

Local Government-Volunteer Collaboration for Disaster Risk Management in the Philippines

ERWIN A. ALAMPAY

National College of Public Administration and Governance

CHARLIE E. CABOTAJE

National College of Public Administration and Governance

LYDIA E. ANGELES

National College of Public Administration and Governance

MARIA LORIZA G. ODULIO

National College of Public Administration and Governance

DON JEFFERY A. QUEBRAL

National College of Public Administration and Governance

The implementing rules of the Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010 make specific reference to volunteer participation. Hence, DRRM is an area where local government units (LGUs) need volunteers and have opportunities for volunteer engagement. This article provides examples of volunteering at the local level related to DRRM in the Philippines. It analyzes six cases of the Valuing Volunteering Project, which systematically presented local government and volunteer interactions by looking at how they are legally institutionalized, their systems and structure for coordination, spaces for volunteers to be involved, and their benefits. It interrogates the tension between cooperation, collaboration, and control that are inherent in the relationship between local governments and nongovernment organizations. With government policies that encourage, support, and provide spaces for civic engagement in local government, this exploration can contribute to improving the understanding of LGU-civil society organization engagements through volunteering.

Keywords: *climate change adaptation, collaborative governance, disaster risk reduction management, volunteerism*

“Most of the dead were asleep Friday night when raging floodwaters tore through their homes from swollen rivers and cascaded from mountain slopes following 12 hours of pounding rain in the southern Mindanao region. The region is unaccustomed to the typhoons that are common elsewhere in the archipelago nation.”

—Associated Press, 17 December 2011 (Typhoon Sendong/Washi)

State volcanologists who have been hunting for a hidden fault discovered a new fault system in Inabanga town that triggered the 7.2-magnitude earthquake that shook Bohol and killed hundreds.

–Diola, C. (*The Philippine Star*), 23 October 2013 (Bohol Earthquake)

“I was talking to the people of Tacloban,” said senior presidential aide Rene Almendras. “They said ‘we were ready for the wind. We were not ready for the water.’ “We tried our very best to warn everybody,” he said. “But it was really just overwhelming, especially the storm surge.”

–*Associated Press*, 11 November 2013 (Typhoon Haiyan)

The stories above seem unremarkable in a country like the Philippines, where natural disasters like typhoons, earthquakes, volcanic eruptions, and floods are common. However, while the Philippines has long been considered as one of the most prone countries to natural disasters, extreme weather conditions have become more frequent in areas in the country that were not considered vulnerable in the past. In other words, climate change has made more places vulnerable and exposed to natural hazards.

The same has been observed in other nations. The impact has accelerated faster and become more severe than anticipated, threatening natural ecosystems and human communities around the world with coastal populations, urban populations, and the fishery and agricultural sectors being most threatened (World Bank, 2013). The transboundary risks and impact associated with climate change (Benzie et al., 2018) now require all levels of government across countries to have increased vigilance with regard to disaster risk reduction and management (DRRM) and climate change adaptation (CCA).

This article documents practices of volunteer collaboration in DRRM in selected local government units (LGUs) that have been more vulnerable to natural disasters in the past and that are beginning to face climate change-related challenges. In so doing, the article aims to help inform ways for LGUs to harness and institutionalize volunteer participation to mitigate and adapt to the impact of climate change in their communities.

Review of Related Literature

DRRM and Volunteering

The impact of catastrophic natural disasters in the last three decades has sparked global interest in human and organizational response to natural disasters. Examples of such studies include the responses to the 1995 Kobe earthquake in Japan (Tierney & Goltz, 1997), Hurricane Katrina in New Orleans, USA (Brennan, Barnett, & Flint, 2005), and the 2011 Tohoku earthquake and tsunami in Japan (Daimon & Atsui, 2018; Ogawa et al., 2018).

In general, various groups get involved in disaster risk reduction work, whether from the national government, local government or civil society organizations (CSOs). Problems of coordination are encountered because of the magnitude of devastation that stretch resources and impede relief and rescue operations and logistics (Tierney & Goltz, 1997, p. 2). Local initiatives, however, are difficult to analyze because of the lack of consistency in documenting these efforts (De Leon & Pittock, 2017). Ideally, more systematic investigation, especially with regard to structures and systems of LGU-stakeholder coordination, can lead to better disaster management.

In disaster-prone countries like the Philippines, it is critical that intergovernmental responsibilities are clearly delineated and understood at all levels of government. In terms of emergency response, for instance, it is argued that there should be a key government level that possesses relevant equipment and adequate management capacity while still being close to the ground (Haddow & Bullock, 2006, pp. 78-79 as cited in Col, 2007). In the Philippines, this government level would be the LGUs, from the provincial government down to the barangays, with each having different capacities and roles. At the same time, another challenge is to enable more citizens to participate in the various phases of preparation and execution of response measures (Col, 2007, p. 122).

Coordinating various organizations at different levels is a complex and difficult undertaking (see Kapucu, Arslan, & Collins, 2010). These may involve networks that are “comprised of autonomous organizations and are essentially cooperative endeavors” (Provan & Kenis, 2008, p. 231). They are sometimes described as loosely formed associations of voluntary organizations, where the network is “based on shared values, trust, solidarity, or consensus” (Wollman, 2003, p. 59 as cited in Kapucu et al., 2010, p. 4). Hence, in such cases, getting organizations to work together is not done through bureaucratic controls, but rather through trust and relationships built. It is an important form of multiorganizational governance whose outcome, if properly coordinated, is better delivery of services for citizens (Provan & Kenis, 2008).

As disasters are experienced at the community level, many communities can expect to be on their own for the first couple of days after the impact (Col, 2007, p. 2). As such, there can be spontaneous and widespread volunteering that occurs during these catastrophic events (Tierney & Goltz, 1997, p. 3). Often, community volunteers are the first responders who act to lessen the impact of disasters in the communities (Brennan et al., 2005). This, though, may have some cultural, historical, and structural causes (see Tierney & Goltz, 1997, p. 4; Luna, 2001). For instance, a study on volunteering during disasters in Japan uses the concept of “debt” and reveals that debt increases support between former and present survivors in disasters through the “pay it forward” principle (Daimon & Atsumi, 2018).

Much of volunteers' effectiveness, however, also depends on how well volunteers can be integrated into the plans to mitigate and prepare for disasters (Col, 2007). Hence, while it is the national and local government's responsibility to protect its people and property from hazards, it is the individuals, households, and communities who have to deal with the initial impact of disasters (Dellica-Wilson, 2005).

Government, communities, and volunteers working together can have tensions, which occur when groups are brought together for the first time and have no prior basis on which to base their trust except for the shared goal to help those in need. Sometimes, the source of tension can be the slowness of the government to move, versus the spontaneous motivation of volunteers to help ease the critical situation (Anheier & Salamon, 1999).

The Philippines: Disaster-Prone but with Active Citizens

The Philippines has long been among the most vulnerable countries with respect to natural disasters as it sits in a volcano and earthquake belt, and is frequently visited by typhoons (Luna, 2001). Between 1985-2015, the country experienced 410 natural disasters that led to over 40,000 deaths and USD23 billion worth of damages (Center for Local and Regional Governance, 2018). Developing countries like the Philippines are disproportionately affected by climate-related disasters (De Leon & Pittock, 2017).

At the same time, the Philippines has a long history of participation among people's organizations in its governance, dating back to precolonial times (Buendia, 2005, p. 293). Given the history of people's participation in the country, the national government has established institutional and legal frameworks for disaster management, including mechanisms for people's participation in decisionmaking and program implementation, as provided in Republic Act (RA) 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010. This piece of legislation is important considering the long history of nongovernmental participation in relief and development (Luna, 2001).

Since most disasters are experienced at the community level, LGUs must proactively engage community volunteers, who are often the first responders, in DRRM and CCA. Hence, the country's National Risk Reduction and Management Framework and Plan is cascaded to its LGUs by creating local DRRM councils that formulate and implement their local DRRM plans (RA 10121).

