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Addressing Volcanic Eruption and Public Health: A Multi Hazard Action Plan in Balete, Batangas

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Abstract:

This action plan addresses the intersection of volcanic hazards and public health in Balete, Batangas specifically respiratory diseases stemming from volcanic emissions. Balete, a town within the 14-17 km radius of the Taal Volcano, is highly vulnerable to volcanic ash and gas exposure. The action plan evaluates respiratory health patterns linked to eruptions and offers a multi-hazard action plan focused on risk assessment, public health interventions, education, and emergency preparedness. Strategic recommendations include improving environmental monitoring, upgrading health infrastructure, and expanding community resilience.

Keywords **— Balete, Taal Volcano, Volcanic Ash, Respiratory Health, Multi-hazard Plan**

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I. INTRODUCTION

The Philippines is prone to volcanic activity due to its location along the Pacific Ring of Fire. Communities like Balete, near Taal Volcano, face regular health and environmental threats. Volcanic ash and gases such as sulfur dioxide (SO_2) severely degrade air quality, leading to respiratory issues among residents especially children, the elderly, and immunocompromised individuals. In 2020, 1,729 acute respiratory cases were reported during the eruption.

Balete, Batangas, a municipality situated near the active Taal Volcano, faces recurring health and environmental threats due to periodic volcanic eruptions. One of the most significant public health concerns associated with volcanic activity in the area is the increased incidence of respiratory diseases. Ashfall, sulfur dioxide emissions, and fine particulate matter released during eruptions have been shown to adversely affect air quality, which in turn poses serious respiratory risks.

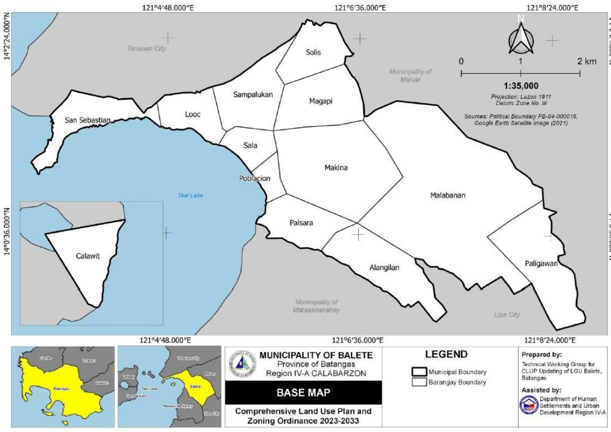

Figure .1 Base Map of Balete, Batangas

The Municipality of Balete is located at 145°05' to 13°55'N latitude and 120°00 to 121°00'E longitude and is found at the northwest of Lipa City. It is a coastal town along Taal Lake which includes an island barangay- Calawit. It is bounded on the north by the City of Tanauan, on the west of Taal Lake, on the south by the Municipality of Mataas na Kahoy and on the east by the Municipality of Malvar.

II. SCOPE AND LIMITATION

This action plan mainly focused on evaluating the impact of the Taal Volcano eruption on respiratory diseases among the residents of Balete, Batangas. Primarily, this assessed both the short-term and long-term effects of volcanic eruption and secondary the health consequences associated with exposure to volcanic ash, to identify particularly vulnerable populations, and to develop mitigation strategies to minimize health risks. Furthermore, the plan considered the cascading effects of volcanic hazards, including ashfall and gas emissions along with their implications for public health.

The geographical coverage of this plan was limited to Balete, Batangas, which is located 14 to 17 kilometers from Taal Volcano and was significantly affected by ashfall and air pollution during eruptions. The action plan focused on analyzing respiratory health issues linked to exposure to volcanic ash. It also assessed trends for respiratory illnesses among different demographic groups, particularly children, the elderly, and individuals with pre-existing lung conditions. The action plan used municipal health report data and community surveys to gather information on health outcomes over time.

