BUILDING THE CAPACITY OF CITY DISASTER RISK REDUCTION MANAGEMENT OFFICE (CDRRMO): A PLANNED CHANGE PROPOSAL FOR THE CITY OF CALAMBA

Kay Losabia
Faculty, College of Arts and Sciences

Abstract

This study is an assessment of the current state of the City Disaster Risk Reduction Management Office (CDRRMO) of the City of Calamba, Laguna. The study employed a four-stage methodology framework using document reviews, surveys, Key Informant Interviews (KIIs), Focus Group Discussions (FGDs) and actual observation. The CDRRMO was assessed in five (5) dimensions, namely: (1) Disaster Management; (2) Technical Capacity; (3) Institutional Capacity; (4) Training Capacity; and (5) Financial Capacity. Based on the findings (current state and the key challenges), the researcher conclude that the level of capacity of the CDRRMO with regard to the implementation of their plans, programs, and activities on DRRM are satisfactory. These planned change strategies aim to provide a framework that is relevant, and strategic for a resilient, equitable and sustainable community over the next three (3) years and beyond.

Keywords: *planned change, capacity building, disaster risk reduction*

INTRODUCTION

Disaster risk management has been defined as the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster (UNDISR, 2007). The past few years have shown the increasing intensity of a number of natural disasters that have struck both developed and developing countries around the world. In 2010, the United Nations International Strategy for Disaster Reduction (UNISDR) reported a total of 373 natural disasters which hit different countries. It is alarming that the number of disasters has increased terribly since the 1970s.

The Philippines is considered one of the most disaster-prone countries in the world. More Filipinos have become more vulnerable to the impacts of disasters.

The country has experienced tremendous disasters such as typhoons, flooding, volcanic eruptions, etc. in recent years. As such, the

national government of the Philippines has joined other countries in crafting its own policy on Disaster Risk Reduction and Management. Republic Act 10121(PDRRM Act, 2010), known as the "Philippine Disaster Risk Reduction and Management Act of 2010" was passed into law in the year 2010 following the formulation and adoption of the HFA in 2005. It seeks to strengthen the existing disaster management system in the Philippines and integrates the system with development work initiatives. The Act provides for the development of policies and plans and the implementation of actions and measures pertaining to all aspects of disaster risk reduction and management, including good governance, risk assessment and early warning, knowledge building and awareness raising, reducing underlying risk factors, and preparedness for effective response and early recovery. The National Disaster Risk Reduction and Management Plan (NDRRMP) 2011-2028 was crafted the following year to provide the legal basis for institutionalizing disaster risk reduction efforts at the national and local levels.

Across the world, there are many initiatives and interventions taking place that directly or indirectly contribute to strengthening capacity for DRM. A 2-year research project on DRM by Few, Scott et al. (2016) capacity development in lower and middle income countries. The research team undertook case studies of 13 recent or ongoing initiatives across six countries, complemented with an international survey of DRM practitioners. The paper therefore draws lessons from a range of different types of program to explore the progress being made on the ground toward enhanced capacity development and identify a framework of principles that can serve to underpin effective support in this field. The findings coalesce around concerns related to issues of adaptability, ownership and sustainability, inclusion of actors and scales, the functional scope of capacity development, and the extent to which programs reflect the wider aspects of DRR. These are factors that ultimately may either derail the success of initiatives, or, when positively addressed, may facilitate the achievement of long-term capacity gains.

