

FRAMEWORK OF COLLABORATION OF DISASTER RISK REDUCTION STAKEHOLDERS TOWARDS RESILIENT COMMUNITIES

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I. Introduction

The Philippines is vulnerable to various natural calamities and disasters. In the 2015 Report of the United Nations Office for Disaster Risk Reduction (UNISDR), the country is ranked 4th in the world among countries with the highest number of disasters from 1995-2015.¹ The magnitude and effects of calamities and disasters are further intensified by climate change. Researches have suggested that climate change could make storms stronger and more frequent.² Global warming leads seawater to evaporate more quickly, forming clouds that fuel storms, putting us in the path of many storms as the country is situated in the Western Pacific Ocean.³ One of the recent strongest typhoons that hit the Philippines was typhoon *Yolanda (Haiyan)*, responsible for 6,300 lost lives, over four million displaced Filipinos, and two billion dollars in damages in terms of properties, infrastructure, and livelihood.⁴ Thus, natural calamities are inevitable realities that call for various community stakeholders from private and government sectors to join hands in developing and implementing proactive response.

It is in this context that Asia Pacific Alliance for Disaster Management (A-PAD) aims to develop a national platform in the Philippines that would facilitate cooperation among public, private, and civil society sectors for national disasters. One of the pilot areas for developing a local platform of cooperation is the Luzon area, specifically the Bicol Region. There are two major big cities in the Bicol Region: Naga City in the Province of Camarines Sur and Legazpi City in the Province of Albay. A series of consultations and workshops among community stakeholders consisting of private institutions, business sector, public agencies, and civil society were conducted in the City of Naga and in the City of Legazpi.

The paper intends to systematically *document* and provide *analysis* the results of the initiatives of A-PAD. It generally aims to develop a framework of collaboration, cooperation in various efforts, and sharing of resources among the community stakeholders in delivering

¹ UNISDR, *Global Assessment Report on Disaster Risk Reduction*, 2010.

² Retrieved from <https://web.pagasa.dost.gov.ph/index.php/climate-change-in-the-philippines> on 16 April 2015.

³ Retrieved from <http://time.com/4137154/philippines-ground-zero-for-climate-disaster/> on 16 April 2015.

⁴ Climate reality Project, How is Climate Change Affecting the Philippines? Retrieved from <https://www.climaterealityproject.org/blog/how-climate-change-affecting-philippines> on 16 April 2015.

emergency response and early recovery services and in undertaking projects for disaster risk reduction, rehabilitation, and addressing the vulnerabilities of people and communities. It specifically aims to:

1. Identify various disaster risk and reduction management (DRRM) programs and initiatives among community stakeholders: the business sector, civil society organizations, local government units, media, and the academe;
2. Determine difficulties encountered by the community stakeholders in implementing DRR programs; and
3. Develop a framework of collaboration and cooperation among the DRR community stakeholders in delivering effective and efficient disaster response.

II. Method

This study employed participatory action research (PAR). It involved mainly the active engagement of the community stakeholders as the participants of the study, who are primarily the heads or legal representatives of the organizations. The participants were selected through convenient sampling. The details of the participants of the study are shown in Table 1:

Table 1. Participants of the Study

Community Stakeholders	Number of Respondents
1. Business Sector	10
2. Civil Society Organizations	4
3. Local Government Unit	2
4. Media	7
5. Academe	6

The qualitative approach was utilized in gathering the data taken from the stakeholders' forum and synergy workshops. The results were validated through the conduct of survey questionnaire. The interpretation of the data was through quantitative approach for objectives 1 and 2 of the study using simple statistical tools: frequency count and rank. For objective 3, the study employed qualitative approach in order to develop a framework of cooperation. The framework was developed by integrating the results in the 1) coding of meaning given the notes and texts in the stakeholders' forum and synergy workshops and 2) the results of the survey. The study employs CIPP Model (Context-Input-Process-Product Model) for the documentation and analysis towards articulation of the framework of collaboration among the stakeholders.