The implementing rules of this law make specific reference to volunteer participation. It states that it is the policy of the state to: engage the participation of civil society organizations (CSOs), the private sector and volunteers in the government's disaster risk reduction programs towards complementation

of resources and effective delivery of services to the citizenry” (Sec. 2-m). Furthermore, the law defines CSOs as “non-state actors whose aims are neither to generate profits nor to seek governing power. CSOs unite people to advance shared goals and interests. They... include nongovernment organizations (NGOs), professional associations, foundations, independent research institutes, community-based organizations (CBOs), faith-based organizations, people’s organizations, social movements, and labor unions” (Sec. 3-c).

CSO participation is also outlined in the law to mean participation in all levels of implementation, including representation in the National Disaster Risk Reduction and Management Council (NDRRMC), and representation by four accredited CSOs in the local DRRM council (DRRMC). In particular, the law defines key terms (see Sec. 3) such as rehabilitation, risk assessment, resilience, mitigation, disaster response, preparedness, etc. that pertain to actions, measures, and capabilities that need to be built, and as areas where LGUs would most likely need volunteers to be more involved. With the passage of RA 10121 in 2010, a survey of LGUs by the Department of Interior and Local Government (DILG) in 2013 found high demand for volunteers in the area of disaster preparedness (Aked, 2014, p. 12).

As for developing an institutional framework at the local level, the goal is to establish local disaster risk reduction and management offices (LDRRMOs). It states that “[t]here shall be established an LDRRMO in every province, city and municipality, and a barangay disaster risk reduction and management committee (BDRRMC) in every barangay, which shall be responsible for setting the direction, development, implementation and coordination of disaster risk management programs within their territorial jurisdiction” (Sec. 12). When a disaster or emergency does happen, it is expected that the local DRRMCs shall take the lead in coordination¹ (Sec. 15).

In the Philippines, a number of good practices of local government coordination with volunteers have been documented. These practices include the work done in DRRM in the province of Albay (Alampay, 2017; Lasco et al., 2008) and the institutionalization of citizen involvement in Naga City through the Empowerment Ordinance and the creation of a Naga People’s Council (Cariño, 2005). In the case of DRRM and CCA, the local government is considered the government’s first line of defense (see RA 10121, Sec. 15), with the LGUs that experience frequent and severe climate hazards being more likely to be aware and responsive to the need for climate change adaptation (Lasco et al., 2008).

However, the places that are most vulnerable to climate hazards are also evolving. This was acknowledged in the DRRM Act, where it defines climate change as: “a change in climate that cannot be identified by changes in the mean and/or variability of its properties and that persists for an extended period typically decades or longer, whether due to natural variability or as

a result of human activity” (RA 10121, Sec. 3-d). With climate change, risks and vulnerabilities also change such that communities not used to extreme conditions have recently experienced large-scale natural calamities. Hence, the places that are vulnerable now may not be the same communities in the past, and the hazards may be more magnified than before. Thus, the government’s climate change policy emphasizes the convergence of climate change adaptation with disaster risk reduction and management (World Bank, 2013).

With regard to volunteerism in DRRM, volunteer groups are trying to strike a delicate balance when coordinating with government to optimize service delivery without losing control over their own resources. In Danny Burns’ reflection of this concern in one forum in 2013 on Valuing Volunteering in the Philippines (Center for Leadership Citizenship and Democracy, 2013), he said:

Coordination, and not control, [is] a very important [issue]. In any system based on relationships, diversity is essential as it ensures you don’t just end up doing one thing. Very often, when you set up structures they become controlled structures. To do something that doesn’t do this is very hard to do. While we’re all together in the same room, it’s easy to bring these discussions together but we all have different interests and other sets of objectives. If you create a unified process it can homogenize this... whereas you need all these different interests. Where has this happened before? What structures are out there which enable coordination but don’t lead to control? (p. 6)

Hence, it is the objective of this article to investigate existing structures and models in the practice of LGU-volunteer collaboration for DRRM-CCA in the Philippines. Given climate change, the article takes lessons from experienced LGUs with regard to their collaboration with local and outside volunteers in the areas of DRRM and CCA. In particular, it investigates the institutions and systems LGUs use that enable better coordination without necessarily taking control of volunteer initiatives and resources.

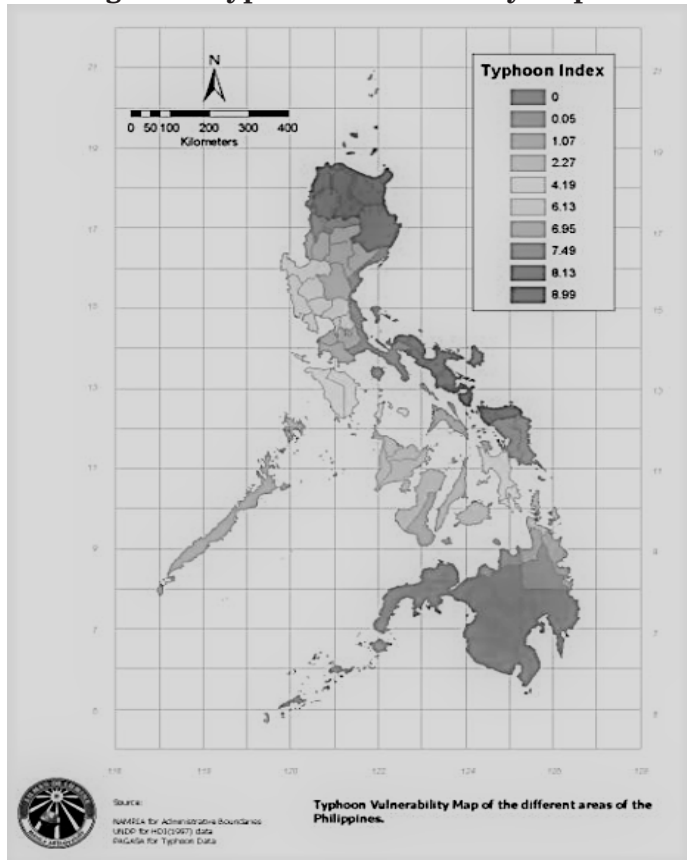
Methodology

This article is based on the content and cross-case analyses of six cases—four cases were written by the Center for Leadership, Citizenship and Democracy (CLCD) on DRRM and CCA-related LGU-volunteer interaction—as part of its Valuing Volunteering research agenda in collaboration with Voluntary Service Overseas (VSO) Bahaginan and Institute of Development Studies (IDS) (Burns, 2015).

The four cases were identified purposively. Locations where the case studies were conducted are areas where disasters have occurred in the past quarter century—roughly coinciding with the passage of the Local Government Code in 1991—or have been known to be exposed to environmental threats and

vulnerabilities (e.g., earthquake, typhoons, and volcanic eruptions). All four cases are located in Luzon Island, which is in the northern part of the Philippines, where there is also higher incidence of typhoons and higher rainfall (see Figures 1 and 2). The cases documented mechanisms within the local government working with volunteer organizations.

Figure 1. Typhoon Vulnerability Map



Source: Manila Observatory, n.d., “Climate- and Weather-Related Risk Maps”

Baguio City, for instance, was among the worse-hit cities, in terms of casualties and damage, of the major earthquake that hit Luzon in 1990. Every year, on the anniversary of the earthquake on 16 July, the city recognizes the contributions of volunteers as part of their Disaster Awareness Month. In Marikina’s case, the city frequently experiences major flooding incidences, with more frequent occurrences in the past decade. The Province of Albay, on the other hand, sits in a region where most Philippine typhoons regularly pass through

and also has one of the most active volcanoes in the world, Mt. Mayon (Alampay, 2017). Another very active volcano, Taal, is in the middle of the Taal Lake, whose water systems perennially experience human and commercial stresses. These have also resulted in extreme effects on the aquatic resources that sustain the surrounding communities.