Despite its comprehensive approach, the plan had several limitations. First, it did not cover broader public health impacts beyond respiratory diseases, such as mental health issues, waterborne diseases, or economic disruptions. It also did not include other municipalities affected by the eruption, as the focus remains specifically on Balete, Batangas.

Furthermore, the implementation of mitigation strategies was dependent upon external factors such as the availability of LGU funds, government policies, and active community participation. The effectiveness of public health interventions depends on successful coordination among agencies, timely allocation of resources, continued cooperation of the residents of Balete in attending health screenings and following recommended preventive measures and sustained public awareness campaigns.

III. METHODOLOGIES OF THE PLAN

To thoroughly understand the multi-hazard context in Balete, Batangas and develop targeted interventions for respiratory health issues caused by volcanic eruptions, this action plan employed a combination of descriptive, exploratory, and documentary research methods. The descriptive phase involved collecting baseline data through surveys that assessed the prevalence of respiratory illnesses, community awareness on volcanic hazards and the preparedness measures implemented by the local government. These surveys provided valuable insights into existing service gaps in public health and disaster response, forming the foundation for the proposed action plan.

Following this, the exploratory phase involved site visits to healthcare facilities and community areas to directly observe the resources, challenges, and ongoing efforts in managing respiratory health during volcanic events. These visits offered practical understanding to identify relevant programs and interventions. Complementing the primary data, documentary analysis was conducted by reviewing contingency plans, municipal health reports, PHIVOLCS advisories, and past incident records from the MDRRMO.

IV. ASSUMPTIONS OF THE PLAN

The implementation of this action plan rests on several key assumptions concerning economic stability, stakeholder cooperation, policy continuity, and environmental predictability. It is assumed that despite the disruption caused by volcanic activity, the local economy in Balete will remain sufficiently stable to support the execution of proposed interventions. This includes the continued operation of local markets and accessibility of basic goods and services. Political stability at both the local and national levels is also presumed, ensuring a consistent regulatory environment and support for public health and disaster response policies.

Additionally, it is assumed that any modifications to health and safety regulations will align with the evolving needs of the community and not hinder the plan's implementation.

The action plan also assumes strong collaboration among all key stakeholders, including the Municipal Health Office, local government units, non-governmental organizations, and community members. It relies on the active participation of residents in health education campaigns, adherence to preventive measures, and involvement in community-based monitoring. Furthermore, the continuity of government support for public health and disaster preparedness is assumed, even amidst potential political transitions. Finally, it is assumed that volcanic activity will remain within manageable levels and that environmental fluctuations, such as ashfall or gas emissions, can be addressed effectively through existing mitigation strategies.

V. SITUATIONAL ANALYSIS

Globally, volcanic disasters have been associated with major public health crises. Events in Iceland, Indonesia, and the Philippines have all demonstrated the serious impact of volcanic gases like sulfur dioxide and particulate matter on human respiratory systems. Locally, the 2020 eruption of Taal Volcano caused over 1,700 reported respiratory cases across evacuation centers, highlighting the urgent need for action.

Based on the Balete probability and impact ratings of hazards, Volcanic Eruption/ash fall ranked 1st as the main hazards followed by Typhoon and Rain-Induced Flooding ranked 2nd while Rain-Induced Landslide, and Earthquake ranked 4th and 3rd respectively. Based on historical records, Ash falls, and Volcanic eruption left most devastation in properties and threat to life and economically affected the whole community. Most recent volcanic eruption occurred in January 2020 and rehabilitation from the event lasted for over a year. The heavy ashfall damaged farmlands, water sources, and local businesses, further exacerbating the vulnerabilities of the population.