III. Results and Discussion

A. DRRM Programs and Initiatives of Community Stakeholders

The following are the results of the consolidated DRRM programs and initiatives of the various community stakeholders.

A.1 Business Sector

These results were derived from the responses of the heads and representatives of various business entities and organized business groups in Legazpi City and Naga City during the forum, workshop, and survey.

Table 2. Programs and Initiatives of Business Sector on DRRM

DRRM Programs and Initiatives	Frequency	Rank
Small and Medium Enterprises have defined DRRM programs through their Corporate Social Responsibilities Entities	2	3
Micro Enterprises have no structured DRRM Programs but they support post-disaster activities (e.g. donating goods and cash for relief operations)	8	2
Increasing the level of DRRM awareness of their employees (e.g. fire and earthquake drills)	10	1

Table 2 shows that the majority of the business entities have limited DRRM programs. All business entities have their DRRM activities concentrated in increasing the level of DRRM awareness of their employees (Rank 1). This includes trainings and seminars on fire and earthquake drills. They provide information and drill simulation of their employees on how to protect them and their clients in the event of disaster, which are basically mandatory requirements imposed by various business regulatory agencies in order for them to renew their business permits.

Majority of the business entities have micro enterprises which have no structured DRRM programs but they support post-disaster activities (Rank 2). These post-disaster activities include provision of donation in kind or cash for disaster relief operations. This indicates that majority of the business entities are willing and active in extending assistance during disaster.

However, business entities that have well-defined programs on DRRM through their Corporate Social Responsibility unit/organization are very minimal (Rank 3). These businesses have allotted resources and have organized structured system in developing and implementing DRRM programs. Their programs cover the conduct of capacity building for DRRM in selected communities, support activities on DRRM in the community level, and advocate the DRRM awareness to their client and employees.

The data indicate that the business sector, insofar as DRRM is concerned, is only focused on the awareness and information dissemination and has not optimized their resources in developing DRRM programs.

A.2 Civil Society Organizations

The civil society organizations consist of NGO's from religious group and non-partisan group in Legazpi City. Below are their consolidated DRRM programs and initiatives:

Table 3. DRRM Programs and Initiative of CSO's

DRRM Programs/Initiatives	Frequency	Rank
Focal Program focused on DRRM	1	3
DRRM Programs are Implemented with a Community-based approach	2	2
DRRM Capacity building and establishing disaster-resilient communities	4	1

Table 3 shows that all Civil Society Organizations have strong programs on DRRM capacity building and establishing disaster-resilient communities (Rank 1). This implies that CSO's major program is focused on raising the level of awareness on DRRM of marginalized sectors in the community. This is towards forming them to be proactive in various natural and man-made disasters.

Programs on DRRM implemented with community-based approach ranked 2. This shows that only few CSO's have developed and implemented the programs through participation of the community and managed by them. However, only one CSO with DRRM as their main program. The existence and mandate of their organization is mainly on DRRM.

The data manifest the level and approach of civil society organizations relative to DRRM programs and activities. These organizations are propelled to establish disaster-resilient communities by way of capacity building using community-based approach.

A.3 Academe

The academe consists of the state universities, private colleges, and technical/vocational schools in Camarines Sur and Albay provinces. Below are the results of the consolidated DRRM programs of the academe:

Table 4. DRRM Programs of Academe

Programs/Initiatives	Frequency	Rank
DRRM is integrated in instruction	6	1
DRRM is integrated in research	2	3
DRRM is integrated in community extension	3	2

Table 4 shows the DRRM programs of academe are integrated in their mandated functions namely instruction, research, and community extension. All academic institutions have integrated DRRM program in instruction (Rank 1). Some of the syllabi of the various degree programs have incorporated and articulated the values in caring and protecting the environment, climate change, and DRRM. Disaster Risk Reduction Management is clearly stated in the syllabi of some of the social sciences subjects.

Disaster Risk Reduction Management is also integrated in community extension programs/projects of the academe (Rank 2). It is implemented through various trainings and seminars to the communities adapted by the universities or colleges. It is integrated in research projects/programs (Rank 3). Universities have clear research agenda that are focused on, connected, and related in DRRM. They have conducted various research projects and programs focused on strengthening climate change adaptation.