The parameters for documenting the cases followed a template that specifically sought the following information:

- 1) local institutional mechanism for coordinating with volunteers, including legal basis (laws/policies), offices established, structures and systems;
- 2) list of recent disasters the LGU experienced;
- 3) examples of highly involved CSOs/NGOs that work with the LGU; and
- 4) types of DRR-related voluntary work/participation.

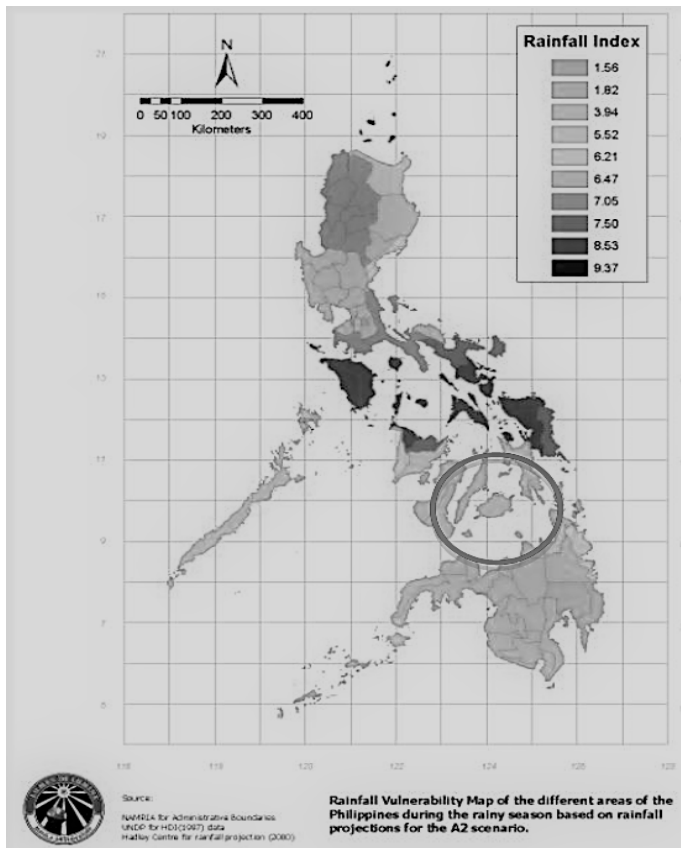
Information were gathered from the LGUs and CSOs that were identified to be working with them through personal interviews (see Table 1). The types of volunteer activities related to DRR that were mentioned in the cases were then categorized according to the following DRR stages of activities: mitigation, preparedness, response, and recovery. Given that the four LGU cases had the same information systematically collected, a comparison of the four cases was tabulated to aid in the analysis.

Table 1. Interviews Conducted for the Cases

Case	Period	Respondent
Marikina	14, 17 May, 4 June 2013	Two DRRM officers City Environment Management Office (CEMO) department head One barangay chairperson One volunteer group (Rotary Club president)
Baguio	19-20 September 2013	City administrator City environment and parks officer Two city councilors Six Baguio-Benguet Public Information and Civic Action Group Philippines, Inc. (BB-PICAG) officers and volunteers

<p>Albay</p>	<p>25-26 March 2013</p>	<p>Albay Public Safety and Emergency Management Office (APSEMO) head APSEMO operations staff Six volunteers (from Philippine Red Cross, LGU, and local media)</p>
<p>Taal</p>	<p>April-May 2013</p>	<p>Albay Public Safety and Emergency Management Office (APSEMO) head APSEMO operations staff Six volunteers (from Philippine Red Cross, LGU, and local media)</p>

Figure 2. Rainfall Vulnerability Map (Bohol Encircled)



Source: Manila Observatory, n.d., “Climate- and Weather-Related Risk Maps”

In addition, VSO Bahaginan, a partner of CLCD in the Valuing Volunteering project, conducted two case studies that are presented here as separate cases. One was the case of a community in Bohol Province in Central Visayas. Bohol's climate is fairer in comparison, with lower rainfall and typhoon vulnerability than the location of the other cases (see Figure 2). It also does not have any active volcanoes. The case documents a community grappling with climate change-related challenges (Aked, 2014), but had none of the major vulnerabilities or experiences faced in the other cases. This case discusses some of the challenges from the perspective of the community and volunteers with regard to participating in the governance of its watershed. It is presented as a counterpoint to the others, where some systems are already in place, and in the context of a recent earthquake and a very strong typhoon that hit Bohol in late 2013. The case highlights the need to develop and strengthen institutional mechanisms for collaboration.

The other case was that of VSO Bahaginan's work in Cebu through the Persons with Disabilities Office (PDAO) that was based on an interview with a VSO Bahaginan national program manager. The case documents their experience in mobilizing volunteers of relief efforts to help victims of Typhoon Haiyan in 2013.

These two cases are used as counterpoint to the more established cases, while also triangulating similar themes and institutional challenges with regard to integrating volunteer work in LGUs from the perspective of CSOs.

Findings

Communities with strong DRRM experiences

The first four cases provide examples of government offices located in different levels of the bureaucracy. Two are DRRM offices at the city level (Marikina and Baguio), one is at the provincial level (Albay), and another is a special body (Taal Volcano Protected Landscape) covering a particular common interest area, a protected area, that cuts across a number of LGUs (see Table 2).

Table 2. Summary Matrix of LGU-NGO Collaboration in Four Disaster-Prone LGUs

	Marikina City	Albay Province	Taal Volcano Protected Landscape²	Baguio City
Coordinating Office of LGU	Marikina Disaster Risk Reduction Management Council (and Office) (MDRMMC), Volunteer Office, City Environment Management Office (CEMO)	Albay Public Safety and Emergency Management Office (APSEMO)	Protected Area Management Board (PAMB)	CDRRMC, City Disaster Operations Center, City Environment and Parks Management Office (CEPMO)
Recent Disaster	Typhoon Ondoy (September 2009) Typhoon Falcon (June 2011) Typhoon Pedring (September 2011) Habagat (2012)	Mayon Volcano eruption (2009) Typhoon Juaning (2011)	Fish kill incidents in 2008 and 2011	1990 Baguio earthquake (Typhoons and heavy rains in 1972 led to the NGO formation)
NGO/Volunteers Participating	Marikina Rotary Club, Boy Scouts of the Philippines, Philippine Red Cross (PRC) - Marikina Chapter, Magdalo Group, Marikina City Bikers, <i>Kabalikat</i> Civicom, Lions Club Marikina, Reservists - Marikina Chapter, Tzu-Chi Foundation, SF Fire Brigade volunteers, Rusty Lopez Fire Rescue, city employees, student volunteers	PRC, Albay Health Emergency Management (AHEM) Program	<i>Pusod, Kilusan ng Maliliit na Mangingisda sa Lawa ng Taal (KMMLT), Tanggol Kalikasan, Taal Lake Aquaculture Alliance, Inc. (TLAAI), Yellow Ladies, Samahan ng Magbabangka</i>	Baguio-Benguet Public Information Civic Action Group (BB-PICAG)