Table 1

Hazard Probability and Impact Ratings

According to the Field Health Service Information

HAZARD	PROBABILITY		IMPACT		AVERAGE	RANK
	RATE	REMARKS	RATE	REMARKS	$\frac{P+I}{2}$	
Typhoon	4	Geographic location Past experiences	4	Most community live near the coast line	4	2
Rain-Induced Flooding	4	Geographic location Past experiences	4	Communities near flooding prone area and river beds	4	2
Rain-Induced Landslide	2	Geographic location Past experiences	1	Community live in landslide prone area	1.5	4
Earthquake	3	Geographic location Past experiences	3	Communities near Laguna fault line	3	3
Volcanic Eruption/Ash Fall	4	Geographic location Past experiences	5	Most communities live in near Taal Lake	4.5	1

System (FHSIS) of Balete Municipal Health Office (MHO), from year 2020 to 2024 there were 1,625 total cases of Acute Upper Respiratory Infections recorded averaging 325 cases yearly. Based on the morbidity report the aged group predominantly affected by respiratory infections includes individual aged 1 - 4 years old, followed by those aged 5 - 9 years old and infants under 1 year of age. Presently, according to the nurse assigned in the MHO and the head of the Municipal Disaster Risk Reduction Management Office (MDRRMO), there is no available confirmatory test to ascertain if respiratory diseases are due to volcanic ash or other contributing factors.

The total number of cases peaked in 2023, reaching 482, which marked a significant increase compared to previous years. This surged may be attributed to environmental factors such as volcanic emissions, seasonal changes, or potential disease outbreaks.

Table 2

Morbidity Report Balete, Batangas

ACUTE UPPER RESPIRATORY INFECTIONS				
YEAR	UNDER 1 YEAR OF AGE	1 - 4 YEARS OLD	5 - 9 YEARS OLD	TOTAL (Under 1 to 70 Above)
2020	41	49	43	301
2021	67	84	28	281
2022	58	106	65	340
2023	96	151	104	482
2024	27	64	50	221

Source: FHSIS Morbidity Report (Municipal Health Office of Balete ,2020 - 2024)

5.1 RESULTS FROM SURVEY

5.1.1 Demographic Profile

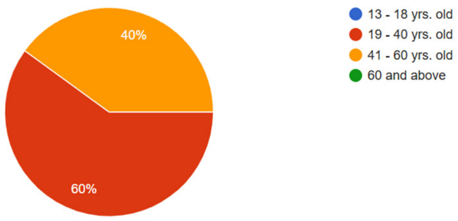

Figure 2 *Age Distribution*

Figure 2 illustrates the age distribution of the 30 survey respondents. The majority (60%) belong to the 19–40 years old age group, indicating that a significant portion of the respondents are young to middle-aged adults. Meanwhile, 40% fall within the 41–60 years old category. There were no recorded responses from the 13–18 years old and 60 and above age groups.

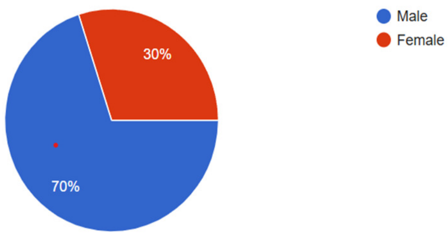

Figure 3 *Sex Distribution*

Figure 3 illustrates the sex distribution of survey respondents, with 70% male and 30% female participation. The significant male representation provided valuable insights into their perspectives on volcanic health risks and preparedness. Meanwhile, the 30% female participation ensured that women's voices and concerns were also reflected in the action plan.

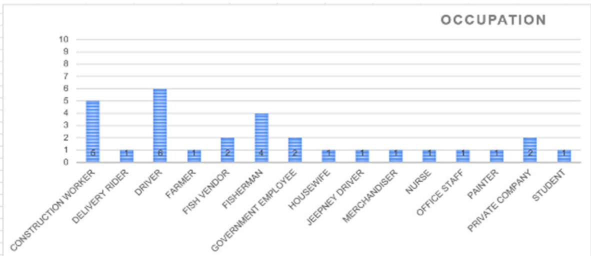

Figure 4 *Occupation*

Figure 4 presents the occupational distribution of 30 survey respondents, showcasing a diverse range of professions. Most respondents were drivers (6), construction workers (5), and government employees (4), indicating strong representation from labor-intensive and public service sectors. Other occupations, such as fishermen, private company employees, and housewives, were also present, contributing to a well-rounded perspective on community experiences.

