



**EMILIO AGUINALDO COLLEGE**  
1113-1117 San Marcelino St., Paco, Manila 1007, Philippines www.eac.edu.ph (02) 8521-2710

Virtue ♦ Excellence ♦ Service



# EARTH AND LIFE SCIENCE

## **Culminating Performance Task: Barangay 14 Zone 1, Pasay City Mitigation Plan**

**Group no. 9**

**Members:**

**Mangundayao, Rianafe S.**

**Ms. Evelyn R. Montegrejo**



**A. Describe your community** (*A brief introduction about the assessment on the brgy. from your previous performance task 1*)

Barangay 14, Zone 1 Location of the Barangay: Maginhawa Street. The assessment highlighted the Barangay's disaster preparedness, communication, and security measures. They provide a messaging system and loudspeakers to alert residents, maintains ties with DSWD and emergency services, and operates an information center at the barangay hall. Key infrastructure improvements include barriers in vulnerable areas, regular drainage maintenance, and earthquake-resistant construction to enhance safety and preparedness.

**B. Identify your hazards.**

**I. Hazards** (*Explain the hazard/s that is/are present in the community*)

Most likely in the part of Maginhawa, and Estrella Street there's a house fire happening but it only happened 3 times, and it was a minor fire it's just very rare to happen. However, through the other streets included in Barangay 14, the Kagawad informed that there aren't any background disasters that happened yet. In the present, the barangay faces two main natural hazards such as flooding and house fire, both of which directly affect the lives of residents. Flooding is a common and serious issue, especially during the typhoon season. For example, during Typhoon Nika, which hit the Philippines in November 2024, heavy rainfall caused severe flooding across the area, submerging streets and damaging the homes. Many residents had to evacuate as floodwaters quickly rose, reaching moderate level. The storm also disrupted power and communication lines, leaving the barangay isolated for several days. Flooding is a recurring problem, especially when strong storms pass through, and it often results in property damage, displaces families, and creates safety risks. To address this ongoing challenge, the barangay has taken steps to improve flood control. They have built dams to help absorb excess water and installed a drainage system to prevent water from accumulating on the streets.

**II. Risk** (*Identify the risk of the hazards in the community*)

The community faces significant risks, primarily from flooding and its associated impacts. Flooding, especially during typhoons, poses a severe threat, with heavy rainfall submerging streets and damaging homes. This often leads to displacement, as residents are forced to evacuate to safer areas. The destruction of homes and infrastructure during floods causes long-term economic hardship, while the disruption of power and communication lines can isolate the barangay for days, complicating efforts to access help. In addition to property damage, flooding creates serious safety risks, including drowning, injury from debris, and exposure to waterborne diseases. These risks highlight the vulnerability of the community, making effective flood control measures and disaster preparedness essential to safeguarding residents and reducing the impact of future storms.

**C. Impacts**

**a) Explain the impacts on the community** (*Identify the effects of the risk on the community.*)

The risks of flooding and house fires in Barangay 14 have significant effects on the community, leading to property damage, displacement, and safety hazards. Floodwaters often submerge homes, causing structural damage and long-term economic hardship, while house fires, though rare, can result in the destruction of homes and valuable possessions. Both hazards force families to evacuate, disrupting daily life and causing temporary homelessness. Flooding, in particular, creates severe safety risks, including drowning, injuries from debris, and exposure to waterborne diseases, while house fires pose the danger of burns and smoke inhalation. These disasters also lead to economic strain, as residents face the cost of repairs and recovery, and often disrupt businesses and work. Socially, flooding isolates communities by disrupting power and



communication, increasing anxiety and vulnerability, particularly for children, the elderly, and other at-risk groups. Additionally, both risks place a strain on local resources, as emergency services and recovery efforts are often overwhelmed. Public health risks, such as exposure to contaminated water and respiratory issues from smoke, further exacerbate the challenges faced by residents. In general, these natural hazards create a cycle of disruption, economic burden, and health risks, making effective disaster preparedness and response crucial for the well-being of the community.