<p>Volunteer Involvement</p> <p>(Note: what were not documented were the important work in psychosocial support (from Ormoc, Pinatubo, to Ondoy, Pablo, and Haiyan), which were often provided through outside/ volunteer help.)</p>	<p>Mitigation: Education and information dissemination, training and seminars on first aid and rescue techniques</p> <p>Response: Medical assistance, feeding of evacuees, donation and solicitation of relief goods for distribution to survivors</p> <p>Recovery: Cleaning and clearing operations after calamities</p>	<p>Mitigation/ Preparedness: Awareness raising, information dissemination, evacuation drills</p> <p>Response: Emergency response, volunteer time and funds</p>	<p>Planning/Public Consultation: Participation in public consultations</p> <p>Mitigation/ Preparedness: Environmental monitoring of Taal Lake and Volcano,³ climate change preparedness and disaster response drills among the high-priority areas, participation in planning</p> <p>Response: Evacuation and relief</p> <p>Recovery: Lake clean-up</p>	<p>Planning: Participation in City Council planning</p> <p>Mitigation/ Preparedness: Clean-up, tree-planting activities, crowd control during festivals and celebrations, and information education campaigns</p> <p>Response: Manpower, equipment and technical support, communication teams and other volunteer groups on-call, participation in medical missions, emergency medical services, first aid and emergency transport, providing public information in the search, rescue and retrieval operations, solicitation and distribution of relief goods</p>
<p>Ordinance/Legal Framework</p>	<p>Ordinance 264 of 1998 (Rescue 161), City Ordinance 32 of 2011 (Creation of the MDRRMO)</p>	<p>Provincial resolutions creating the APSEMO</p>	<p>National Integrated Protected Areas System (NIPAS) Act of 1992, RA 10121 (Philippine Disaster Risk Reduction and Management Act of 2010), implementation of Writ of Kalikasan</p>	<p>RA 10121, memoranda of agreement (MOAs) signed with partners</p>
<p>Benefit of Working with LGU</p>	<p>Logistical support: venue for project implementation, transportation and mobilization, manpower support, financial support for feeding volunteers, and helps target assistance to those in most need.</p>	<p>LGU provides equipment, financial assistance and trained human resource.</p>	<p>Volunteer/NGO help is critical because the local government also has limited resources and cannot do this alone.</p>	<p>Logistical support: office space, transportation, rescue vehicles, equipment, food and medical attention to volunteers, and other in-kind support, preparatory training, coordination of mobilized resources (volunteers, services, goods)</p>

System and Structures for Coordination	MDRRMO serves as monitoring/coordinating body for all relief and rescue volunteers (individual, group, organizations) and donations.	The APSEMO, as an institution, facilitates communication between different stakeholders. The Disaster Operations Center serves as the hub of coordination, communication, and emergency response.	The TVPL Management Plan 2010-2020 underwent 16 consultations (TVPL Management Plan, 2011).	It has a database and directory of human and physical resources from both the City Government and its partner CSOs that can be tapped during disasters. It operates 24/7 to receive and verify reports on disasters in the City and mobilize response teams as needed.
--	--	---	---	--

The Case of Marikina City

Marikina City is a low-lying Highly-Urbanized City in Metro Manila. With the Marikina River traversing the city, it is highly vulnerable to floods. This was observed in flooding caused by heavy rains brought about by tropical storms Ondoy in September 2009, Falcon and Pedring in June and September 2011 respectively, and the *habagat* (southwest monsoon) in 2012.

The passage of Ordinance 264 in 1998 led to the establishment of Rescue 161 as an emergency preparedness center. In 2011, Ordinance 22 paved the way for the institutionalization of the Marikina Disaster Risk Reduction Management Office (MDRRMO) and provided for its roles and functions, which were structured into three stages—first stage is the groundwork or pre-disaster; second stage is during the disaster; and the third stage is the recovery or post-disaster, which includes rehabilitation and clean-up. Volunteers from different CSOs and NGOs in Marikina are being involved in all of these three stages. They participate in a series of disaster management preparedness activities, such as trainings, seminars, workshops, and drills that equip them with proper skills during calamities and disasters.

In pre-disaster stage, the City DRRM Council and the LGU conduct various activities and training workshops. One training where volunteer organizations in the city have been involved was the training in preparation for the volunteers and Marikina DRRM employees in the event of a disaster. Another training conducted by the MDRRMO was conducted in partnership with VSO Bahaginan. The topics in this training include volunteering management system, orientation of the roles and participation of the volunteers in the city, basic incidence command system, and strategic planning.

During the onset of a calamity or disaster, the LGU through the MDRRMO is the first responder along with local volunteers. Coordination and communication are very crucial and important at this stage. The LGU has an enormous responsibility and the MDRRMO serves as the headquarters for the volunteers.

Once the disaster or calamity has subsided, the MDRRMO engages the assistance of local community and NGO volunteers in cleaning and clearing up activities. Sometimes, they also request additional manpower from the volunteer management office.

The Case of Albay Province

The Albay Public Safety and Emergency Management Office (APSEMO), formerly the Provincial Disaster Management Office (PDMO), was created in 1994 to govern and promote efficient provincial disaster risk reduction interventions and management programs. As the center of coordination, communication, and emergency response in all types of emergencies and disasters, APSEMO is responsible for during-and-after-disaster interventions.

APSEMO, as an independent department, has strengthened the disaster management capability of the Provincial Government of Albay. The establishment of this body has ensured the continuity of the province's programs on disaster management and strengthened the effective coordination of various institutions for more efficient management.

Volunteers identified the Mayon Volcano eruption in 2009 and the Typhoon Juaning in 2011, among several disaster events, as examples in which they were able to participate and help the LGU by volunteering.

During the Mayon Volcano eruption, the volunteers served in different capacities. Their roles ranged from assessment of evacuation areas, serving as emergency response unit (ERU), information dissemination, relief operation, up to health check-ups and distribution of medicines. In the assessment of evacuation areas, the volunteers made sure that the identified areas were safe and properly equipped to handle evacuees. This also meant checking the capacity of facilities to handle the number of evacuees.

During Typhoon Juaning, volunteers were mainly assigned in the rescue operation and assessment of communities. During the rescue operation, the Philippine Red Cross (PRC) volunteers responded through the instruction and coordination of APSEMO, but with the endorsement by the PRC.

The Case of the Taal Volcano Protected Landscape

The Taal Volcano Protected Landscape (TVPL) Management Plan mentions volunteer involvement in monitoring the water quality of Taal Lake. The Protected Area Management Board (PAMB) established a system of citizen monitoring where all volunteer testing results are sent to the protected area superintendent (PASu) office through email or fax within a few days of monitoring (TVPL Management Plan, 2011). Volunteers from the academe have also provided assistance in monitoring the dissolved oxygen in the lake.

The nonprofit organization *Pusod, Inc.* and the people's organization *Kilusan ng Maliliit na Mangingisda sa Lawa ng Taal* (KMMLT) are members of the PAMB and are able to take part in public consultations. The NGO *Tanggol Kalikasan*, on the other hand, contributes in the crafting of the TVPL Management Plan. Through these organizations, volunteers are given opportunity to participate in the planning process.

Various community volunteers participate in quarterly coastal clean-up. They also monitor illegal fish cage operators. In times of disasters, NGOs like the Taal Lake Aquaculture Alliance, Inc. (TLAAI) also help in lakeshore clean-up and in relief goods distribution. A workers' organization, the *Samahan ng Magbabangka*, serves as guardians of the Taal Lake.

Officials from the Municipal Disaster Risk and Reduction Council (MDRRMC) observe that volunteers are active when there are incidents, and acknowledges that LGUs cannot survive without volunteers since they are the ones who are there at the onset of a calamity. Volunteers from nearby areas, such as students from De La Salle Lipa, also take part in Taal Lake clean-up drives as part of their National Service Training Program classes.

The Case of Baguio City

Cognizant of the city's vulnerability to disasters and climate change and the need to safeguard the environment's sustainability, the City Mayor's Office has taken a Green Governance thrust with its slogan "Baguio SOARS" (sustainable, optimistic, adaptive, resilient, and socially inclusive). Towards this direction, two offices play pivotal roles—the City Disaster Risk Reduction and Management Council (CDRRMC) and the City Environment and Parks Management Office (CEPMO).

Baguio City recognizes the pivotal roles of volunteers in local socioeconomic development. Apart from the manpower and skills they offer, volunteer groups also contribute financial and in-kind donations as well as expert advice, which are vital in augmenting limited local government resources and ensuring efficient and effective operations and service delivery. These volunteer groups are formally recognized with their participation in the City Development Council, task forces, and other bodies that foster and develop volunteering, and the passage of local legislations acknowledging their contributions and support to the city.

