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Disaster Risk Reduction and Management of Tarlac City

Dr. Murphy P. Mohammed*

*College of Engineering, Tarlac State University
Tarlac City, Philippines*

Abstract

This study focused on the Disaster Risk Reduction and Management of Tarlac City. The city disaster risk reduction and management structure; the identified hazards and evacuation areas; the Tarlac City DRRM Plan in four thematic areas as identified in the NDRRM Plan; the CDRRMO vehicles, equipment, and resources; and the community based responders are presented in this paper.

The following conclusions are reached based on the gathered information and data. The CDRRMC and CDRRMO are established and functioning as to their mandate, based on the certificate of recognition given by DILG to the City Government of Tarlac regarding disaster preparedness. The structure of the CDRRMO is approved by the city council but lacks funding for filling up the identified positions. The CDRRMO has a hazard map with identified barangays prone to flooding, lahar flow, and earthquake. The thematic action plans of the City Government are aligned with the Sendai Framework for Disaster Risk Reduction. This is evident in the list of programs and projects in their action plans. The existence of community based responders shows that the City Government is extending support to the barangay level by training local officials on how to respond in times of disaster.

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*Corresponding author. Tel.: +639228142577

Email address: eng_mpm@yahoo.com

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1. Introduction

Disaster remains one of the main challenges facing the nations of the developing world. It not only causes high mortality and suffering, it also damages local economies that are in the process of formation and thwarts development achievements [1]. The Philippines is one of the countries around the world often experiencing disasters such as earthquake, volcanic eruption, typhoon, tsunami, drought, and flooding among others. Over the past two decades, the Philippines endured a total of 274 natural calamities, making it the fourth most disaster-prone country in the world [2]. The country is highly exposed to natural hazards because it lies along the Pacific Typhoon Belt and is within the Pacific Ring of Fire. The risk is compounded by uncontrolled settlement in hazard-prone areas, high poverty rate, failure to implement building codes and construction standards, and the degradation of forests and coastal resources, among others [3].

Flooding is the most frequently experienced phenomenon in the Philippines due to the monsoon rains and typhoons. The country experiences about 20 typhoons (more or less) per year. Monsoon rain affects the weather system of the country for about six months or half of the year. This causes flooding in many parts of the country. Excessive rainfall can cause urban flooding as well as breach in river dikes or levees which can cause flooding to low lying towns and villages. Damage to property, agriculture, as well as loss of lives may happen during floods. The Philippines experienced several disasters related to flooding which caused many deaths and damage to property in the last decade.

The Philippines encountered strong earthquakes in the past years. The Bohol Island earthquake of 2013 and the 1990 earthquake, with epicentre in Nueva Ecija, were some of the most devastating incidents the country experienced.

The country has several active volcanoes. One of the strongest explosions recorded was the Mount Pinatubo eruption in 1991. The Mount Pinatubo eruption was the second-largest eruption of this century, and by far the largest eruption to affect a densely populated area. The eruption produced high-speed avalanches of hot ash and gas, giant mudflows, and a cloud of volcanic ash hundreds of miles across [4].

In 2010, the Philippine government enacted Republic Act No. 10121 also known as the Philippine Disaster Risk Reduction and Management Act of 2010 (PDRRM Act of 2010). According to Section 2 of the said act, it shall be the policy of the state to adopt a disaster risk reduction and management approach that is holistic, comprehensive, integrated, and proactive in lessening the socioeconomic and environmental impacts of disasters including climate change, and promote the involvement and participation of all sectors and all stakeholders concerned, at all levels, especially the local community. Furthermore, it institutionalizes the policies, structures, coordination mechanisms and programs with continuing budget appropriation on disaster risk reduction from national down to local levels towards building a disaster-resilient nation and communities [5].

Tarlac City is the lone city in the Province of Tarlac and has 76 barangays. According to the Philippine Statistical Authority (PSA), the population of the city is 342,493 as of 2015 [6]. With the passage of RA 10121 in 2010, the city government of Tarlac responded with the passage of a city ordinance in support of the said law in 2012. In 2015, the City Government of Tarlac was awarded a Certificate of Recognition from the Department of Interior and Local Government for passing the Local Governance Assessment Area of Disaster Preparedness. The City Government fell short of achieving the National Gawad Kalasag Award for Disaster Preparedness by not having a plantilla position for the head of the CDRRMO.

With the aforementioned information, the researcher wished to investigate the current status of the DRRM of Tarlac City. The result of the study can serve as guide to the policy makers of Tarlac City as to what areas are in need of attention as regards their initiatives for making the city resilient to hazards.

2. Methodology

Documentary analysis was the primary source of information for this study. The City Planning and Development Office (CPDO), City Disaster Risk Reduction and Management Office (CDRRMO), and Department of Interior and Local Government (DILG) were the primary sources of information as regards the gathered data. Interview was conducted to some city officials for the validation of gathered information relevant to the study. Data from other government agencies such as from the Philippine Institute of Volcanology and Seismology (PHILVOCS) as well as from the Mines and Geosciences Bureau (MGB) were also gathered. The information gathered from both agencies were used to identify the different hazards which have the potential to occur in Tarlac City.

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