

RP Disaster Preparedness a Historical Background: The Case and Lesson of the July 16, 1990 Killer Quake

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Abstract

It was late in the afternoon around 4:30 of July 16, 1990 when Luzon was hit by an earthquake 7.7 on the Richter scale. People in Metro Manila felt the same magnitude at 6.2. Great damage was inflicted on the infrastructure both private and public. Metro Manila was much spared from great destruction. This is not the case in other places like in Cabanatuan City, Nueva Ecija which was the epicenter of the earthquake, Christian College of the Philippines a six-story school building fell to the ground that trapped 250 teachers and students and killing at least 133. Another greatly affected area was Baguio City, hundreds were trapped in factories, schools, and hotels like the Hyatt Terraces Hotel. Making the situation worse were landslides and huge craters that made road impassable for rescue and relief operations. The only communication link was through a radio station broadcast in Baguio City that relay it to La Union then to Manila. Other nearby areas also felt the intensity of the quake like Ilocos Norte, Pangasinan, La Union, Nueva Vizcaya and as far south as Batangas and Quezon. In general, the quake lasted from 40 to 60 seconds. It was the most powerful earthquake recorded in the country since 1968.

The paper aims to provide a historical discussion on disaster preparedness and program of the Philippines in the early 1990's. Considering that the country is sitting in a position where natural calamities occur regularly disaster preparedness is off great necessity. The 1990 "Killer Quake" served as the catalyst for government to initiate and prepare programs and projects to address cases of natural emergencies like typhoons, volcanic eruptions and most of all earthquakes. Primary sources like newspaper accounts, official

records and reports of leading government institutions, and Philippine Republic Acts and Executive Orders will be utilized and explored in the study.

INTRODUCTION

A newspaper report captured the emotional reality of people during the "Killer Quake" of July 16, 1990 in the following words:

"Diyos ko, tama na po!"

"Akala ko lalakad ka pa nang paluhod"

"Nagkabuhol-buhol yung dasal ko. Pati nga grace before meals, nasambit ko na"

"Aba pare, marunong ka palang magdasal" (Philippine Daily Inquirer, 17 July 1990, 1 & 10).

The July 16, 1990 "Killer Quake" that recorded a magnitude of 7.7 on the Richter scale was the most devastated earthquake in the recent times. Based on the official report, a total of 1,283 Filipinos lost their lives and 2,786 were injured. According to the report of the World Health Organization published in 1992 the leading cause of earthquake-related injuries are the following: (1) being hit by falling objects, (2) being crushed or pinned down during the tremor, (3) falling down during tremor, (4) and landslide. On the other hand, the most common types of injuries are as follows: (1) extremities were injured, (2) contusion, (3) abrasion, (4) fracture and (5) laceration. The said report also discussed rescue and medical intervention. According to the report 80% were saved by person using no equipment, 18% through the use of hand tools like picks and shovels and only 2% were rescued through the use of heavy equipment (M.C. Roces, M.E. White, M.M Dayrit & M.E. Durkin, 1992). The July 16 "Killer Quake" served as a contemporary challenged to disaster preparedness and management, considering also the Philippines is located in the "Pacific Ring of Fire."

In general, government preparedness and programs were reactionary in an event of natural disasters. During the commonwealth period, President Manuel Quezon issued Executive Order No. 335 and 337. Executive Order No. 335 created the Civilian Emergency Administration (CEA) through the National Emergency Commission (NEC) to formulate

policies and plans for the protection and welfare of the civilian population in extraordinary and emergency conditions. On the other hand, Executive Order No. 337 was for the organization of Volunteer Guard that one function was to succor, aid, and assist the populace in emergencies caused by fire, flood, earthquakes, typhoons, epidemics, air raids, or other forms of local or national disaster. During the Japanese occupation of the Philippines, President Jose P. Laurel issued Executive Order No. 36 that created the Civilian Protection Service (CPS) that tasked to formulate and execute policies for the protection of civilian population during air raids and other national emergencies including earthquakes.

After World War II Republic Act 1190 or also known as the Civil Defense Act of 1954 was passed. Under RA 1190 the National Civil Defense Administration (NCDA) was established, the primary goal was to provide protection and welfare to the civilian populace during times of war and other national emergencies. In order to carry-out the objective of NCDA, civil defense council at the national, provincial, city and municipal councils were created. A powerful earthquake in 1968 helped in providing lesson for the public when the Ruby Rower in Manila collapsed. President Marcos issued Administrative Order No. 151 on December 2, 1968 that created the National Committee on Disaster Operation (NCDO). The NCDO was to ensure effective coordination of different government agencies during disasters caused by floods, fires, typhoons, earthquakes and other calamities. On June 11, 1978 President Marcos issued Presidential Decree 1566 that formally established the National Disaster Coordinating Council (NDCC). The NDCC set to established community disaster preparedness program nationwide.