A noteworthy program of CEPMO was the *Salaknib ti Waig* (Guardians of Rivers), which promotes transboundary management of water systems in the province of Benguet. With the institutionalization of the program, efforts of the LGUs, NGOs, the academe, and private individuals and organizations in Benguet in the revitalization and protection of waterways, streams, and streamlets are harmonized. Initiatives of these volunteer individuals and groups include clean-

up drives, tree and bamboo planting, water and waste water management, information dissemination, and policy implementation and monitoring. CEPMO also assigned and trained a focal person to attend to the queries of the public regarding the program and on how they can be involved in it.

Another good practice of Baguio City was its active engagement with volunteer organizations. Through the support from the local government, volunteer individuals and groups, such as first responders, first aiders, communication teams, etc., are not only ready to provide their assistance during disasters and in other civic endeavors of the LGU, such as medical missions, clean-up and tree planting activities, crowd control during festivals and celebrations, and information education campaigns, but they are also involved in planning activities of the Council.

Harnessing Good Practices in LGU-Volunteer Collaboration

In all four cases, LGUs all work with volunteer organizations, but in varying degrees of involvement and types of volunteer organizations. Some provide specialized and technical support, e.g., the PRC, which helps in health and medical needs, and the volunteers from the university, who help in monitoring water quality. There are also locally based people's organizations with strong interest in environmental concerns, such as the group of fisherfolk in TVPL (e.g., Samahan ng Magbabangka).

Volunteer involvement is also observed in the various phases of DRRM. Some are already actively involved in the planning process and in the conduct of the LGU's public consultations (e.g., Baguio).

In mitigation-related activities, volunteers help in raising awareness through information and education campaigns, drills, and first aid trainings. Immediately after a disaster, volunteers get involved in soliciting donations, providing food and relief to survivors, and giving medical help. Some provide communications support.

The recovery aspect involves ways for getting the environment back to good health. Volunteers get involved through cleaning and clearing operations, and clean-up of waterways (e.g., Taal Lake).

The various LGUs in the four cases have coordinative bodies even though they are located at different levels in government. It may be at the city level (as with the cities of Marikina and Baguio), provincial level (Albay), or a special body (PAMB). What matters is that these offices possess relevant equipment and adequate management capacity (Haddow & Bullock, 2006, pp. 78-79, as cited in Col, 2007). In fact, these were among the prominent benefits of working with LGUs given in the cases. Among them were: logistical support, provision of

manpower and work/office space, better coordination, and targeting of services/goods towards those who are in most need.

Some stakeholders, however, raised concerns as regards politics and leadership change in LGUs and becoming overly dependent on the LGU themselves. To protect from this, establishing more permanent institutions through local ordinances, and having formal memoranda of agreement (MOAs) were among the good practices that were done. The employment of these legal instruments minimizes the influence of politics and leadership change, and assures the sustainability of the partnership or collaboration (Alampay, 2017). The MOAs also provide clarity regarding each party's roles and responsibilities.

Some of the people interviewed in the cases provided realistic expectations and insights. They recognize that LGUs have limitations with regard to resources and skills. Because of these limitations, they also need expertise that NGOs and other volunteers provide. This reality is also acknowledged in RA 10121, which stipulates that “government agencies, CSOs, private sector and LGUs may mobilize individuals or organized volunteers to augment their respective personnel complement and logistical requirements in the delivery of disaster risk reduction programs and activities” (Sec. 13).

Facing New Vulnerabilities Due to Climate Change

The other two cases in this study involve volunteer participation in LGUs in the Visayas—the watershed management of the Provincial Government of Bohol and the experience of VSO Bahaginan with the LGUs in the province of Cebu in the aftermath of Typhoon Haiyan.

Volunteering in Carood Watershed of Bohol

The Bohol experience provides a counterpoint to the previous four cases discussed because its location is not in the usual typhoon path. However, precipitation can still be induced by typhoons that pass near the island. Rainfall in Bohol tends to be more evenly distributed throughout the year. Nonetheless, as an island, it is still vulnerable to other natural calamities, such as drought, tsunamis, landslides, storm surges, and earthquakes.⁴

When a major earthquake⁵ hit Bohol Province in 2013, a conflict arose with regard to distribution of relief goods (Matus, 2013). It was reported that NGOs were suspicious of the interests of the mayors who wanted a more centralized, targeted, and coordinated system for distribution. The LGUs, on the other hand, had issues with the volunteers from the PRC who insisted on doing relief work independently or with conditionalities (Matus & Santos, 2013). This incident highlights tensions that could occur between volunteers and the LGUs in

communities with relatively less experience in dealing with disaster situations, and less experience with working together.

Aked's (2014) case focus, however, is not about efforts in the 2013 earthquake response, but rather, with respect to management of the Carood Watershed in Bohol Province. Aked's research on valuing volunteering was already focused on this area prior to the occurrence of the earthquake. The watershed itself is not currently classified as a critical watershed by the government and, hence, does not receive central government financing (unlike in the case of Taal, which is a protected area under RA 7586⁶). However, climate change projections for the province indicate that there will be a 9.8% increase in seasonal rainfall by 2020, and up to 21.2% by 2050 (Aked, 2014, p. 10). This implies that the province's and the watershed's vulnerability is increasing because of the changing climate.

Table 3. Summary Matrix of LGU-Volunteer Collaboration in the Case of Carood Watershed and Cebu Province (Typhoon Haiyan)

	Bohol Province	Cebu
Coordinating Office of LGU	Carood Watershed Model Forest Management Council (CWMFMC)	Persons with Disabilities Office (PDAO) in Cebu
Recent Disaster/ Projected Vulnerability	Bohol Earthquake (2013) (although this case is focused more on the watershed) Soil run off can affect the health of corals and, therefore, marine livelihoods and Candijay is prone to flooding. Climate change predictions for the province estimate a 9.8% increase in seasonal rainfall by 2020, up to 21.2% by 2050.	Typhoon Haiyan
Example of Volunteers Participating	Through the CWMFMC, the people's organizations represent some of the poorest communities in Carood, VSO Bahaginan volunteers, international, national, local, diaspora volunteers, and local volunteers organized informally and through people's organizations.	VSO Volunteers

Volunteer Involvement	<p>Local volunteers: management and stewardship of forest land, agro-forestry (maintenance and restoration of forest cover) to reduce impact of conversion of land to agricultural, work on rehabilitating mangroves</p> <p>National and diaspora: local capacity building</p> <p>International volunteers: organizational capacity building, research and development</p>	<p>Mitigation: Education and awareness building</p> <p>Response: First responders (from existing pool of national volunteers, particularly those not directly affected)</p> <p>Relief and rehabilitation</p>
Ordinance/ Legal Framework	Community-based forest management agreements (CBFMA), creation of the CWMFMC by the provincial government	MOA with LGUs
Benefit of Working with LGU	Greater council support would bring them encouragement and make the practicalities of doing work on the watershed easier.	Coordination, making sure that the needs of the most vulnerable are addressed
System of Coordination	Sometimes national volunteering organization VSO Bahaginan mediated	Through the Persons with Disabilities Office (PDAO)
Lessons	<p>Cooperation between municipalities was difficult particularly with regard to resource sharing and its use.</p> <p>Community confidence to tackle development challenges can result from volunteers and communities working together.</p> <p>Politics can negatively affect volunteer work.</p>	<p>Previous working relationship/history with LGU helps establish trust.</p> <p>It is difficult to activate volunteer networks and their leaders in directly and seriously affected areas. Thus, communication protocols need to be developed.</p> <p>It is important to get LGUs to buy in to the collaboration by knowing what they can gain from it.</p>
How Volunteers Coordinate with LGU	Through CWMFMC, the POs represent some of the poorest communities in Carood.	Sometimes long relationship with LGUs allows VSO to go directly to beneficiaries, or through the PDAO office.

