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The Role of the Armed Forces of the Philippines (AFP) in Disaster Response and Adaptation Strategies to Climatic Disasters in Manila

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in Disaster Response and Adaptation Strategies to Climatic Disasters in Manila

by

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Abstract

This study described the roles of the Armed Forces of the Philippines (AFP) in Disaster Risk Reduction Management (DRRM) in Metro Manila and how climate-induced hazards impact the role of the military. It used a qualitative approach, which involved semi-structured interviews among AFP officers and barangay leaders with expertise and experience in DRRM and an analysis of selected policy documents and military doctrine. These methods revealed that: (1) the military acts as a political first-aid, since they are the first responders – thus, the face of the local government – in climactic disasters during peacetime; (2) the military is an instant materiel upgrade for local government units that have limited capacity in responding to disasters, and; (3) the military performs as disaster managers, oftentimes taking up civilian functions in key government officers, NGOs, and civil society.

While the AFP plays a vital role in ensuring public safety and maintaining order during and after climatic disasters, the AFP officers and barangay leaders interviewed repeatedly expressed the importance of preparedness and risk reduction in addressing climatic disasters. Thus, they help enforce evacuation orders, prevent looting and other criminal activities, and support the overall security of affected communities. Their presence provides reassurance and stability, allowing relief and recovery operations to proceed smoothly. They actively participate in capacity-building initiatives, training programs, and disaster simulations to enhance their readiness and response capabilities. By improving their preparedness, the AFP aims to minimize the impact of climatic disasters on Manila and its residents. Overall, the AFP's involvement ranges from immediate assistance to

long-term recovery efforts, safeguarding lives, and well-being in the face of climate-related hazards. And as natural disasters and conflict is increasing, there will be an increased demand for humanitarian assistance, sometimes in areas that are also impacted by an ongoing conflict. In the case of Metro Manila, principled and historically sensitive humanitarian civil-military coordination is essential to the safety and security of residents.

Dedication/Acknowledgements

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annual disasters. Your strength and resilience will continue to inspire many around the world.

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Glossary or List of Abbreviations

AFP	Armed Forces of the Philippines
CMO	Civil-Military Operations
DRRM	Disaster Risk Reduction Management
HADR	Humanitarian Assistance and Disaster Relief
NCR	National Capital Region
NDRRMC	National Disaster Risk Reduction Management Council
OCD	Office of the Civil Defense

INTRODUCTION

One of the most disaster-prone places in the world is Manila[1] in the Philippines. Metro Manila experiences some of the world's worst natural disasters, as a result of geological (e.g., earthquakes, volcanic eruptions, and tsunamis) and hydrometeorological (e.g., tropical cyclones and floods) hazards due to the Philippines' location in the "Pacific Ring of Fire" (PAGASA, 2023). The Philippines experiences an annual average of 22 tropical cyclones, which causes six or seven significant damages in lives and livelihoods annually (UN OCHA, 2022).

This condition is intensified by the presence and urbanization activies of 14.4 million residents, making Metro Manila one of the world's most densely populated city with 111,002 people per square mile (Dariagan, Atando & Asis, 2021). The concentration of people is mainly attributed to the constant rural-urban migration, as expressed in this blog from World Bank:

> "Of the almost 15 million people who live in Metro Manila, about 3 million live in informal settlements. They live in houses made of tin, plywood, and plastic sheeting, many built under bridges or on stilts over creeks and rivers… In the last several decades, millions of Filipinos have flocked to Manila from their hometowns in the countryside or on the islands, in search of jobs and better education and opportunities for their children. Many of these

[1] The name "Manila" can mean two things: first, the City of Manila or the capital of the Philippines and second, Metro Manila, which is officially called the National Capital Region (NCR). This region is made up of 16 highly urbanized cities and one municipality, which includes the City of Manila (PhilAtlas, 2023). This study refers to Metro Manila.

> settlements are in disaster-prone areas along Manila's many waterways that rapidly flood during monsoonal rains" (Warwick, 2017).

