at 22,433. The last four on the top 10 were clan feud, storm surge, earthquakes and tornado. **(Chart 5)**

Chart 5. Top 10 Disasters that Caused Massive Displacements in 2021



According to the UNHCR Mindanao displacements dashboard, there were people who remain displaced and have been protractedly displaced for more than 180 days in Mindanao due to natural and man-made reasons. Shown in **Table 5** are some 22,122 families or 108,624 people still wanting of decent homes.

Table 5. People who remain displaced and have been protractedly displaced for more than 180 days. [507]

Location and Cause of Displacement	Displaced since	Families	Individuals
Zamboanga City due to Zamboanga Siege	Sept.-2013	720	3,600
Lanao del Sur due to Marawi Siege	May-2017	17,060	85,300
BARMM Provinces due to armed conflict and crime & violence	Sept-2017	1,408	7,238
South Cotabato due to landslide	Jun-2021	125	625
Davao del Sur due to earthquake	Dec-2019	1,436	5,344
Cotabato Province due to earthquake	Dec-2019	1,323	6,275
Lanao del Norte due to TY Falcon	Jul-2019	14	62
Surigao del Sur due to armed conflict	Jun-2021	36	180
TOTAL		22,122	108,624

Recorded damage to houses reached more than 2 million with 416,737 houses destroyed and almost 1.8 million houses damaged, 177% higher than the previous year. (**Table 6**)

Table 6. Recorded Damage to Houses and Properties, 2021

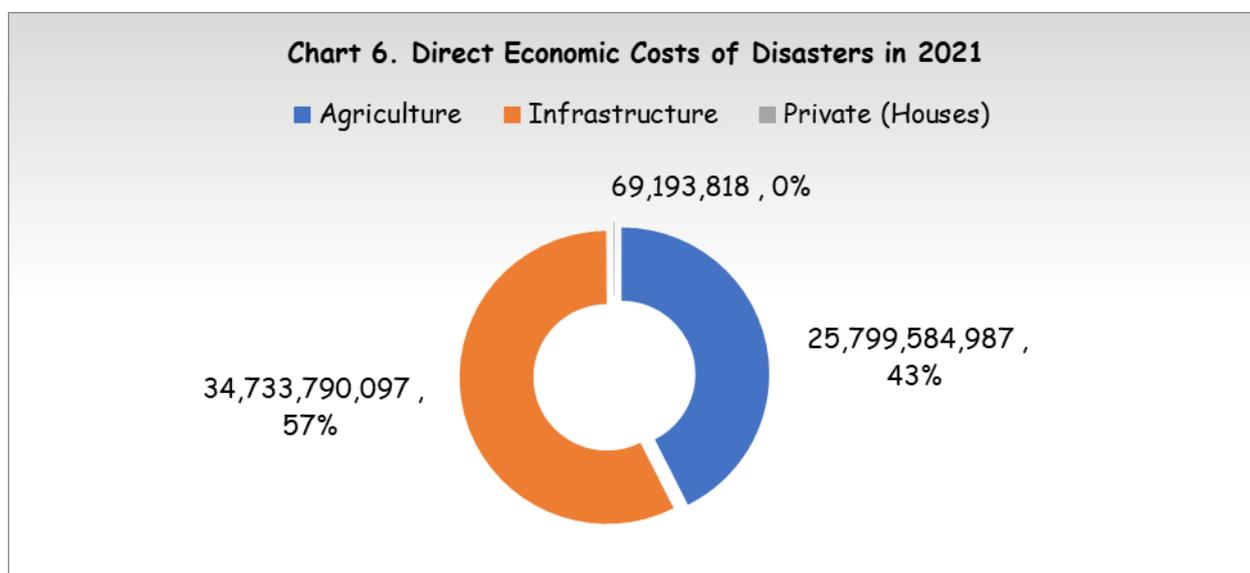
	2021	2020
Damaged Houses, Total	2,197,281	798,031
Destroyed (Totally)	416,737	125,744
Damaged (Partially)	1,780,544	672,287

Direct economic costs of disasters in 2021 were placed at P60.6 billion, where agriculture accounted for almost 43%, infrastructure at 57%, and private properties at 0.11 percent. This is 42% lower than the previous year as government data on agriculture was not comprehensive.

(Table 7) (Chart 6)

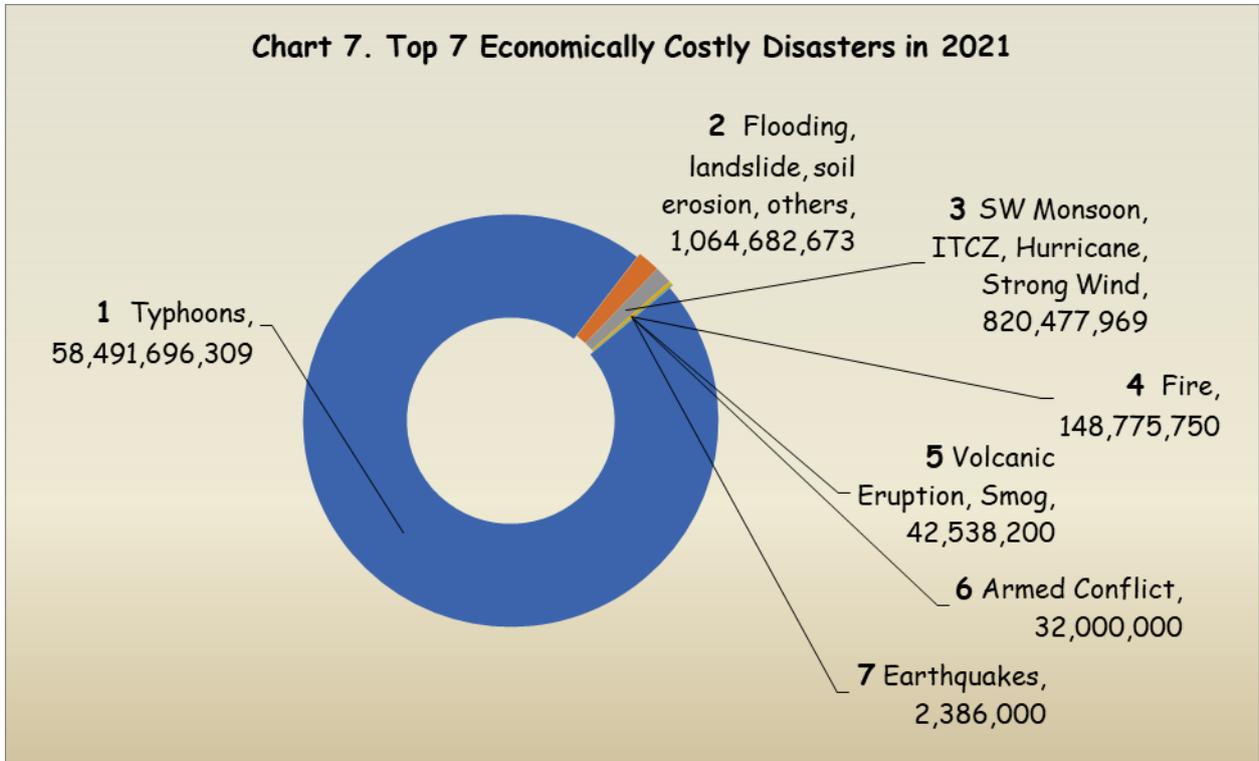
Table 7. Direct Economic Costs of Disasters

	2021	2020
Damage to Properties, Total	60,602,568,902	104,220,515,393
Agriculture (42.572%)	25,799,584,987	75,477,119,581
Infrastructure (57.314%)	34,733,790,097	28,713,395,811
Private Properties (.114%)	69,193,818	
Agriculture and Infrastructure		30,000,000
Total Areas Affected (hectares)	663,543	



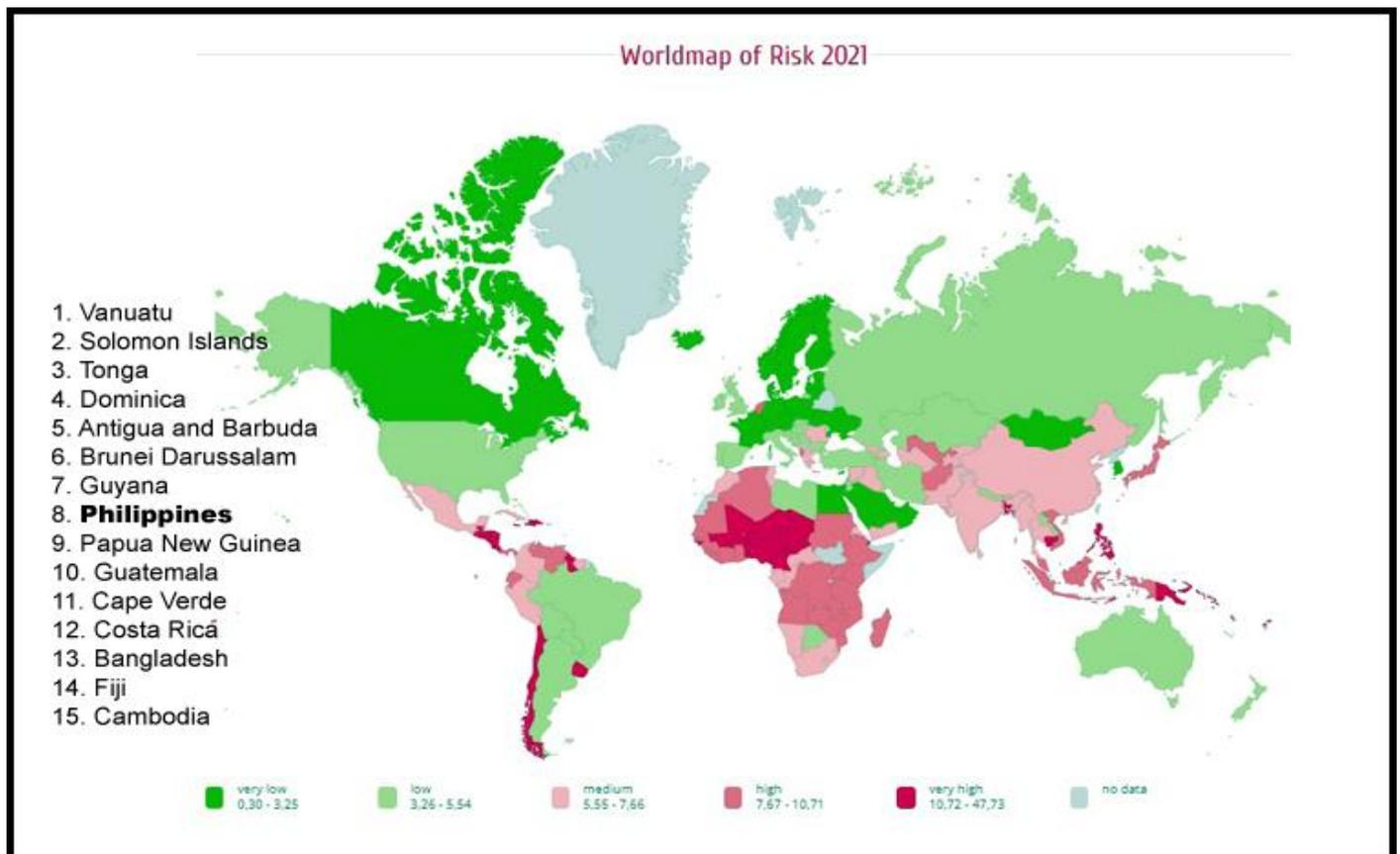
Due to their destructive nature, disasters from natural causes take a severe toll on populations and their livelihood. Storms and floods, which tend to occur most regularly, always have the biggest economic impact in the country. In 2021, the storms caused damages estimated at Php58.5 billion and accounted for 97% of recorded damage to agriculture, infrastructure and private properties. Floodings and landslides came in second at 2%, southwest monsoons, ITCZ, and strong winds at 1%, fire at 0.25%, Taal volcano eruption and smog at 0.07%, armed conflict at

0.05%, and earthquakes at 0.004 percent. (Chart 7) However, government data is not comprehensive. For one, there were no reported economic damages wrought by armed conflict even if there were aerial strikes, bombings on communities, and disruptions in economic activities during military operations.