MAIN CLAIMS

The paper aims to provide a historical discussion on disaster preparedness and program of the Philippines in the early 1990's. The July 16, 1990 "Killer Quake" served as the catalyst for government to initiate and prepare programs and projects to address cases of natural emergencies like typhoons, volcanic eruptions and most of all earthquakes.

Primary among these are a much deeper appreciation of disaster risk prevention and management, strict implementation of the National Building Code, school drills, improvement of telecommunication, investing on scientific equipment and research and public laws addressing national disasters.

METHODOLOGY

Primary sources like newspaper accounts, official records and reports of leading government institutions, and Republic Acts and Executive Orders will be utilized in the study to provide a historical narrative on disaster preparedness and program. Using the July 16, 1990 "Killer Quake" as the primary focus of research.

FINDINGS

The Case and Lesson of the 1990 Killer Quake

In an article entitled, "RP Must Give Priority to Disaster Preparedness," pointed out that as early as 1987 Phivolcs (Philippine Institute of Volcanology and Seismology) Director Raymundo Punongbayan informed the public of the country's lack in disaster preparedness (PDI, 1990). His advice came after two years when in 1985 Mexico was hit by an earthquake. He specifically indicated the deficiency of scientific equipment in monitoring earthquakes in the entire archipelago. He also stressed the complete absence of any system or program that will address the threat of a natural calamity like earthquakes. According to Punongbayan, "just now in the process of recognizing natural hazards as planning constraints and laying down the organizational framework needed for formulating action plans, strategies and policies for disaster preparedness."

A year before the July 16 Killer Quake, an article entitled, "Disaster was not on Their Minds," published in the Philippine Daily Inquirer in July 16, 1991, pointed out as early as April 17, 1989 a bill was due for signing in the upper house. The bill was authored by then Sen. Orlando Mercado, and supported by other committees like social justice, welfare and development, national defense and security and local government. The proposed bill hoped to establish disaster prevention measures and strengthening all disaster prevention agencies

of the government. The proposed bill was overlooked due to other concerns of the senate like anti-Marcos sentiment and anti-bases agreement. The bill was reduced to the collection of the archives (PDI, 1991).

Although there were concrete attempts to increase or even improved the country's defense mechanism in facing natural disaster when the "Killer Quake" finally happened in July 16, 1990 the rest of the country were caught unprepared. The Philippines was faced with an enormous task of rescue, relief-operation, rehabilitation and reconstruction. Based on the article entitled, "What We Have to do After a Big Quake," written in July 22, 1990 by the Philippine Daily inquirer, certain areas were needed to be address like infrastructure (Building Code of the Philippines), relief operations, rehabilitations procedure, back-up communication (like cell phone/cell cites), alternative system of transportation, and new and advance scientific instrument (PDI, 1990).

One major lesson was that it takes the government a "crisis" to develop a "crisis response." Such reactive response proved a necessity in the early hours of the disaster where central authority and leadership was badly needed. Such reality was depicted in an editorial cartoon by Philippine Daily Inquirer on July 23, 1990. Showing President Corazon Aquino about the extent of the situation when she visited the City of Cabanatuan. Both government agencies and private sectors were not working in unison for relief operations. That prompted the president to established an ad hoc "Earthquake Center." Two days after the disaster, the president was now in full command of rescue operations and mobilization.

Another important lesson was the necessity of back-up communication and setting-up cellular infrastructure in times of disaster. In the case of Baguio City that was isolated due to unpassable roads, communication was vital to know the extent of the disaster and to plan for relief and rescue operations. At that time, government became dependent on media broadcast for information to really grasp and understand the extent of the damage. The first one to aired live broadcast was Channel 13 on the evening of Monday 16, 1990. While Channel 2 and

Channel 7 both aired on July 17, 1990 Tuesday morning. PTV 4 aired lived broadcast on Wednesday July 18, 1990, two days after the earthquake. A commentary article by Ramon Tuazon and Bernardo Lopez provided additional importance of communication in addressing natural disaster like earthquake. According to them there are "three quick-reflex communication factors" in a crisis situation: "(1) Situation information showing total extent at the earliest possible time; (2) Advisories telling people in a nutshell what to do and where to go and (3) Mobilization to orchestrate an organized quick-response rescue effort that includes networking with international relief agencies and other countries and centralization and disbursement of relief funds." (PDI, 1990).