About four million people in Manila live in informal settlements (Ajibade, 2019). Yet year after year, disaster after disaster, Filipinos are expected to be resilient in the face of life-threatening disasters. Municipal governments in the Philippines help to mitigate the poverty impact of these disasters by allocating more fiscal resources to develop local resilience but could focus more on building social capital, protecting the environment, and inspiring a movement to demand systematic reform from the government to form a stronger, more resilient Philippines (Jha, Martinez, Quising, Ardaniel, & Wang, 2018). This is because disasters not only leave the government vulnerable, but these also amplify existing injustices (Veszteg, Funaki & Tanaka, 2015).

Around 71% of Filipinos do not have personal preparedness plans (Teves, 2021), which is crucial to overcome social and systemic flaws to prepare for natural disasters (Cutler, et al, 2017). Adapting to climate change has then become a major issue, especially for megacities in the global South where typhoons grow more intense with climate change and political challenges in the country (Queblatin, 2020). It is no surprise then that the Philippines uses its military as its first responders during disasters.

The Armed Forces of the Philippines (AFP) has been playing a major role in the humanitarian assistance and disaster relief (HADR) efforts of the Philippine government through its Civil-Military Operations (CMO). The AFP has been a key stakeholder in facilitating, coordinating, and delivering joint aid and disaster response due to its unique capabilities: massive logistical equipment and highly organized body of "volunteers" that

are specially trained and can be quickly deployed even in the most hazardous environments (A. Yano, personal communication, 22 August 2022).

However, using the military to respond to disasters generates complications in regions suffering from conflict and exposure to natural hazards, particularly in regions where the military is asked to simultaneously provide defense and national security operations (Teves, 2021; Bollettino & Manzanero, 2022). The reliance on the military also reduces, albeit unintentionally, the role of civil societies and local government units (LGU) in fostering adaptation strategies from "within" (Trajano, 2016). Although these challenges are recognized by military officials and humanitarian experts, the "non-traditional" role of the military in humanitarian and disaster response remains to be least examined.

Research Questions

This study aims to further the understanding of resilience, disaster preparedness, and military responses to disasters in Metro Manila. The findings could also be relevant to other similarly situated cities across the global south. The following research questions are my guide for understanding and identifying prospects of reform and approaches to the AFP's role in disaster response in Manila:

1. What is the role of the Armed Forces of the Philippines (AFP) in addressing intersecting hazards in Manila, specifically in Disaster Risk Reduction Management (DRRM)?

2. How do AFP preparations for DRRM (such as various drills, rehearsals, and trainings) lead to proactive and effective disaster response?
3. What are the unique adaptation strategies of the AFP to intersecting hazards (such as floods and earthquakes) (considering its limited resources and personnel)?

THEORETICAL FRAMEWORK

The military's role in responding to disasters in marginalized communities in the Philippines necessitates an understanding of the factors that contribute to: (1) conflict dynamics and (2) community resilience and disaster risk preparedness (Ajibade, 2019). I therefore used the lenses of military operations, environmental justice, social vulnerability, and urban political ecology to examine AFP's unique role in disaster response and formation of climate adaptation strategies in a highly urbanized Manila.

Environmental justice recognizes that the segments of society which contributed the least to environmental degradation are disproportionately exposed to the resulting harm. There is an imbalance between those who benefit from economic activity and those who bear its adverse social and environmental impacts (Atapattu, Gonzales & Seck, 2021). Those who suffer more have an increased potential to experience harm – this is what is referred to as social vulnerability.

Social vulnerability refers to the circumstances (such as poverty, minority status, employment status, household composition, vehicle access, etc.) that affect the capacity of a person or a community to anticipate, confront, repair, and recover from the effects of a disaster. The higher the level of social vulnerability, the more difficult recovery becomes.

Providing a focus on attending to the needs of the most vulnerable also helps in addressing the historic inequities in disaster management (Johnson, Herz & Bell, 2021).