**D. Capabilities** *(The capabilities of the community to reduce or prevent the loss of life or disaster impact.)*

Barangay 14 has measures in place to reduce disaster impacts and protect lives. To prevent flooding, they’ve built dams and installed drainage systems. The barangay regularly holds evacuation drills to prepare residents for emergencies. They also run fire safety programs to teach people how to prevent and respond to fires. There are evacuation centers and local rescue teams ready to assist during disasters. These efforts, along with better infrastructure, help reduce risks and keep the community safe.

**E. Mitigation Strategies**

*(Identify and prioritize hazards mitigation action plan and establish hazard mitigation goals and objectives.)*

Name of the projects	Persons involve	Materials	Budget & Duration of the activity	Goal & Objectives
1. Infrastructure Improvement	Barangay officials, engineers, structure workers, and community volunteers.	Sandbags, steel reinforcements, drainage pipes, flood barriers, pumps, construction equipment.	PHP 10,000,000, 7 months.	1. Enhance the barangay’s flood control infrastructure to prevent flooding during heavy rains and typhoons. 2. Create and Establish further drainage systems to improve water flow and prevent street flooding. 3. Reinforce existing



				dams to prevent overflow during severe weather events.
2. Evacuating Warning System	Barangay disaster risk removal officers, local government, community leaders.	Communication devices radio, sirens, mobile app software, alerting lights, flood gauges.	PHP 1,500,000, 5 months.	<ol style="list-style-type: none"><li>1. Establish rainfall gauges and sensors in vital areas to detect increasing water levels.</li><li>2. Formulate and enforce a portable app and SMS-based notification system for immediate downpour alerts.</li><li>3. Drill local leaders and residents to respond effectively to earlier warnings.</li></ol>
3. Assembly Flood Resilience Training	Barangay officials, local trainers, community volunteers, and residents.	Training materials (booklets, flyers), first aid equipment, flood evacuation plans, and safety gear.	PHP 500,000, 5 months.	<ol style="list-style-type: none"><li>1. Furnish flood preparedness training for residents, focusing on evacuation processes and emergency stockpiles.</li><li>2. Stimulate drills to practice secure evacuation roads and flood response.</li><li>3. Familiarize residents with the proper use of</li></ol>





				emergency equipment and protection measures during floods.
4. Fire Prevention Program	Barangay officials, local fire department, community leaders, residents.	Fire extinguishers, fire hoses, fire alarms, fire-resistant materials, safety gear, and educational materials such as posters, flyers.	PHP 900,000, 7 months.	<ol style="list-style-type: none"><li>1. Execute regular fire safety training and drills for residents and local businesses, focusing on fire prevention, evacuation plans, and the use of fire extinguishers.</li><li>2. Employ fire alarms and emergency lighting systems in key public areas and at high-risk locations.</li><li>3. Educate the community about fire safety practices, including the proper disposal of waste, electrical safety, and safe cooking methods to minimize fire risks.</li></ol>
5. Fire Infrastructure Development	Barangay officials, local fire department, engineers, construction workers, and volunteers.	Water tanks, fire trucks, fire hydrants, fire hoses, and structure materials.	PHP 6,000,000, 12 months.	<ol style="list-style-type: none"><li>1. Operate further fire hydrants in key areas of the barangay to secure sufficient</li></ol>



				<p>water supply during a fire.</p> <p>2. Construct and maintain community water tanks particularly for fire emergencies, primarily in areas where water supply may be restricted.</p> <p>3. Furnish the barangay with contemporary fire trucks and firefighting equipment to fund fire response efforts.</p> <p>4. Drill community volunteers as first responders for fire-related emergencies, allowing rapid initial movements before the arrival of skilled fire services.</p>
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F. Documentation (Place here documentations of initial assessment in the community. Picture and consent form)