II. The Philippines is a disaster-prone country on a global scale.

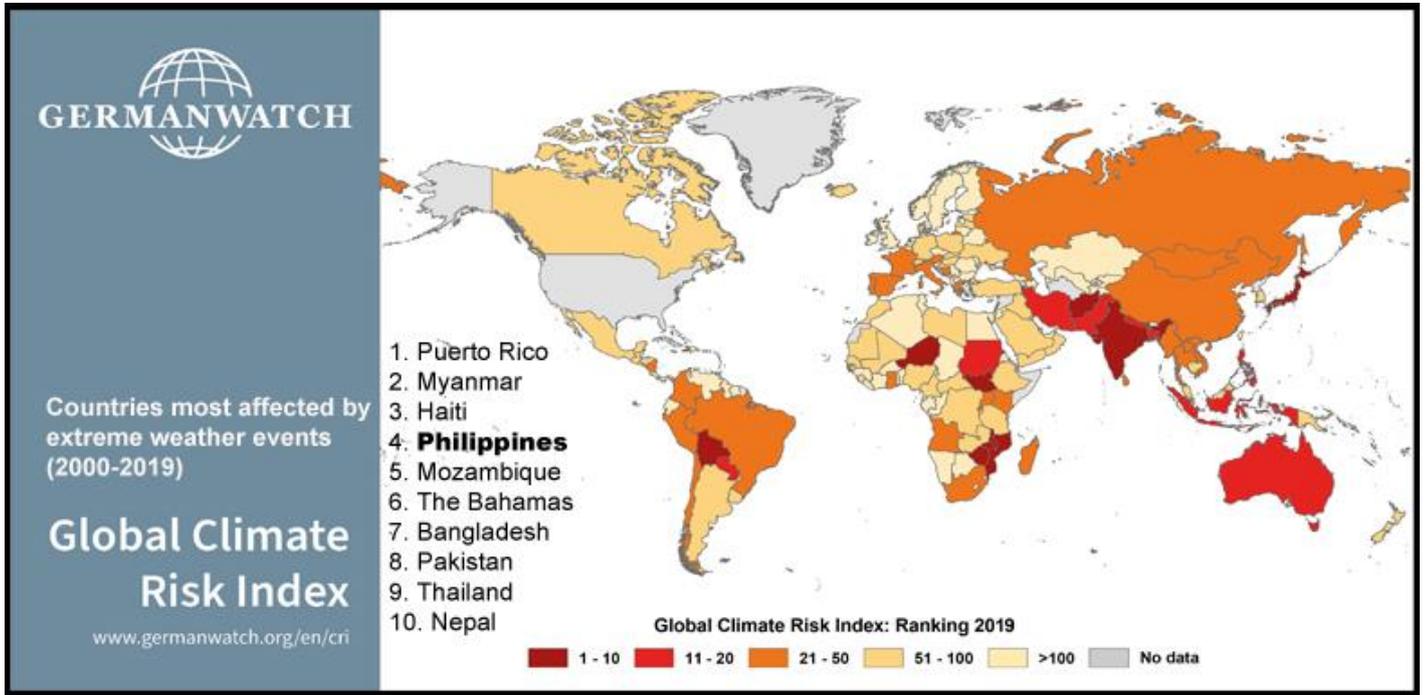
In the global comparison of disaster risk for 181 countries, [the Philippines placed 8th in the world in 2021](#), one rank higher than the previous year according to the World Risk Report 2021: Focus on Social Protection. The report took into consideration two components, namely, natural hazard and societal sphere. It measured exposure to the intensity of extreme natural event to the disaster risk as the natural hazard sphere, and the country's vulnerability as the societal sphere. Vulnerability to disaster risk includes susceptibility, coping capacities, and adaptive capacities for long-term strategies for societal change.



[Figure 1] World Risk Index 2021

Source: Bündnis Entwicklung Hilft and the International Law of Peace and Armed Conflict

Moreover, the Global Risk Index 2021 ranked [the Philippines 4th in the world as most affected from 2000 to 2019 \(annual averages\), maintaining its rank from 1999-2018 in the long-term Climate Risk Index \(CRI\)](#). [Over the last few years, countries like Haiti, the Philippines and Pakistan are recurrently affected by catastrophes and continuously rank among the most affected countries both in the long-term index and in the index for each respective year](#). Due to its geographical location, the Philippines is regularly exposed to tropical cyclones such as “Pablo” (I.N. Bopha) in 2012, “Yolanda” (I.N. Haiyan) in 2013, “Ompong” (I.N. Mangkhut) in 2018, and “Odette” (I.N. Rai) in 2021.



[Figure 2] World Map of the Global Climate Risk Index 2000-2019

Source: Germanwatch and Munich Re NatCatSERVICE

III. The Philippines's vulnerability to disasters

A. Geographical and physical characteristics

First, the Philippines lies in the Western Pacific Basin where an average of 20 typhoons enter the country, five of which are typically destructive. Second, it is situated on the Pacific "Ring of Fire," an arc of intense seismic activity that stretches from Japan through Southeast Asia and across the Pacific basin, where many of the world's earthquakes and volcanic eruptions occur. Third, it lies between two major tectonic plates – the Pacific Plate and the Eurasian Plate that shake beneath the surface of the earth and oceans resulting in earthquakes. Fourth, it has 300 volcanoes, of which 22 are active. Finally, the country experiences El Niño that causes droughts and water shortage that adversely impacts agriculture. [CBDM Manual, CDRC, 2021]

B. Deep-seated economic problems pervade

Low incomes, lack of education, insufficient nutrition and poor health, poor housing, lack of clean water, sanitation and electricity, lack of assets, and even violence clearly defined the Duterte administration. [503]

Chronic neglect in the agriculture sector was evidenced in the annual decrease of 3% from 2016 to 2020 since Duterte took office in 2016. [502] This translates to 328,000 jobs lost annually, or a total of 1,310,000 workers in agriculture who lost their jobs in four years since Duterte took office. From 2017-2021, the average growth was just 1.2% annually, which is less than one-third the historical average of 3.8% since the end of World War II. By 2021, its contribution to the gross domestic product declined to 0.3%. [502]

For one, rice farmers experienced declining incomes as their average net income per hectare per cropping period netted only P21,279 in 2020 from P24,728 in 2016. [504] This is expected to worsen as prices of farm inputs continue to spike. For the most part, majority of farmers is still dependent on regular monsoons, making these agricultural livelihoods vulnerable to extreme weather events, also induced by climate change.

Unemployment rate was at 10.3%, but as of November 2021, the true number of unemployed is higher at around 5.7 million or more. Job creation was weakest in 35 years with an annual average of 313,338 in 2017-2019. [502]

Poverty increased again to 26.1 million poor – yet, this only reflects those under the unreasonably low official poverty line averaging Php79 per person per day. The number of poor and vulnerable families has bloated to around 18-21 million, or some 7-8 out of 10 Filipino families. [502]

Badly managed/mismanaged COVID-19 response since 2020 aggravated the already worsening economic trends, and even caused the biggest economic collapse in Philippine history. The peak of suffering was in 2020 with 12.9 million unemployed in April, almost 19 million families facing income losses without savings in the third quarter, and 15.5 million families going hungry. Some 138,843 establishments (mainly micro, small and medium enterprises or MSMEs) employing 565,446 people permanently closed down in the last two years, aside from 56,971 establishments which were forced to cut back on their operations. [502]

The country has the highest inflation in the Southeast Asian region at [4.5% in 2021](#). [502]

[Outstanding national government debt is projected to reach Php13.41 trillion by the end of 2022. Repayment of this debt will be by ordinary Filipinos because of the regressive tax reforms wherein the indirect consumption taxes on poor and middle-class Filipinos were increased, while direct income and estate taxes on wealthy families and the corporate income tax on large corporations was reduced.](#) [502]

[The gap between the rich and people continued to widen. Amid socioeconomic distress for the many, the wealth of oligarchs and political elites further grew. The richest Filipinos increased their collective wealth by 29% since 2020 to Php 3.8 trillion in 2021.](#) [502]

According to a World Bank report, [nine out of 10 Filipino children aged 10 are still struggling to read simple texts, following two years of distance learning. This makes the Philippines one of the countries with the highest rates of “learning poverty” in the East Asia and Pacific region.](#) In the same report, the World Bank noted that with [only \\$569 expenditure per child in primary education, the country was spending less on public education than its regional and income-level peers. It is 83.5% below the average for the East Asia and Pacific region, and 29.5% below the average for lower-middle income countries. Low priority in education was reflected in the country’s poor performance in global learning assessments even before the pandemic.](#) [501]

Covid-19 Response

[The Department of Finance claimed borrowing up US\\$25.8 billion for COVID-19 response, but only a fraction of this is actually for COVID-19. Only 23% was specifically for COVID-19 programs, 51% was ambiguous, while 26% was not really for COVID-19.](#) [505]

The Duterte administration is known for the longest and harshest lockdown in the region – and among the most stringent in the world, in a so-called attempt to curb the spread of the virus. Instead of a science-backed approach, the militarist style employed by the Duterte administration not only wreaked havoc on the economy, but proved to be inutile. In fact, [the country only ranks 8th in terms of the share of the fully vaccinated population \(53%, over Indonesia and Myanmar.\)](#) [502]

Housing projects remained dismal under the Duterte administration as major housing projects were not finished as targeted and promised. [The Commission on Audit in its 2020 audit report said that the National Housing Authority failed to meet its target of giving 218,975 housing units to families displaced by STY Yolanda \(I.N. Haiyan\) in 2013. It discovered that only 64% of the target were completed by the NHA and the local government in 2020.](#) It has been nine years since the disaster slammed the nation. [506]

[The Marawi rehabilitation program on the other hand, was stuck at 85% completion as of February 2022, as Housing Sec. Eduardo del Rosario said, the same thing he said last September](#)

[2021. The rehab program costs P5 billion. The five-month battle between government troops and the so-called Islamic State-linked Maute group in 2017 displaced around 350,000 Marawi residents.](#) Five years have passed, and residents are still clamoring for decent shelter. [506]

The violent crackdown on drugs that has left tens of thousands of Filipinos dead, and various human rights violations committed by the state forces, was among Duterte's chilling legacy.

These various factors make the Philippines highly vulnerable to disasters. The socio-economic conditions with which the people endure result in low capabilities in averting disasters, such that extreme natural events always have catastrophic impacts on the population. [These disasters exacerbate poverty, deepen existing inequalities, and weaken resilience to future crises.](#) [489]

IV. The impacts of disasters from natural causes in 2021 were worst in three years.

A. Disasters from natural causes

There were 80 recorded incidents of disasters from natural causes in 2021, 21 of which struck Luzon, 16 in the Visayas, 38 in Mindanao, and 6 slashing Luzon, Visayas, and Mindanao. These natural events left 74,509 dead, 1,934 injured, and 85 missing. These affected 19,235 barangays, 4.4 million families or 16.8 million people. Displacements reached 1.1 million families or 4.45 million individuals. A total of 2,188,519 houses were either damaged or destroyed. Damage to properties peaked at P59.3 billion, with Php24.8 billion lost in agriculture and Php34.5 billion worth of damage in infrastructure. Government assistance of almost P10.8 million was only 18% of the total recorded damage to properties. **(Table 7)**

In a three-year period, the year 2021 saw the highest number of recorded incidents, casualties, affected barangays, families and people, displaced people forced to flee to safety, and houses totally wrecked and damaged. **(Table 8, Charts 8, 9)** Agricultural damages in 2020 was high due to a total estimated loss amounting to Php56 billion to African swine fever. **(Chart 10)**

Table 8. Comparative data on disasters from natural causes, 2019-2021

	2021	2020	2019
Number of Incidents	80	54	64
Deaths	74,509	9,688	2,425
Affected barangays	19,235	17,980	no data
Affected families	4,416,589	2,783,260	2,440,142
Affected persons	16,775,332	12,054,036	11,075,915
Displaced families	1,120,971	178,074	158,465
Displaced persons	4,453,944	4,200,587	733,811
Total houses damaged and destroyed	2,188,519	788,774	1,375,191
Recorded damage to properties (Php)	59,357,098,478	104,023,321,654	20,282,310,094
Cost of Government Assistance (DSWD, LGUs, other gov't agencies (Php)	10,831,586,659 or 18% of direct economic costs		

Chart 8. Casualties due to Natural Disasters, 2019-2021

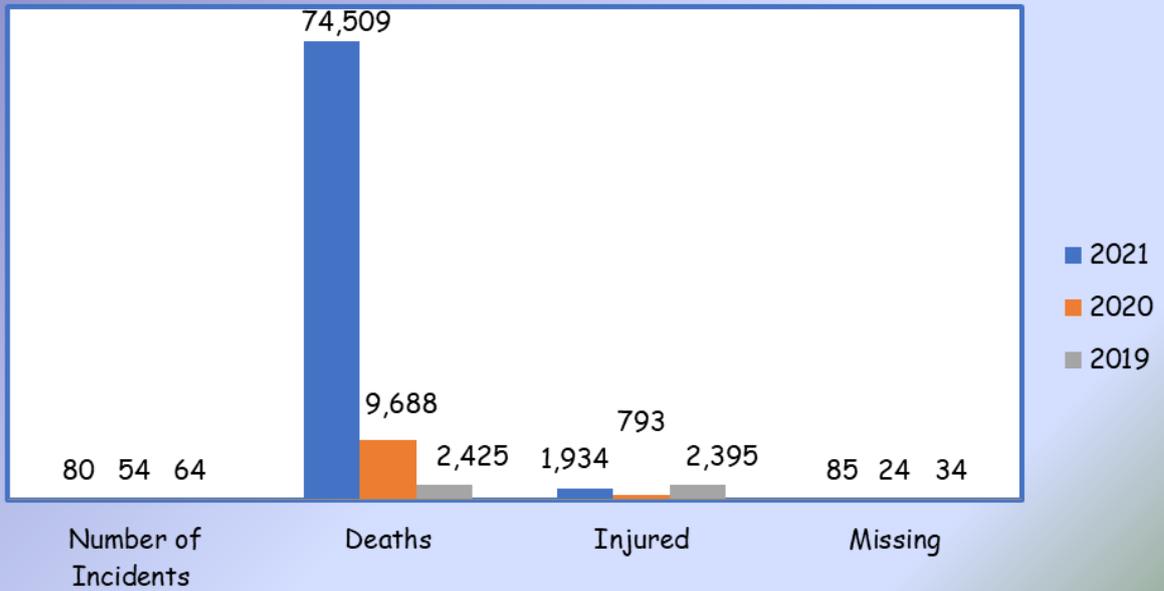


Chart 9. Affected and Displaced Families and Persons due to Natural Disasters, 2019 to 2021