The data clearly show that the academe is giving effort in the inclusion of DRRM to the trifocal function of these schools. There is a need, however, to integrate instruction, research, and extension in comprehensive programs for DRRM.

A.4 Media

The media sector consists of print and radio. Below are the identified programs and initiatives of the media sector during the forum and synergy workshop:

Table 5. Programs and Initiatives of Media

Programs and Initiatives	Frequency	Rank
Provides information on precautionary measures prior to calamity	7	1
Timely information dissemination during disasters	3	3
Appeal for help for the victims from other sectors during rehabilitation	5	2

Table 5 shows the DRRM programs and initiatives of the media in the Bicol Region. All of them provide information on precautionary measures prior to calamity (Rank 1). This shows that the major role of media in information dissemination is usually seen before the disaster itself. The accuracy of the information is crucial. Appeal for help for victims from other sectors during rehabilitation is ranked 2 as one of the initiatives of the media sector. This is carried out commonly by radio stations. However, only three radio stations can sustain their broadcast during the disaster. This is commonly done by the AM stations, particularly those that actually have the technical capacity and equipment to maintain their signals during typhoons. This implies most of the stations need more resources and increase their capability to carry out their services during disaster coverage. Pooling of resources (i.e. manpower, technical, etcetera) is one of the suggestions to strengthen such capability.

A.5 Local Government Units

The local government units consist of Naga City and Legazpi City. Below are the identified common DRRM programs and initiatives of these two local government units:

Table 6. List of DRRM Programs and Initiatives of LGU

Categories	Programs and Initiatives
Disaster Preparedness and Mitigation	<ul style="list-style-type: none"> • Municipality level has DRRM program; DRRM Council • Resource Mapping; Response Training • DRRM Manuals, protocol • Advocacy building in barangays • Risk assessment; Early Warning Systems • Implementation of environmental ordinances
Disaster Emergency Response and Rehabilitation	<ul style="list-style-type: none"> • Close linkages with PNP, BFP, and Red Cross • Relief Operations; Rehabilitation projects and programs

Table 6 shows that the LGU’s have various DRRM programs from disaster preparedness and mitigation (DPM) to disaster emergency response rehabilitation (DERP) and they have the resources for these programs.

The Disaster Preparedness and Mitigation (DPM) consists of: 1) the existing DRRM Program at the municipality level through its DRRM Council; 2) conducting resource mapping and emergency response training; 3) implementing various DRRM activities guided by DRRM manuals and protocol; 4) providing DRRM advocacy in barangay level; 5) conducting risk assessment; 6) providing early warning system; and 7) implementing various ordinance to protect and preserve the environment.

The Disaster Emergency Response and Rehabilitation (DERR) consists of: 1) conducting immediate disaster response through its close linkages with PNP, Bureau of Fire and Protection, and Red Cross; 2) conducting relief operations; and 3) implementing rehabilitation projects and programs.

The data show that the LGU’s have DRRM programs and capacities and that they have the resources for implementation. They need, though, more linkages and partnerships to effectively implements these programs and activities.

B. Perceived Difficulties Encountered in the Implementation of the DRRM Programs

Below are the perceived difficulties in the implementation of DRRM programs by the various stakeholders. Difficulties are areas in implementation of DRRM programs that are hard to accomplish or deal with.

Table 7 shows that ‘the need to harmonize existing DRR policies, programs, and stakeholders adopted by various community stakeholders (Business Sector, Civil Society Organizations, Academe, Media, and Local Government Units)’ is ranked 1 among the challenges encountered by stakeholders in the implementation of DRRM. This implies that community stakeholders have initiated policies and programs for DRRM in their respective organizations. Moreover, they have recognized the importance of sharing and complementing their resources, efforts, and expertise in implementing DRRM programs.