Urban political ecology is a conceptual approach to understanding the ways in which political, economic, and ecological processes work together to transform cities and the lives of the people who live in them (Heynen, 2017). Contributions to this field often question the status of powerful actors (e.g., governments, businesses, conservation organizations) and what is taken for granted in the coproduction of nature and society in cities (Benjaminsen & Svarstad, 2019).

In the lens of military operations, these concepts can be characterized by the complex dynamics of civil-military coordination during disaster response. The traditional distinctions and divisions between civilian and military actors are constantly evolving. This may initially prove to be practical in an urgent setting, but problematic strategically in the long run. For example, the increasing military involvement in national (and international) disasters may facilitate political motivations that "shows to the public that the leadership is committed to a fast and efficient resolution of the crisis or to divert attention from failed disaster preparation and prevention" (Bollen & Kalkman, 2022, p.80).

The Republic Act (RA) 10121 or the National Disaster Risk Reduction and Management Act of 2010 provides the legal basis for disaster management in the Philippines. This law lays the foundation for more resilient local communities that can better prepare for and respond to natural hazards. This framework provides a stable national government support to the National Disaster Risk Reduction and Management Council (NDRRMC) which has jurisdiction over disaster management at the national level. The NDRRMC includes leaders of various government departments and is supervised by the

Office of Civil Defense (OCD) (Bollettino & Manzanero, 2022). This national structure is mirrored down to the smallest political unit or barangay, each hosting its own Local Disaster Risk Reduction and Management Office (LDRRMO) (Teves, 2021).

The Armed Forces of the Philippines (AFP), and OCD are members of the NDRRMC. Therefore, the law in the Philippines includes the involvement of the AFP in disaster response. When there are climate-induced disasters, the AFP is involved, through the NDRRMC at the national level down to other administrative levels through the LDRRMO (Dariagan et al, 2021). In fact, one important operational reform of the AFP after Typhoon Haiyan (which happened in 2013, three years after RA 10121 was enacted into law) is the activation of one battalion each from the Army, Air Force, and Navy that is fully equipped and dedicated for HADR missions (Trajano, 2016). This allows the immediate deployment of troops in any part of the country that is severely hit by a disaster.

It must be noted, however, that the Philippines "has long been embarking on security sector reform aimed at professionalizing the military as well as insulating it from partisan politics. The AFP has a history of political intervention and high military restiveness…The aftermath of a disaster tends to show the ineffectiveness of some civilian officials who have been mandated to lead massive HADR operations, but instead relied on the capability of the Philippine military" (Trajano, 2016, p.6).

Thus, there is a need to reflect on: (1) the guidelines, principles, and goals of the Philippine military's participation in disaster response; (2) the allocation of roles and responsibilities; and (3) the national cultures and histories that influence the dialogue between the military and civilian actors (particularly political leaders). This merging of urban history and disaster studies has proven its analytic significance in the investigation

of Southeast Asian cities (Douglass, 2010 and Loh, 2013), as it showed how the city's urbanization influenced the social vulnerability of its income-poor residents and how disasters further social inequality.

LOCATION OF THE STUDY

The emergence of Metro Manila as a political unit is inextricably linked to its history as a flood-prone metropolis (Pante (2016). Manila has low elevation, with its central districts less than two meters above sea level. It is also surrounded by various bodies of water: the Manila Bay to its west; the Pasig River, which bisects it and connects Manila Bay to Laguna de Bay, a lake to the east of the city; and the numerous inland estuaries, known as "esteros," which serve as the river's capillaries into the different areas of Manila. There is also the Pasig River, a system connecting smaller rivers coming from adjacent places, like Marikina, Pateros, and San Juan (MPCC 1954).

In the Spanish colonial period, Manila was usually transformed into a vast lake, with surrounding areas also vulnerable during the rainy season. The rapid urbanization and increase in commercial activity during the nineteenth century polluted Manila's waterways and drainage system. When the Americans came to Manila, they "found the city to be (in their mind) dirty, filthy, unhygienic, prone to communicable mass diseases such as cholera and typhoid fever, plagued by malaria and dengue; a miserable, backward, and dingy provincial town devoid of any comfort, modern amenities, and conveniences" (Saloma & Akpedonu, 2021, p.718). Thus, the first few years of the new colonizers were spent on sanitary engineering and the mass inculcation of personal and communal hygiene. They

built a citywide sewage and draining system, which was ranked as “among the best installations in the Orient” (Pante, 2016, p.559).