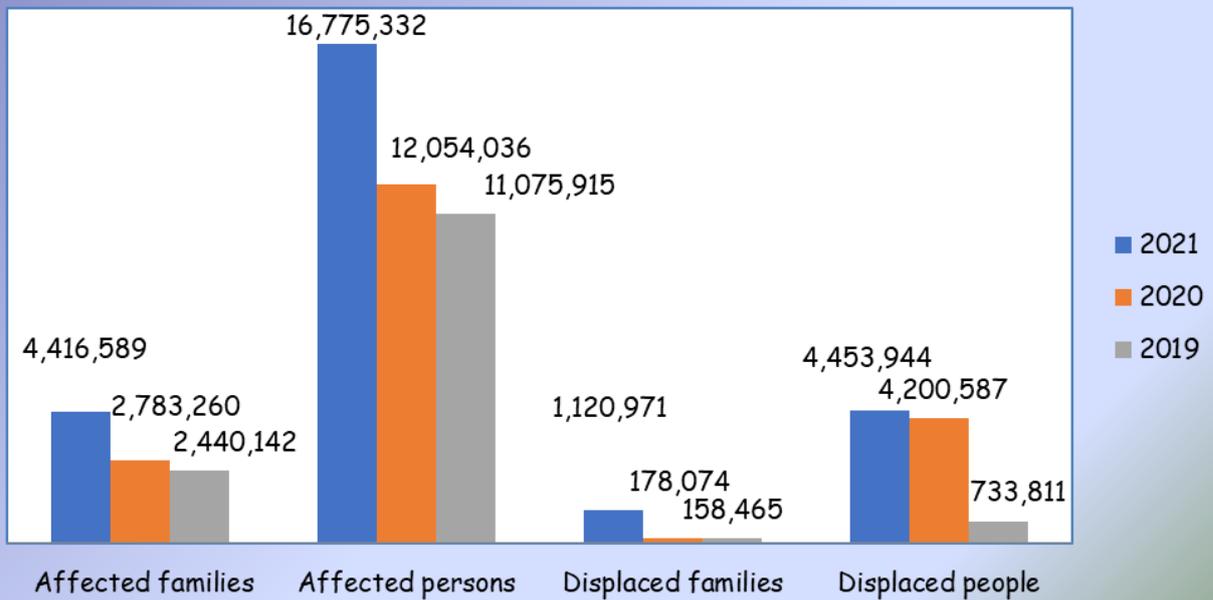
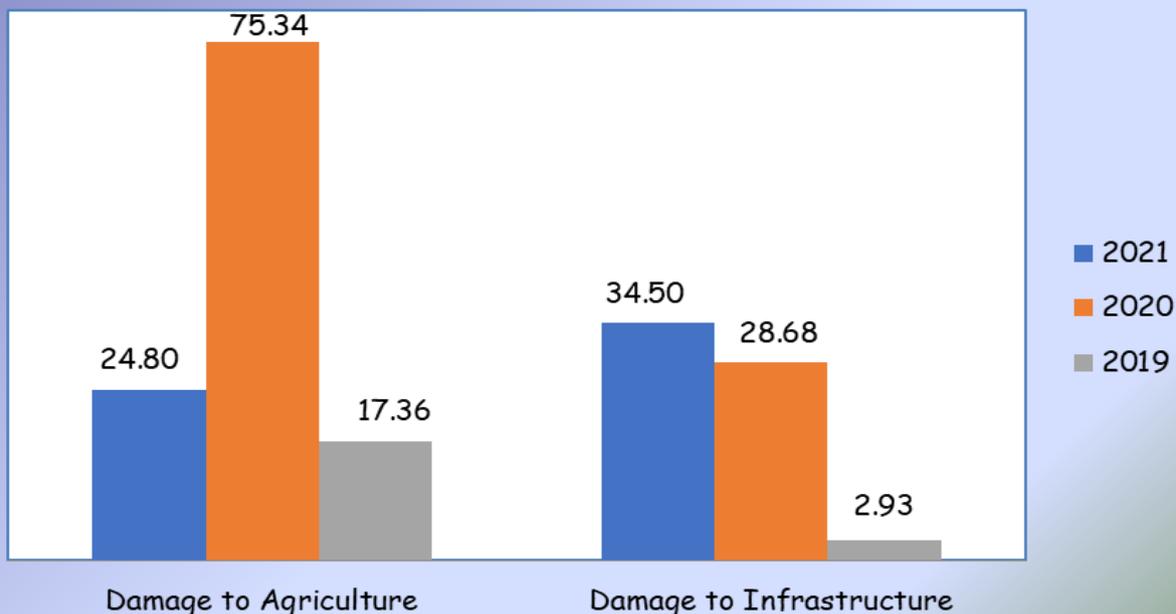
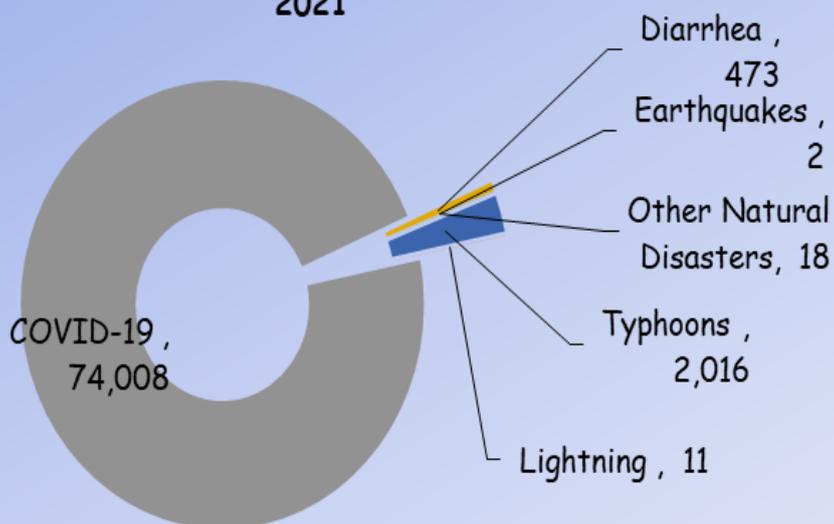


Chart 10. Damage to Agriculture and Infrastructure due to Natural Disasters, 2019 to 2021 (in billion pesos)

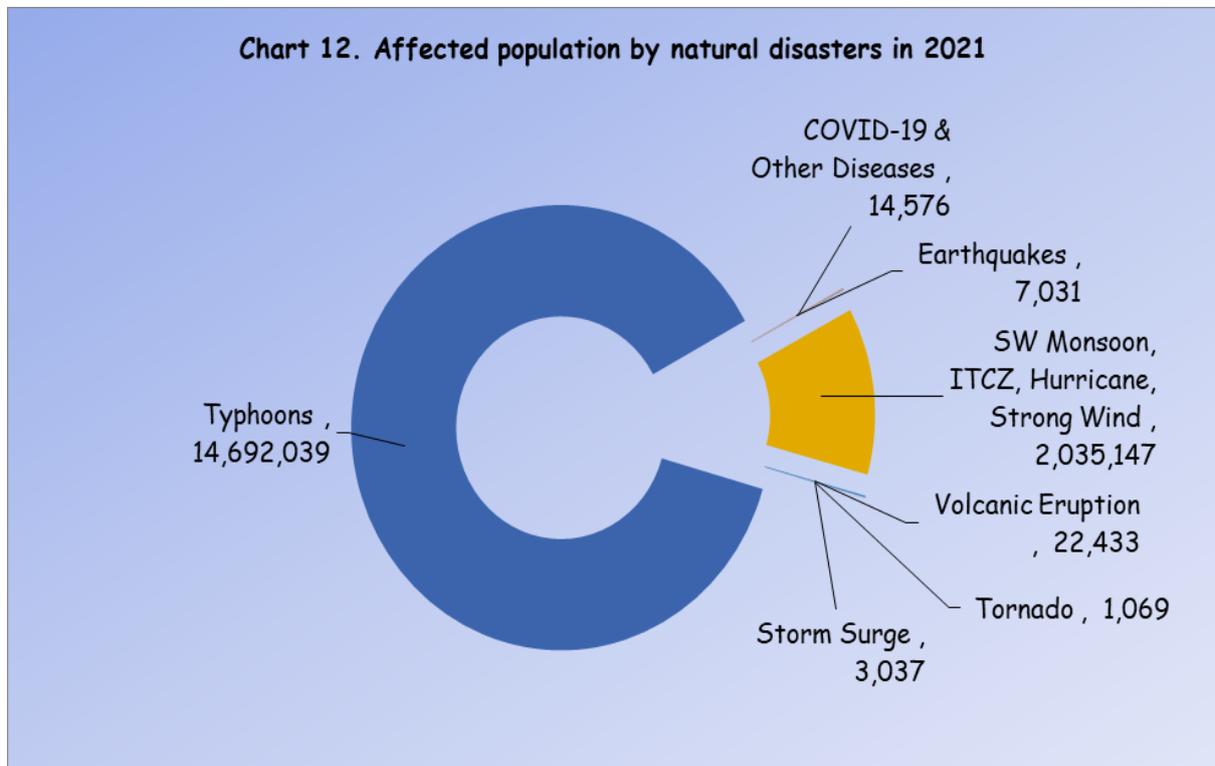


Among the disasters from natural causes in 2021, the number of casualties from COVID-19 was highest at 74,008 or 97% of total casualties, followed by typhoons at 2,016, the outbreak of diarrhea at 473, lightning at 11, earthquakes at 2, and others at 18. (Chart 11)

Chart 11. Causes of Casualties among Natural Disasters in 2021

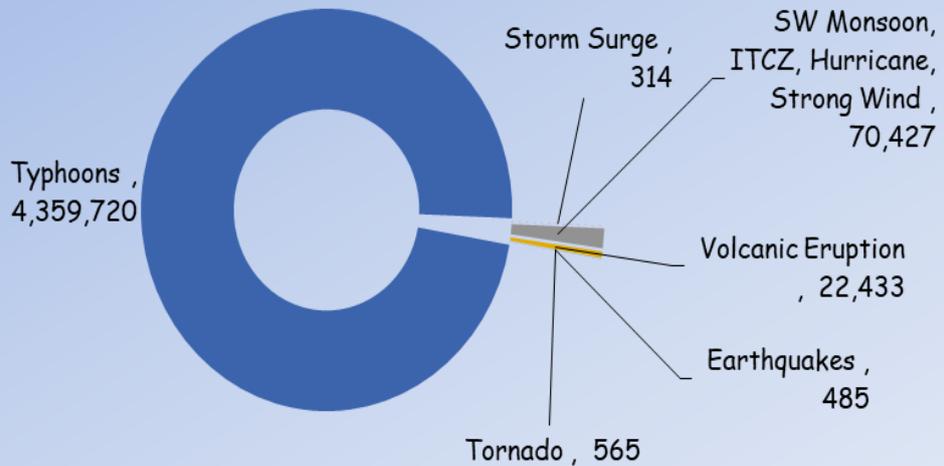


Typhoons caused the most severe human impact among disasters from natural causes in 2021 with 14.7 million affected or 88% of the total affected population, followed by southwest monsoons, ITCZ, hurricane and strong wind with over 2 million affected, Taal volcano eruption at 22,433, COVID-19 and other diseases with 14,576 getting sick, earthquakes at 7,031 people, storm surge at 3,037 adversely affected, and tornado at 1,069 people. **(Chart 12)**



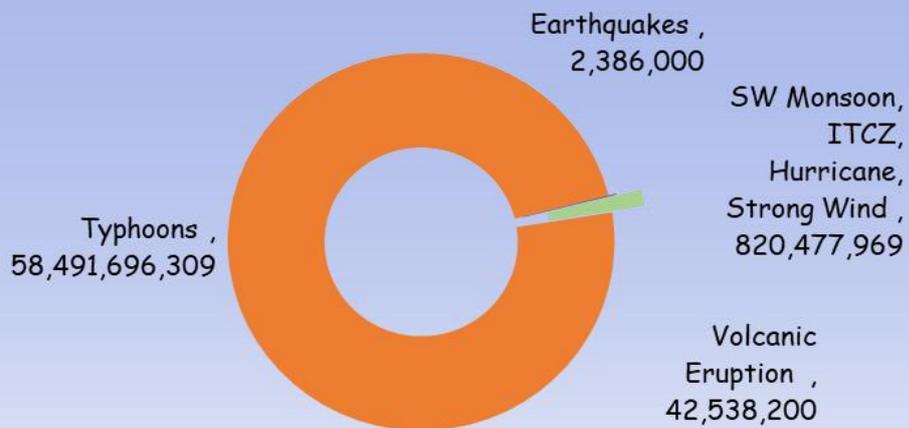
The nine typhoons that made landfall triggered the displacements of over 4.3 million people or 98% of the total displacements due to disasters from natural causes in 2021. This was followed by southwest monsoons, ITCZ, hurricane, and strong wind with 70,427 people forced to flee their homes, Taal volcano eruption with 22,433 people, tornado with 565 people, earthquakes with 485, and storm surge with 314 people who evacuated to safer grounds. **(Chart 13)**

Chart 13. Displacements by natural disasters in 2021



Typhoons caused the highest losses valued at Php59.5 billion, followed by southwest monsoons, ITCZ, hurricane, and strong winds with incurred damage assessed at Php820.5 million, Taal volcano eruption at Php42.5 million, and earthquakes at P2.4 million. (Chart 14)

Chart 14. Value of Damage due to Natural Disasters (Php), 2021



1. Typhoons

Compared to an annual average of 20-25 typhoons that hit the country, the number of storms in 2021 may be comparatively low at 14 typhoon events with only nine storms causing impacts, but their overall consequences were severe. Of these typhoons, three were severe tropical storms (Auring, Isang, and Maring), four were typhoons (Bising, Jolina, Kiko, and Odette), three were tropical storms (Crising, Dante, and Huaning), and four were tropical depressions (Emong, Gorio, Lannie, and Nando).

