



Building Community-based Resilience in the Municipality of San Francisco, Cebu, Republic of the Philippines



PROJECT DATA

PARTNER ORGANIZATION:

KDI School of Public Policy and Management

ORGANIZATION TYPE:

Academic Institution

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Poor coordination and engagement among stakeholders; lack of appropriate framework; lack of skilled manpower and organizational capacity

DEVELOPMENT CHALLENGE:

Building community-based resilience through disaster risk reduction and management

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Abstract

This Global Delivery Initiative (GDI) case study examines how the Municipality of San Francisco, in Cebu province, Philippines transformed its unique sub-village-level *purok* system so that it could be used in disaster risk reduction and management (DRRM). The *purok* system, a network of community-based people’s organizations that complements the elected barangay (village) government, was established in 2004 as grassroots service delivery unit of the municipal government. With an emphasis on volunteerism and self-help, the *purok* became the primary vehicle to reach the most vulnerable communities in the municipality. In 2010, the National Disaster Risk Reduction and Management Act mandated local government units (LGUs) to take the lead in implementing DRRM. In San Francisco, DRRM was integrated into the *purok*.

In November 2013, typhoon Haiyan (known locally as Yolanda) became one of the strongest tropical cyclones ever to make landfall. San Francisco recorded zero casualties and began recovery immediately, despite being geographically isolated from its mother province, while nearby LGUs were left overwhelmed by the extent of damages left by Haiyan. This case study shows how, prior to the onslaught of typhoon Haiyan, the formative years in establishing the *purok* system provided the necessary learning process for residents and municipal officials to overcome the challenge of coordination and engagement among the different levels of government, as well as within communities themselves, in the context of introducing the new DRRM framework.

Introduction

In November 2013, typhoon Haiyan (known locally as Yolanda), was the strongest tropical cyclone to make landfall in recorded history. Of the 80 provinces in the Philippines, 44 were affected, covering 591 municipalities, 57 cities, and 12,139 barangays (villages), including the province of Cebu and the Municipality of San Francisco. In its aftermath, the total death toll reached 6,300, including 74 casualties and five missing from northern Cebu province (National Disaster Risk Reduction and Management Council 2013).

Despite being one of the towns directly hit by Haiyan, the Municipality of San Francisco recorded zero casualties. Through the town's unique *purok* system, which organized communities in the sub-village level for more effective delivery of services, the local government unit (LGU) successfully implemented pre-emptive evacuation even in its farthest villages, ensuring that not one of its more than 50,000 residents was left unaccounted for. In particular, around 200 families living in Tulang Diyot, located on a separate islet, were brought to the “mainland” days before Haiyan made its first landfall. After the storm hit, the town managed to immediately begin rehabilitation efforts with minimal supervision, as neighboring LGUs—overwhelmed by the extent of the storm—were left immobilized.

A number of studies and articles have already been written documenting the success of the *purok* system for disaster risk reduction and management (DRRM), especially under the context of typhoon Haiyan (Fernandez, Uy, & Shaw 2012; McElroy, 2013; Ranada 2014; Bawagan et al. 2015; Matthies 2017). This case study examines how the *purok* system in the Municipality of San Francisco evolved and was utilized to implement community-based DRRM and analyzes the implementation of the system, in addition to delivery challenges and the steps taken to overcome them.

Development Challenge: Building Community-Based Resilience through Disaster Risk Reduction and Management

Located at the edge of the Pacific, the Philippine archipelago is visited by around 20 tropical cyclones of various intensities in any given year. Located in the Camotes Islands in northern Cebu, the Municipality of

San Francisco is no stranger to these typhoons. Since 1948, a total of 51 tropical cyclones came within 50 kilometers of its boundaries, of which 20 directly crossed the cluster of islands, including Typhoons Bising in 1982, Ruping in 1990, and Yolanda in 2013—the three most destructive in recent memory (Bawagan et al. 2015). In fact, a permanent memorial stands in San Francisco's town plaza to mark the day Bising destroyed its town hall in 1982. Completely surrounded by open sea, the majority of its population relies on natural resources to make a living, particularly through farming and fishing. When typhoons hit, residents are left to the mercy of the elements.

Typhoons in the Philippines have become accepted as a part of life, and government and civil society response has typically been reactive, focusing on relief distribution and rescue operations (NDRRMC 2011; Bawagan et al. 2015). Interviews with residents and local government officers of San Francisco reveal that after Typhoons Bising and Ruping hit, there was no conscious decision to prepare the town for the next disaster. Fortunately, even though they were still frequented by storms during the annual monsoon season, no typhoon of such intensity hit the islands. Moreover, unlike in other towns, San Francisco already had a unique service delivery system in place through the *purok*. In 2010, when the National Disaster Risk Reduction and Management Act was passed, the challenge was how to implement the newly introduced DRRM framework in the context of the municipality.

Intervention: The *Purok* System in San Francisco, Cebu

The Municipality of San Francisco is composed of one main island and one islet. It is part of the Camotes Islands, which are geographically separated and accessible via a two-hour boat ride from the “mother province” of Cebu. The town, considered a third-class municipality, is composed of 15 barangays (villages) and is home to 55,180 people as of the 2015 census. The major form of transportation in order to reach all 11 coastal and four upland barangays is through motorbikes or motor tricycles. Houses are usually spaced well apart across the rough, gently sloping terrain. The island has not yet reached full electrification, with many areas receiving rations of electricity at certain hours only. For example, the islet community of Tulang Diyot, accessible via a 10-minute boat ride from Barangay Esperanza on the

Table 1. Socioeconomic Profile of the Municipality of San Francisco

Income classification	3 rd class municipality
Annual income (2016)	PhP 116.86 million
Land area	106.93 sq. km
Population (2015)	55,180
Population density	516.04 persons per sq. km
Number of households (2015)	12,278
Average household size (2015)	4.5
Primary industries	Small-scale commercial and sustenance fishing, corn, rice, coconut, vegetables, backyard livestock raising
Major sources of family income	Fishing, farming, self-employment in buy-and-sell businesses, employment in tourism and services sector

Sources: Philippine Statistics Authority; Bureau of Local Government Finance; Bawagan et al. 2015.

mainland, receives electricity rations for only 4–6 hours daily, making communication through radio or mobile difficult. Getting across one side of the island to another takes roughly 40 minutes to an hour via motorbike.