The presence of various job roles, including farmers, vendors, healthcare workers, and students, enriches the dataset, ensuring that insights reflect different socioeconomic backgrounds.

5.1.2 General Knowledge Pertaining Volcanic Eruption and Public Health

To help visualize status of knowledge of residents in Balete, Batangas pertaining to volcanic hazards and public health is presented in the figure below.

Table 3

Awareness and Knowledge

Section 1	Weighted Mean	Verbal Interpretation
I am aware of the dangers caused by volcanic eruptions.	4.20	Agree
I have received sufficient information from authorities regarding volcanic eruptions.	3.93	Neutral (Neither agree nor disagree)
I understand the warning signs of a possible volcanic eruption.	4.47	Agree
I know what to do in the event of a volcanic eruption.	4.53	Agree
I have participated in community disaster preparedness programs related to volcanic eruptions.	4.53	Agree

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly Disagree

Table 3 showed results on awareness and knowledge among respondents regarding volcanic eruptions. Most participants agree that they were aware of the dangers posed by volcanic eruptions (4.20 weighted mean) and that they were able to identify the warning signs of a possible eruption (4.47 weighted means).

Additionally, respondents were confident about knowing what actions to take in the event of an eruption and participated in community disaster preparedness programs related to volcanic eruptions (4.53 weighted mean). These positive responses suggested that the community had a solid understanding of volcanic hazards and emergency procedures.

Table 4

General Health Condition

Section 2	Weighted Mean	Verbal Interpretation
I have experienced more severe respiratory symptoms (e.g., cough, shortness of breath) after the volcanic eruption.	3.73	Neutral (Neither agree nor disagree)
My pre-existing respiratory condition (e.g., asthma, bronchitis) worsened after the volcanic eruption.	3.97	Neutral (Neither agree nor disagree)
I have noticed a decline in my overall health since the volcanic eruption.	3.00	Neutral (Neither agree nor disagree)
I frequently experience throat irritation or dryness after the eruption.	3.27	Neutral (Neither agree nor disagree)
I have sought medical attention due to respiratory issues after the volcanic eruption.	3.17	Neutral (Neither agree nor disagree)

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly Disagree

The results reflected a neutral stance among respondents regarding the impact of the volcanic eruption on their general health condition. The weighted means for all statements ranged from 3.00 to 3.97, indicating that, overall, respondents neither strongly agreed nor strongly disagreed with the statements.

Table 5

Exposure to Volcanic Ash

Section 3	Weighted Mean	Verbal Interpretation
I was exposed to volcanic ash during or after the eruption.	3.73	Neutral (Neither agree nor disagree)
I used protective equipment (e.g., face mask) during ashfall.	4.40	Agree
Volcanic ash has significantly affected the air quality in our community.	4.47	Agree
I have difficulty breathing when exposed to volcanic ash.	4.10	Agree
I take precautions (e.g., staying indoors, using an air purifier) to reduce exposure to volcanic ash.	3.97	Neutral (Neither agree nor disagree)

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly Disagree

Table 5 results indicated that respondents had varying experiences regarding exposure to volcanic ash during and/or after the eruption. While some individuals were exposed (3.73 weighted mean), many actively took protective measures to mitigate its effects.

Table 6

Preparedness and Safety Measures

Section 4	Weighted Mean	Verbal Interpretation
My family has an emergency kit prepared for a volcanic eruption.	4.20	Agree
I know the evacuation routes in our area in case of an eruption.	4.40	Agree
My family has a communication plan in case of an emergency.	4.30	Agree
There are adequate and easily accessible shelters in our community in case of an eruption.	4.17	Agree
I trust the emergency plans of our local government.	4.40	Agree

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly Disagree

Table 6 showed that respondents had demonstrated a high level of preparedness and safety measures in response to a volcanic eruption. A significant number of families had emergency kits prepared (4.20 weighted mean) and were knowledgeable about evacuation routes in their area (4.40 weighted mean), indicating proactive disaster readiness.