Strict implementation of RA 6541 or the National Building Code of the Philippines was another important lesson. According to the World Health Organization Report of 1992 most of the injuries were caused by the collapsed of man-made structures. Pinpointing that "reinforced concrete" was the most dangerous building type. Concrete is hazardous due to its weight and potential for causing injury when it falls compared to light construction materials. In the case of Hyatt Terraces Hotel, design and faulty construction was the cause of its collapsed. On the other case, it was found out that floors were added to the old structure like the example of Christian College of the Philippines that weaken the building foundation (PDI, 1990). The National Building Code of the Philippines provided a complete set of building requirements like architectural, engineering, electrical and sanitary. Aside from this, building construction also follow the National Structural Building Code issued by the Association of Structural Engineers of the Philippines. This code was patterned after the US Structural Code. The National Building Code of the Philippines was enacted on August 26, 1972 as a reactionary measure to the 1968 quake. Proper monitoring from the giving of building permit to occupancy permit and implementation are needed to be addressed.

Filipino Response and Memory of Disaster

At a personal level Filipinos remember such disaster and learn to embrace it. Ten years after the 1990 quake, the City of Baguio welcomed and recognized the so called

“earthquake babies” that became the symbol of the city’s resiliency and re-birth after a tragedy. One surprising fact was that Filipinos name their children after such an event. Prominent among the names of the babies are Lyndon Pitag Cawi, Joe Lyndon Chiday and Lendle Jeg Crispin Quines their first names are adaption of the Filipino word “lindol” other interesting names also includes Kyrzzy Garcia and Shakey Jane Samadan (PDI, 2000). This was also the case in Tuba, Benguet they have the Paswik twins named Lyndel a female and Lyndol a male (PDI, 1990).

In the case of the victims, some will view it as a blessing that eventually makes them closer to God and to their family. An event that makes them value their life more. But for some, such an event was a nightmare that will forever hunt them in their lives. Such an example will be seen in an article entitled, “Those who lived: A Class Act for Student Survivors,” by the Philippine Daily Inquirer (1991):

Alberto Joson (22)- “My friends are telling me it’s my birthday and I agree with them. This is my second life. I feel that I’ve become closer to God, that I’ve been blessed with so much.”

Jesus Castillo (19)- “I can’t feel bitter when I am reminded of classmates who were killed. I am alive.”

Manuel Guerrero- “I feel luckier, I have a stronger desire to survive.”

Angelita Quimbao (15)- nightmares of her dead classmates. Nervous when entering crowded rooms, especially in the afternoon.

Jericho Angeles (19)- remains fearful of buildings with second floors.

One survivor attempted to kill herself so she could be as popular as her cousins who were pinned to death by concrete.

The July 16, 1990 “Killer Quake” also produce a lasting expression of a helpless little girl that was trapped within the ruins of her school. What makes it more tragic was the fact that despite her condition she was being interviewed by a reporter. Few days after the girl eventually died. Michael Trinidad expressed his personal view about the said

incident that was published in Philippine Daily Inquirer in July 21, 1990 (p.5), entitled, “Thoughts on earthquake:”

I was watching Channel 2’s special coverage on the earthquake last July 16, when I saw something truly cruel and inhuman.

They showed an “on the spot” interview of a young girl pinned down by a heavy slab of concrete in the rubble of the Christian College of the Philippines. She was totally immobile from her shoulders down. She was dying right before my eyes. In spite of her ordeal, the reporter conducted an interview, asking stupid questions like, “Where does it hurt most?”

Why was this footage allowed to be shown? This is sensationalism at its worst. Are TV ratings so important to Channel 2 management that they would allow this totally insensitive material to be aired? My heart bleeds for the parents of this young girl. Channel 2 “nakakasuklam kayo?”

In general, Filipino exhibit the true “Spirit of Bayanihan” as clearly expressed in times of national disaster and calamity. Based on an article entitled, “Disaster should make us pull together as a nation,” published by the Inquirer in July 18, 1990, donations of any kind flocked into the refugee camps, complete strangers helping the victims, and the nation praying and hoping together. Truly in times of calamity and disaster, the spirit of “Bayanihan” is greatly expressed and truly live-by. As further expressed by the same article with an appeal to have unity and learn from such an event:

At a time like this, all other problems that used to preoccupy us--- politics, the economy, crime and the insurgency—fade into insignificance beside the urgent need to save lives. How long before we soon forget the wisdom of this insight on where our true priorities should lie? How long before those terrible 40-60 seconds are erased from memory?