In 2004, Alfredo Arquillano, Jr. was elected for a second three-year term as the Municipal Mayor. At that time, he wanted to start a solid waste management program to clean up the streets and beaches of the island town in order to turn it into a viable tourist attraction for local and foreign tourists. To implement the project, Arquillano built upon the idea of the *purok*, an indigenous form of self-organizing communities that is smaller than the village-level barangay, officially the smallest administrative unit of governance in the Philippines. Originally, *puroks* were organized by residents within a village on an ad-hoc basis for holding fiesta celebrations in honor of a patron saint or for other religious purposes. Under the system introduced by Arquillano, each *purok* was organized as a people's organization composed of around 50 to 100 households. Members of the *purok* elect officers and the heads of eight different committees, based on the committees formed in each barangay. In other words, the *purok* can be considered as a miniature barangay. A key feature is that the entire system works under a voluntary basis or *pintakasi* in the local Cebuano language. This means that membership is not forced unto residents and the elected *purok* officers do not get any compensation for their role as community leaders. Additionally, Arquillano was adamant that the *purok* system should come at little cost to the local government, which meant that there would be no financial subsidies provided for setting up the *puroks*.

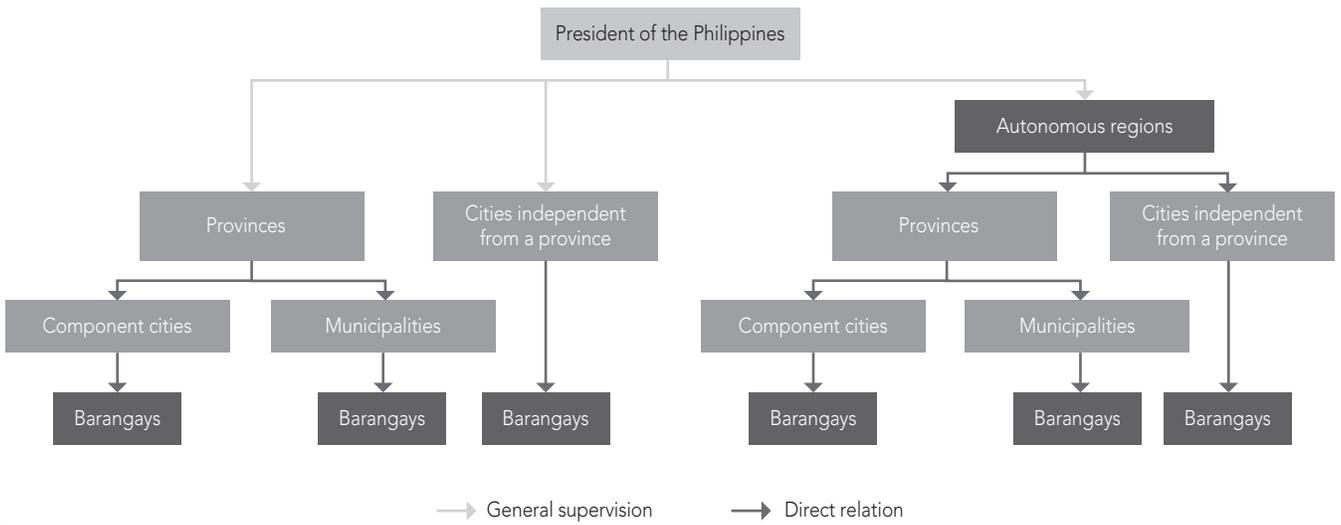
Over the years, the *purok* system evolved in terms of usage—from solid waste management, to fighting malnutrition and improving livelihood, and most recently for disaster preparedness and response. For its efforts, San Francisco has received various awards from the provincial and national government. It has also been recognized as a model resilient city by the United Nations Office for Disaster Reduction (UNISDR, n.d.).

Key Delivery Challenges

Poor Coordination and Engagement among Stakeholders

San Francisco is primarily an agricultural town, and the majority of its citizens are fishermen, farmers, or self-employed in small-scale trading. Residents rely on largely on sustenance fishing and farming for food. There was little incentive for them to organize, especially since *purok* positions were purely on a voluntary basis with no compensation. Since the *purok* system in San Francisco operates with minimal financial support from the municipal government, organizing *purok* activities became an added responsibility to the residents, especially for its officers. Taking time off from their usual work to do *purok* activities was seen as a waste of time and a source of conflict, due to misperceptions that *purok* leaders were getting special favors from the municipal government. There was also disagreement and resistance among elected barangay officials, especially those who belonged to different political groupings than the mayor.

Figure 1. Local Government Structure in the Philippines



Source: Local Government Code of 1991; Image from Wikimedia Commons.

In the Philippines, barangays are themselves smaller units of government that may exercise some level of autonomy. For some of these officials, the *purok* system was viewed as a redundancy.

Lack of Appropriate Framework for Disaster Risk Reduction and Management

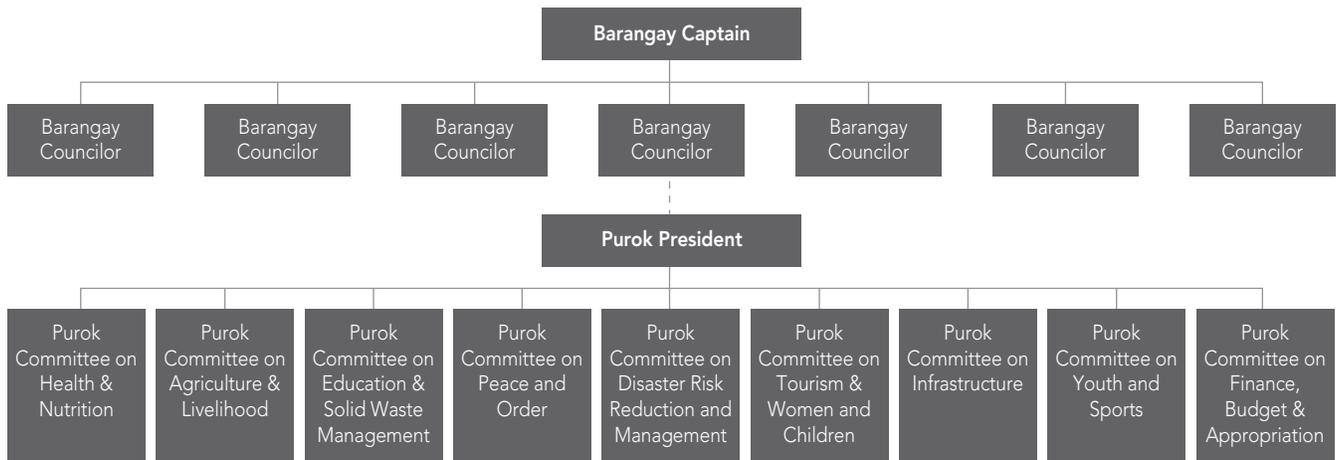
In 1978, the National Disaster Coordinating Council (NDCC) was created as an inter-agency body to oversee government response during calamities. Disaster coordinating councils (DCCs) were organized following the local government structure at the regional, provincial, and city/municipal level. In reality, however, this top-down approach proved ineffective in preparing communities, since planning, announcements, and relief operations were highly centralized. Moreover, the DCCs were only convened when emergencies arose and no permanent office existed. In the 1990s, the NDCC shifted paradigm from reactive emergency management focused on preparedness and response, toward proactive disaster risk management approach that emphasized mitigation before calamities struck (NDRRMC 2011), but its implementation was still top-down. Meanwhile in San Francisco, since no other storm of similar magnitude struck the town, Bising and Ruping were slowly forgotten and residents moved on with their lives. Without permanent staff in charge at the local government level,