Casualties brought by these typhoons reached 473 deaths, with 1,460 injured and 83 missing. They affected 16,797 barangays, about 3.9 million families or 14.7 million individuals and displaced about 1.1 million families or 4.4 million people. About 2,183,563 houses were either damaged or destroyed. Recorded damages to agriculture and infrastructure reached Php24 billion and Php34.4 billion respectively, while damage to houses was at Php63 million, for a total of Php58.5 billion. (Table 9)

Table 9. Typhoons with Impacts

Typhoon	TOTAL	STS Auring (Dujuan)	TY Bising (Surigae)	TS Crising (03W)	TS Dante (Choi-wan)
Date		17-23-Feb-2021	16-25-Apr-2021	13-14-May-2021	29-May-1-Jun-2021
Casualties	2,016	7	36	6	14
Deaths	473	1	9		10
Injured	1,460	2	20	4	3
Missing	83	4	7	2	1
Affected Barangays	16,797	625	1,193	63	541
Affected Families	3,884,197	75,756	103,644	12,019	34,281
Affected Persons	14,692,039	280,881	425,003	59,597	146,830
Displaced Families	1,098,308	49,571	39,319	2,700	5,494
Displaced People	4,359,720	183,230	151,750	13,852	23,898
Damaged Houses	2,183,563	2,408	4,716	112	4,021
Destroyed	408,377	444	156	6	157
Damaged	1,775,186	1,964	4,560	106	3,864
Damage to Properties (Php)	58,491,696,308.89	159,830,171.02	272,780,999.56	23,163,587.69	309,748,102.08
Agriculture	23,994,813,241	106,777,735.00	261,910,999.56	23,163,587.69	152,110,102.08
Infrastructure	34,433,777,250	53,052,436.02	10,870,000.00		157,638,000.00
Value of Damage to Houses	63,105,818				
Island Groups Affected		Vis, Min	Luz, Vis, Min	Min	Luz, Vis, Min

Typhoon	TY Jolina (Conson)	TY Kiko (Chanthu)	TD Lannie	STS Maring (Kompasu)	TY Odette (Rai)
Date	6-9-Sept-2021	7-12-Sept-2021	4-6-Oct-2021	7-12-Oct-2021	14-18-Dec-2021
Casualties	32	27	3	63	1,828
Deaths	3		3	42	405
Injured	28	27		5	1,371
Missing	1			16	52
Affected Barangays	1,798	202	56	2,111	10,208
Affected Families	115,307	16,317	6,162	306,779	3,213,932
Affected Persons	466,831	60,865	25,337	1,203,448	12,023,247
Displaced Families	297	1,109	1,941	7,186	990,691
Displaced People	1,242	3,964	7,949	26,184	3,947,651
Damaged Houses	32,650	2,345	32	16,871	2,120,408
Destroyed	1,442	268	5	738	405,161

Damaged	31,208	2,077	27	16,133	1,715,247
Damage to Properties (Php)	1,439,991,630.11	363,561,065.60	43,899,529.99	8,303,950,666.67	47,574,770,556.17
Agriculture	1,369,870,577.11	113,624,904.23	43,899,529.99	4,175,307,533.32	17,748,148,271.91
Infrastructure	70,121,053.00	249,936,161.37		4,128,213,133.35	29,763,946,466.26
Value of Damage to Houses				430,000	62,675,818
Island Groups Affected	Luz, Vis	Luz, Vis	Luz, Vis	Luz, Vis, Min	Luz, Vis, Min

The year 2021 may have had the least number of typhoon incidents in three years, but it had the greatest number of casualties, highest number of affected and displaced population, houses either damaged or destroyed, and caused the most severe economic impacts. **(Table 10)**

Table 10. Comparative data on typhoons, 2019-2021

	2021	2020	2019
Number of Typhoon Incidents	14	22	21
Casualties	2,016	875	785
Deaths	473	162	71
Injured	1,460	692	695
Missing	83	21	19
Affected Barangays	16,797	17,665	
Affected Families	3,884,197	2,560,567	1,758,636
Affected Persons	14,692,039	10,660,115	7,312,908
Displaced Families	1,098,308	162,094	82,524
Displaced People	4,359,720	3,140,798	348,379
Damaged and Destroyed Houses	2,183,563	769,659	1,264,678
Direct Economic Costs (Php)	58,491,696,309	44,222,538,914	11,236,490,204

Typhoon “Odette” (I.N. Rai), which slammed the country in December, caused the most devastating impacts. Since STY “Yolanda” (Haiyan) in 2013, TY “Odette” has the next highest economic damage at Php47.6 billion and the highest number of affected individuals at 12 million. Compared with other stronger tropical storms that struck the country, TY “Odette” had the highest pre-emptive evacuation and the highest number of either damaged or destroyed houses at 2.1 million houses. [After the peak of death tolls for STY “Yolanda”, casualties have been consistently low with noticeable increase again for TY “Odette” with 405 deaths.](#) It also triggered the [largest number of disaster displacements in the world](#) in 2021 with over 3.9 million people forced to flee to safer grounds.

2. Volcanic Eruption

The Taal Volcano eruption on July 1, which reached Alert Level 3, affected and displaced 6,262 families or 22,433 individuals in 131 surrounding barangays in CALABARZON. Agricultural damage reached Php26.7 billion. The Taal volcano smog, which occurred on August 19, also caused Php15.9 million worth of agricultural damage.

The volcano also erupted the previous year, reaching Alert Level 4, killing seven people, injuring 50 others, and caused three people missing. It affected 846,968 individuals and forced 58,200 people to flee their homes. Agricultural damage reached Php3.26 billion while damage to infrastructure hit Php220.43 million.

3. Earthquakes

The year in total recorded 19 earthquakes with magnitudes ranging from 5.5 to 7.1, where four incidents caused damage to communities. Three of these rocked Mindanao while one hit Luzon, injuring two persons and affecting 1,408 families or 7,031 people from 46 barangays. Some 97 families or 485 people were forced to flee their homes and take shelter in evacuation centers, with relatives, and friends. Infrastructural damage reached Php2,386,000. (Table 11)

Table 11. Earthquakes that caused economic and social impact in 2021

Magnitude	Total	6.1 Davao del Sur	5.7 Bukidnon	7.1 Davao Oriental	5.7 Occidental Mindoro
Date	4	07/02/2021	14/06/2021	12/08/2021	27/09/2021
Injured	2		2		
Affected Barangays	46	12	29		5
Affected Families	1,408	219	1,184		5
Affected Persons	7,031	1,095	5,920		16
Displaced Families	97	97			
Displaced People	485	485			
Damaged and Destroyed Houses	1,123	110	1,008	-	5
Destroyed	6	3	3		
Damaged	1,117	107	1,005		5
Damage to Properties Php	2,386,000	-	800,000.00	1,541,000.00	45,000.00
Agriculture	-				
Infrastructure	2,386,000		800,000.00	1,541,000.00	45,000.00
Other Structures	-				
Island Groups Affected	Minda-3, Luzon-1	Mindanao	Mindanao	Mindanao	Luzon

Compared with the last two years, there were less casualties this year, affected barangays, displaced people, and direct economic costs. However, there were more people affected in 2021, as well as damaged and destroyed houses compared with the previous year. **(Table 12)**

Table 12. Comparative data on earthquakes, 2019-2021

	2021	2020	2019
Number of Incidents	19	20	15
Island Groups Hit			
Luzon	7	4	
Visayas	-	-	
Mindanao	12	16	
Casualties	2	51	1,793
Deaths		1	88
Injured	2	50	1,690
Missing			15
Affected Barangays	46	63	
Affected Families	1,408	1,661	177,096
Affected Persons	7,031	6,503	835,703
Displaced Families	97	282	75,410
Displaced People	485	1,176	372,761
Damaged and Destroyed Houses	1,123	1,049	109,692
Direct Economic Costs (Php)	2,386,000	314,806,000	882,271,737
Agriculture		-	32,418,840
Infrastructure	2,386,000	314,806,000	849,852,897

4. *Other disasters from natural causes (southwest monsoons, ITCZ, hurricane, and strong winds, tornadoes, lightning, storm surge)*

The combined effects of incidents of southwest monsoons, ITCZ, hurricane, and strong winds, lightning, storm surge, and eight incidents of tornados resulted in five deaths and six injured people. More than half a million families or over 2 million people in 2,240 barangays were adversely affected. These disasters from natural causes displaced 16,304 families or 70,992 people and damaged and destroyed 3,833 houses. **(Table 13)**

Table 13. Other disasters from natural causes (southwest monsoons, intertropical convergence zone, hurricane, strong winds, tornadoes, lightning, storm surge)

Type of Incident	Total	SW Monsoon, ITCZ, Hurricane, Strong Wind	Tornado	Lightning
Subtype		Meteorological	Meteorological	Meteorological
Number of Incidents	39	24	8	4
Island Groups Hit				
Luzon	5	2	3	

Visayas	12	4	4	3
Mindanao	19	15	1	1
Luzon and Visayas	2	2		
Luzon, Visayas, Mindanao	1	1		
Casualties	11			11
Deaths	5			5
Injured	6			6
Affected Barangays	2,240	2,211	25	
Affected Families	523,904	523,004	255	
Affected Persons	2,039,253	2,035,147	1,069	
Displaced Families	16,304	16,027	182	
Displaced People	70,992	70,427	565	
Damaged and Destroyed Houses	3,833	2,989	255	
Destroyed	598	431	45	
Damaged	3,235	2,558	210	

Type of Incident	Land mass displacement due to ground shaking	Storm Surge	Tension cracks due to continuous rains
Subtype	Geological	Geological	Geological
Number of Incidents	1	1	1
Island Groups Hit			
Luzon			
Visayas	1		
Mindanao		1	1
Luzon and Visayas			
Luzon, Visayas, Mindanao			
Casualties			
Deaths			
Injured			
Affected Barangays	1	2	1
Affected Families	95	500	50
Affected Persons	314	2,500	223
Displaced Families	95		
Displaced People			
Damaged and Destroyed Houses	89	500	
Destroyed	57	65	
Damaged	32	435	

5. COVID-19 Pandemic and Diarrhea Outbreak

a. COVID-19 pandemic

COVID-19 was the third leading cause of death in 2021, accounting for 10% of the total recorded fatalities. In addition, COVID-19 virus not identified ranked 8th among the 10 leading causes of death in the same period. **(Table 14)**

Table 14. Ten Leading Causes of Death in 2021

	2021	% to total
Ischaemic heart diseases	136,575	18%
Cerebrovascular diseases	74,262	10%
COVID-19 virus Identified	74,008	10%
Neoplasms or "Cancer"	59,503	8%
Diabetes Mellitus	48,267	6%
Hypertensive diseases	41,719	5%
Pneumonia	32,477	4%
COVID-19 virus not identified	31,715	4%
Other heart diseases	24,119	3%
Chronic lower respiratory infections	21,523	3%
Total recorded fatalities in 2021	766,126	100%

[“COVID virus identified is used when the virus is confirmed by a laboratory test, while “COVID-19 virus not identified” refers to suspected or probable cases as well as clinically-epidemiologically diagnosed COVID-19 cases where testing was not completed or inconclusive.]