Table 7. Difficulties Encountered by the Community Stakeholders in the Implementation of DRRM Programs

Difficulties	Frequency					Total	Rank
	Business Sector	Civil Society Orgs	Academe	Media	LGU		
Lack of plans for farmers and small entrepreneurs in case of disaster	7	2	-	-	1	10	2
Relief operations are being hampered by too much politicking	1	1	-	3	2	7	5.5
Need to harmonize existing DRR policies, programs, and strategies adopted by various community stake holders	2	2	4	1	2	11	1
Need to define the roles of each DRR community stakeholders, most specially the business sector	3	3	1	-	-	7	5.5
Need to underscore the important role of NGOs, CSOs and the business sector in the institutional level arrangements under the gamut of DMF	4	3	-	-	1	8	4
Need to integrate in the Micro and Small Medium Enterprises (MSMEs), business models and practices, disaster risk management via disaster risk-informed investments with particular focus on business continuity plans	6	1	1	-	1	9	3

‘Lack of plans for farmers and small entrepreneurs in case of disaster’ is ranked 2 among the challenges in the implementation of DRRM programs. Farmers and small entrepreneurs are the largest population in the community. However, they have no concrete plans in preparing themselves in various disasters and mitigating their effects.

The specific challenge for the entrepreneurs is the need to develop business models integrating disaster risk management via disaster risk-informed investment with particular focus on business continuity plans (Rank 3).

‘The need to underscore the important role of NGOs/CSOs and the business sector in the institutional arrangements under the whole gamut of Disaster Management Framework’ is ranked 4 as one the challenges in the implementation of DRRM program. Non-Government Organizations have its role in organizing the community-based DRRM Programs. The business sector, on the other hand, has its role in providing resources for these programs. The role of NGO and business sector needs to be highlighted in order to implement comprehensive DRRM program. Likewise, Disaster Preparedness Plan must have “vertical coordination” at the national government and “horizontal coordination” between national and local authorities as well as with the support from NGO’s.

‘Relief operations are being hampered by too much politicking’ and ‘the need to define roles of each of the DRR community stakeholders, most specially the business sector,’ are both ranked the lowest as challenges in the implementation of DRRM programs. In order to facilitate actual DRRM activities, guidelines have to be devised and strictly followed in order to avoid politicking and scope and limits of roles and positions of every stakeholder have to be clearly understood and observed.