Urban planning in Metro Manila happens ostensibly alongside the construction and reconstruction of social relations in the context of modernist national-building (Saloma & Akpedonu, 2021). When Americans denigrated the Spanish-era municipal infrastructure, it did not just give Manila a wastewater disposal system but also an ideological bastion. “They lent credence to the Americans’ depiction of Spanish rule as autocratic and backward vis-à-vis the supposedly enlightened and progressive colonialism” (Pante, 2016).

At the individual level, modern life is the search for meanings in everyday life. However, at the societal level, modernity has a political side. The creation of national governments is intertwined with urbanization, which also facilitated the high concentration of wealth (e.g., high-end real estate development), social segregation and dispossession (marginalized migrants, sweatshops, slumification) (Saloma & Akpedonu, 2021). Despite infrastructural improvements, the flood problem never left Manila. It persisted into the Commonwealth period and even during the Second World War. The “high-modernist paradigm” produced an overreliance on expensive high-cutting technology and a centralized authority mindset to ensure efficiency. The war also resulted in rapid rural-to-urban migration, which created informal settlers (Pante, 2016).

Here, urban planning can be viewed as a project of meeting human needs ((Saloma & Akpedonu, 2021). But, for local officials, informal settlers were themselves a socioeconomic hazard. As such, Manila’s drainage committee recommended the eviction of all estero squatters, which has become a convenient justification even until now (Pante, 2016).

In the postwar decades prior to Martial Law, the growing power of local governments paved the way for the notion of an "expanded Manila." It became more widely accepted since local governments can ignore one another under the guise of 'autonomy.' However, the plans to address the flooding problems in Metro Manila were centralized under the Marcos administration. Although there were reforms in the transfer of responsibility during the post-Martial Law era, the metropolis still depends on the flood-control structures that were built and formatted during the Marcos administration (Pante, 2016). One could say that the incomplete implementation of urban plans which are central to imaginaries of better and equitable modern Metro Manila can ultimately be traced back to a lack of political will (Saloma & Akpedonu, 2021). And the use of the military during disasters is one strong indication of this complex, if not problematic, dynamic.

POSITIONALITY STATEMENT

I agree with other Filipino thinkers who believe that the value of social inquiry is to expose one's self to data and to organize one's observations so it can help rebuild social institutions (David, 2001). This form of constructivism allows for sociological imagination that encourages a person to search for collective solutions to shared problems (Mills, 1959).

In particular, I am a member of the United States Army and a proud Filipino-American. These positionalities have permitted access to groups that may not have been open to research or interviews by other individuals. It also allowed me to analyze the data through the lens of a military function expert, a scholar, and a researcher.

METHODOLOGY

This study aims to further the understanding of resilience, disaster preparedness, and military response to disasters in Metro Manila. Furthermore, the findings of this study could be relevant to other similarly situated cities across the global South. To achieve these goals, I used a qualitative approach which involved: (1) conducting semi-structured interviews with purposely sampled participants for their expertise and experience in DRRM and military operations and (2) analyzing policy documents and military doctrine. Qualitative methods provide rich descriptions of complex phenomena, give voice to those whose views are rarely heard, and thereby illuminate the experience and interpretation of events by actors with widely differing stakes and roles (Sofaer, 1999). Qualitative methods have much to contribute to the area of disasters and military, as these track unexpected events and deal with rapid changes. Thus, there is a need to recognize that careful practice, if not special training and experience, is essential to the application of these methods.

SITE SELECTION

The two sites I chose to recruit participants from are: (1) Camp General Emilio Aguinaldo, and; (2) Industrial Valley Complex in Marikina.