disaster mitigation was not really a priority as municipal officers focused more on poverty alleviation programs.

Around this time, advocates lobbied for a new law that sought to empower communities and introduce a bottom-up approach to disaster risk management. However, it was two decades and a series of major calamities before the National Disaster Risk Reduction and Management (NDRRM) Act was passed in 2010, mandating the creation of Disaster Risk Reduction and Management Offices (DRRMOs) at the municipal and barangay levels, so that DRRM could begin even in the smallest level of governance. For San Francisco, the sub-village-level *purok* did not have the same legal standing as barangay governments, and therefore there was the need to reconfigure how this existing system could fit into the requirements of the NDRRM Act, which mandated implementation and providing access to funds at each level of local governance starting from barangay governments, the smallest administrative unit recognized by law, to the municipal then the provincial level and eventually, national level.

Lack of Skilled Manpower and Organizational Capacity

As in many parts of the Philippines, there was a general lack of awareness in relation to disaster preparedness and response among residents of San Francisco, who simply looked at typhoons as one-off events. Bising and Ruping

Figure 2. Barangay and Purok Structure in San Francisco

Source: MDDRMO-San Francisco.

were largely forgotten; the town was still frequented by storms during the annual monsoon season, but not to the extent of these two previous ones. As one resident recalls, they would only begin to make initial disaster preps when they would “see the waves rise and the wind becomes stronger” or when they would hear “rumors” from the mainland about potential storms approaching (Resident, personal communication 2017). It was difficult to reach the farthest communities, whose residents do not have access to news or weather bulletins. Evacuation orders would prove futile, as a number of residents would stay behind to secure their property, even in the middle of a storm. Although the NDRRM Law passed in 2010 was welcomed by disaster risk reduction and management advocates as a “solid” framework, there were doubts about the effectiveness of its actual implementation, particularly about the capacity of local governments to promptly respond to disasters given the complexity of the new structure in place (Commission on Audit 2014).

Tracing the Implementation Process: “Think Big, Start Small”

“Start Small”: Setting Up the Structure (2004–2008)

In 2004, initial talks were held first with one *purok*, Danao in Barangay West Poblacion, close to the municipal hall. A few weeks later, two more *puroks*, Bokok in Barangay

Northern Poblacion and Can-Ising in Barangay Southern Poblacion, were added. These three *puroks* served as pilot sites for the new system that Mayor Arquillano wanted to set in place. During the initial months, staff members from the Mayor’s Office explained to residents how the system would work: each *purok* would elect a president, vice president, secretary, and the heads of eight different committees patterned after the barangay. Through these committees, *purok* residents could identify particular needs, which could be addressed to the proper office at the municipal level. For example, the Committee on Health and Nutrition can coordinate with the Municipal Health Office for possible medical outreach for the residents. It was made clear, however, that *puroks* would operate on a voluntary basis and that residents should not expect dole-outs from the municipal government. The *purok* would have to work for their share.

Initially, Mayor Arquillano designated one of his staff members, Leoli Ortadilla, as *purok* coordinator to serve as the liaison to the communities. The main role of the coordinator was to organize households that were geographically close together into *puroks*. He was also tasked with providing feedback to Mayor Arquillano about the problems and the progress of the *puroks*. When it was time to begin expanding beyond the three pilot communities, it was Mr. Ortilla who recruited additional *purok* coordinators to help in the work. In order to reach all 15 barangays in San Francisco, each barangay was classified into one of three “districts” according to location: Central, North, and South. Assisting Mr. Ortilla

were two *purok* coordinators who would go to the five barangays in each district. Coordinators are officially under the payroll of the municipal government as staff members under the Office of the Mayor and are provided transportation allowance to carry out their duties.

Before setting up a new *purok* or integrating existing ones into the new system, the coordinator first talked to the elected barangay captain and barangay *kagawads* (councilors) to explain to them about this new system being set in place. According to the Local Government Code, each barangay in the country elects seven *kagawads*. In this regard, each *kagawad* would ideally take charge of monitoring one *purok* and take part in their meetings. The system was organized primarily according to geographic location with at least seven *puroks* per barangay (corresponding to the number of *kagawads*), but as membership began to increase, some *puroks* had to be divided and so more and more *puroks* emerged for easier management by their respective officers. Through this method, the system expanded to cover all 15 barangays while gaining support from the elected barangay officials. In 2007, the Municipal Council of San Francisco passed an ordinance that gave legal status to the *puroks* as POs that serves as community service units to support barangays. This designation of the *purok* as a community-based organization that can be mobilized by barangay and municipal officials, rather than another layer of the bureaucracy, eased concerns from initial critics. Throughout the process, the *purok* coordinators closely monitored the progress of the *puroks* and reported directly to the mayor. The *purok* coordinators attend the monthly meetings of each of the *puroks* under their watch. They attend weekly meetings at the municipal hall to give feedback about the implementation of the system or to convey any difficulties encountered on the field for possible solutions.