Table 7

Environmental and Health Impact

Section 5	Weighted Mean	Verbal Interpretation
The volcanic eruption has significantly affected the air quality in our community.	4.47	Agree
Exposure to volcanic ash has caused me respiratory or health problems.	4.03	Agree
The volcanic eruption has negatively impacted the water and food supply in our area.	4.10	Agree
The noise and tremors from the eruption have caused stress and anxiety in our community.	4.37	Agree
I trust the emergency plans of our local government.	4.23	Agree

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly Disagree

The results in Table 7 showed that the volcanic eruption had significantly affected both the environment and public health. Respondents agreed that air quality had been severely impacted (4.47 weighted mean), suggesting that ashfall and emissions had contributed to atmospheric pollution in the community.

Table 8

Economic and Social Impact

Section 6	Weighted Mean	Verbal Interpretation
The volcanic eruption has negatively affected my job or livelihood.	4.47	Agree
Our community has suffered economic losses due to the volcanic eruption.	4.27	Agree
The tourism industry in our area has been significantly impacted by the volcanic eruption.	4.53	Agree
The eruption has caused the displacement and relocation of families in our community.	4.43	Agree
There is sufficient aid from the government and private organizations for affected communities.	4.13	Agree

Legend: 5 - *Strongly Agree*, 4 - *Agree*, 3 - *Neutral*, 2 - *Disagree*, 1 - *Strongly Disagree*

The volcanic eruption significantly impacted both the economic and social aspects of the affected community. Table 14 showed that most respondents agreed that their jobs and livelihoods had been negatively affected (4.47 weighted mean), demonstrating the widespread economic disruption caused by the disaster. Likewise, the majority agreed that the eruption had led to economic losses within the community (4.27 weighted mean).

5.2 PESTEL ANAYSIS

5.2.1 Political

Balete's LGU has strong support from local leaders, particularly for health, education, and disaster programs. Monthly Local Health Board meetings ensure alignment with policies. However, limited local funding and delays in national budget allocations pose sustainability challenges.

5.2.2 Economic

The eruption disrupted agriculture, fisheries, and tourism, Balete's main income sources. As a 4th class municipality, economic recovery is slow due to low investor confidence and poverty. Insufficient funds hinder healthcare improvements, though aid from government and private groups provides some relief.

5.2.3 Social

The displacement and health risks from ash exposure heightened public concern. While community unity aided recovery, lack of awareness about respiratory illnesses led to poor health-seeking behavior. Poverty further limits access to protective gear and proper nutrition.

5.2.4 Technological

The LGU installed CCTVs and uses systems like FHSIS for health monitoring. However, poor internet connectivity near Taal Lake hinders data access and digital health services. There is a need for improved ICT infrastructure to fully support emergency management.

5.2.5 Environmental

The Volcanic Ashfall has damaged air quality, water sources, and ecosystems. The barangay on Taal Volcano Island, like Calawit, suffered severe ecological and structural damage. An emergency water treatment and cleanup operations were necessary to restore safety.

5.2.6 Legal

The LGU followed RA 10121 protocols for disaster response, enabling access to emergency funds and health regulations. Legal issues include delays in resettlement due to land disputes. The aid distribution was guided by national rules to ensure fairness and transparency.