In 2003, the Carood Watershed Model Forest Management Council (CWMFMC) was set up by the Provincial Governor. It is a multistakeholder body that includes representatives from six LGUs, people’s organizations (POs; e.g., community-based forest management areas), NGOs (including VSO), government agencies and the Bohol Island State University (Aked, 2014). Volunteer involvement in the area is varied, but includes international, national, and diaspora volunteers aside from local volunteers. The non-local volunteers are more involved in raising capacity of the locals, doing research and liaison work through their network connections.

The local volunteers, on the other hand, work more directly on aspects of stewardship and rehabilitation of the environment (see Table 3). The area was not as badly damaged, in comparison to other parts of Bohol, when the earthquake in 2013 hit the province.

Aked (2014) reports, however, that what was on paper was not necessarily how things were implemented. She says that on paper, CWMFMC has all the hallmarks of a well-governed policymaking body for the watershed. However, it struggles “to meet basic requirements of good governance like participation and collaboration” (Aked, 2014, p. 84). In particular, Aked mentions how POs end up being implementers of plans rather than active participants in the conceptualization of the plans and policies itself. PO representatives often ended up just listening in meetings, rather than being active participants in the discussion, and were never given an opportunity to handle or lead the meetings. Some felt they were not being taken seriously because they were less educated and could not understand some of the documents they process, which were written in English and not in the local language. Aked (2014) argues that improving governance is more of a cultural than a structural issue. It requires a reconceptualization of leadership from a position of “command-and-control” to a distributed activity that builds from the strength of the diverse skills and knowledge base of the people.

Volunteering in Cebu

The second case involves VSO Bahaginan’s work in Cebu in the aftermath of Typhoon Haiyan. The VSO Bahaginan is one of the more active organizations that try to facilitate LGU-volunteer collaboration in the Philippines. With their long experience in LGU-volunteer collaboration, it is important to consider VSO Bahaginan’s views on the matter, particularly during the most recent disasters that hit the country, such as the Bohol earthquake and Typhoon Haiyan in 2013. Their experience as shared by one of their volunteer managers is summarized in Table 3.

According to one of VSO Bahaginan’s program managers for volunteers, working with LGUs is part of their protocol since this contributes to making their work more efficient. Much of the work of VSO Bahaginan are specific to helping the most vulnerable. Their work on climate change is built on building resiliency for these groups (e.g., persons with disabilities, youth) and catered on education and awareness building.

After Typhoon Haiyan hit the Philippines in late 2013, VSO Bahaginan activated their national volunteer network. Prior to Typhoon Haiyan, VSO Bahaginan already had a pool of national volunteers working in the Visayas—Cebu, Bohol, and some parts of Samar—that they could mobilize. Unfortunately, the volunteers and team leaders in the field, who would have been the first

responders, were themselves victims and survivors of the calamity. When the typhoon hit, they had no way to reach out to volunteers and leaders in the field because there were no communication protocols to work with.

Nonetheless, they found help through their network of national volunteers that were not as affected. Hence, their volunteers from Western Samar were mobilized to help the people affected in Leyte Province. Because they found it difficult to activate their local network in the hardest-hit provinces of Leyte and Samar given the immensity of the damage, they let the more equipped international NGOs work in those areas. Instead, VSO Bahaginan decided to concentrate their resources in Cebu Province, which was also severely affected. Their experience in Cebu was particularly informative in the context of LGU-volunteer collaboration.

Cebu had an existing volunteer office through the LGU's Persons with Disabilities Office (PDAO)⁷, and a structure that was easy to mobilize. Because the PDAO had personnel limitations, this had to be complemented by volunteers. At the onset of Typhoon Haiyan, it required activation of this volunteer pool. The program manager claims that the activation and mobilization of volunteers was well documented, from 8 November 2013, right after the typhoon hit, until the rehabilitation stage. During the disaster, the PDAO no longer focused only on disability concerns. It leveraged their structure and volunteers to work on disaster and relief operations. Volunteer leaders communicated with VSO Bahaginan through short message service (SMS) regarding their relief and emergency needs and coordinating the logistics (e.g., people, equipment, relief goods) to Bantayan Island (in Cebu Province). Because they already had a prior relationship with the local government, they were able to quickly mobilize. They worked with and through the Cebu Provincial LGU that housed the PDAO.

According to the VSO Bahaginan volunteer program manager, it is difficult to start a project in places where their organization has no existing relationship. When you start projects with LGUs, especially on DRRM, there has to be some level of prior work history so that you have an entry point already. The LGU also has to see that working with the volunteers and volunteer organizations is mutually beneficial.

Discussion

Although these case studies are not generalizable, they are instructive in illustrating the various areas where volunteers can be involved in with respect to the various stages of DRRM and the importance of strengthening and institutionalizing LGU-volunteer collaboration.

Based on the cases, local governments need to recognize that there are various types and levels of volunteer involvement that arise in DRRM. Some volunteers are local while some are external (provincial, national, international). Likewise, the systems they establish may also serve other communities, other than their own. As such, local volunteers' capacity need to be strengthened since they are often the first line of defense. Many of the cases highlighted the importance of building capacity through trainings and how useful volunteers are for information and educational campaigns in the community.

In very extreme disasters, however, local systems and DRRM networks might break down. Help from neighboring LGUs would be needed in these cases. Volunteer networks that LGUs develop over time have an important role. They can serve as the initial support for neighboring municipalities should total breakdown of systems and infrastructure occur in directly affected communities. Hence, inter-LGU networks must also be in place, including systems for collaboration with NGO-volunteers in other nearby localities. It requires networking and coordination skills to recognize the role of external volunteers in complementing and supporting the capacity of locals. External volunteers are also crucial when local volunteers are extremely affected by a disaster. The successful adoption of this type of network governance for DRRM will be dependent on four key structural and relational contingencies: trust, size (number of groups involved), goal consensus, and the nature of the task (Provan & Kenis, 2008).

Pragmatic Reality for Volunteers

VSO Bahaginan's volunteer program manager says collaborating with LGUs cannot be avoided even for those who are not supportive of its incumbent administration.

An NGO program assistant of Pusod in Batangas noted that one reason they work with government is to help the LGU know what has to be done to attain the goal of zero casualties in the event of a disaster. They also see that LGUs have limited manpower and often do not have enough people who can be in the field/areas at all times. Hence, from the perspective of volunteers and volunteer organizations, they are needed by government.

On the other hand, volunteer organizations also say that working with the LGU and getting formal endorsements from them also helps the NGO organize the community and give them access in the area. In many of the cases, it was also acknowledged that going through LGUs help in coordination and identification of what is needed and who are in most need of help. Furthermore, local governments can also provide other resources for training, logistical support, funding, manpower, office space, etc.

Develop Institutional Stability

The issue of politics has been raised in some of the cases, specifically in the Bohol case. Politics is an unavoidable reality in LGU-volunteer collaboration. For some volunteers, politics can sometimes get in the way of preparations for disasters, especially in communities where there is no strong support for the incumbent administration. As such, the challenge is how to make both those in power and those working with volunteers and beneficiaries recognize that collaboration is mutually beneficial.

Hence, to shield volunteer work and the collaboration from politics, it has to be formalized through contracts and memoranda of agreements and, if possible, institutionalization of volunteer programs within the LGUs itself through the establishment of volunteer desks or offices. In so doing, funding for it can also be sustained through the local budget, regardless of changes in leadership. An example of this is Albay's APSEMO, which is a permanent office (Alampay, 2017), and Cebu's PDAO. Marikina, on the other hand, has a volunteer office, although during disasters, it is their local MDRRMO that coordinates the various groups. Having MOAs, as in Baguio's case, help indicate the expected outputs, roles, and responsibilities of both parties, and the protocols that have to be followed to ensure the safety of volunteers and avoid political color or self-interest in the adoption and implementation of programs.