Camp General Emilio Aguinaldo or Camp Aguinaldo is the AFP's General Headquarters in Metro Manila. It is located in Quezon City, along a major thoroughfare of the metropolis, and relatively high elevation compared to nearby cities.

Camp Aguinaldo has always been the center of military operations and response to disasters, either on a local or national scale. It is also the headquarters of various offices and military units that train for and respond to disasters, such as the Office of the Civil Defense (OCD) and the National Disaster Risk Reduction Management Council (NDRRMC). OCD is an office under the Department of National Defense (DND) and the implementing arm of the NDRRMC, a working group of various government, non-government, civil sector, and private sector organizations that is responsible for ensuring the protection and welfare of the people during disasters or emergencies.

Industrial Valley Complex is a barangay located in Marikina a city in Metro Manila that is constantly prone to floods and has close coordination with a nearby military camp, Camp Atienza, in its disaster risk preparedness and response. Camp Atienza serves as the headquarters of the 51st Engineer Brigade, Philippine Army. It used to be the location of the Marikina Waterworks during the 19th century. During Typhoon Ondoy on September 2009, Camp Atienza was affected by extreme floods due to unrelenting rains and the overflowing of the banks of Marikina River (Quezon City Public Library, 2002).

RESPONDENTS

I interviewed a retired General of the AFP, two high-ranking Officers of the AFP, the Public Affairs Officer of the Civil Engineering component of the AFP, and the Commander of the Joint Task Force-National Capital Region of the AFP. I also recruited and interviewed the barangay[2] or community leaders in the Industrial Valley Complex.

[2] Smallest political unit in the Philippines

These people were willing to address the challenges of and create positive systems that work for the overall DRRM response. Lastly, I interviewed two residents of the said barangay who had experience with prior typhoons and disasters and are active volunteers and leaders in the community.

DATA COLLECTION

To acquire the data I needed, I conducted a two-week fieldwork in Manila on August 2022. I did a total of nine semi-structured one-on-one interviews. AFP Officers and local government officials were doubly busy managing daily competing requirements. Hence, finding a common time for a sit-down discussion with other AFP officers or other members of the communities was impractical, if not impossible.

The recruitment and scheduling of interviews before the fieldwork proved essential to conduct the interviews in a timely and efficient manner. I was assisted by Ms. Arla Fontamillas, who worked with the AFP and disaster response organization in Manila. She helped me in identifying AFP Officers in Camp Aguinaldo who are leaders and experts in the operational response to help the population in times of climactic disasters. I obtained oral and written consent from the participants before engaging in this research. Ms. Fontamillas also assisted me in the interviews by translating some of my questions from English to Tagalog. As the interviewers, Ms. Fontamillas and I completed an online course on the protection of human subjects in research by the Collaborative Institutional Training Initiative (CITI) Program which provides compliance and training as required by institutions conducting research involving human subjects.

The interviews addressed four thematic areas: disaster response, disaster preparedness, disaster risk reduction and resilience, and mitigating climate change impacts through adaptation strategies. I also asked respondents about the level of military involvement and methods of coordination at the local (barangay) and regional (NCR-Metro Manila) levels.

All interviews were recorded. Additionally, I took notes while talking with the participants to highlight significant points that came up during the conversations. I also recorded my general observations and feelings about and towards the place, the participants, and the entire data collection process in a separate journal in-between interview schedules or transcribing.

After the interviews were completed, I transcribed all interviews manually since I had to translate them all from Tagalog to English. Though this was a lengthy and painful process, I found it useful to extract important information early to simplify the coding process. I coded and grouped interview responses according to their source: the military, DRRM agencies, and residents. After coding, I went through each transcribed interview to pay closer attention to the texts – the statements along with their underlying meaning. I compared and contrasted responses to each thematic area based on these categories. I present my findings or the key ideas of this research: (1) the role of the AFP as the first responders in climatic disasters during peacetime; (2) physical challenges to disaster responses, and (3) systems that work to minimize disasters.