As of January 1, 2022, the DOH reported that the total active cases reached [17,374](#) while total recoveries reached [2,778,567](#), bringing the total number of cases to [2,847,486](#). The deadly virus had claimed the lives of [51,545](#) people according to the same report. [\[493\]](#) Despite the [imposition of the longest and strictest lockdown in Southeast Asia and in the world](#), fatalities increased by 706% in January 1, 2021 from July 7, 2020, and 557% in January 2022 from January 1, 2021. Total number of cases increased by 994% in January 1, 2021 from July 7, 2020, and 598% in January 1, 2022 from January 1, 2021. **(Table 15)**

Table 15. COVID-19 deaths, active cases, recoveries and total number of cases, 2020-2021

	As of January 1, 2022	As of January 1, 2021	As of July 7, 2020
Deaths	51,545	9,248	1,309
Active cases	17,374	26,677	34,178
Recoveries	2,778,567	439,895	12,386
Total number of cases	2,847,486	475,820	47,873

[\[493\]](#) [\[496\]](#) [\[497\]](#)

b. Diseases Outbreak

Outbreaks of diarrhea were reported in Mindanao that claimed the lives of 17 people from a total of 456 reported cases. (Table 16)

Table 16. Diarrhea Outbreak

	2021
Number of Incidents	3
Island Groups Hit	
Mindanao	3
Casualties	473
Deaths	17
Injured/Cases	456
Affected people	818

Fortunately, in June 2021, the Department of Health and the World Health Organization declared that [polio outbreak in the Philippines has officially ended](#) following 18 months of outbreak response. [494] The measles outbreak had already been controlled, but there were still new cases in 2021. For dengue, 285 lives were lost in 2021 compared with 363 in the previous year. The dengue cases remained high at 79,872 infected, only 12% less than the previous year. The NDDRMC reports on diarrhea outbreak as reflected in Table 15 above showed fewer cases but the DOH data below revealed that deaths due to diarrhea have in fact reached 94, which is an increase of 77% from the previous year. Diarrhea cases, on the other hand, showed fewer cases than the previous year but it was still alarming at 5,623 people ill with the disease. (Table 17)

Table 17. Polio, Measles, Dengue Outbreak, Comparative, 2019-2021

	2021	2020	2019
1. Dengue			
Deaths	285	363	0
Cases	79,872	91,108	38,439
2. Measles			
Deaths	0	38	801
Cases	254	4,126	13,460
3. Polio			
Deaths			3
Cases			12
4. Diarrhea			
Deaths	94	53	
Cases	5,623	8,206	132,025

[491] [492] [495]

c. 10 Leading Causes of Death in 2021

Ischaemic heart diseases and cerebrovascular diseases are still the two leading causes of death in the Philippines.

Ischaemic heart diseases, cerebrovascular diseases, and neoplasms or cancer were still the three leading causes of death in 2021. Ischaemic heart diseases were consistently on top for nine consecutive years since 2013, while cerebrovascular diseases were either on top 2 or 3 for six years since 2013. Neoplasms or better known as cancer, on the other hand, were consistently on top 2 since 2014 and was only dislodged by COVID-19 in 2021. Diabetes mellitus ranked either 4th or 5th within the last five years. (Table 18)

Table 18. Leading Causes of Death from 2013 to 2020

	2021	Rank	2020	Rank	2019	Rank
Ischaemic heart diseases	136,575	1	99,680	1	97,475	1
Cerebrovascular diseases	74,262	2	59,736	3	63,548	3
COVID-19 virus identified	74,008	3	8,209	16		
Neoplasms	59,503	4	62,289	2	68,657	2
Diabetes Mellitus	48,267	5	37,265	4	34,570	5
Hypertensive diseases	41,719	6	29,511	6	27,764	6
Pneumonia	32,477	7	32,574	5	62,719	4
COVID-19 virus not identified	31,715	8	19,758	7		
Other heart diseases	24,119	9	19,298	9	20,416	9
Chronic lower respiratory infections	21,523	10	19,463	8	26,576	7
Remainder of diseases of the genitourinary system	19,975	11	17,241	11	17,215	10
Respiratory tuberculosis	16,026	12	17,433	10	22,568	8
Remainder endocrine, nutritional and metabolic diseases	10,436	13	7,206	18		
Diseases of the liver	9,523	14	9,225	13		

Table 18 continued

	2018	Rank	2017	Rank	2016	Rank
Ischaemic heart diseases	88,433	1	84,120	1	74,134	1
Cerebrovascular diseases	61,959	3	59,774	3	56,938	4
COVID-19 virus identified						
Neoplasms	67,138	2	64,125	2	60,470	2
Diabetes Mellitus	32,106	5	30,932	5	33,295	6
Hypertensive diseases	26,836	6	26,471	6	33,452	5
Pneumonia	56,815	4	57,210	4	57,809	3
COVID-19 virus not identified						
Other heart diseases	20,042	9	22,134	9	28,641	7
Chronic lower respiratory infections	24,820	7	24,818	7	24,365	9

Remainder of diseases of the genitourinary system	19,227	10	15,717	10	19,759	10
Respiratory tuberculosis	22,103	8	22,523	8	24,462	8
Remainder endocrine, nutritional and metabolic diseases	6,903	18				
Diseases of the liver	9,968	14				

Table 18 continued

	2015	Rank	2014	Rank	2013	Rank
Ischaemic heart diseases	68,572	1	65,551	1	65,378	1
Cerebrovascular diseases	58,310	3	52,894	4	54,578	2
COVID-19 virus identified						
Neoplasms	58,715	2	55,588	2	53,601	3
Diabetes Mellitus	34,050	6	31,539	7	27,064	7
Hypertensive diseases	34,506	5	34,902	5	29,067	6
Pneumonia	49,595	4	53,689	3	53,101	4
COVID-19 virus not identified						
Other heart diseases	31,729	7	34,141	6	33,027	5
Chronic lower respiratory infections	23,760	9	24,686	8	23,867	8
Remainder of diseases of the genitourinary system	18,061	10	17,220	10	16,785	10
Respiratory tuberculosis	24,644	8	23,157	9	22,013	9
Remainder endocrine, nutritional and metabolic diseases						
Diseases of the liver						

B. Disasters from human-induced hazards

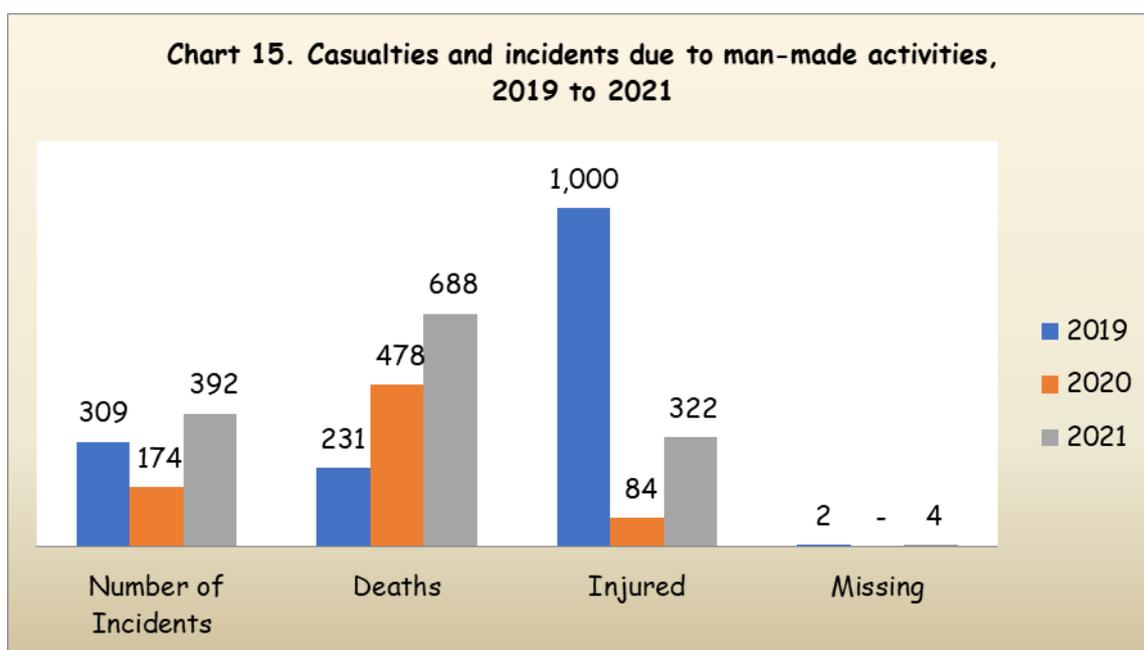
Armed conflict; structural fires; clan feuds; oil spills, chemical leak, and toxic odor; bombings; crime and violence; accidents; and extrajudicial killings (politically-motivated and drug-related) comprise the man-made disasters that caused human and economic impacts in 2021.

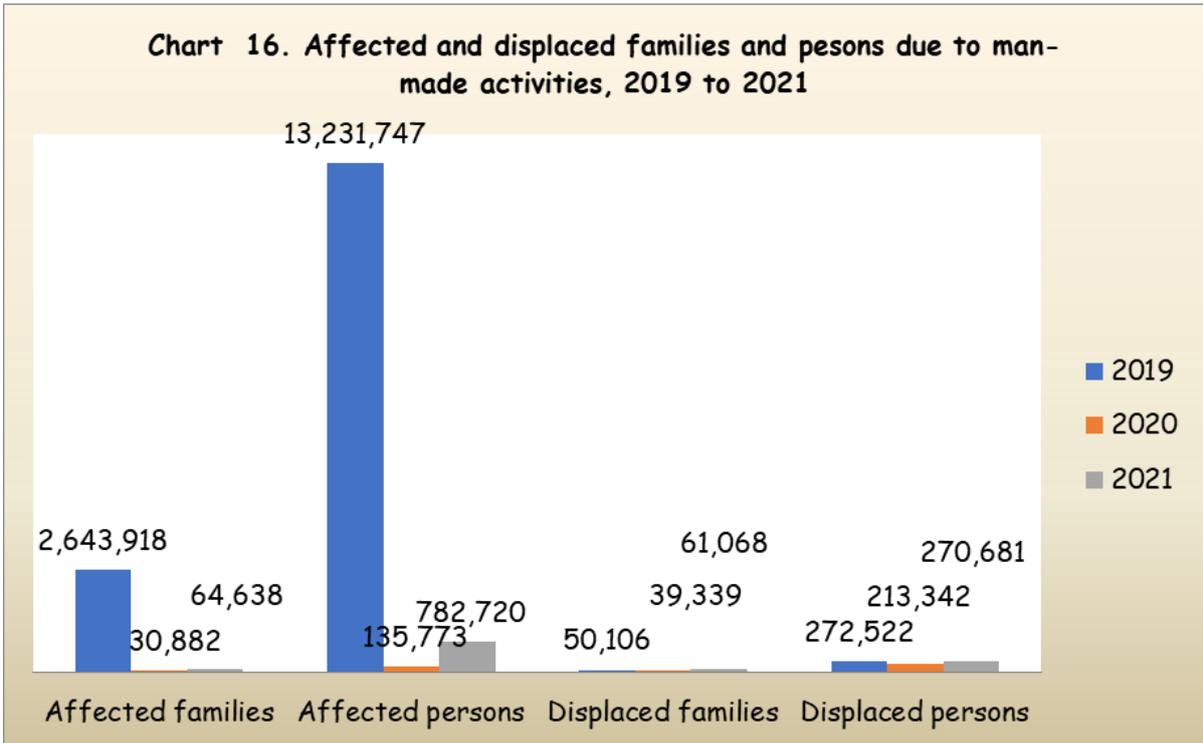
The data gathered were from various sources principally from government sources. However, these were the incidents reported by these sources and monitored by the CDRC as of the time of writing.

