



Philippines. Community members in Quezon City draw their houses relative to the distance to the nearest open space for evacuation site in case an earthquake occurs in their area.
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Philippines

Community Participation in Evacuation Planning in Metropolitan Manila

1. Context

Metropolitan Manila, one of the world's largest urban agglomerations, faces a high level of disaster displacement risk associated with earthquakes, frequent flooding, and fire hazards. In Manila's Navotas City, for example, some 250,000 residents are concentrated in just one quarter of the city's

almost 11 square kilometre strip of land on the shore of Manila Bay. Despite being Southeast Asia's biggest fishing port, Navotas is prone to frequent flooding caused by typhoons, heavy monsoon rains and high tides, especially near waterways and fishponds.¹ At particular risk are migrant labourers from other regions in the Philippines, who live in poor-quality shanties in informal settlements along the coastline and riverine waterways.²

"Of the many disasters in Daanghari that I have experienced growing up, it is only now that we have this kind of simulation... Now that we have experienced this, we are more aware of disaster preparedness."

Liza Amosco, Daanghari *barangay* resident (2020)

2. Description of the practice

Between August 2017 and June 2018, three of metropolitan Manila's most vulnerable cities (Navotas, Pateros and Quezon) partnered with the International Organisation for Migration (IOM) on a pilot project to strengthen community-based preparedness in the event of a major earthquake, locally referred to as "the Big One."³ Ultimately engaging hundreds of local residents, the project focused on mass evacuation and camp management in vulnerable urban *barangays* (sub-districts or the smallest administrative division in the Philippines) facing significant earthquake and flood hazards. The European Commission's Civil Protection and Humanitarian Aid Operations (ECHO) funded the project.

Over a six-month period, IOM consulted city and municipal authorities, local government units, *barangay* captains and councillors, and community elders to gain their support and advice for the project. With their endorsement, individual *barangays* were selected based on various factors, including the precarious quality and location of residents' homes and residents' ability to access to road networks. In Navotas City, for example, Tangos *barangay* was chosen given its vulnerability to flooding and storm surges. Daanghari *barangay* lacked open areas where people could flee in the event of an earthquake, necessitating evacuation to other neighbourhoods.⁴

Demographic, hazard, vulnerability and capacity profiles and maps were then

developed for each selected *barangay*. To gather this information, IOM hired and trained over two dozen local enumerators on its Displacement Tracking Matrix methods. Most of the enumerators were volunteers with the Philippine Red Cross Society who had previous training on data collection and knew the pilot locations. The enumerators identified and catalogued open spaces and buildings as possible evacuation sites on public and privately owned land. This information was then overlaid on detailed and up-to-date maps of the *barangays*, produced using drone technology, to help identify possible evacuation routes.

Evacuation responders from the pilot cities, national line agencies and partner organizations were trained using international guidance on mass evacuations (MEND)⁵ and camp coordination and camp management (CCCM).⁶ Specific sessions included how to engage communities in activities such as plotting open spaces for evacuation sites and identifying exit routes in their *barangay* profiles.

Following the training, the Local Government Unit officials and local civil-society organisations led *barangay*-level evacuation planning processes with local residents based on the *barangay* profiles. Participants assessed the pre-identified evacuation areas, validating some and recommending new sites. The group then mapped out evacuation routes based upon their detailed knowledge of the neighbourhood, including the accessibility of different paths.

In Navotas City alone, some 100 families took part in mass evacuation simulation exercises,⁷ with the participation of local government officials and civil protection agencies,

including the fire brigade and police. The entire exercise included preparing “go bags,” rescue activities, and moving people from their homes to safe spaces. Once in evacuation sites, evacuees were registered and granted access to safe spaces for women and children as well as medical and psychological support.

3. Results for internally displaced persons and others

The pilot process increased participating communities’ preparedness for earthquakes. Evacuation plans formulated through the pilot project, and the subsequent lessons learned during the simulation, helped to identify the specific needs of groups within the communities. For instance, plans now address wheelchair users’ need for access ramps and toilet facilities with larger doorways at buildings designated as shelters. Older persons expressed appreciation for the respectful consideration shown to them during the simulation exercises, and the fact that they were consulted on their specific needs and preferred evacuation reception site.