Despite continuously participating in disaster management efforts both globally and locally, most Local Government Units (LGUs) in the Philippines still lack the capacity to carry out disaster management projects that will improve resiliency and mitigate serious damage to individual families and communities. The concept of "capacity" is generally defined as the combination of strengths, skills, and resources available to protect the community from the adverse effects of disasters. It encompasses a range of physical infrastructures, institutions, societal coping abilities, human knowledge and capabilities (The United Nations Office for Disaster Risk Reduction, 2009). Moreover, at the agency level, capacity pertains to the ability of the agency to perform functions, solve

problems and plan activities. In the advent of increasing disasters, it is important to build high quality and disaster-resistant infrastructures such as buildings and bridges, but it is also equally important to strengthen the capacity of LGUs, thru the local NDRRM committees/councils, in leading and carrying out disaster management activities which include disaster prevention and mitigation, preparedness, response and rehabilitation. To save more lives and mitigate the adverse impacts of various natural disasters, capacity building is necessary. Disaster management demands an integrated effort and cooperation between and among stakeholders (the government, the community and the individuals) at all levels. Implementing a disaster management system that strengthens capacity of communities may also help in attaining two (2) of the Sustainable Development Goals (SDGs) of the United Nations Development Program (UNDP) which are sustainable cities and communities and climate action.

Bawagan's (2010) paper presented in an international forum, shows the efforts of residents in Gen. Nakar, Quezon to rebuild their communities after they were hit by flooding and landslides in 2004. The documentation highlights "the effects and lessons learned from a stronger cooperation established among the community people, local officials, local non-government organizations as well as international organizations in addressing needs of rebuilding communities after a disaster. Likewise, papers of Dela Cruz and Ferrer (2010) reflect on the NGO FORGE's efforts at putting in place a participatory barangay development planning process towards building disaster-resilient communities.

As such, the City Government of Calamba through Resolution No. 176 series of 2012, established the City Disaster Risk Reduction Management Office (CDRRMO). The main function is to help the city government in designing and coordinating Programs Activities and Projects (PAPs) related to disaster risk reduction and management, which is in consonance with the national policies on DRRM (CDRRMO, 2015).

Despite its economic standing, Calamba City is still not exempted from the threat of natural hazards and disasters as the city is situated along the fault lines. This reason motivated the researcher to conduct a study on CDRRMO and recommend planned change strategies towards strengthening the capacity of the office (Calamba City Profile, 2016).

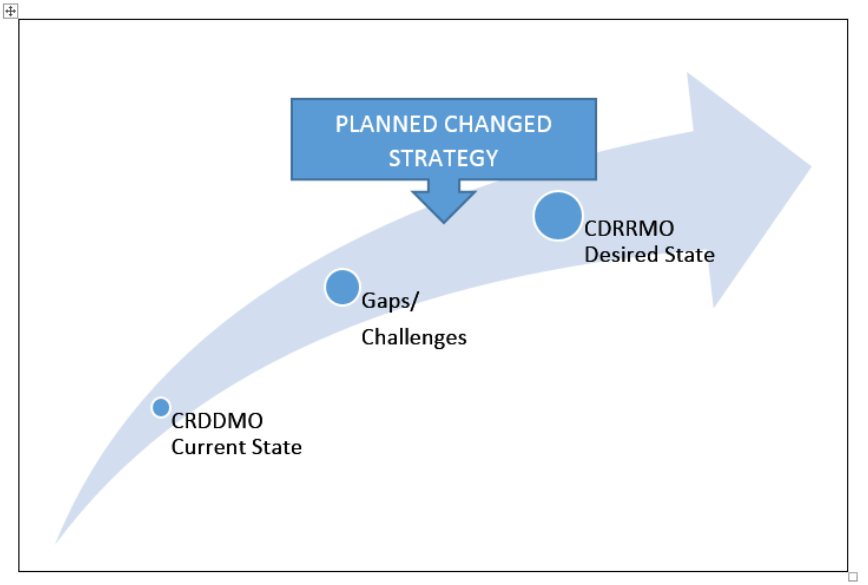
Theoretical framework

The research framework illustrates the current state of CDRRMO in terms of five dimensions: (1) disaster management; (2) technical capacity; (3) institutional capacity; (4) training capacity; and (5) financial capacity. Gaps/challenges were also assessed on the five dimension indicators. Using a four- stage methodology framework, as a tool of

intervention, the researcher gain in-depth understanding on the processes, activities and capacity of the CDRR organization.