There were 392 reported and monitored disasters from human-induced hazards in 2021, which is 125% higher than the previous year. These incidents reported 688 people killed, 322 others injured, and rendered four people missing. The number of affected persons increased almost six times to 782,720 from the previous year. But this figure is about half of the figure in 2019 that showed over 13 million people affected. The number of people forced to flee to safety reached 270,681 or 27% higher in 2021 compared with the previous year, and only about 2 thousand people less compared with 2019. (Table 19) (Chart 15) (Chart 16)

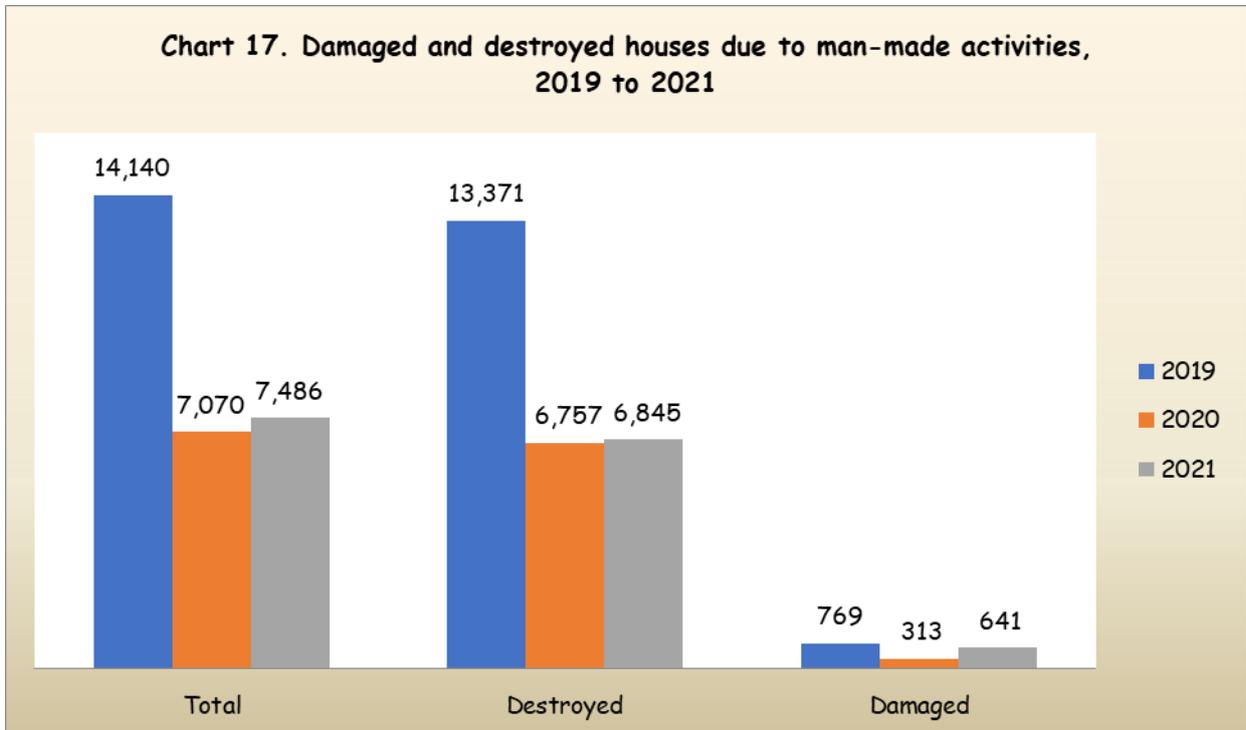
Table 19. Disasters, Comparative, 2019 to 2021

	2021	2020	2019
Number of Incidents	392	174	309
Casualties	1,014	562	1,233
Deaths	688	478	231
Injured	322	84	1,000
Missing	4	-	2
Affected families	64,638	30,882	2,643,918
Affected persons	782,720	135,773	13,231,747
Displaced families	61,068	39,339	50,106
Displaced persons	270,681	213,342	272,522
Destroyed and damaged houses	7,486	7,070	14,140
Damage to Properties (Php)	180,775,750	32,167,200	32,194,000
Agriculture		-	9,000
Infrastructure	174,699,750	32,167,200	
Private	6,076,000	-	32,185,000



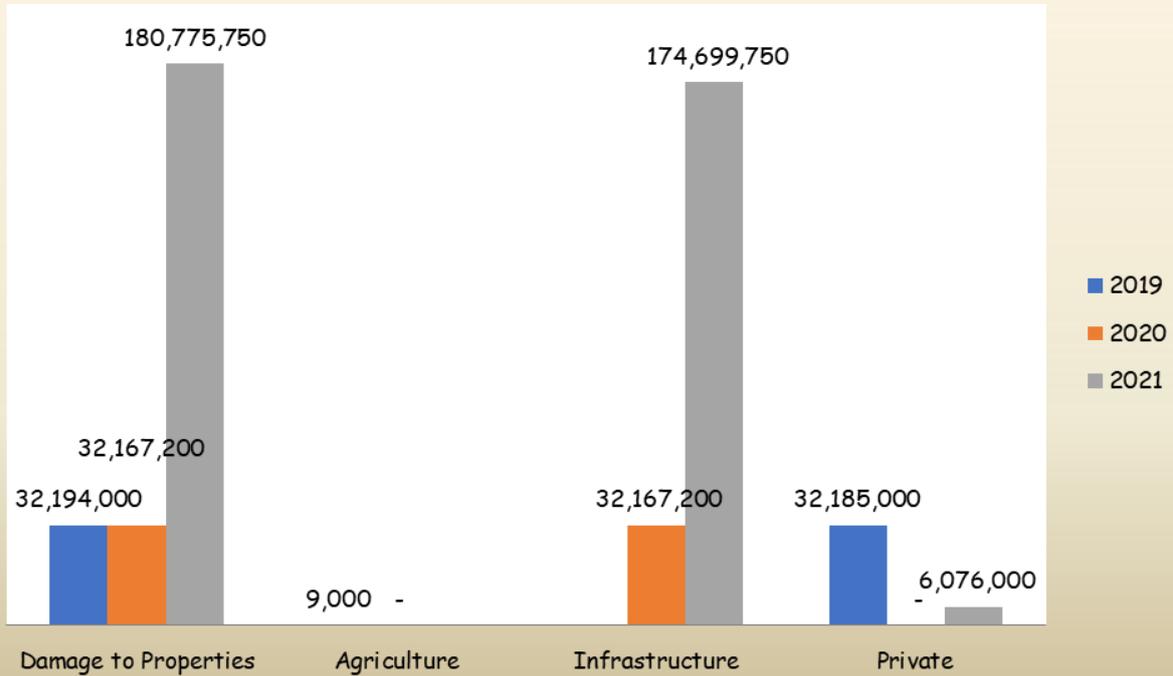


These disasters from human-induced hazards either damaged or destroyed 7,486 houses in 2021 compared with last year's 7,070 houses. This figure is only about half the value of the destruction disasters caused by human-induced activities inflicted in 2019. (Chart 17)



The economic costs of these disasters caused by human-induced activities reached about Php181 million in 2021, an increase of 462% from the previous year or more than 5 times than the previous year. (Chart 18)

Chart 18. Damage to properties due to man-made activities, 2019 to 2021



Deaths recorded due to disasters caused by human-induced activities reached 688 people in 2021, an increase of 44% from the previous year. Most of these were drug-related extra-judicial killings at 545, followed by accidents at 56, politically-motivated killings at 51 wherein activists and critics were assassinated, armed conflict at 18, structural fires at 14, clan feud at two people killed as well as oil spill, chemical leak, toxic odor with two people dead. (Chart 19)

Chart 19. Causes of death due to man-made activities in 2021

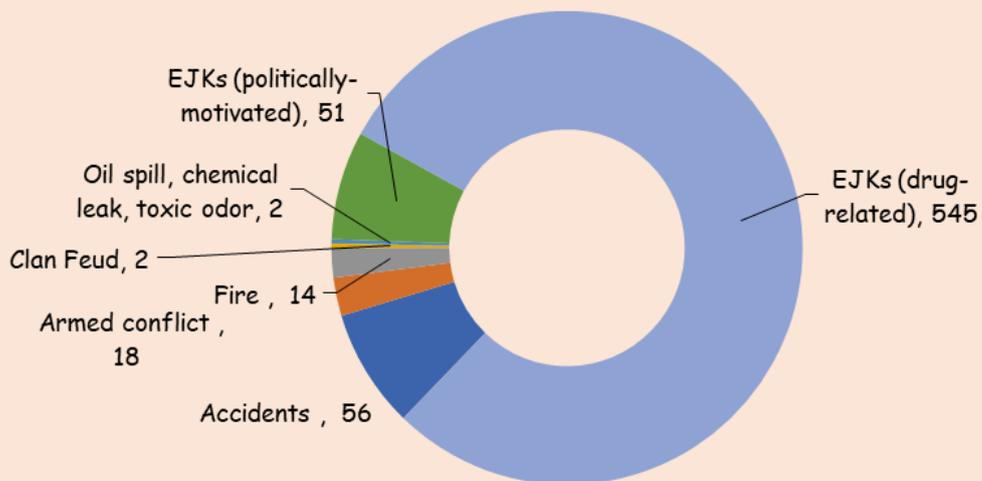
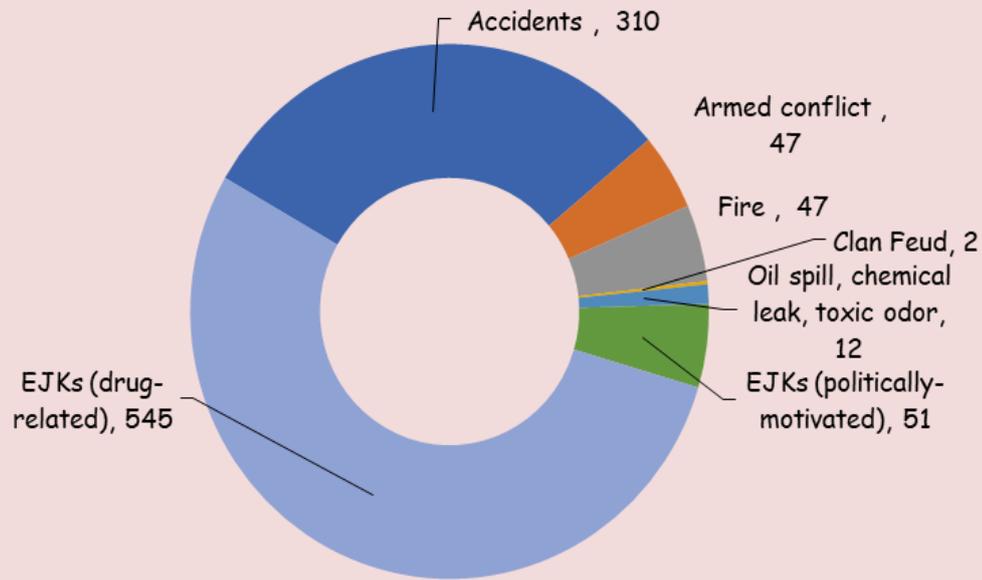


Chart 19b. Casualties due to man-made activities in 2021



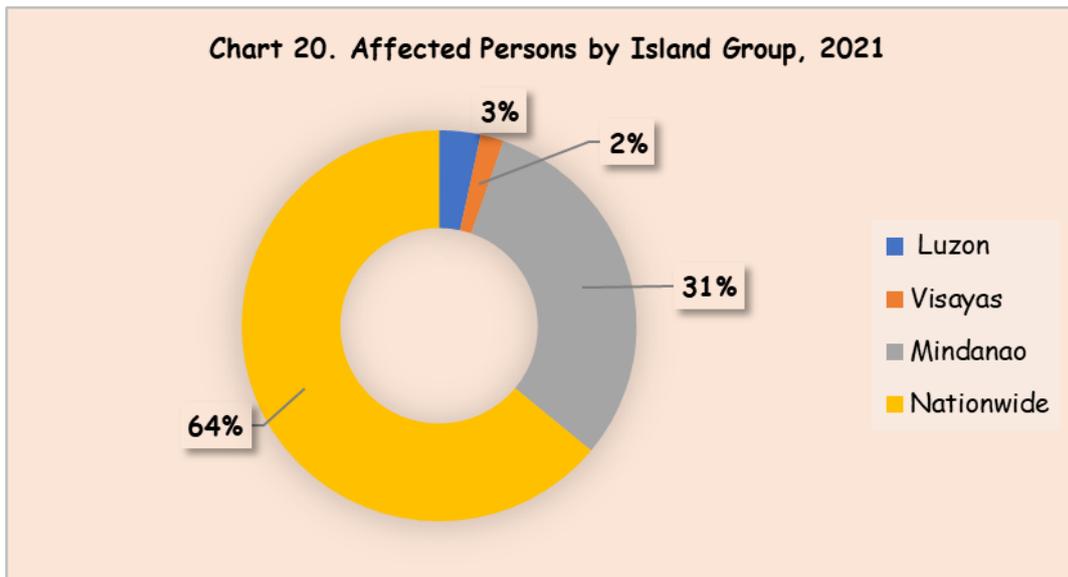
These disasters from human-induced hazards affected 782,720 people, an increase of 476% from the previous year, disrupting the lives of so many and their economic activities. (Table 20)

Table 20. Disasters caused by human-induced hazards, by Island Group, 2021

	Total	Luzon	Visayas	Mindanao	Nationwide
Number of Incidents	392	243	60	89	-
Island Groups Affected					
Luzon	243	243			
Visayas	60		60		
Mindanao	89			89	
Casualties	1,014	256	56	106	596
Deaths	688	43	27	22	596
Injured	322	209	29	84	
Missing	4	4			
Affected barangays	362	111	55	196	
Affected families	64,638	7,259	3,896	53,483	
Affected persons	782,720	26,481	14,840	240,537	500,862
Displaced families	61,068	6,732	3,404	50,932	
Displaced people	270,681	24,626	13,684	232,371	
Damaged and Destroyed Houses	7,486	3,263	1,513	2,710	