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**HIGH SCHOOL DEPARTMENT**  
**PARENT CONSENT & WAIVER**

THE PRINCIPAL  
High School Department  
Emilio Aguinaldo College- Manila

Name of Activity: Assessment on Community Disasters  
Date of Activity: Sep 16, 2024

I Rodelio Mangundayao parent/guardian of Rianafe Mangundayao  
(Name of Parent/Guardian) (Name of Student)

11 - HUMSS - 5 gives permission for my child to participate in the above-mentioned  
(Grade and Section)

activity to be held on the above-given date. I have been informed of the details of the said activity, and I am aware that I may withdraw my permission by informing the Office of the Principal at least one day before the activity is held.

I understand that the school authorities have employed all necessary precautions in ensuring the safety of my child during the said activity. I do not hold the school and its officials from any liability for any untoward incident that shall involve my child during the Assessment on Community Disasters  
(Name of Activity)

provided that, such incident is readily foreseeable or known or attributed to the school.

Rodelio Mangundayao  
Signature over Printed Name  
Date of Signing: Sept. 12, 2024

Contact No.: 0915 - 098 3083  
Address: 15A-G Humildad Street Pasay city





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(DATE) 9/15/2024

To: Capt. *Carmelita V. Legro*  
Brgy. Captain *Carmelita V. Legro*  
Municipality of Manila

Dear Ma'am/Sir

Greetings from Emilio Aguinaldo College!

As a requirement for the completion of culminating Performance Tasks in Earth and Life Science. We are conducting an assessment, survey, or interview about "Assessment on Community Disaster." The said activity aims to know the materials of the barangay and ways to be ready in case of an emergency.

In line with this, we want to request from your good office that you allow us to conduct an assessment and interview in your barangay. This may involve randomly chosen residents and barangay officials.

We also want to request assistance from your barangay security officers, who may accompany the students while conducting the survey in your area.

Thank you so much for your cooperation.

Respectfully yours,

Group Members  
*Individual Group 9*  
*Rianafé Magundayao*

Note by:  
*[Signature]*  
Ms. Evelyn B. Montegrejo  
Subject Teacher  
SHS Faculty

**G. Infographic** (Place here your chosen infographic. Note: Choose the best infographic among your group members you may modify and improve it.)





COMPREHENSIVE DISASTER PREPAREDNESS:  
PROTECTING THE COMMUNITY

WARNING  
safety first!

FIRE DISASTER IN  
BARANGAY 14



Handling the Barangay 14, Zone I  
Kagawad. Carmelita Dazo

The Amount of Vulnerable Population in the Community



Identification of Vulnerable Population		
Child (0 – 18 years old)	Elderly (65 and above)	Persons with disabilities
600-800 above	1000 above	The barangay haven't confirmed the amount of vulnerable population with disabilities yet.

COMMUNITY BACKGROUND:

Most likely in the part of Maginhawa, and Estrella Street there's a house fire happening but it only happened 3 times, and it was a minor fire it's just very rare to happen. However, through the other streets included in Barangay 14, the Kagawad informed that there aren't any background disasters that happened yet.

DISASTER PREPAREDNESS:

About the Fire Risk Assessment, it is required to input a plan developed to protect residents from fire hazards through active measures, effective response, and community enhancement. Guiding every residents to evacuation routes which is located in Gotamco High School and coordinating to any Fire Organizations. During emergencies, conduct a Fire Response Team. Installing Fire Drills and Fire Extinguisher. Setting up an alarm. For recovery, donating and providing assistance to the affected residents.



DISASTER RESPONSE:

The Barangay operates its response team immediately, including doctors, and ensures they are equipped with required materials like first aid kits. Also, set up an emergency medical station and organized the needed resources.



"Be prepared today, protect lives tomorrow—together, we can prevent fires and save our community."



Riamafe Mangundayao  
11-HUMSS-5  
PETA #2 ELS



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