Recognizing the current state as well as the gaps/challenges/issues of the organization, planned change strategies are injected in the model to achieve the desired state of CDRRM office.

Figure 1. Planned Change Strategy Model



Objectives of the study

This planned change project aimed to look into the capacity of CDRRMO of the City of Calamba in terms of disaster management, technical capacity, institutional capacity, training capacity, and financial capacity.

METHOD

A four-stage methodology framework that captures all the methods and tools (i.e. document reviews, survey, and KII, FGDs, actual observations) were used to diagnose the current situation of the CDRRMO of Calamba City.

Using the questionnaires, five (5) from the CDRRMO were given questions survey and interviewed including representatives from eleven (11) barangays who were randomly selected as the respondents of the

study. These respondents were Barangay Quick Response Team (BQRT) members from Barangays Banlic, Batino, Canlubang, Mabato, Majada Out, Mapagong, Mayapa, Paciano, Rizal, Parian, San Cristobal, and Sirang Lupa.

	No. of CDRRMO Par.	No. of BDRRMO* Par.
Survey	5	11
Interviews/FGD's	5	
Key Informants/KII	5	
Documents		

*Note: * Barangay Disaster Risk Reduction Management Office*

The study utilized various tools such as non-structured questionnaires, interviews, actual observations and review of secondary documents/materials to collect substantive and relevant data. The questionnaires used to gather pertinent information were focused on how CDRRMO's manages its operations. Majority of the questions are open-ended to capture the actual thoughts of the respondents. Focus Group Discussion (FGDs), Key Informant Interviews, (KIIs) and Training Observations were also conducted to validate the information gathered from the questionnaires and secondary documents/materials.

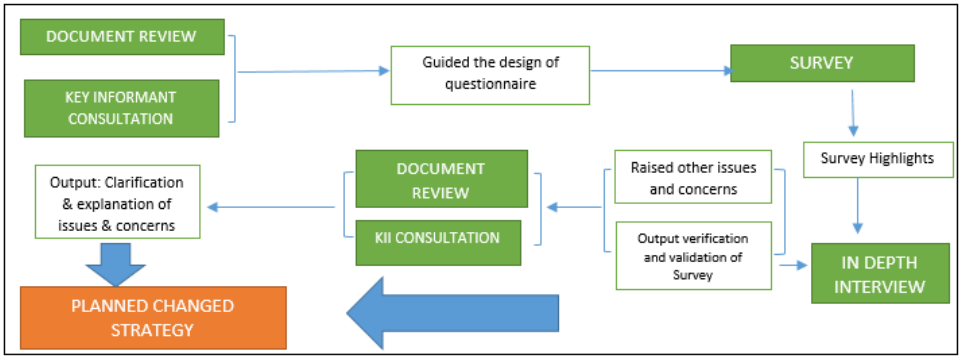


Figure 2. Methodology framework

RESULTS AND DISCUSSION

The capacity of CDRRMO was assessed in five dimensions: (1) disaster management; (2) technical capacity; (3) institutional capacity; (4) training capacity; and (5) financial capacity. Table 1 summarizes the capacity of CDRRMO under different criteria and indicators. On the other

hand, Table 2 presents the challenges that are currently being faced by the said office.

Table 1. CDRRMO's current capacities

Criteria	Indicator	Current Capacity
Disaster Management	Preparedness	▪ Distributes IEC materials like posters on earthquakes and other disasters to each barangay to increase awareness; ▪ Distributes flyers on hazards (earthquake, typhoon, and fire) during caravans, schools, and company visits; ▪ Disseminates hazard maps to all barangays and posts them in areas that are accessible to all; ▪ Currently builds tie-ups/partnerships with Boy Scout of the Philippines (BSP), industrial companies, government agencies like DENR to increase awareness on disaster management; ▪ Conducts drills and simulations on earthquake in different local offices and schools and vehicular accident extrication in different barangays.
	Reduction/Mitigation	▪ Develops plans/projects like cleaning and repairing of canals, and riprapping of riverside to avoid landslide. CDRRMO started the project in 2015 at Barangay Lecheria.
	Response	▪ Provides trainings and capacity building to 54 barangays with special