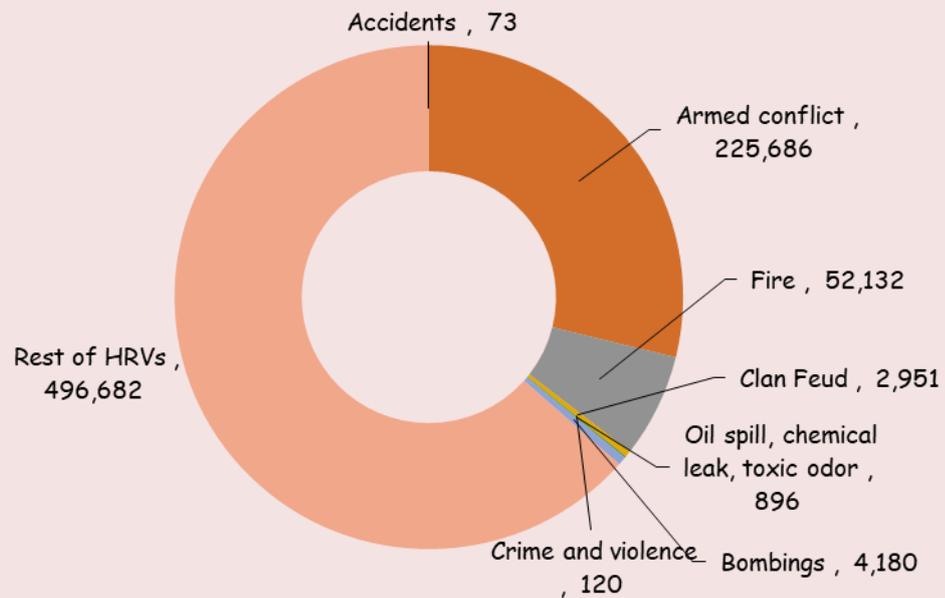
Damage to Properties, Total (Php)	180,775,750	86,695,750	82,255,000	11,825,000	-
Agriculture	-				
Infrastructure	174,699,750	85,409,750	79,015,000	10,275,000	
Private	6,076,000	1,286,000	3,240,000	1,550,000	

Among island groups, Mindanao suffered the most with a third of the total or 240,537 people affected. (Chart 20)



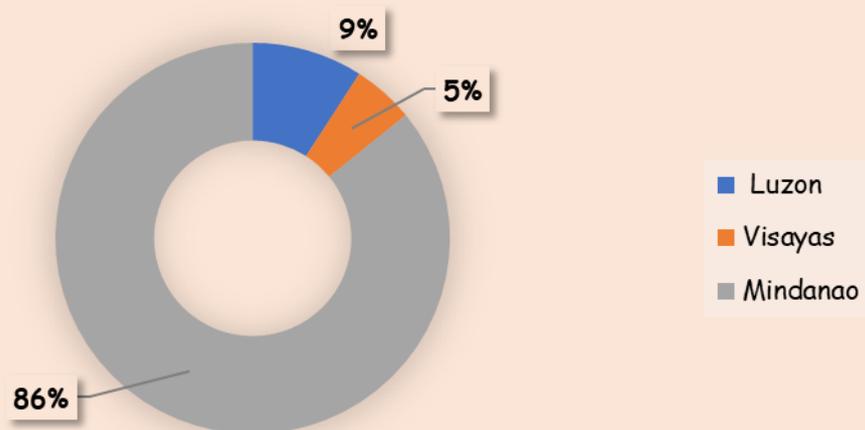
Among the causes of man-made disasters, a total of 496,682 people were affected by various human rights violations (HRVs) as reported by Karapatan, followed by armed conflict with a quarter of a million people's lives disrupted. A total of 52,132 people were also affected as fires burned houses and structures. It was followed by bombings with 4,180 people affected, clan feud with 2,951 people, crime and violence with 120 people, and accidents with 73 people reported. (Chart 21)

Chart 21. Affected population due to man-made activities in 2021

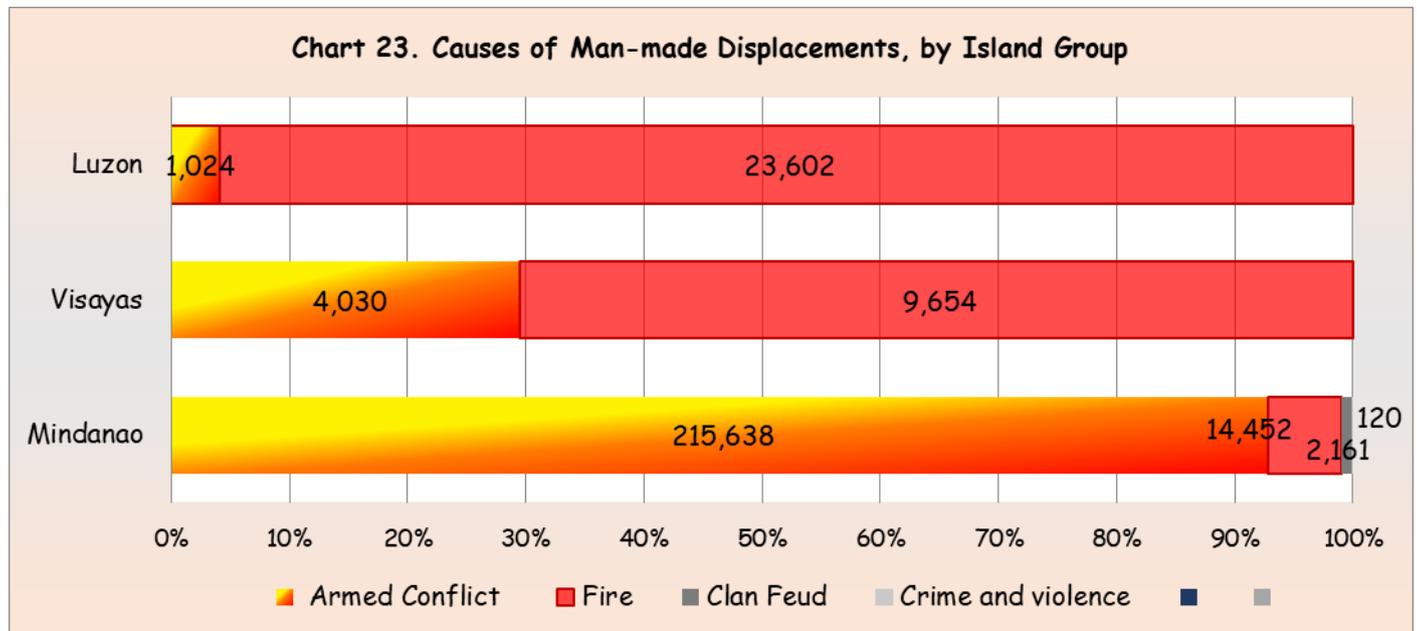


Overall, disasters from human-induced hazards triggered the displacements of 270,681 people, which is 27% more than the previous year. Displacements in Mindanao was highest accounting for 86% of the total displacements in 2021, followed by Luzon at 9%, and the Visayas at 5 percent. (Chart 22)

Chart 22. Displaced People by Island Group, 2021



In Luzon, structural fires caused the highest displacement with 23,602 forced to evacuate. Armed conflict displaced 1,024 people. In the Visayas, fire incidents were also the main trigger of displacement as 9,654 sought shelter in safer places, followed by armed conflict with 4,030 people fleeing to safer ground. In Mindanao, armed conflict triggered the highest number of displacements, where most clashes between the AFP/PNP and the NPA, AFP/PNP and the BIFF, AFP and the Abu Sayyaf, and AFP and the Dawlah Islamiyah-ISIS occurred. (Chart 23)



1. Armed conflict

Armed conflict ranked 5th in the top 10 disasters that affected the largest number of people and 3rd among disasters that caused massive displacements in 2021. Most armed conflicts happened in Mindanao, where 24 out of 43 incidents occurred, affecting 220,283 people, and causing the displacements of 215,638 people. (Table 21) Fourteen houses were even destroyed due to armed encounters. In just one incident on May 8, 2021, wherein an offensive by government troops against the BIFF transpired, 159,792 persons were affected and four municipalities were declared under state of calamity. [430]

Unfortunately, there were no agricultural, infrastructure, and private property damages reflected in the reports from DSWD DROMIC and NDDRMC despite military offensives employing aerial strikes and bombings on the communities. These military operations inflict economic damages as these not only disrupt the economic activities of the people in the community but also cause actual damages to crops and farms during clearing and combat operations, more so with pursuit operations after armed encounters.

Table 21. Armed Conflicts in 2021, by Island Group

	Total	Luzon	Visayas	Mindanao
Number of Incidents	42	2	16	24
Affected barangays	146	3	18	125
Affected families	49,660	217	1,020	48,423

Affected persons	225,686	1,024	4,379	220,283
Displaced families	47,914	217	910	46,787
Displaced people	220,692	1,024	4,030	215,638
Damaged and Destroyed Houses	14			14

In a three-year period, incidents of armed conflicts were highest in 2021 compared with the previous years. The year 2021 also had the highest number of affected and displaced people. However, these figures from government sources are believed to be underestimated. **(Table 22)**

Table 22. Armed Conflict, Comparative, 2019 to 2021

	2021	2020	2019
Number of Incidents	42	32	35
Island Groups Affected			
Luzon	2	1	
Visayas	16	4	
Mindanao	24	27	
Casualties	47		23
Deaths	18		23
Injured	29		
Affected families	49,660	3,262	23,262
Affected persons	225,686	12,568	151,540
Displaced families	47,914	17,278	19,803
Displaced people	220,692	90,203	142,767
Damaged and destroyed houses	14	13	
Damage to Properties, Total (Php)			-
Agriculture			-
Infrastructure	32,000,000		-
Private			

2. Structural fires

Fire incidents were 6th in top 10 disasters that affected the largest number of people and the 5th major trigger of displacements in 2021 with 47,708 people forced to flee their homes to safety either in evacuation centers or with relatives or friends. The affected population due to fires reached 52,132.

Luzon had the highest incidents with 107, followed by Mindanao and Visayas at 52 and 38 respectively. Luzon also suffered the highest number of affected persons and displaced people among island groups in 2021. Damage to properties was also highest in Luzon, accounting for 58% of the total economic costs of structural fires reported. **(Table 23)**

Table 23. Fire Incidents, by Island Group, 2021

	Total	Luzon	Visayas	Mindanao
Number of Incidents	197	107	38	52
Casualties	47	15	16	16
Deaths	14	2	5	7
Injured	33	13	11	9
Missing	-			
Affected barangays	198	103	37	58
Affected families	14,045	7,027	2,876	4,142
Affected persons	52,132	25,443	10,440	16,249
Displaced families	12,663	6,515	2,494	3,654
Displaced people	47,708	23,602	9,654	14,452
Damaged and destroyed houses	4,776	3,263	1,513	
Damage to Properties, Total	148,775,750	86,695,750	50,255,000	11,825,000
Agriculture	-			
Infrastructure	142,699,750	85,409,750	47,015,000	10,275,000
Private	6,076,000	1,286,000	3,240,000	1,550,000

In comparison with the last two years, the year 2019 had the highest incidents, followed by 2021. There were fewer affected persons in 2021 than in the last two years. Displaced people, on the other hand, were 2% higher the previous year. However, total casualties in 2021 were higher at 14 people dead compared with 2020. Damaged houses were higher as well, with 7,470 either damaged or destroyed in 2021, compared with 6,792 in 2020. Direct economic costs were much higher in 2021, with Php149 million worth of infrastructure and houses either burned down or partly damaged. This is almost five times higher than the previous year. (Table 24)

Table 24. Fire Incidents, Comparative, 2019 to 2021

	2021	2020	2019
Number of Incidents	197	117	209
Casualties	47	13	76
Deaths	14	4	23
Injured	33	9	53
Missing	-	-	
Affected barangays	198	126	
Affected families	14,045	16,366	29,834
Affected persons	52,132	61,955	124,200
Displaced families	12,663	12,335	24,609
Displaced people	47,708	46,856	102,171
Damaged and destroyed houses	7,470	6,792	14,140
Damage to Properties (Php)	148,775,750	32,167,200	41,185
Agriculture		-	9,000
Infrastructure	142,699,750	32,167,200	
Private	6,076,000		32,185

3. Extra-judicial killings

The Duterte administration's bloody drug war and assassinations of human rights defenders, activists, and critics continued in 2021 amid the onslaught of the COVID-19 pandemic. Fatalities recorded a total of 596 people executed, with 4,180 people falling victims to various forms of human rights violations, and 496,682 affected by bombings, according to the 2021 Karapatan Year-end Report. **(Table 25)** State killings was second to COVID-19 in terms of number of fatalities in 2021.

The government's own data shows more than [6,190 people were killed in police operations from 2016 to August 2021](#). **[498]** According to PDEA, a total of [6,225 drug suspects](#) had been killed in the government's war against illegal drugs as of the end of 2021 - **[499]**

Even the government's own Commission on Human Rights report concluded in April 2022 that [the government has failed in its obligation to respect and protect the human rights of every citizen, in particular, victims of drug-related killings. It has encouraged a culture of impunity that shields perpetrators from being held to account](#). **[500]** This report presented 883 drug-related cases involving 1,139 victims.