C. Framework of Collaboration among Various Sectors in Delivering Effective and Efficient Disaster Assistance

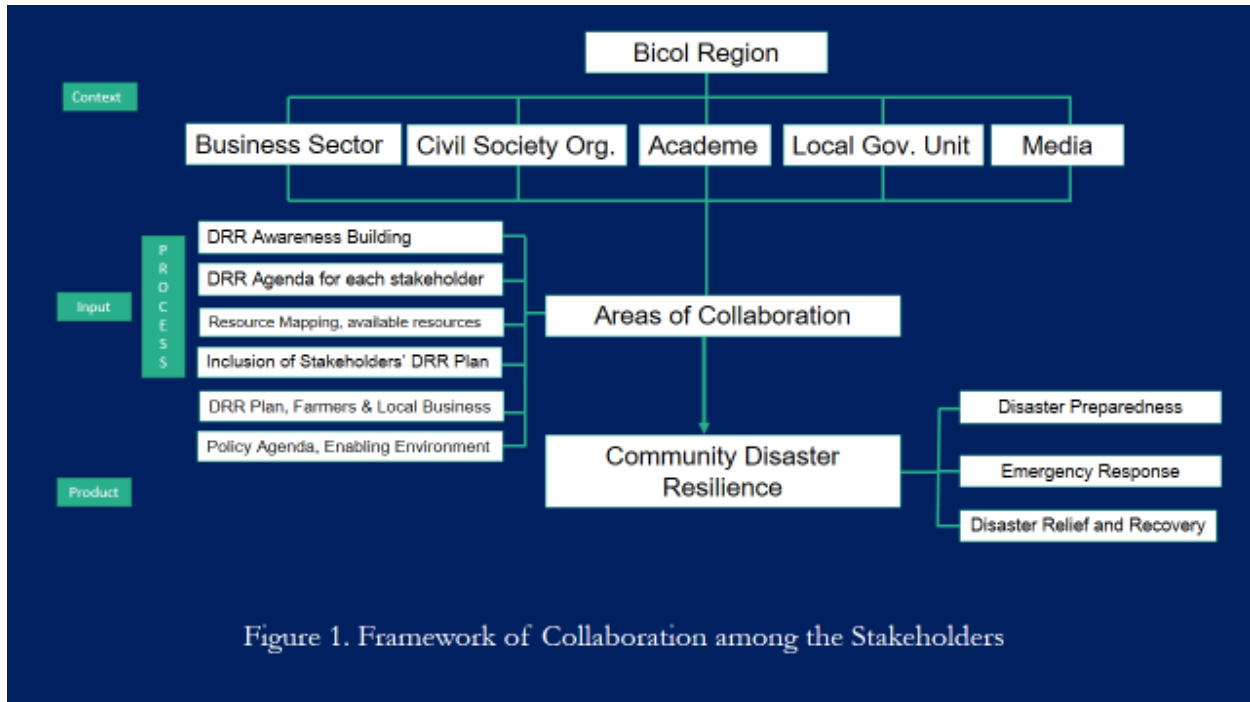
The framework of collaboration among various sectors in delivering effective and efficient disaster assistance was mainly derived from the synergy workshop among private sector and local government partnership for disaster resilience. It was participated by Metro Naga Development Council Member-LGU’s, Metro Naga Chamber of Commerce and Industries Members, and Educational Institutions. The results of synergy workshop were analysed by breaking down the information into parts that were screened according to relevance, magnitude, importance, and urgency. *Relevance* refers to how the information relates to the overall goal of the collaboration among the sectors. *Magnitude* refers to the quantitative levels and scope of influences to the level of collaboration. *Importance* refers to the qualitative degree of influence in the overall scenario of DRRM programs. *Urgency* screens data according to time consideration.

Likewise, the synthesis of the aforementioned identified DRRM programs and initiatives and its challenges of various sectors were considered in the development of framework of collaboration among various sectors. It consolidated the findings in objectives 1 and 2 into larger and more visible units so that the whole picture or essence of collaboration can be brought to the fore.

The framework has three main structures: 1) the goal of the collaboration; 2) the collaborators or stakeholders; and 3) the areas of collaboration among the stakeholders as illustrated in Figure 1. The goal of the collaboration is community disaster resilience through disaster preparedness, risk reduction, relief, and recovery. The collaborators or stakeholders consist of the local government units, the business sector, the academe, media, and civil society organizations. These are the members of the organized DRR alliances network of various stakeholders, which is the output of the consultation and synergy workshop.

The areas of collaboration were identified by utilizing the above mentioned framework of analysis. There are six major areas of collaboration. The first area of collaboration is *Disaster Risk Reduction (DRR) awareness building with communities and business*

establishment. The most common DRRM program identified and implemented by various stakeholders is capacity building. However, the stakeholders have recognized that there is still a need to continuously expand and deepen its advocacy and capacity building on DRRM particularly to the most vulnerable communities in various natural and man-made calamities and to the micro and small enterprises. Increasing the level of DRR awareness is of great importance among the stakeholders. The role of the academe and the local government units can be tapped to widen the scope and broaden the content of DRR programs on capacity building, awareness, and information dissemination.



The second area of collaboration is the *identification of DRR agenda for each stakeholder*. Each stakeholder has its expertise and resources that can be the basis for developing their respective DRR agenda. The totality of each stakeholder's DRR agenda provides the synthesis of the DRR alliance framework. This is a bottom-up process of agenda building. Another process is top-down agenda building. DRR agenda of each stakeholder derives from established DRR alliance framework. The articulated DRR agenda could also be the basis for actual participatory and collaborative project development along DRR programs.

The third area of collaboration is *resource mapping on available resources*. Database on the existing and available resources and expertise of each member of the DRR alliance organization should be established. Through the database, it can contribute in the efficient mobilization of resources and expertise in any disaster preparedness, emergency response, and relief and rehabilitation activities. It can develop also complementation among the stakeholders in delivering effective DRR program and services to their clients. Such resource mapping shall be the source of strength of the DRR alliance framework.