		focus on the priority areas (upland and low lying barangays); ▪ Provides equipment like rubber boats, life vests, and headlights to all the barangays located along or near the coast to be used for search and rescue operations; ▪ Provides rubber cutlers for crash vehicle extrication to some barangays.
Technical Capacity	Hazard Mapping	▪ Provides and distributes hazard maps to all the barangays and posts them in areas accessible to people. (Hazard Map was developed by Mines and Geoscience Bureau in 2011); ▪ Uses hazard maps (2011 version) as risk assessment guide for vulnerable barangays.
	Infrastructure Information	▪ Does not keep a copy of infrastructure information of the city government for both private and public infrastructure; ▪ The City Engineering Office keeps the information about public infrastructure while the Building Regulatory Services keeps the information about private building/infrastructures.
	Risk/Hazard Information	▪ Identifies and profiles the hazards that each barangay or area might experience; ▪ Does not have yet an in-depth study or activity on inventory of assets and

		estimation of local and economics losses
	Database	▪ Uses database but for office use and monitoring only. The database contains the list of barangays and the possible hazards in the area. Technically, databases are available in different offices. Once the CDRRMO becomes fully functional, data will be centralized and readily accessible in one office.
Institutional Capacity	National Institutional Capacity	▪ Has the capacity to create a focal point for training, education, community development and awareness raising.
	Coordination and Disaster Risk	▪ Has established proper coordination from national down to local (CDRRMO); ▪ Has created a Disaster Management Council which are composed of Non-Government Organization (NGO), Civil Society Organization (CSO), Private Organization (PO), Calamba Water District (CWD), Meralco, and soon Philippine Long Distance Company (PLDT) for proper coordination in times of disaster. The Council Members meet once every quarter or as the need arises to discuss and plan the disaster related activities. However, after the 3rd quarter, the Council Members will meet every month because this is the

		period wherein disasters usually hit the country.
	Strengthening of LDRRMO	▪ Provides trainings, drills, simulations on different emergency situations; ▪ Has formed the Disaster Management Council.
Training Capacity	Content (urgency, timeliness of topics)	▪ Develops modules and training content; ▪ Has identified training programs at the CDRRMO level only. The type of training/s to be provided to barangays is based on their actual needs. However, for the purpose of "working together" in times of disasters, the CDRRMO decided to provide barangays with all the trainings.
	Timescale	▪ Conducts non-skilled training topics like climate change adaptation every other year and skilled-based trainings every year.
	Scope (extended up to what level)	▪ Provides trainings among City Quick Response Teams (CQRTs) which are composed of city government employees; and Barangay Quick Response Teams (BQRTs) which are composed of 10 volunteers per barangays.
	Administration	▪ Nine (9) trainers currently handle trainings in collaboration with the trainers from the Provincial Office; ▪ The BQRTs are provided with allowance amounting to PhP500 per volunteer,

		provision of insurance and uniforms.
Financial Capacity	Paying for Emergency Paying for disaster damage Financial support for Disaster damage	▪ Has the capacity to pay for emergency and other related disaster damages because they have a budget of PhP 110,000,000 (lump sum) or equivalent to 5% of the estimated revenue, of which PhP 77M is allotted for preparedness and PhP 33M for response and recovery.