From the cases presented, it was seen, for instance, how some LGUs have put in place their local DRRM offices. Some of their initiatives actually pre-date the passage of RA 10121. These LGUs were more attuned to the need for a DRRM legislation because of their high vulnerabilities to begin with (Lasco et al., 2008).

Cultural Challenges to Collaboration

For collaboration to be successful, having structures and institutions are not enough. There should be a real resolve and interest to work together.

According to Aked (2014), collaboration is as much a cultural issue as it is a structural one. Cultural change, however, is something that has to happen in both the LGU and its partner volunteers and NGOs. On the one hand, government officials have to be mindful of being less controlling and more facilitating. On the other hand, local volunteers need to be more assertive and confident that they have good ideas to contribute.

Likewise, inherent biases from some volunteers and NGOs result in some resistance to collaboration with government. The pragmatic reality is that volunteer groups cannot avoid working with government, especially in DRRM. For LGUs with a long history of experiencing the impact of natural

calamities and weather disturbances, mutual interest in collaboration has already become more established from the collective experience they have gone through as communities. This may not be the case yet with communities whose vulnerabilities are just getting exposed (e.g., Bohol). For those without this shared experience, trust needs to be developed through opportunities they actually co-create. If possible, some of this can be done through collaborative work in mitigation-related activities. The experience in Qing Long County in China, for instance, shows how buy-in is easier once a disaster strikes if the community has already been involved in the planning and mitigation processes (Col, 2007).

Equally important is the huge challenge in climate change adaptation work. According to the World Bank (2013), institutional capacity as regards CCA should be developed, especially technical capacity at the local level, which is hampered by poor access to CCA knowledge and information. CSOs serve an important role in ensuring the implementation of the climate change agenda by raising awareness, building trust in communities, and exerting pressure for increased transparency (World Bank, 2013). This was exemplified in Pusod's work in Taal, and the challenges of which was also highlighted by Aked (2014) in the experience in Carood Watershed management.

Effective Collaboration Takes Time

As with all bureaucracies, efficiency gains through the collaboration will eventually come but not right away. It is not ideal that the first collaboration between the LGU and the volunteer organization is during the onset of a disaster itself. Collaboration is a process, and as Aked (2014) reflected in Bohol's case: "receiving and managing volunteers has been a learning process for LGUs and POs, so it is unsurprising that not everyone gets it right [the] first time" (p. 55). Hence, volunteers need to be already involved and active in local affairs. People's participation, for one, is enshrined in the country's constitution and the Local Government Code of 1991. Levels of active engagement and capacity among local partners have effects on the speed of learning and innovation as well as the motivation of volunteers. In the case of Baguio City, for instance, volunteers are already involved in traffic management and crowd control during festivals. In Taal, volunteers are engaged in technical monitoring of water quality and some aspects of tourism management. LGUs and volunteers can also work together in many things, from DRRM-related activities to something completely different, such as empowering people with disabilities.

Both the government and NGOs have to work together for trust to develop and social capital to be built. Only by establishing areas of collaboration on which relationships can be developed can trust be established. This is important given how some recent experiences in disaster work (e.g., Bohol earthquake relief) has shown how distrust can be a hindrance to efficient delivery of disaster relief.

That said, even if relationships are built, one challenge is that LGUs are run by political leaders. Elected LGU officials may change after an election and, hence, relationships that have been established and took time to nurture can also be lost. Thus, there should be some sustainability in the institutions and leadership that deal with volunteers. The same applies with the volunteer groups—volunteer leaders should not be transient, especially the ones at the local level, such as those in people’s organizations.

Conclusions and Recommendations

According to Anheier and Salamon (1999), “volunteering is part of the way societies are organized, how they allocate social responsibilities, and how much engagement and participation they expect from citizens” (p. 43). As such, the nature of the state-society relationship is important in shaping the role of volunteering in nation-building. It can also be assumed that the same applies at the local level, where the local governments’ relationships with NGOs also shape the kind of collaboration they have in providing services to the public, including DRRM-related services.

Volunteers, whether individually or through NGOs, often step up to address gaps in services, and end up engaging in collaborative partnerships with public and private organizations with varying degrees of formality (Simo & Bies, 2007). One of the incentives for collaborating with voluntary groups in active co-production is maximizing the amount of service per money invested. The return on investment for resources put into organizing co-production activities is probably higher than the return to be expected from resources put into additional equipment, facilities, and personnel (Rich, 1981, p. 63). This is perhaps the pragmatic motivation for LGU-volunteer collaborations in DRRM.

Communities that are more exposed to extreme weather or have experienced natural and human-caused disasters, many of which are in the Philippines, tend to have a better understanding of the link between environment and disasters. Convincing and getting people involved are much easier in such environments, especially in places where recent occurrences can heighten motivations for individuals to volunteer and take action. These realities present opportunities for local governments to harness and institutionalize community involvement, especially with regard to climate change and reducing the exposure of vulnerable groups to its disastrous effects.

The cases discussed and analyzed, along with interviews with some volunteers and volunteer managers and organizations, indicate mixed successes in how LGU-volunteer collaboration has been done. The four cases illustrated how community resiliency can be strengthened through stronger involvement of volunteers in DRRM efforts, while considering how people interact with their

environment (e.g., monitoring water quality, planting trees, waste segregation, proper waste disposal, living in less risky places, etc.).

With climate change, however, the landscape of communities becoming more vulnerable to extreme weather conditions is changing. Because of this, LGUs in areas that are newly vulnerable to the impacts of climate change (such as the southern regions of the Philippines) should be preparing for higher frequency of disasters affecting their areas. Given that volunteers will always be involved and are integral to disaster mitigation and response work, preparations should include developing systems for coordinating volunteer work.

While not always perfect, collaborative partnerships, once trust develops over time, can operate more efficiently. The need for control, which is inherent in some bureaucracies, should be balanced by giving the LGUs authority to coordinate the networks of groups involved while at same time leveraging the diversity of skills, motivations, and interests among its volunteers.

Endnotes

¹ Who takes the lead is based on the following criteria: (1) The barangay development council (BDC), if a barangay is affected; (2) the city/municipal DRRMCs, if two or more barangays are affected; (3) the provincial DRRMC, if two or more cities/municipalities are affected; (4) The regional DRRMC, if two or more provinces are affected; and (5) the NDRRMC, if two or more regions are affected.

² Included in the TVPL basin are the municipalities of Talisay, Laurel, Agoncillo, San Nicolas, Taal, Lemery, San Jose, Santa Teresita, Alitagtag, Cuenca, Mataas na Kahoy, Balete, Malvar, and the cities of Lipa and Tanauan in the Province of Batangas; and Tagaytay City in the Province of Cavite.

³ Monitors threats on the lake such as unregulated fish-cage culture, overfishing, sewage discharge and soil erosion and unregulated mass tourism.

⁴ Taken from BIAD 2 Proposal to Mainstream DRRM in Bohol's Comprehensive Land Use Plan.

⁵ The earthquake resulted in a discovery of a previously unknown fault, now referred to as the North Bohol Fault. The toll from the earthquake included 222 reported dead, 8 missing, and 976 injured. In all, more than 73,000 structures were damaged, of which more than 14,500 were totally destroyed.

⁶ Also known as the National Integrated Protected Areas System (NIPAS) Act of 1992.

⁷ VSO Bahaginan worked with them on election-related matters concerning the rights of people with disabilities to participate in elections in 2013.