Local officials, functionaries and volunteers also gained experience and expertise with respect to evacuation preparedness and community engagement. Officials have also committed to widening evacuation preparedness activities to other vulnerable *barangays* and continuing evacuation drills.⁸ Community leaders and officers from other *barangays* not directly involved in the simulation also gained insight from observing the simulation.⁹ *Barangay*-level government initiatives have also institutionalized lessons learned from the pilot project. Risk and hazard assessments and evacuation planning guidelines have been developed based on local experience. *Barangay* Daanghari in Navotas, for example, has integrated community-based evacuation preparedness into its Earthquake Contingency Plan,

including specific provisions for community engagement. Incorporating such measures into local disaster risk management plans enables *barangays* authorities to allocate Local Disaster Risk Reduction and Management Funds to future evacuation preparedness initiatives, for all that these funds are limited.¹⁰ As the CDRRM Officer in Navotas explained, “*People know what to expect and officers will know what to do... But it has to be repeated, tested, practiced, exercised so that it will not be forgotten and can be transferred to the next batch of officers and next generations.*”

4. IDP participation

IOM enumerators conducted key informant interviews with over 1,730 community members over a two-week period to gauge their general knowledge and engagement with disaster preparedness. The process relied on random and snowball sampling to identify people with specific needs, including women, children and youth, older persons, LGBT persons, and persons with disabilities. *Barangay* members with strong community roles were also consulted, including community leaders, schoolteachers, and members of volunteer groups and civil society organizations. The project also relied on over 200 focus group discussions to assess the level of awareness of disaster preparedness protocols and evacuation sites among different people from these same groups and with officials from the local government units, including *kagawads* (*barangay* councillors) and *barangay* health workers.

The resulting risk profiles, evacuation plans and maps for each *barangay* were subsequently shared by the Disaster Risk Reduction and Management (DRRM) representatives from each city or municipality through family and community disaster preparedness orientation sessions. The meetings brought together city and *barangay*-level officials and hundreds



Philippines. Mass evacuation and camp management simulation exercise in Barangay. ©IOM | 2018

of community members representing different groups, which enabled community participants to provide feedback directly to their local leaders. For example, after older persons highlighted their mobility needs, plans were revised to include designated vehicles to transport them to safety.¹¹ The simulation exercise itself further highlighted the need to designate tents and priority evacuation lanes for people with specific needs, particularly persons with disabilities, pregnant women and older persons.¹² Community participants also made individual plans for evacuating their own homes, which included delegating specific tasks to household members.¹³

5. Challenges

According to Navotas City's Community Disaster Risk Reduction and Management Officer, past efforts to engage communities in disaster preparedness had met with little interest or even resistance, despite the *barangays*' otherwise strong community spirit.¹⁴ At the same time, the project received complaints from households neighbouring the selected *barangays* because they had been excluded from the pilot process.

In addition, the project faced challenges accommodating community members' schedules, particularly men with work commitments that made it difficult for them to participate in all the activities.

To generate wide participation and support, the project relied on consultations, community forums and information campaigns throughout the project period to clearly explain the pilot's purpose and the shared benefits. For example, the *barangay* captain called a public meeting inviting representatives from all *barangay* units, including those in neighbouring areas, to clarify how the Navotas City DRR office worked through city local government units to select the *barangays* for the pilot exercise based upon their vulnerability to earthquakes, assuaging the concerns of those not participating in the pilot.¹⁵ The project team also adjusted schedules and methods to facilitate the full participation of most, if not all, of the targeted households' individual members. Local businesses were also engaged in the simulation, rescheduling their business around the exercise to enable their participation in the exercise. Notably, women from the communities played an active role in mobilizing their family members to take part.

The project developed communication materials and distribution methods, such as audio-visual presentations, to reach people with lower literacy levels. Project facilitators spoke in the local dialect when leading meetings and providing instructions. Activities also engaged participants in non-verbal ways. For example, as part of the family disaster preparedness orientation sessions, participants drew their own houses, identifying points of exit and making their own checklists for pre-positioned items. Finally, participants received project gifts, including t-shirts, caps and emergency “go bag” backpacks containing essential items, to create an incentive and show appreciation for their participation in the exercise. The gifts were later seen as also contributing to community spirit during the exercise.¹⁶

6. Lessons learned

Community engagement in disaster preparedness activities can play a role not only in ensuring that individuals are prepared for a potential evacuation, but also in providing critical knowledge to pinpoint disaster risks, identify individuals with specific needs, and help solve problems. Transparent communication and accessible information sharing were central to the ability of officials and *barangay* leaders to earn community members’ trust and secure their active participation in the process.

Importantly, the Philippines’ robust national and local disaster risk reduction law and policy guidance lent legitimacy to local officials’ leadership in the project.¹⁷ National guidelines issued in 2018 encourage Local Government Units to invest a portion of *barangay* Local Disaster Risk Reduction and Management Funds in institutional and capacity development to support evacuation operations that are “responsive to the needs of prospective users, as appropriate to the local contexts.”¹⁸ For the pilot project to expand and implement these guidelines, increased budget allocations at national

and local levels need to be directed toward participatory preparedness activities, including regular evacuation drills.