The fourth area of collaboration is the *inclusion of stakeholder's DRRM plan in overall plan of Technical Working Group (TWG)*. The TWG is the management team of the organized DRR

alliances of the various stakeholders. The member-DRR stakeholders have raised the concern in the planning level of TWG. The DRR plan of each stakeholder should be considered in the development of the overall plan of DRR alliances. Such overall plan must ensure that all inputs of stakeholder's DRRM plans are incorporated or considered.

The fifth area of collaboration is the *formulation of DRRM plans on the part of the government for farmers and local business especially the MSME's*. The DRR alliance network puts emphasis on the government (local or national) role to concretely provide and implement proactive and comprehensive DRRM policies and plans for local farmers and businesses to become more resilient during disasters.

The sixth area of collaboration is *for the government to develop or strengthen policy agenda for the creation of an enabling environment for disaster preparedness and mitigation*. The DRR alliance shall recognize the important role of the government in developing and implementing policies that will support and create positive environment among DRR stakeholders and communities for disaster preparedness and mitigation. This also means that the government has to provide ways and means to support by way of legislative agenda for the further development and strengthened implementation of proactive and comprehensive DRR programs.

Figure 2. Synthesis of the Area of Collaboration among Stakeholders



Based on the identified six areas of collaboration, Figure 2 illustrates the synthesis of the collaboration among the DRR stakeholders. The DRR stakeholders have to define their own agenda and plan. They have resources and expertise that can be mobilized for orchestrated DRRM activities. The target partners or clientele of the DRR stakeholders are communities. The priority sectors by DRR stakeholders to be able to transform them to be more disaster-resilient are farmers and micro, small, and medium enterprises (MSME's).

Moreover, the DRR awareness building is still the primary need of the DRR stakeholders, communities, farmers, and MSME's for disaster preparedness and mitigation. DRR initiatives and programs of stakeholders, communities, and priority sectors needs the support of enabling environment specially the national and local government in developing and implementing plans and policies.

IV. Conclusions and Recommendations

Based on the findings in 1) determining the initiatives and programs of various DRR stakeholders, 2) identifying the difficulties encountered in implementing DRR programs, and 3) developing the collaborative framework of DRR alliance, it can be concluded that:

1. DRR stakeholders (government, business sector, academe, civil society organizations, and media) have developed and implemented DRR programs and initiatives with their distinct roles and expertise but still not yet well coordinated among the stakeholders. The government is more advance in resources and network and linkages. The civil society organizations have more developed DRR programs for the communities. The business sector has more resources but they have not yet fully developed DRR programs. The academe is specialized in educating and providing DRR capacity building. The media is specialized in providing timely information on DRR.
2. The major difficulties in the implementation of DRR programs as perceived by the various stakeholders are: 1) the need to harmonize plans, policies, and strategies among stakeholders; and 2) farmers and small businesses lack concrete DRR plans.
3. The DRR stakeholders have identified specific areas of collaboration for sharing and mobilizing their resources, expertise, and information for various DRR activities. The areas of collaboration are focused on building DRR alliance network and making it functional through the Technical Working Group who identified farmers and small businessmen as priority sectors for DRR capacity building and developing resilient DRR plans.

Based on the above-mentioned conclusions, the following are then drawn as recommendations of this study:

1. Make the DRR alliance network continuously functional by strengthening the Technical Working Group;
2. Prioritize training and development for business continuum plan by MSME's as one of the major activities of DRR alliance network;
3. Develop an orchestrated DRR plans among DRR stakeholders for farmers that will make them more disaster resilient;
4. Utilize the framework of collaboration for developing a comprehensive DRR agenda and plans of the organized DRR alliance network;
5. Expand the DRR capacity building to the communities, farmers, and businessmen and their clients in well-coordinated designed of the capacity building and its implementation among the DRR stakeholders; and
6. Develop the second phase of the project proposal for funding in order to scale up the DRR alliance network in order to make it continuously functional and sustainable.