5.3 SWOC Analysis

Table 9
SWOC Analysis

STRENGTHS	WEAKNESSES
Strong leadership in DRRM	4th class municipality, limited financial resources
Health is one of the priorities of the Local Chief Executive	Workforce shortage on the health unit
Local Health Board (LHB) of the Municipality of Balete is well-functioning.	Safety policies for emergency responders and municipal workers had not been strictly implemented in all departments
MHO had an updated report on their FHSIS	
Strong partnership with some NGO and Civil Society Organization (CSO)	Lack of advanced technological tools for real-time monitoring
OPPORTUNITIES	**CHALLENGES**
Established valuable partnerships with various stakeholders that sponsor free chest mobile X-ray services 2-4 times a year	Collecting and analyzing up-to-date disaster data due to unavailability of advanced technology
Investment in infrastructure improvements	Budget constraints
Social media platforms to improve the dissemination of emergency alerts	Coordination among municipal agencies involved in disaster management, protocols and priorities was considered as additional task.
Strengthening, reorganization and updating the council member	

VI. ACTION PLAN

Table 10
Action Plan for Goal 1 Objective 1.1

Goal 1	Reduce the health risks and respiratory diseases caused by volcanic eruptions through proactive measures.
Objective 1.1	To identify and map high-risk areas in Balete, Batangas for respiratory diseases due to volcanic ash exposure semi-annually.
Outcome	Improved identification and understanding of high-risk areas in Balete, Batangas, leading to targeted health interventions and reduced respiratory disease incidence related to volcanic ash exposure.
Programs, Projects, and Activities (PPA)	1.1.1 Conduct geospatial risk assessment and mapping 1.1.2. Community health survey on respiratory conditions

This outlines a proactive action plan under Goal 1, which aims to reduce respiratory health risks associated with volcanic eruptions by enhancing public preparedness and reinforcing early warning systems. It specifically targets the improvement of respiratory health protection strategies through semi-annual interventions, aiming to elevate public awareness, foster timely response to volcanic ash exposure, and strengthen community-based risk communication.

Table 11
Action Plan for Goal 1 Objective 1.2

Goal 1	Reduce the health risks and respiratory diseases caused by volcanic eruptions through proactive measures.
Objective 1.2	To promote early warning systems and risk communication strategies for respiratory health protection semi-annually.
Outcome	Enhanced public awareness, preparedness, and timely response to volcanic ash exposure through early warning systems and consistent risk communication efforts, resulting in improved respiratory health protection in Balete.
Programs, Projects, and Activities (PPA)	1.2.1 Maintain early warning devices and signage 1.2.2 Strengthen community information drives and provision of IEC materials.

This objective aims to mitigate health risks and respiratory illnesses caused by volcanic eruptions through proactive interventions. Specifically, it seeks to enhance respiratory health protection strategies semi-annually. The outcome targets heightened public awareness, preparedness, and timely responses to volcanic ash exposure by reinforcing early warning systems and consistent risk communication.

Table 12
Action Plan for Goal 1 Objective 1.3

Goal 1	Reduce the health risks and respiratory diseases caused by volcanic eruptions through proactive measures.
Objective 1.3	To strengthen public health policies related to volcanic ash exposure and respiratory disease prevention semi-annually.
Outcome	Strengthened implementation and awareness of public health policies addressing volcanic ash exposure and respiratory health.
Programs, Projects, and Activities (PPA)	1.3.1 Conduct of health policy review and stakeholders' consultation on volcanic ash health impacts

	1.3.2 Procurement and distribution of respiratory protection kits (N95 face masks) and other medical supplies.

MHO of Balete will be tapped and supervise the monitoring and implementation of this PPA.

Table 13
Action Plan for Goal 2 Objective 2.1

Goal 2	Enhance community awareness and readiness in managing respiratory health risks before, during and after a volcanic eruption.
Objective 2.1	To conduct daily public awareness campaigns on the health effects of volcanic ash and preventive measures.
Outcome	Increased community knowledge and adoption of protective measures against volcanic ash-related respiratory illnesses.
Programs, Projects, and Activities (PPA)	2.1.1 Intensify engagement on social media (Facebook) platform for Volcanic Ash and Respiratory Illness Awareness program.

The Municipal Information Office of Balete will share daily updates on their official Facebook page anything related to Taal Volcano . They will also be tasked to monitor if post messages were effectively reached and educated the target population in the Municipality.