In order to support their operations, the municipal government provided initial Capital Build-Up (CBU) funding to *puroks*. The CBU helped finance the building of *purok* meeting halls while the residents themselves raised additional funds on their own. The *puroks*, like any other PO, were empowered to draft their own organizational rules, as guaranteed by the Philippine Constitution. For example, the *puroks* were allowed to collect regular monthly contribution from their members and impose fines for non-attendance at activities or for violation of their own rules. The money collected was used for their “sinking fund” or operational funds to purchase office

supplies needed for their meetings and any administrative costs incurred (mostly office supplies). The CBU was also used as the initial seed money for microfinance, which can be accessed by *purok* members in case of emergency situations (Matthies 2017). Beyond this, however, *puroks* did not receive monetary compensation or financial assistance. Instead, *purok* officers were given priority to attend trainings and capacity-building programs organized by the municipal government. Because of its voluntary nature, the issue of inactivity among members and even officers was a major challenge to be overcome but through the encouragement of the coordinators, the residents persisted in carrying out the operation of the *puroks*.

The initial five years of project implementation was crucial in establishing communication, building trust, and maintaining a strong relationship between the local government and the *purok* communities. It was also through the *purok* that the municipality introduced the community health management system and the Food Always at Home (FAITH) work-for-food livelihood program, in partnership with Plan International and other non-governmental organizations (NGOs). Slowly, results began to show. In these early years, the *purok* evolved into not only a reliable mode of service delivery encompassing solid waste management, nutrition, and livelihood, but also a venue to strengthen social cohesion at the grassroots level (Matthies 2017).

Introducing Disaster Risk Management to San Francisco (2008–2011)

The local government of San Francisco had established partnerships with NGOs in the implementation of its various grassroots community-based programs that were implemented at the *purok* level, including Plan International-Philippines. Since the 1980s, this NGO had maintained a presence in the Camotes Islands, but their programs at that time focused largely on linking donors to foster families living in the area. In the early 2000s, the NGO shifted from doling out help to beneficiaries toward a more community-based approach by closely working with residents and the local government. During this time, Roy Soledad, former Technical Officer who would later become the Camotes Islands Program Unit Manager, worked with the four municipalities of the island group in implementing their community-based nutrition program. Recalling his experience as a civil

society officer in Camotes, Soledad noted that although these towns had tapped their respective indigenous *puroks*, it was San Francisco that had the most organized and consistent system in place (R. Soledad, personal communication 2017). In the early 2000s, civil society engagement in Camotes focused largely on health and nutrition, as well as livelihood projects.

Disaster risk reduction and management, however, would not have been introduced to the collective consciousness of both residents and civil society in San Francisco had it not been for a series of major natural calamities in other parts of the Philippines. In February 2006, a landslide in the neighboring province of Southern Leyte practically wiped out the village of Guinsaugon leading to more than 1,000 deaths. The 2006 landslide served as a wake-up call about how ill-equipped residents, the government, and NGOs were in handling such disasters. It was the experience in Guinsaugon that became a rallying point for shifting from mere disaster relief to a more proactive disaster risk management (R. Soledad, personal communication 2017). In 2008, more than 300 civil society organizations (CSOs), academics, and government agencies, particularly the Office of Civil Defense (OCD) which had served as the secretariat for the NDCC at that time, formed the Disaster Risk Reduction Network Philippines (DRRNetPhils), an umbrella organization which lobbied for the passage of a comprehensive NDRRM Law (Bawagan et al. 2015). While DRRNetPhils engaged with Congress and national agencies to adapt the Hyogo Framework for Action (HFA) in the drafting of the NDRRM Law, the OCD through the NDCC had already begun the shift toward disaster risk reduction, albeit without the supporting structures and legal framework. Additionally, it was the work of CSOs on the ground that started capacity building for communities.

Plan International-Philippines decided to move beyond nutrition and livelihood, and became a disaster relief organization as well. In the latter half of 2008, Soledad returned to Camotes Islands and introduced DRRM programs of Plan International-Philippines to the area, including San Francisco. Through the relationship they had built over the years, the local government, led by Mayor Arquillano, was receptive of the idea but insisted that such DRRM programs must have a livelihood component. The partnership between the NGO and the local government was forged later in the year and commenced implementation in 2009. Community-based

DRRM was operationalized at the *purok* level, since by that time the *purok* had already proven as an effective vehicle to deliver services in other areas such as nutrition and livelihood. Because funding for this program was limited (with Plan International-Philippines preparing to officially phase out its Camotes Unit by 2011), the project had to be implemented immediately with focus on coastal resource management, education, hazard mapping, early warning, and capacity building. It was also around this time, through the NGO network, that the LGU was introduced to the Sasakawa Award for Disaster Reduction by the UNISDR, which incorporated “A Documentation of the 10-Point Checklist” (2011) as part of the nomination submission. Mayor Arquillano noted that because the checklist was straightforward and easily understandable, this served as their tool for monitoring the implementation of their programs. Despite limited funding, the support from civil society together with application for the Sasakawa Award and the US\$25,000 cash prize, served as motivation for the LGU in pushing through with their community-based DRRM program (R. Serion, personal communication 2017). In 2009, Plan International-Philippines donated a digital and manual rain gauge to help build the town’s capacity to do its own basic weather forecasting. Local schools were also involved so that in addition to *purok*-based capacity building, schoolchildren and teachers were also trained in disaster preparation.

At around the same time, national-level developments had wide implications for towns like San Francisco. In September 2009, floodwaters from Typhoon Ondoy (international name: Katsana), were responsible for more than 400 deaths in the Philippine Capital, Metro Manila, alone. A week later, another typhoon Pepeng (international name: Parma) hit the northern part of Luzon island. The devastation caused by these extreme weather events highlighted the need to prioritize climate change adaptation in policy formulation. In response, Congress passed Republic Act 9729, also known as the Climate Change Act, later that year. The Act created the Climate Change Commission attached to the Office of the President in October. However, the poor response of the national government during the onslaught of these major typhoons also highlighted the inadequacy of the NDCC as a disaster response agency. The momentum from this renewed interest in climate change served as a gateway for the NDRRM Law to finally have its best chance of passage after more than two decades of being

stalled in the legislative mill. In 2010, Congress passed Republic Act 10129 or the NDRRM Law, which created the National Disaster Risk Reduction and Management Council (NDRMMC) and mandated DRRM from the grassroots level of governance. More than creating the necessary structures, however, the new law provided the necessary access to funds, mandating that at least five percent of the local government budget be allocated as the “local disaster management fund,” of which 70 percent went to DRRM preparations and the other 30 percent as Quick Response Fund (QRF) to be immediately used for relief and rehabilitation when disaster strikes.