Table 25 also shows the human and economic impacts of clan feud, crime and violence, terrorism, accidents, and oil spill, toxic odor, and chemical leak.

Table 25. Summary of Disasters caused ny human-induced hazards, 2021

Hazard/Disaster Subgroup	TOTAL	Armed Conflict	Clan Feud	Crime and Violence	Terrorism-bombing
Number of Incidents	392	42	2	1	1
Island Groups Affected					
Luzon	243	2			
Visayas	60	16			
Mindanao	89	24	2	1	1
Casualties	1,014	47	2	-	-
Deaths	688	18	2		
Injured	322	29			
Missing	4	-			
Affected barangays	362	146	5	1	1
Affected families	64,638	49,660	625	23	
Affected persons	782,720	225,686	2,951	120	
Displaced families	61,068	47,914	468	23	
Displaced people	270,681	220,692	2,161	120	
Damaged and destroyed houses	7,486	14	-	-	-

Damage to Properties, Total (Php)	180,775,750	32,000,000	-	-	-
Agriculture	-				
Infrastructure	174,699,750	32,000,000			
Private	6,076,000				

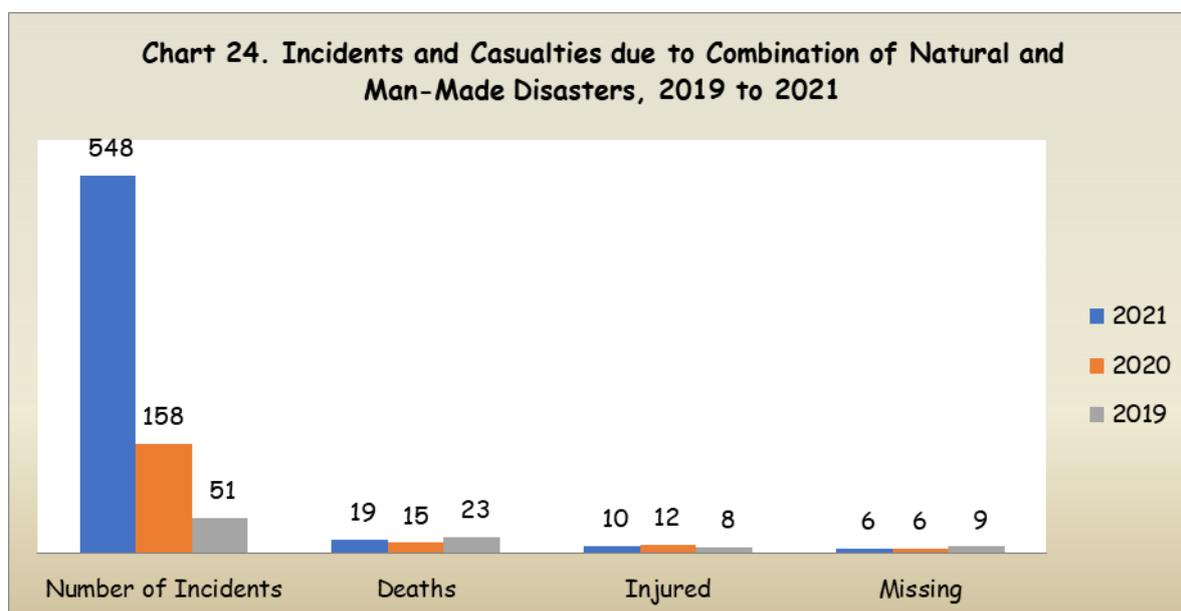
Table 25 continued

Hazard/Disaster Subgroup	Fire	Accidents	Oil spill, toxic odor, chemical leak	EJKs (activists and drug- related)	Rest of the HRVs	Bombings (Karapatan data)
Number of Incidents	197	146	3			
Island Groups Affected						
Luzon	107	134				
Visayas	38	6				
Mindanao	52	6	3			
Casualties	47	310	12	596	-	-
Deaths	14	56	2	596		
Injured	33	250	10			
Missing		4				
Affected barangays	198	6	5			
Affected families	14,045	17	268			
Affected persons	52,132	73	896		4,180	496,682
Displaced families	12,663					
Displaced people	47,708					
Damaged and destroyed houses	7,470	2	-	-	-	-
Damage to Properties, Total (PHP)	148,775,750	-	-	-	-	-
Agriculture						
Infrastructure	142,699,750					
Private	6,076,000					

C. Combination of natural and human-induced hazards

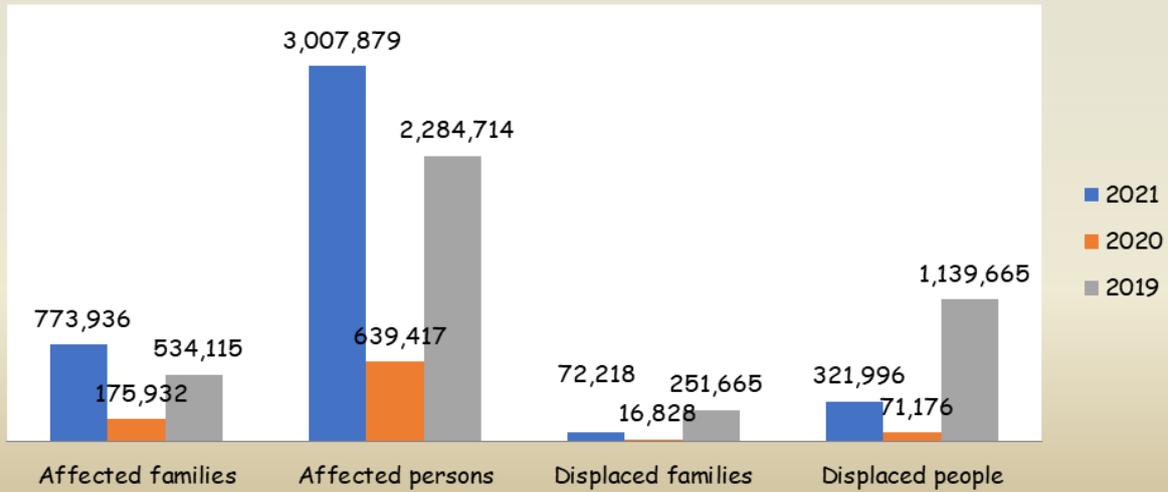
The Philippines has been repeatedly battered by floodings, flash floods, landslides, and soil erosion as a result of both the country's geographic characteristics and human-induced factors. The devastating effects of these disasters only get worse, as climate change impacts also become severe in a population that is poor and vulnerable in the first place.

Disasters from a combination of natural and human induced hazards ranked second among top 10 disasters that affected the largest number of people and massive displacements in 2021. There were 548 recorded incidents, over three times more than the previous year. Death toll was at 19, with 10 others injured and six missing. **(Chart 24)**



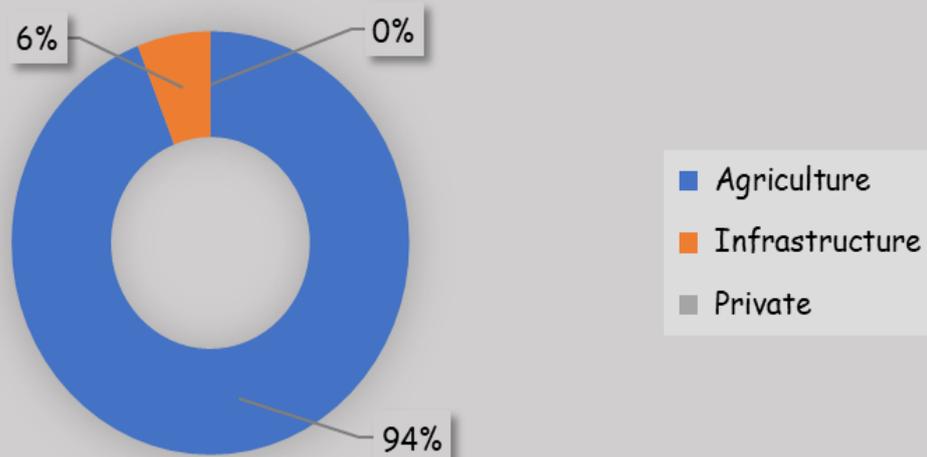
The typhoons and monsoons that brought intense rainfalls combined with human activities that triggered widespread flooding, landslides, and flash floods affected an estimated total of 773,936 families or more than 3 million people in 2021. The number of people affected is almost five times more than the previous year, with 175,932 families or 639,417 people affected. Recorded displacements, on the other hand, reached 72,218 families of 321,996 people, higher in comparison with the previous year's total of 16,828 families or 71,176 people. **(Chart 25)**

Chart 25. Affected and Displaced Families and Persons due to Combination of Natural and Man-Made Disasters, 2019 to 2021



Agriculture was worst hit with 94% of the total economic damage or over Php1 billion while infrastructural damage reached over Php63 million, accounting for 6% of the direct economic costs. (Chart 26) This buried millions of farmers deeper in chronic debt and poverty.

Chart 26. Economic Costs of Combination of Natural and Man-made Disasters, 2021



The Visayas has the highest incidents of disasters due to a combination of natural and human induced hazards but 196 of these events impacted the entire country, sparing no island group and destroying 13,032 houses that were mostly made of light materials. (Table 26)

Table 26. Disasters Due to a Combination of Natural and Human-Induced Hazards, 2019 to 2021

	2021	2020	2019
Number of Incidents	548	158	51
Island Groups Hit			
Luzon	114	84	
Visayas	137	7	
Mindanao	98	23	
Luzon and Visayas	3	44	
Luzon, Visayas, Mindanao	196		
Casualties	35	33	40
Deaths	19	15	23
Injured	10	12	8
Missing	6	6	9
Affected barangays	3,087	1,229	
Affected provinces	175	77	
Affected families	773,936	175,932	534,115
Affected persons	3,007,879	639,417	2,284,714
Displaced families	72,218	16,828	251,665
Displaced people	321,996	71,176	1,139,665
Damaged and Destroyed Houses	13,032	2,187	
Direct Economic Costs (Php)	1,064,694,674	165,026,539	6,201,784
Agriculture	1,001,310,377	134,217,939	1,285,684
Infrastructure	63,372,297	808,600	1,190,000
Agriculture and Infrastructure		30,000,000	
Private	12,000		3,726,100

The worst floodings and landslides occurred during the southwest monsoon where it incessantly rained from July 28 to August 18, 2021. A total of 52 cities/municipalities were placed under state of calamity. It drowned six people, injured three others, and left one person missing. It recorded 65 flooding incidents, six landslides, one road slip, one mudslide, one overflowing spillway, and seven swollen rivers. It affected 1,222,241 people from 1,117 barangays across the nation and displaced 61,399 people. [346] The single massive displacement recorded, on the other hand, happened on September 5, 2021, in Maguindanao, Mindanao, where eight simultaneous flooding incidents were recorded, causing [85,225 people to evacuate](#) and find safer shelter in evacuation centers, families, and friends. [341]

There were 174 recorded incidents of floodings and flash floods in 2021, 69% higher than the previous year, killing nine people, injuring three more, and left three people missing. These affected more than 1.1 million people from 1,126 barangays, which 82% higher than the previous, but half lower than in 2019. These incidents triggered the displacements of 203,032 people, which is four times the displacements compared with the previous year. However, displacements due to floodings and flash floods were more than five times higher in 2019 with over 1.1 million forced to

flee to safety. Recorded economic damages was worst in 2020 with Php164 million lost, followed by the damages in 2021 with Php87.6 million losses incurred. **(Table 27)** These figures could be higher since some government reports had no data on agricultural and infrastructural damages.

Table 27. Floodings and Flash floods, Comparative, 2019 to 2021

	2021	2020	2019
Number of Incidents	174	103	38
Island Groups Hit			
Luzon	75	32	
Visayas	15	6	
Mindanao	84	21	
Luzon and Visayas		44	
Casualties			
Deaths	9	12	6
Injured	3	0	4
Missing	3	6	4
Affected barangays	1,126	1,129	
Affected families	270,382	170,908	534,008
Affected persons	1,129,302	618,480	2,284,004
Displaced families	46,043	13,686	251,606
Displaced people	203,032	57,547	1,139,338
Damaged and destroyed houses	6,668	2,125	
Damage to Properties, Total	87,598,034	164,217,939	6,201,784
Agriculture	60,512,034	134,217,939	1,285,684
Infrastructure	27,086,000		1,190,000
Private		30,000,000	3,726,100

Conclusion

The geographical and physical attributes of the Philippines make it highly exposed to natural hazards. With the economic crisis so severe, disaster risk in the country is definitely particularly high. Where extreme natural events and socio-economic crisis meet, disasters are imminent. Heightened implementation of RA 10121 with greater participation of communities will help improve disaster risk reduction and management. However, unless duty bearers make drastic changes to address the root causes of disaster vulnerability, the Filipino people will perpetually suffer both from disasters due to natural hazards and government neglect .



2021