Table 14
Action Plan for Goal 2 Objective 2.2

Goal 2	Enhance community awareness and readiness in managing respiratory health risks before, during and after a volcanic eruption.
Objective 2.2	To train local healthcare workers in early detection and management of respiratory illnesses related to volcanic ash semi-annually.
Outcome	Improved capacity of local healthcare workers in the early detection and management of volcanic ash-related respiratory illnesses.
Programs, Projects, and Activities (PPA)	2.2.1.Training and Capacity Building Program 2.2.2. Development of Standardized Clinical Guidelines and Protocols

The effectiveness of this PPA will be checked on the submitted annual report from the MHO. This report must contain the date and venue of the trainings conducted, the list of participants, and the feedback from the participants on their learning and insights about the training.

Table 15
Action Plan for Goal 2 Objective 2.3

Goal 2	Enhance community awareness and readiness in managing respiratory health risks before, during and after a volcanic eruption.
Objective 2.3	To develop community-based health response plans, including emergency medical services and evacuation procedures annually.
Outcome	Established and annually updated community-based response plans that include clear emergency medical services and evacuation procedures for volcanic eruption scenarios.
Programs, Projects, and Activities (PPA)	2.3.1. Community-based Response Program Review and Planning Workshop

One (1) signed and approved municipal ordinance will be for strict implementation by the MHO to ensure that all policies are strictly observed and followed.

Table 16
Action Plan for Goal 2 Objective 2.4

Goal 3	Enhance community awareness and readiness in managing respiratory health risks before, during and after a volcanic eruption.
Objective 2.4	To reduce health risks and strengthen early warning systems by establishing volcanic air quality monitoring within the next 12 months for timely detection and response to hazardous emissions.
Outcome	Improved public safety and health through timely detection and response to volcanic air pollution.
Programs, Projects, and Activities (PPA)	2.4.1 Installation of volcanic air quality monitoring stations in high-risk areas

To accurately check that all respiratory disease is triggered by the volcanic ash, this PPA should be prioritized. Though Balete is a 4th class municipality, there are many CSO and Private Organization that can be tapped to fund this Project.

Table 17
Action Plan for Goal 3 Objective 3.1

Goal 3	Ensure immediate and effective healthcare intervention to minimize the impact of respiratory diseases caused by volcanic eruptions.
Objective 3.1	To establish temporary health stations and mobile clinics to provide respiratory care during eruptions as need arises.
Outcome	Timely and accessible respiratory healthcare services provided through established temporary health stations and mobile clinics during volcanic eruptions.
Programs, Projects, and Activities (PPA)	3.1.1. Installation of Temporary Health Station and Mobile Clinics on Evacuation Centers (EC) 3.1.2. Training of Medical and Support Personnel for Temporary Health Stations and Mobile Clinics

It is essential to ensure that during disaster response operations, not only are safe and secure shelters provided for Internally Displaced Persons (IDPs), but that integrated health support services are also established within the area. This facility plays a critical role in maintaining the well-being and resilience of displaced populations, particularly in preventing the outbreak of diseases and responding to urgent medical needs.

Table 18
Action Plan for Goal 4 Objective 4.1

Goal 4	Restore public health systems and improve resilience against respiratory diseases in post-eruption recovery.
Objective 4.1	To strengthen healthcare infrastructure and services to support respiratory disease management within a year.
Outcome	Enhanced and resilient healthcare infrastructure and services capable of effectively managing respiratory diseases in Balete, Batangas post-volcanic eruption.
Programs, Projects, and Activities (PPA)	4.1.1. Rehabilitation and upgrade of existing health facilities damaged by the eruption. 4.1.2.Conduct partnership meetings to tap stakeholders for establishing a Respiratory Disease Surveillance and Monitoring System

The main task here is to restore and rehabilitate the damaged facilities and create a MOA with target partners for funding source.

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