The law also mandated the creation of a permanent Municipal Disaster Risk Reduction and Management Office (MDRRMO), and the creation of DRRMCs down to the barangay level. Because *puroks* in San Francisco operate as “little barangays” the *purok* constituted a Committee on DRRM for themselves. In order to avoid adding another layer of bureaucracy, the Committee was to be headed by the *Purok* Vice President, which meant that the DRRM Committee became in a way, an umbrella committee *primus inter pares*.

However, adhering to the mandates of the new law was difficult. The implementing rules and regulations drafted by the national government basically told local governments what to do in order to comply with the new law, but did not necessarily prepare officials on how to implement them. The MDRRMO had to be created from scratch, according to Rosalinda Serion, former Municipal Social Welfare Officer, prior head of relief operations under the old Municipal Disaster Coordinating Council and who was tapped as the head of the MDRRMO (R. Serion, personal communication 2017). Monica Tan, the MDRRMO Policy and Research Officer, was in charge of documentation and record keeping. Both the Mayor’s Office and the Municipal Council were generally supportive to the young MDRRMO, ensuring the smooth release of funds and hiring of new staff, who were recruited from other municipal offices or those who were involved in previous projects with civil society. San Francisco also began to draft its Five-Year Local DRRM Plan, which integrated not only DRRM and climate change adaptation but also solid waste management and community development programs. What made the transition less difficult was that a number of requirements in the new law were already in place through the DRRM project with Plan International-Philippines. It was only a matter of tweaking certain

jargon or complying with reporting and disclosure matters (R. Serion & M. Tan, personal communication 2017). The MDRRMO trained both barangays and *purok* about DRRM activities, in accordance with the legal mandate. The series of external developments—from using civil society networks to the passage of national legislation—provided the opportunities that allowed San Francisco to transform its *purok* system as a working community-based DRRM structure. For their efforts, the town won the 2011 Sasakawa Award for Disaster Reduction, along with the cash prize that the LGU used in financing its local DRRM plan.

Mobilizing *Puroks* for Effective DRRM (2011–2013)

The local government, working through the MDRRMO with technical support provided by Plan International-Philippines, intended to make its DRRM plan as inclusive as possible. This meant including vulnerable groups such as children, the elderly, and persons with disability (PWDs). There was also a clear vision: “Zero Casualty and No Injury.” In accordance with the new NDRRM Law, the local DRRM plan incorporated three specific themes: disaster prevention, disaster mitigation and preparedness, and disaster response (Bawagan et al. 2015). The MDRRMO focused on education and training, especially in helping barangays set up their own DRRMC. A key lesson was teaching families to prepare their “72-hour kits,” containing important documents and basic provisions such as food, water, clothing, and cash for the first three days following an emergency. The MDRRMO prepared evacuation plans and designated evacuation shelters. In 2011, the town invested in a WiFi connection for the MDRRMO to enable easier monitoring. Overall, one of the main strengths of San Francisco’s DRRM was to ensure that no one was left behind in its preparations.

At this point, Mayor Alfredo Arquillano, Jr. faced term limits and was succeeded by his older brother, Aly Arquillano, as the local chief executive in 2010. The former mayor Alfredo Arquillano, Jr. then ran and won as the town’s Vice Mayor. The *purok* coordinators were still municipal employees but were since able to report directly to the Municipal Council, which the Vice Mayor serves as presiding officer. After garnering international recognition through the Sasakawa Award, other LGUs in the Philippines visited San Francisco to learn more about

its *purok* system. In 2013, Vice Mayor Arquillano decided to return to private life while the older Arquillano was re-elected to a new term as mayor. Five months later, typhoon Haiyan hit.

On November 2–4, a low pressure area began to develop in the Pacific; by November 5, the typhoon was forecast to hit the Philippines; and the following day, it had officially entered the Philippine Area of Responsibility, designated as a super-typhoon with the local name “Yolanda” (Santos 2016).

At this point, San Francisco MDRRMO began alerting barangay officials and issued an order for pre-emptive evacuation, as well as prohibition of fishing activities in the town, while barangay and *purok* leaders were mobilized to trim tree branches that could fall and become roadblocks (Bawagan et al. 2015; Santos 2016). Residents from the islet of Tulang Diyot were brought to the mainland. Fishermen began to transfer their boats to higher ground. Some Tulang Diyot residents stayed in evacuation centers, but a number sought shelter with relatives and neighbors in the mainland who had sturdier concrete houses. This “adopt-a-family approach” helped decongest evacuation shelters while at the same time highlighted the spirit of *pintakasi* (Bawagan et al. 2015). By November 7, a day before the typhoon was expected to make first landfall, all residents in Tulang Diyot had been accounted for. The Municipal DRRMC had already been convened to prepare for the relief and recovery efforts and was kept updated by the national meteorological agency. There was constant monitoring of news and alerts from the national meteorological agency and nearby local governments. Even former Mayor Arquillano, who by then was a private citizen based in the mainland Cebu island, personally went to the regional weather station there to receive updates he could relay immediately to his former colleagues in San Francisco.

On November 8, typhoon Haiyan made six landfalls across the Visayan island group, leaving a trail of destruction (NDRRMC 2013). In the immediate aftermath, San Francisco incurred economic losses amounting to PhP 117.08 million, including agricultural livelihood loss amounting to PhP16.64 million. A total of 1,022 houses, 17 school buildings, two rural health units, and four government buildings were damaged (Bawagan et al. 2015). There were some shortcomings, including reported congestion in some evacuation centers and reports from three residents who sustained minor injuries (Bawagan et al., 2015). There were also complaints that some inactive

purok members or non-members were not included in the lists the *purok* officers gave to barangay officers during official relief distribution, causing some delay in the operations (M. Tan, personal communication, 2017). In keeping with the goal of the plan, however, there were zero casualties in the entire municipality. In the days that followed, the *purok* officers became the primary source of information during the damage assessment conducted by the LGU.

In nearby municipalities, including in northern Cebu, entire LGUs were helpless and became victims themselves. The Commission on Audit (2014) in its post-Yolanda assessment noted that, three years into the passage of the NDRRM Law, many LGUs were still ill-equipped to respond to natural disasters, let alone one as strong as Haiyan. This included, but was not limited to, inadequate skills and expertise of the response team, a poor emergency management and distribution system, and a lack of important equipment and logistical infrastructure, since many LGUs were found to have not yet been able to integrate DRRM into their respective local development plans by the time Haiyan hit (COA 2014).