And lastly, such disaster brings out certain aspect of our cultural practices, local or

indigenous beliefs in coping, understanding or even preparing for such a disaster. Days prior to the July 16, 1990 according to Romulo Cabral, snakes began to appear in their farm. A total of about four or five snakes was killed in the process. For Nazaria Grafane, a clear sign that a disaster will occur was the uneasiness of the dogs for the past few days. Based on her account, “*umaalolong ang mga aso at hindi mapakali (dogs howl and are uneasy).*”

ANALYSIS

The July 16, 1990 “Killer Quake” exposed the Filipino capacity to address a natural disaster. In the 1990’s despite of our long history with natural disasters, programs and protocols remained only to address rescue operations, reliefs and rebuilding process and not to reduce or manage disasters. The “Killer Quake” showed the country’s vulnerability, no disaster preparedness program, no backup communication system for emergencies, no alternative transport system, earthquake monitoring system was primitive, no systematic rescue, relief and rebuilding program, and building code not strictly implemented. In an editorial article “what we have to do after the big quake?” elucidate the learning of the 1990 “Killer Quake” in the following words (PDI, 1990):

We cannot prevent earthquakes from occurring. We cannot even predict when they will occur. The least we can do is prepare for them, put up a system of undertaking quick rescue and relief operations, and lessen the toll in terms of human lives and public and private property.

One immediate respond by the government to the 1990 “Killer Quake” was RA 6960 that was passed on August 7, 1990. An Act that appropriated the sum of P10B pesos for aid, relief and rehabilitation of affected areas destroyed by the July 16, 1990 quake. In relation to this, Executive Order 202 was issued for the “Creation of Negotiating Teams for Implementation of Earthquake Rehabilitation Program” and Department of Public Works and Highways Order No. 196 that provided “Guidelines in the utilization of funds and to ensure correct accounting and

reporting of said funds in accordance with Section B of RA 6960.”

On August 28, 1990 Secretary of Education Isidro D. Carino circulated Department Order No. 96, Series of 1990 that ordered bureau directors, regional directors, school superintendents, presidents of state colleges and universities, heads of private school, colleges and universities, vocational schools, and superintendents/administrators for Calamity/Emergency Drills in schools. This was to prepare for any calamities like earthquakes, fires, volcanic eruption, bombings, etc. The primary objective was to minimized death and injury by introducing proper evacuation, standard procedure on earthquakes like keeping calm and seeking cover. School Earthquake Drills were performed on a periodic basis and also covered standard procedure on fire, volcanic eruption, typhoon and bombing (PDI, 1990).

Designing a building became more challenging because of the “Killer Quake” of 1990. Buildings are to be designed according to various level of seismic safety. Structures should be designed so that occupants can survive an earthquake. The presence of holes or crevices (void spaces) could provide a possible survival. In 2015 buildings were said to have been designed to resists an earthquake with a magnitude of 8.0. The formation of a national hotline like 117 and 911 was also influenced by the 1990 quake (M.C. Roces, et. al. 1992).

In July 27, 2009 RA 10121 was signed by President Macapagal-Arroyo. RA 10121 or also known as the “Philippine Disaster Risk Reduction and Management Act of 2010.” The Department of Interior and Local Government (DILG) implemented the National Disaster Risk Reduction and Management Plan (NDRRMP) that had the following objectives: (1) to stressed prevention and mitigation (by avoiding hazards and reducing vulnerabilities), (2) disaster preparedness (by establishing and strengthening communities to anticipate, cope and recover from disasters), (3) disaster response (that will provide life preservation and meeting the basic subsistence needs of affected population) and (4) rehabilitation and recovery (that restore and improve facilities, livelihood and living conditions of people affected by disasters).

President Benigno Aquino III signed RA 10344 or also known as “An Act Penalizing the Unauthorized Taking, Stealing, Keeping or Tampering of Government Risk Reduction and Preparedness Equipment, Accessories, and Similar Facilities” on July 23, 2012. In May 25, 2015 Camarines Sur Rolando Andaya Jr. submitted House Bill 5722 that proposed to conduct a mandatory and regular disaster risk reduction drills in educational institutions. (Manila Bulletin may 25, 2015) Accordingly Nationwide earthquake drills were held from 2015 to 2018.

CONCLUSION

The “Killer Quake” of July 16, 1990 served as a catalyst to view natural disaster in a different light, from mere reactionary program and policies to a much deeper appreciation of disaster risk prevention and management. The National Building Code was now strictly regulated and implemented, school earthquake drills were performed, improvement of telecommunication, invested on scientific equipment and research and the passage of public laws and orders that directly addressed natural disasters. An editorial article published by Philippine Daily Inquirer in July 20, 1990 provided a great reminder on handling natural disaster in the following words:

Yet sooner than later, we should come to terms with our fears, real or imagine. Unless we want to get off, we must learn to live with the fact that natural calamities will strike at times and places we are not free to choose. So while we mourn the dead and rue the losses, let us also get on with the business of living (PDI, 1990, p.4).

REFERENCES:

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4. Philippine Daily Inquirer. “What we have to do after a Big Quake” (July 22, 1990).
5. Republic Act 1190, 10121 and 10344.
6. Executive Order No. 335, 337 and 36.
7. Administrative Order No. 151.
8. Presidential Decree 1566.