Table 2. CDRRMO's current challenges

Criteria	Indicator	Challenges/Key Findings
Disaster Management	Preparedness	▪ Awareness campaign is not fully extended to the entire community, the IEC materials are distributed only in barangays, schools and companies.
	Reduction/Mitigation	▪ Development projects related to DRR (e.g. repair of canal, etc.) have been implemented in one barangay only (Brgy. Lecheria).
	Response	▪ Trainings and drills are the only activities conducted under "disaster response"; ▪ Not all barangays have adequate and appropriate equipment that can be used for disaster and emergencies.
	Infrastructure/Risk/Hazard Information	▪ Activities under infrastructure and risk

		hazard information are not yet conducted due to lack of manpower and existence of physical office.
Technical Capacity	Hazard Mapping	▪ Hazard maps were last updated in 2011.
	Infrastructure Information	▪ There are no records of infrastructure information which are critical in identifying loss potential damages.
	Risk/Hazard Information	▪ There is no in-depth study or training for risk/hazard information.
	Database	▪ The use of the database is not maximized.
Institutional Capacity	National Institutional Capacity	▪ Admittedly, all the national policies are effectively cascaded down to the local government, but the challenge is how it will capacitate the people in the community.
	Coordination and Disaster Risk	▪ There are no clear and written guidelines as to how Disaster Council Members would coordinate in times of disasters.
	Strengthening of LDRRMO	▪ Due to non-existence of physical office and lack of permanent manpower for CDRRMO, only trainings, drills, simulations on different emergency scenarios as well as

		creation of Disaster Management Council are created and provided.
Training Capacity	Content (urgency, timeliness of topics)	▪ Majority of the trainings provided focus on "handling equipment and emergency situations" only; ▪ There are no in-depth trainings provided to equip the community with skills on disaster preparedness, mitigation, and response.
	Timescale	▪ All trainings are supposed to be repeated every year to meet the emerging needs of the community.
	Scope (extended up to what level)	▪ Only CQRT and BQRT are given the chance to participate in trainings and drills.
	Administration	▪ There is no way of evaluating the learnings of the participants; ▪ Incidence of turn-over among volunteers affects the organization.
Financial Capacity	Paying for Emergency Paying for disaster damage Financial support for Disaster damage	▪ So far, Calamba has not yet suffered from serious disaster-related damage. Thus, the budget allocated for Response and Recovery is added to Special Trust Fund. It

		will be kept for 5 years before it will be transferred to the General Funds.

Based on the abovementioned findings, the researchers summarize the level of capacity of CDRRMO in the following dimensional aspects:

1. Disaster Management (i.e. preparedness, reduction/mitigation, and response and recovery stage)

In terms of preparedness, the CDRRMO is prepared and ready for any disasters, because according to the respondents in the survey, they said that IEC materials like posters and flyers as well as dissemination of hazard maps to all barangays are readily accessible to all. In fact, the CDRRMO conducts regular drills and simulation exercises at different offices, schools and barangays and have built partnerships with other stakeholders in the community, such as industrial companies, government agencies and private sectors and civil society groups. In terms of reduction/mitigation, the CDRRMO has already developed plans and projects that would mitigate the impact of disasters through engagement of various barangays in the cleanup drive and repair of canals and riverside. In terms of response and recovery stage, the CDRRMO has conducted regular trainings and capacity building to 54 barangays and as much as the budget provides has purchased equipment for readiness when disasters strike.

2. Technical Capacity

A minimal gain on this capacity has so far achieved by the CDRRMO, as evidenced by the presence of hazard maps that all barangays in the city are provided therefore, accessible at all times and said maps are being used for risk assessment. However, there is so much room for improvement, in terms of infrastructure information, as the current state, revealed that only the City Engineering Office keep track on the information on public and private structure and the CDRRMO was not given a copy for inputs in their DRRM plan. In terms of risk/hazard information, the CDRRMO has identified and has an existing profile of hazard areas, however, it does not have an inventory of assets and a data on the estimates of local and economic losses considering it has already a hazard profile/maps in the locality. An integrated and updated databases on risk/hazard and vulnerabilities information should be a priority of the CDRRMO to be established and developed.