Lessons Learned: “Start Small, Think Big”

The *purok* system of San Francisco shows how local government, despite limited resources, can facilitate coordination among communities such that residents themselves can be mobilized for important matters such as DRRM. However, this case highlights that establishing and implementing such community-based interventions is a long process in itself that will inevitably encounter some roadblocks. The local government recognized early on that it could not provide everything nor could it exact support from residents all at once; but it did have a bigger vision of empowering residents so that they could take initiative themselves and not rely on dole-outs. This was the rationale behind the de facto motto of the *purok* system: “Start Small, Think Big.”

“Start Small”: Proper Timing, Pilot Testing, and Consistency

The *purok* system in San Francisco was not implemented in one go. There were several pilot tests, starting with just three communities (located close to the town proper

at that) in the first months of implementation, before expansion to all 15 barangays in the town during the course of two to three years. The system was not officially institutionalized at first, since it was three years later that the local town council accord the *purok* legal status as partner people's organizations. The first five years proved crucial in communicating, establishing trust, and building relationships with the communities. Once contact was made residents, there was constant follow through.

In terms of timing, San Francisco is a concrete example of how much can be achieved when preparation meets opportunity. The municipal government, through both learning-by-doing over the years and its established relationship with NGO partners like Plan International-Philippines, had managed to introduce DRRM even before it was prioritized at the national level through legislation. It had a slight head start in DRRM preparations that was crucial in establishing the system that ensured there was no casualty even in the farthest corners of the municipality, whereas similarly situated local governments were ill-equipped to handle such natural disasters. Additionally, the basic idea that *puroks* should be voluntary, self-supporting, and not rely on dole-outs was carried through in the different stages of the implementation process.

Building Resilience by Getting Everyone Involved

There were initial concerns that this initiative by the municipal government would overlap functions of the barangay governments, who also enjoyed some level of autonomy from the municipal government; thus, it was made clear at the onset that the *puroks* served as people's organizations that complemented the functions of the barangay and not as a new level of bureaucracy to replace it. This allayed qualms of some barangay officials who feared being bypassed by this system. There was also clear delineation of tasks and expectations: *purok* coordinators were municipal-level employees that made sure that the system would run smoothly, barangay officials were free to engage with the *puroks*, and the *puroks* themselves had to exert their own effort and initiatives. Barangay officials were also welcome to join the monthly *purok* meetings as well.

With regard to external engagement, the Municipality of San Francisco was generally more receptive to welcoming partnerships and cooperation with civil society, particularly for capacity building and trainings,

based on a mutual understanding of empowering communities and not simply doling out aid. When DRRM was introduced to San Francisco in 2008, the town leadership insisted that there be a livelihood component to it. It was the relationship built over the years with civil society partners through various projects that made cooperation, and to some extent negotiation, possible such that one party did not fully dictate upon the other. It was also through this civil society network that opportunities for the municipality to learn from best practices abroad emerged.

By the time the NDRRM Act was passed in 2011, the town immediately began transition toward fulfilling the requirements and mandates of the new legislation. This included the creation of the MDRRMO which drafted their Local Five-Year Plan by consulting with barangay officials and then providing the necessary training to the *puroks*. By getting everyone involved, the town was able to create an inclusive local DRRM plan that covered not only vulnerable communities but also vulnerable groups such as PWDs, elderly, and children as well. San Francisco's *purok* system was designed to ensure that each *purok* could incorporate as many households as possible within geographic proximity, which allowed disaster preparations to be made that covered as many communities as possible. In this way, San Francisco was able to go beyond the mere mandate of the law, which required DRRM to be implemented, at the very least, at the barangay level. The *purok* themselves had a DRRM Committee that supported DRRM preparations at the barangay level, which in turn was being monitored at the municipal government level by the MDRRMO.

Learning-by-Doing with Deliverables Based on Needs

The combination of top-down introduction and bottom-up implementation was a key success factor in ensuring the sustainability of the system. The gradual expansion also provided the necessary trial and error to sort out any conflict that arose in the early stages of implementation, as all stakeholders—from *purok* residents up to the mayor—were learning by doing. Residents were given some level of autonomy identify their needs and to develop the system on their own gradually, while at the same time exacting accountability from the local government, who likewise played the important role of setting clear,

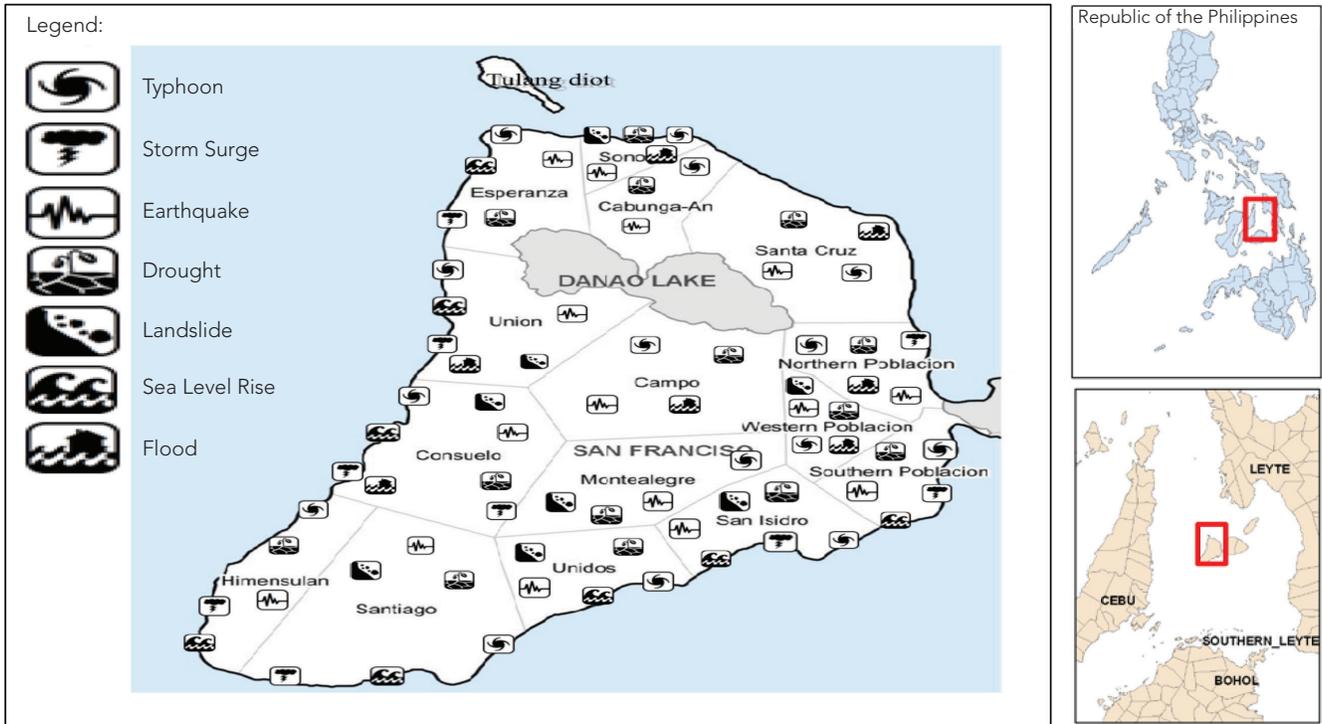
measurable objectives, and following through on these results. Interventions such as the work-for-food program and community health monitoring that aimed to build the capacity of the *purok* system as a whole—beyond simply receiving relief monetary aid—worked in addressing the immediate needs of residents so much so that residents became more receptive of future programs like DRRM. Local and international competitions such as the “model LGU award,” and even the UNISDR Resilience Award, provide certain sets of criteria, which also served as a concrete way to measure outputs and outcomes. The cash prizes received by the LGU as a whole were used as cash prizes for inter-*purok* competitions as well, spreading the competitive spirit from the local government down to the *puroks*. With the new NDRRM Law in place, the LGU had to follow legal mandates which meant that the town had to relearn and re-angle the initial training they received from Plan International-Philippines, and at the same time introduce new items to their DRRM planning in accordance with the law.