FINDINGS

The Military as a Political First-Aid:

The AFP as First Responders in Climatic Disasters During Peacetime

The 1987 Philippine Constitution states that the AFP is the "protector of the state and the people." The increasing role of the military in delivering HADR to disaster-prone and conflict-afflicted communities in the Philippines highlights the importance of civilian control over the military, which is a democratic principle enshrined in the Philippine Constitution (Trajano, 2016).

This is supported by several interviewees who argued that the AFP's involvement in disaster response should be further lessened, while civilian agencies should be strengthened to provide direct relief. The AFP's engagement in disaster response can be seen as a distraction from the military's core mission of national security and protecting the country's sovereignty (Bolettino, 2022). An Officer of the AFP suggested:

> "Civilian agencies should be self-reliant in responding to disasters…The expectation that the military will respond to disasters conflicts with the military's first priority, [which is] addressing threats to the nation."

During conflict, the military's view borders on co-existence wherein there are low opportunities for civil-military cooperation and high risks for humanitarian activities being drawn into conflict dynamics (Bollettino & Manzanero, 2022). The AFP has increasingly

undertaken a range of humanitarian activities in other parts of the Philippines to achieve strategic or tactical objectives. This perspective was supported by other AFP Officers interviewed in terms of conflict resilience or the ability to resist or recover from conflict. There is an expectation by government agencies to use military assets and resources to provide disaster relief and initial recovery assistance.

Civilian organizations maintain a limited capacity to respond to disasters on a large scale, which results in both local government units and NGOs depending on military assistance for disaster relief. An AFP Officer in the J3 Headquarters noted that while the primary role of the military is territorial defense, its capacity and size makes it ideally suited to disaster response:

> "While other military entities across the world focus their efforts and training on counter-insurgency operations, peace-keeping operations, global-war on terrorism, the Armed Forces of the Philippines continue to not only train to defend our sovereign nation, but our training extends to being the first responders in time of any natural or man-inflicted disaster. The work of a military man or woman in the Philippines goes above and beyond the call to serve the people."

Government agencies, NGOs, and residents attest that the work of the AFP and their response efforts positively impact clean-up and search and recovery efforts in times of flooded cities impacted by annual typhoons. Respondents from the Barangay Industrial Valley Complex respect the men and women in uniform because they provide hope in

annual climatic disasters to save millions of lives. One local resident gave a first-hand account of how the AFP responds to disasters:

> "Typhoon Yolanda devastated Manila in many ways. [It] flooded streets and many residents stuck needing to be rescued. The Army and Navy were the first people we saw helping residents get into trucks. The AFP mobilized thousands of uniformed members to help and rescue many Filipinos."

However, this positive perception can be one of the impacts of political ecology that continue to plague the overall infrastructure and socio-economic inequalities of Filipinos that leave them vulnerable to extreme weather events (Dariagan et al, 2021). The Philippine government and politicians' shortcomings in hazard planning, climate adaptation, and community preparedness become tolerable for Filipinos because they use the military as an extension of their government to assist in disaster response.

One example is how politicians use the military as security escorts (a practice common in the Philippines). This can be seen as the military getting involved politically in disaster response and going against humanitarian objectives (Bollettino & Manzanero, 2022). The political presence of militaries can influence the marginalized communities to become less capable of expressing grievances arising from disasters. The impacts of disasters can reinforce a vicious cycle of insecurity and vulnerability and exacerbate anti-state grievances. If people believe that the relief or aid allocation process is corrupt or the government withholds goods from the public yet rewards those loyal to them, disaster

management decisions can generate perceptions of social injustice which validate dissent and heighten conflict (Eastin, 2017).

The Military as Instant Materiel Upgrade:

Physical Challenges to Disaster Response

From the military operations perspective, the utilization of the Philippine military during disasters does not just highlight the vulnerability of the population but the exhaustion of the limited resources available. When the Philippine military was extensively utilized during Typhoon Haiyan in 2013, it revealed how the military's limited resources hampered its ability to respond quickly and adequately to a catastrophe of such scale (Trajano, 2016). As the Public Affairs Officer of the Civil Engineering group aptly stated:

> "Resources is always the challenge. It is never enough, but it requires the skillful allocation of the scarce good from economic management. The usual problem is the jurisdiction [or the population] because the local government, being the frontliner, the Mayor always wants to be in-charge."