Finally, the composition of the operational project team also contributed to the successful engagement of the communities. Ten of the 15 team members were women. Many came from an NGO background or engaged in communities as social workers, nurses and teachers. All were local. Project organizers felt that this collective experience created a team with the skills, knowledge and commitment to effectively foster active community participation.

7. Why this is a good example to share

Disaster preparedness requires research, testing and practice at the community and individual level to be effective. In this case, residents used their local knowledge to identify oversights in community evacuation and camp management plans. Local officials strengthened their own preparedness and capacity to facilitate community evacuations in the event of a major disaster. However, active community engagement cannot be assumed or taken for granted, even for lifesaving activities related to disaster preparedness. Successful community engagement requires taking conscious steps, grounded in knowledge of the specific community, to build the trust and support of community members. In this case, using a team with people from the local community who had experience in social work appeared particularly effective at mobilizing the community in disaster preparedness activities.

Endnotes

- 1 City of Navotas, 'Comprehensive Land Use Plan 2016-2025. Part 4: Existing Land Use Profile' 2016–2025 <<https://www.navotas.gov.ph/Content/clup/Part%204%20-%20Existing%20Land%20Use%20Profile%20Final.pdf>> accessed 24 June 2020.
- 2 City of Navotas (n 1); Philippines Statistics Authority, 'National Population Census. City of Navotas, Philippines' (2015) <<https://www.navotas.gov.ph/OurCity/Demographics>> accessed 24 June 2020.
- 3 Department of Science and Technology - Philippine Institute of Volcanology and Seismology, 'DOST-PHIVOLCS Urges Public to Prepare for "the Big One"' (Department of Science and Technology - Philippine Institute of Volcanology and Seismology 2020) <<https://www.phivolcs.dost.gov.ph/index.php/news/8542-dost-phivolcs-urges-public-awareness-to-prepare-for-the-big-one>> accessed 24 June 2020.
- 4 Interview with Navotas City CDDRM Officer.
- 5 CCCM Cluster, 'The MEND Guide: Comprehensive Guide for Planning Mass Evacuations in Natural Disasters' (CCCM Cluster 2014) <<https://ccmcluster.org/index.php/resources/mend-guide>> accessed 25 June 2020.
- 6 IOM, NRC and UNHCR, 'Camp Management Toolkit' (2015) <<https://ccmcluster.org/resources/camp-management-toolkit>> accessed 25 June 2020.
- 7 IOM Philippines, 'Displacement Tracking in Mass Evacuation, The MEND DTM Report' (IOM 2018) 45 <<https://www.dropbox.com/s/uj3yajfi1ywotf0/DTM%20Report%20-%20Digital.pdf?dl=0>> accessed 25 June 2020.
- 8 Government of the Philippines, Department of the Interior and Local Government, 'Guidelines for Local Government Units on the Strengthening of Evacuation Systems Using the Local Disaster Risk Reduction and Management Fund (LDRRMF), Memorandum Circular No. 122, Series of 2018' (Department of the Interior and Local Government 2018) Joint Memorandum <https://dilg.gov.ph/PDF_File/issuances/memo_circulars/dilg-memocircular-201888_6862a1ddb0.pdf> accessed 24 June 2020. Paragraph 5.2.7 calls for "evacuation drills once every three months" as part of minimum standards for preparedness.
- 9 IOM Philippines (n 7) 69.
- 10 Government of the Philippines, Department of the Interior and Local Government (n 8) s 5.3.
- 11 Interview with Navotas City Community Disaster Risk Reduction and Management Officer.
- 12 IOM Philippines (n 7) 73.
- 13 *ibid* 65.
- 14 Interview, February 2020.
- 15 Interview with IOM Programme Manager
- 16 *ibid*.
- 17 See, for example, Republic of the Philippines, Philippine Disaster Risk Reduction and Management Act of 2010 2010; Republic of the Philippines, 'National Disaster Risk Reduction and Management Plan 2011-2028 Plan' (2011) <http://ndrrmc.gov.ph/attachments/article/41/NDRRM_Plan_2011-2028.pdf> accessed 25 June 2020; Government of the Philippines, National Disaster Risk Reduction and Management Council-DBM-Department of the Interior and Local Government, 'Allocation and Utilization of the Local Disaster Risk Reduction and Management Fund, Joint Memorandum Circular No. 2013-1', (2018) s 5.1-5.5 <http://www.ndrrmc.gov.ph/attachments/article/1320/JMC_No_2013-1_re_Allocation_and_Utilization_of_LDRRMF.pdf> accessed 24 June 2020.
- 18 Government of the Philippines, Department of the Interior and Local Government (n 8).