3. Institutional Capacity

Considerable milestones improved the level of capacity gained by the CDRRMO. They are compliant to RA 10121, established a focal point for training, IEC and community development and awareness raising among various stakeholders, established proper coordination with the national and local DRRMO on disaster management efforts and initiatives, created a Disaster Management Council that meets on a quarterly basis to discuss and plan disaster-related activities and the cascading mechanisms in support thereat. Lastly, it is very obvious that there was an increase of capacity in the CDRRMO, when they initiated a number of trainings, drills and simulation exercises on matters of disaster/emergency situations. However, a more strategic and competency-based training programs (an in-depth analysis) would yield a higher returns for the CDRRMO.

4. Training Capacity

The survey conducted revealed a significant achievement in the current state of the CDRRMO in so far as capacity building/development is concerned. They were barangays. In fact, the CDRRMO conducts Non-skilled training like climate change adaptation every other year and Skill-based training every year. The CDRRMO was able to establish a City Quick Response Team and Barangay Quick Response Team. They also have nine (9) trainers that are tapped to conduct and handle trainings in collaboration with the provincial office. The BQRTs are provided with allowance of P500 per volunteer, provision of insurance and uniforms. Much has been accomplished in terms of training capacity. However, Capacity Building Activities (CBAs) being conducted should require a more in-depth analysis especially its post training questionnaire. This can be done by identifying trainings that require to be more specific (need-based approach), strategic (inclusive and sustainable) and should be inputs to the development of a competency-based training programs for DRRM.

5. Financial Capacity

The CDRRMO's current state of financial standing showed a level of capacity that can adequately respond to emergency situations. This means that the office is properly spending its allocated budget for disaster management and compliant to the required funding requirement as mandated by RA 10121. Their current budget of Php110, 000,000.00 (lump sum), equivalent to 5% of the estimated revenue of the city government is being utilized accordingly. From a Development Management (DM) perspective, building the capacity of CDRRMO is vital towards the creation of resilient, equitable and sustainable community.

Being at the forefront of disaster management, it is necessary for CDRRMO to invest in technological, institutional and training in order to assure and strengthen disaster preparedness. Investing in human capital is also of high importance in order to quickly respond to whatever situations brought by disasters. Also, incorporating, knowledge, education and innovation in capacity building would create a culture of safety and resiliency at all levels of the community.

RECOMMENDATIONS

Based on the results of the organizational assessment, the following are the recommended actions that can be used or implemented by the CDRRMO to increase their capacity to achieve a desired state:

1. Restructure the CDRRMO into an independent office and designating CDRRMO officer and staff.
2. Strengthen the monitoring and evaluation of CDRRMO activities.
3. Build strong linkages and optimizing collaboration among organizations.
4. Promote massive information dissemination campaign on disaster management.
5. Establish a functional emergency operation center.
6. Develop in-depth training programs and activities.
7. Strengthen community action teams.

These seven (7) planned change strategies must be integrated in all development planning system of the city government of Calamba (i.e., CLUP, AIP, CDP, ELA, etc.) so that collectively, they can provide for a framework that is relevant and strategic for a resilient, equitable and sustainable community over the next three (3) years and beyond. The recommended planned changes for the CDRRMO should also be considered by whoever sits as the Local Chief Executive (LCE) as his governance policy should form part of his policy advocacy agenda.

To ensure that the above recommendations will be put in place, an integration of intervention activities and actors was developed. This will help CDRRMO to focus their effort to those targeted for capacity building. This will also guide them in pushing and prioritizing programs.

Table 3. Planned change strategy

Planned Change Strategy	Actors
Restructure the CDRMO and designate staff	City Government
Strengthen the monitoring and evaluation	CDRRMO
Build strong linkages and collaboration	CDRRMO, Disaster Management Council, Schools, Industrial Companies, other Government Agencies
Promote massive information campaign	Caravans, Private and Local Companies, Schools
Establish a functional emergency operation center	CDDRMO/City Government
Develop in-depth training programs and activities	CDDRMO
Strengthen community action teams	CDRRMO/BDRRMO/CQRT/BQRT

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