When a typhoon hits communities and neighborhoods, the immediate actions of residents are the most critical in defining survival or death. In Metro Manila, that crucial action is to either evacuate or stay in place. When a family evacuates, there is usually no clear guidance as to where people should retreat; thus, causing major traffic along major

roadways, leading to delays for emergency and rescue units to arrive. The Barangay Captain of Industrial Valley Complex described:

> "When there are blocked roads, traffic ensues, and assistance and aid are slow to arrive…there are limited resources or equipment for residents and first responders."

When residents stay in place, the clean-up process causes hardship for leaders and decision-makers on the ground. This is because residents' trash is frequently piled up on the major road intersections of their barangays. When this happens, roads can be blocked, traffic congestion ensues, and first responders have no way to get to the affected neighborhoods. Additionally, there are major limitations and constraints with the roads and alleyways of Manila. One resident stated that:

> "…low land areas, homes located next to the Marikina River, especially squatter-like homes are the most vulnerable in annual disasters."

Roads tend to be narrow, and tight for big trucks for aid or transportation to get through, resulting in delays in assistance to residents. According to the Public Affairs Officer of the Civil Engineering Group:

> "There is no direct assistance for residents in terms of a flood. The resident's job is to clean up their house and put garbage on the streets, which results in blocked roads."

Uncleaned and trash-filled roads lead to traffic, congestion, and diseases such as leptospirosis, which causes death (Bolletino, 2022). This is another impact of the challenging political urban ecology that is Metro Manila.

The Military as Disaster Managers:

Systems That Work to Minimize Disasters

One evident change after Typhoon Haiyan is that local governments have become more conscious of achieving "zero casualty" – a symbolic end-goal of the government to minimize disaster-related casualties. Although several humanitarian NGOs in the Philippines have already been conducting locally-led humanitarian responses before Typhoon Haiyan, disaster risk reduction management (DRRM) programs remain highly reactive or executed intermittently or only after disasters (Trajano, 2016).

As a response, through RA 1021 and the mandates of NDRRMC and OCD, the AFP continues to work with various DDRM teams in the Philippines in rehearsing and refining their efforts to have a proactive stance and response towards annual climatic disasters, particularly as part of the Search and Rescue efforts of DRRM. One organization that continues to be relied on by government leaders is the AFP engineering teams. The Public Affairs Officer of the Civil Engineering Group:

> "The AFP is supporting the disaster education programs…The philosophy of their disaster management system as well as their counter-insurgency operations is 'whole-of-nation' approach. Everything that would empower the civilian population…so that they will be cooperative and they can add more value to the system. We have a lot of earthquake drills. These are conducted in schools and at work. Government offices also participate. Communications and exercises are being done…civil-military coordination training that seek to bridge the gap between the civilian authorities. Preeminent in these exercises is the supremacy of civilian authority and it is being highlighted, that's why the mentality of the AFP during the exercises is they are there to support, not to take over the area unless it is necessary to do. But as long as the civilian authority remain actional and functional, the AFP will just do support activities."

Barangay leaders continue to rely on this assistance from the engineers. These teams consist of the Meralco Engineers and the AFP-Camp Atienza Engineers. Together, with engineers from a private company they clean drainage to prevent floods, restore rivers, and help clear roads to prevent disasters. As the Industrial Valley Complex Barangay Captain stated:

> "We are lucky to have the AFP Camp Atienza Engineers and MESCOR or Meralco [Manila Electric Company] Engineers. They respond autonomously when a typhoon or flooding strikes. When there is a Signal 4 or Signal 5

> storm, depending on proximity and access to roads, they give added manpower and engineering capabilities to barangays in Manila."