References

- Aked, J. (2014). *Views from the watershed: How citizens and actors describe volunteering for development*. VSO Bahaginan and the Institute of Development Studies. https://www.vsointernational.org/sites/default/files/valuing_volunteering_philippines_report-views_from_the_watershed_0.pdf
- Alampay, E. (1999). *Organizations in development: The Changing relationships of service delivery organizations in the Philippines* (ISS Working Papers - General Series 19044). International Institute of Social Studies of Erasmus University Rotterdam.
- Alampay, E. (2017). Resiliency and adaptation in Albay Province: Aiming for zero casualties. In M.R. Hechanova, M. Teng-Calleja, & E. Franco (Eds.), *Transforming local government* (pp. 13-21). Ateneo de Manila University Press.
- Associated Press. (2011 December 17). Storm kills hundreds in Philippines. *Telegram.com*. <https://www.telegram.com/article/20111217/NEWS/111219523>
- Associated Press. (2013 November 13). Philippines prepared for Typhoon Haiyan, but evacuation sites couldn't withstand storm surges. *Fox News*. <https://www.foxnews.com/world/philippines-prepared-for-typhoon-haiyan-but-evacuation-sites-couldnt-withstand-storm-surges>
- Anheier, H. K., & Salamon, L. M. (1999). Volunteering in cross-national perspective: Initial comparisons. *Law and Contemporary Problems*, 62(4), 43-65.
- Benzie, M., Adams, K., Roberts, E., Magnan, A., Persson, A., Nadin, R., Kelin, R., Harris, K., Treyer, S., & Kirbyshire, A. (2018). *Meeting the global challenge of adaptation by addressing transboundary climate risk* (Discussion Brief). Stockholm Environment Institute. <https://www.sei.org/publications/transboundary-climate-risk/#where-are-we-now-progress-at-cop23>
- Brennan, M.A., Barnett, R.V., & Flint, C.G. (2005). Community volunteers: The frontline of disaster response. *The International Journal of Volunteer Administration*, 24(4), 71-77.
- Burns, D. (2015). *Valuing volunteering: The role of volunteering in sustainable development*. VSO International and the Institute of Development Studies. https://www.vsointernational.org/sites/default/files/the_role_of_volunteering_in_sustainable_development_2015_vso_ids.pdf
- Buendia, E.E. (2005). *Democratizing governance in the Philippines- Redefining and measuring the state of people's participation in governance*. Center for Leadership, Citizenship and Democracy, National College of Public Administration and Governance, University of the Philippines.
- Carino, L. (2005). *Mobilizing for active citizenship: Lessons from Indonesia, Nepal and the Philippines*. Center for Leadership, Citizenship and Democracy, National College of Public Administration and Governance, University of the Philippines.
- Center for Leadership Citizenship and Democracy. (2013). *Proceedings of the Valuing Volunteering Government-Volunteer Organization Forum*. National College of Public Administration and Governance, University of the Philippines.
- Center for Local and Regional Governance. (2018). *Meso-scale insurance for disaster readiness and recovery (MINDER) Project* (Final Report). https://localgov.up.edu.ph/uploads/1/4/0/0/14001967/minder_policy_brief__annexes.pdf

- Col, J. (2007). Managing disasters: The role of local government. *Public Administration Review*, 67(1), 114-124.
- Daimon, H., & Atsumi, T. (2018). Pay it forward and altruistic responses to disasters in Japan: Latent class analysis of support following the 2011 Tohoku Earthquake. *Voluntas*, 29, 119–132. <https://doi.org/10.1007/s11266-017-9880-y>
- De Leon, E. D., & Pittock, J. (2017) Integrating climate change adaptation and climate-related disaster risk-reduction policy in developing countries: A case study in the Philippines, *Climate and Development*, 9(5), 471-478
- Diola, C. (2013, October 23). Phivolcs discovers new fault system in Bohol quake. *The Philippine Star*. <http://www.philstar.com/headlines/2013/10/23/1248492/phivolcs-discovers-new-fault-system-bohol-quake>
- Kapucu, N., Arslan, T., & Collins, L. (2010). Examining intergovernmental and interorganizational response to catastrophic disasters: Towards a network-centered approach. *Administration & Society*, 42(2), 222-247.
- Lasco, R. D., Rangasa, M., Pulhin, F. B., & Delfino, R. J. (2008). *The role of local government units in mainstreaming climate change adaptation in the Philippines*. CIRCA.
- Luna, E. (2001). Disaster mitigation and preparedness: The case of NGOs in the Philippines. *Disasters*, 25(3), 216-226.
- Manila Observatory. (n.d.). *Climate- and weather-related risk maps*. http://vm.observatory.ph/cw_maps.html
- Matus, C. L. (2013 October 22). Relief goods distribution in Bohol delayed by meddling, campaigning politicians. *Inquirer.net*. <https://newsinfo.inquirer.net/512179/relief-goods-distribution-in-bohol-delayed-by-meddling-campaigning-politicians>
- Matus, C. L., & Santos, T. (2013 October 23). Bohol mayor drives out Red Cross team. *Inquirer.net*. <https://newsinfo.inquirer.net/512307/bohol-mayor-drives-out-red-cross-team>
- Ogawa, Y., Sato T., Akiyama, Y., Shibasaki, R., & Sekimoto, Y. (2018). Developing a model for estimating the home return of evacuees based on the 2011 Tohoku earthquake tsunami— Utilizing mobile phone GPS big data. In H. J. Bungartz, D. Kranzlmüller, V. Weinberg, J. Weismüller, & V. Wohlgemuth (Eds.), *Advances and new trends in environmental informatics* (pp. 227-240). Progress in IS. Springer, Cham.
- Provan, K., & Kenis, P. (2008). Modes of network governance: Structure, management and effectiveness. *Journal of Public Administration Research and Theory*, 18(2), 229-252.
- Republic Act 10121. *The Philippine Disaster Risk Reduction and Management Act of 2010*. (2010).
- Rich, R.C. (1981). Interaction of the voluntary and government sectors: toward an understanding of the coproduction of municipal services. *Administration and Society*, 13(May), 59-76.
- Simo, G., & Bies, A. (2007). The role of nonprofits in disaster response: An expanded model of cross-sector collaboration. *Public Administration Review*, 67(1), 125-142.
- Tierney, K., & Goltz, J. D. (1997). *Emergency response: Lessons learned from the Kobe earthquake* (DRC Preliminary Paper 260). University of Delaware. <https://udspace.udel.edu/handle/19716/202>

World Bank. (2013). *Getting a grip on climate change in the Philippines (Executive Report): Contributing to the foundation and ensuring the future for a low-carbon, climate resilient society through the Philippine Climate Public Expenditure and Institutional Review (June 2013)*. International Bank for Reconstruction and Development/World Bank. <https://www.worldbank.org/content/dam/Worldbank/document/EAP/Philippines/Final%20ExReport.pdf>

Erwin Gaspar A. Alampay is Professor of Public Administration at the National College of Public Administration and Governance in the Philippines. He was the director of Center for Leadership, Citizenship and Democracy (CLCD) from 2011 to 2013. He can be reached at eaalampay@up.edu.ph.

Charlie E. Cabotaje is Assistant Professor at the University of the Philippines-National College of Public Administration and Governance (UP-NCPAG). He worked at the CLCD for 18 years as part of the research and extension staff.

Lydia E. Angeles is University Research Associate at the CLCD at the UP-NCPAG.

Maria Loriza G. Odulio is a graduate of BA Sociology from UP Diliman, where she also took units in Master of Social Work. She worked as University Research Associate at CLCD, UP-NCPAG.

Don Jeffery A. Quebral is University Researcher at the Center for Local and Regional Governance (CLRG). Prior to joining the CLRG, he worked as a research associate at the CLCD.

Acknowledgment

Based on a paper presented at the International Society for Third Sector Research (ISTR) 11th International Conference in Muenster, Germany, 22-25 July 2014.

The authors would like to acknowledge Ms. Myzel Marifosque for helping in the research on government-volunteer collaboration in DRRM. They would also like to thank Dr. Kristoffer Berse and Mr. Dennis dela Torre of the Climate Change Commission for providing feedback on earlier drafts of this article.