Bibliography

- Bawagan, A.B., L. Polotan-dela Cruz, M. S. Felizco, M. J.Tan, M. Wamil, and J. S. Germar. 2015. *Shifting Paradigms: Strengthening Institutions for Community-Based Disaster Risk Reduction and Management*. Quezon City: UP College of Social Work and Community Development.
- Commission on Audit. 2014. *Disaster Management in the Philippines: An Assessment* [PDF file]. Retrieved from http://www.coa.gov.ph/disaster_audit/doc/National.pdf.
- Fernandez, G., N. Uy, and R. Shaw. 2012. Community-based disaster risk management experience of the Philippines. In R. Shaw (Ed.), *Community-based disaster risk reduction* (205–231). Bingley: Emerald.
- Local Government Unit (LGU) of San Francisco Municipality, Camotes Islands, instituted in 2000 a local and step by step solution to improve the living condition of its people [Word file]. (2011). Retrieved from http://ssc.undp.org/content/ssc/library/solutions/partners/expo/Local_Government_Unit_LGU_of_San_Francisco_Municipality_Camotes_Islands_instituted_in_2000_a_local_and_step_by_step_solution_to_improve_the_living_condition_of_its_people.html.
- Matthies, A. 2017. Community-Based Disaster Risk Management in the Philippines: Achievements and Challenges of the *Purok* System. *Austrian Journal of South-East Asian Studies*, 10(1), 101–108.
- Mel Yan. 2014. *Localizing DRRM through the Purok System* [Video file]. Retrieved from <https://www.youtube.com/watch?v=YI8io5gENT8>.
- Mc Elroy, A. 2013. Evacuation saves whole island from Typhoon Haiyan. United Nations Office for Disaster Risk Reduction. Retrieved from <http://www.unisdr.org/archive/35524>.
- National Disaster Risk Reduction and Management Council. 2011. *National Disaster Risk Reduction and Management Framework* [PDF file]. Retrieved from http://www.adrc.asia/documents/dm_information/Philippines_NDRRM_Framework.pdf.
- National Disaster Risk Reduction and Management Council. 2013. *Final Report re: Effects of Typhoon “Yolanda” (Haiyan)* [PDF file]. Quezon City: NDRRMC.
- Peng Tan. (2011, February 26). *Building resilient communities in San Francisco, Cebu* [Video file]. Retrieved from: <https://www.youtube.com/watch?v=LeGu7SHPVqY>.
- Philippine Statistics Authority. 2016. *2012 Municipal and City Level Poverty Estimates*. Quezon City: Philippine Statistics Authority.
- Ranada, P. 2014. San Francisco: The island where everyone survived. *Rappler*. Retrieved from <http://www.rappler.com/move-ph/issues/disasters/preparedness/59060-camotes-island-purok-system-yolanda-zero-casualty>.
- Rappler.com. 2014. Disaster risk reduction in Camotes: The Purok system. *Rappler*. Retrieved from <http://www.rappler.com/video/reports/59161-disaster-risk-reduction-in-camotes-the-purok-system>.
- San Francisco, Camotes Municipal Government. 2011. A Documentation of the 10-Point Checklist for Making San Francisco, Camotes Resilient to Disasters. Retrieved from <http://www.preventionweb.net/applications/hfa/lgsat/en/image/href/533>.
- Santos, R., Jr. 2016. Timeline: Super Typhoon Yolanda (Haiyan). *Rappler*. <http://www.rappler.com/nation/43316-timeline-super-typhoon-yolanda>.
- United Nations International Strategy for Disaster Reduction Secretariat. (n.d.). Creating Local Solutions in Building Resilient Communities: The Experience of the Municipality of San Francisco, Camotes Island, Cebu, Philippines [PDF file]. Retrieved from <https://www.scribd.com/document/75188601/San-Francisco-Nomination-for-SASAKAWA-Final-1>.

Annexes

Annex A. Municipal Hazard Map of San Francisco



Source: MDRMO-San Francisco.