The Philippine government has also asked for the help of other countries to train and provide adaptation strategies to lessen casualties during mega typhoons. According to a retired AFP General:

> "Systems have improved in combatting climatic disasters throughout the Philippines especially in Marikina, because our government has asked for help from countries like Australia, South Korea, Japan, and the U.S. to train and provide adaptation strategies to lessen casualties during mega typhoons."

Filipino residents likewise volunteer their time to train and learn adaptation strategies. With the skills they learn, they can help neighbors during search and rescue before expert first responders arrive, thus saving many lives (Ajibade, 2019). The National Capital Region (NCR) has a robust alarm system that is widely used by the government to communicate with residents about the degree of strength or risks of flooding and typhoons. According to the DRRM Officer of Industrial Valley Complex:

> "The help of the residents in our quarterly training of volunteers is so important and it is what makes the Disaster Risk Reduction Management (DRRM) programs successful. Local barangay government disaster response

> teams are formed to combat the limited resources and delayed response by emergency personnel during climactic disasters. These teams are made up of residents who train quarterly to combat annual typhoons and floods. Part of our alarm system is also the use of Facebook to communicate information with our residents. If we have residents who care and are helpful, we will save more lives always."

Facebook is a widely used and important communication tool for Filipinos that is effective in disseminating information to the residents. The Philippines is reported to have the biggest number of Facebook users in relation to its actual population (Universal McCann, 2022). As of December 2022, the Philippines has 33,600,000 Internet users or equivalent to 74.4% penetration. Meanwhile, there are 29,890,900 Facebook users in the Philippines as of December 31, 2022 equivalent to 69.8% penetration rate (Sabino, Pulhin, Dizon, Cruz & Espaldon, 2022).

An important factor for systems like DRRM to work is the cooperation of Filipino residents. Some volunteers are residents and they continue to be supportive in attending quarterly training events. These kinds of activities strengthen social capital, which bonds diverse groups in disaster situations (Aldrich, 2015).

Social capital describes how networks and resources within the community are made available to people through their connection with others. The role of social media, particularly Facebook, in building social capital during disasters among Filipinos has allowed the population who were affected by disasters to access information and actual material/financial assistance from their families and relatives who are not affected by the

disaster. However, the role of Facebook in extending the capacity of the government to respond efficiently during disasters is still a challenge, as social media cannot address the socio-political realities of Filipino communities (Fontamillas, 2015).

The AFP-PAO suggests that the training and exercises with engineers are so important to residents and government leaders. The cleaning of the drainage and restoring rivers become important and become fast and easy to avoid floods. These are monthly actions that local government teams execute to not only prevent disasters but also build trust with the people. When relationships are developed between government teams and the residents, the easier teams can mobilize and save lives, because there is trust.

Thus, the way in which historically and culturally formed traditions and sentiments influence power dynamics between civilian and military actors during cooperation practices deserves more attention in particular. This would enable a better understanding of whether military involvement does inevitably militarize disaster response and management or whether civilian organizations also affect military approaches and core mission (Bollen & Kalkman, 2022).

CONCLUSION

This study described the roles of the military in Disaster Risk Reduction Management (DRRM) in Metro Manila and how climate-induced hazards impact the role of the military. The study also suggests systems that work for the military, government agencies, and NGOs to combat climatic disasters. With the expanding role of the Philippine military to take up civilian functions in key government officers, the space for NGOs, and

civil society also decreases. As natural disasters and conflict is increasing, climate change will almost certainly lead to an increased demand for humanitarian assistance, which will sometimes be needed in areas that are also impacted by an ongoing conflict. In the case of Metro Manila, principled and historically sensitive humanitarian civil-military coordination is essential to the safety and security of residents.

Further investigation on the plans of the Armed Forces of the Philippines (AFP), through the Office of the Civil Defense (OCD) and the National Disaster Risk Reduction Management Council (NDRRMC), on how to transition towards civilian-empowered/initiated disaster response can be explored. The details of this transition can be highly beneficial in the drawing of policy that can be practiced and appreciated, especially by the people in their own localities.

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