Annex B. Timeline of Key Inflection Points

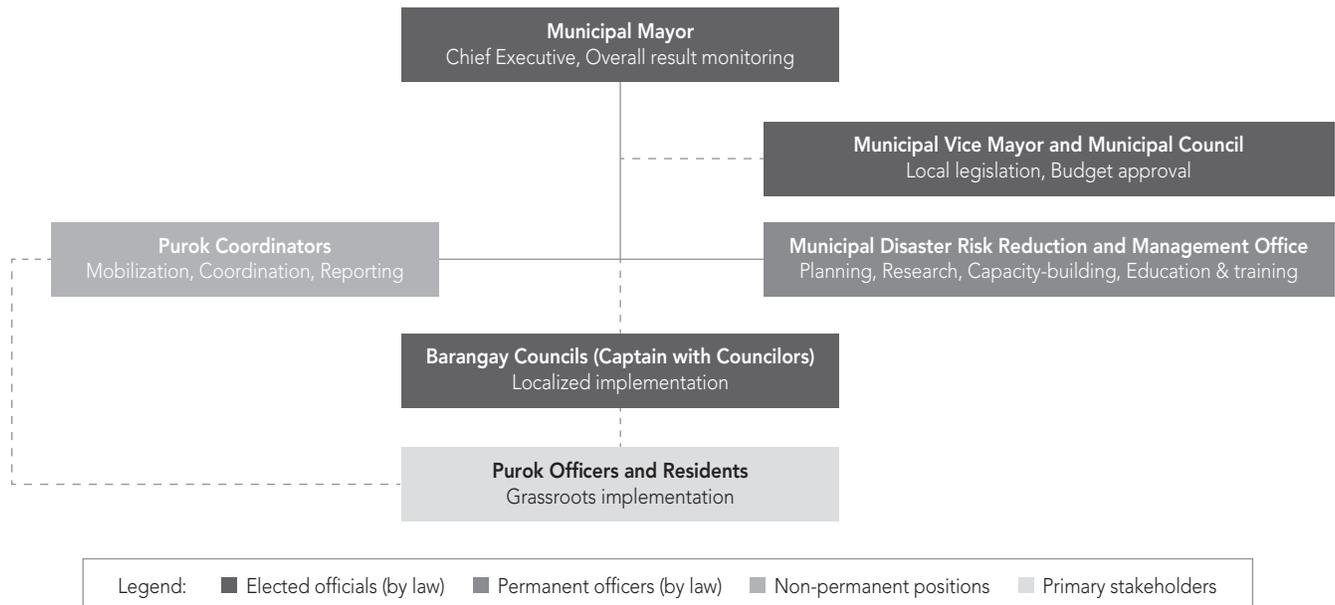
Time Period	Internal and External Events	Legislation/Policy	Justification for Inclusion
1980s–1990s	Major natural disasters hit the Philippines, including Mount Pinatubo eruption and lahar floods. In San Francisco, Typhoon Bising destroyed the municipal town hall in 1982. Typhoon Ruping killed six fishermen who were securing their boats at that time, in 1990.	NDCC implemented “disaster management” paradigm on a top-down basis from national down to the local government level.	“Disaster management” becomes prevailing approach in the Philippines. Bising and Ruping are the strongest typhoons to have hit San Francisco. A permanent marker commemorates the onslaught of typhoon Bising.
2000s	Plan International-Philippines began to implement community-based projects in Camotes Islands.		The NGO has had a long-established presence in the islands.
Establishing the <i>Purok</i> System (2004–2008)			
2004	Alfredo Arquillano, Jr. was re-elected for a second term as Municipal Mayor. He wanted to focus on developing San Francisco as an eco-tourism destination but noted problems such as lack of proper solid waste management.	Introduction of <i>purok</i> system to organize residents to clean their own backyards as a community.	Communities began to be organized into the sub-level <i>purok</i> system.
2005–2007	Through the <i>purok</i> coordinators, the <i>purok</i> system was expanded to cover all 15 barangays. In the neighboring province of Southern Leyte, a landslide completely covered an entire village, killing at least 1,000 people.	Community health and work-for-food programs were introduced at the <i>purok</i> -level with the help of Plan International. In 2007, the municipal council passed an ordinance that gave legal status to the <i>purok</i> as a recognized people’s organization to serve as community service units that can support the barangay.	Malnutrition rates began to drop while enrollment rate in began to increase. The <i>puroks</i> gained some initial funding from the municipal government for their CBU which they used to build their own meeting halls, hold meetings, and raise additional funds of their own. System underwent crucial “learning-by-doing” period. Plan International, which also operates in Southern Leyte, added disaster relief as a core competency.
Introducing Disaster Risk Management in San Francisco (2008–2011)			
2008	The Disaster Risk Reduction Network Philippines (DRRNetPhils), an umbrella organization, was formed in order to lobby for the passage of a comprehensive NDRRM Law. Plan International-Philippines opened its Camotes Islands Unit to promote disaster risk reduction in San Francisco and neighboring municipalities.	The NDCC, through the Office of Civil Defense (OCD) began the shift toward a “risk reduction” paradigm, including disaster preparedness and mitigation, but lacked the structure to properly implement such.	Disaster risk reduction began to gain prominence in the Philippines. The LGU of San Francisco formed a partnership with Plan International-Philippines to introduce community-based disaster risk reduction at the <i>purok</i> level, but with livelihood component.

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Time Period	Internal and External Events	Legislation/Policy	Justification for Inclusion
Introducing Disaster Risk Management in San Francisco (2008–2011) (continued)			
2009–2010	Two major typhoons, Ondoy and Pepeng struck Luzon, killing more than 1,000 people, and immobilizing the Philippine capital, Manila, which was submerged in floodwaters.	Philippine Climate Change Act was passed in 2009, followed by the NDRRM Act in 2010, mandating bottom-up grassroots DRRM.	The NDRRM Law mandates that 70% of municipal budget be set for risk reduction & preparations and 30% for Quick Response during disasters, among other requirements.
2010–2011	San Francisco enters nomination bid and eventually wins Sasakawa Award for Disaster Reduction by the UNISDR. San Francisco sets up MDRRMO in accordance with the law.	San Francisco drafts Five-Year Local DRRM Plan.	With support from Plan International, San Francisco had a head start in DRRM planning, using the UNISDR checklist, while at the same time ensuring compliance with requirements set by the new law (especially on funding, auditing, etc.). San Francisco named as a “Resilient City” and former Mayor Alfredo Arquillano, Jr. (by then elected as Vice Mayor) was named “Resilience Champion.”
Introducing Disaster Risk Management in San Francisco (2008–2011)			
2011–2013	San Francisco begins implementation of Five-Year Local DRRM Plan. MDRRMO helps set up Barangay DRRM Councils, while providing capacity building down to the <i>purok</i> level.		Education and awareness campaigns spread to schools, incorporating evacuation drills, training of personnel for weather forecasting, and investing in infrastructure such as WiFi connection in the town hall.
November 2013	Typhoon Haiyan strikes.		Zero casualties in San Francisco.

Annex C. Stakeholder Map



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