

CHAPTER VII

CLOSING

SUMMARY, CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

This research analyzes how the Philippine government manages typhoon-related emergencies by looking into the structure and governance process of the disaster response network. This article analyzes the Philippine DRRM network response operations after the 2011 Typhoon Washi hit the research areas. Primarily, this research aims to answer two main questions: first, to what extent does the structure of the DRRM Council affect its performance during disaster response? and second, to what extent does the aspects of governance process (initial agreement, leadership, trust, planning and managing conflict) affect the performance of the Disaster Risk Reduction and Management (DRRM) Councils in the Philippines? This study utilized a research model that critically analyzed the variables which are fundamental in the cross-sector collaborative disaster management of Region X, Philippines. Bryson, Crosby, and Stone (2006) defined cross-sector collaboration as the process of "linking or sharing of information, resources, activities, and capabilities by organizations in two or more sectors to achieve jointly an outcome that could not be achieved by the organization in one sector separately."

7.1 SUMMARY OF RESULTS

7.1.1 Structural analysis of the disaster management network

The topology or characteristics of the disaster management network, particularly the value of the density scores suggests that in the Local Government Units of Misamis Oriental, Cagayan de Oro, and Iligan City, there are relatively a number of connections (high density) while fewer connections are observed from the Region X DRRM network and the overall network as suggested by their respective density scores. Also, the local disaster management networks, specifically the Misamis Oriental DRRM network have more connections or are more inter-connected than the rest of the disaster networks with its low diameter and average distance.

Generally, the networks' high-density scores, lower diameter, and lower average distance are products of a lesser number of network members which indicate easier familiarity between and among agencies. Thus, the regional and over-all disaster management networks' low density and higher average distance suggest a lesser connected relationship between member agencies. However, the characteristics of the local disaster management networks show that there is high density, higher diameter, and the average distance are almost the same as the rest of the networks.

Therefore, member-agencies in the regional and local disaster management networks are sparsely connected as revealed in the diameter and average distance scores. However, in the local disaster networks, more connections are established among member-agencies as implied by the higher density scores.

Meanwhile, the centralization scores of the networks revealed that in terms of degree centrality, the Region X DRRM Council has the least degree centrality while the DRRM Council of the Local Government Units of Misamis Oriental, Cagayan de Oro and Iligan have high degree centrality. The degree centrality score of the overall DRRM network in the Region is lower considering the number of its member agencies. Hence, the networks with the lesser number of member-agencies and organizations are relatively highly centralized. Members who are mandated by the law to take part in the disaster management activities have higher degree centrality scores than those members and whose membership is on the voluntary basis. Thus, the disaster management network on the Regional level is less centralized while the local management networks are highly centralized in terms of degree centralization, particularly the Misamis Oriental disaster management network.

In terms of betweenness, the overall network and the Region X DRRM network have high betweenness centralization scores. While the betweenness centralization scores of Iligan, Cagayan and Misamis Oriental are relatively low. These data suggest that the Regional Offices works as a bridge in the entire network in terms of sharing information and resources during disaster-related operations. Hence, the Regional agencies control the flow of information in the network. Moreover, the Region X disaster network may have fewer connections, yet these are significant ties which are vital for the network operations as revealed by its betweenness centralization score. Additionally, the closeness centrality scores of DRRM networks in Region X suggest the proximity of the regional agencies to the other agencies and organizations in the entire regional network. Thus, this validates the finding that the Regional disaster management network is highly

centralized while the local disaster management networks are less centralized in terms of betweenness.

Significantly, the data revealed that the dominant agencies in the DRRM networks of Iligan and Cagayan de Oro are not exactly the agencies who belong in the mandated structure of the National Disaster Response Plan. Interestingly, the involvement of the non-government agencies (NGAs) such as the Philippine Red Cross, Habitat Foundation, and Group Foundation Incorporated revealed that disaster response-related activities in the Local Government Unit could be improved and sustained with the inclusion of the NGAs. Moreover, the data revealed that the absence of bureaucratic protocols in the operations of the mentioned non-government agencies is one of the reasons that enable NGAs to respond faster and effectively.

In summary, the structure of the disaster management networks, particularly in Region X, Philippines is not suitable in the context of the Philippine disaster management. The structure which is built based on the mandates of the Philippine law on disaster management is ineffective in outlining the responsibilities and accountability of each member-agencies. Further, the structure is unable to facilitate better relationships between and among member agencies which are detrimental to the entire disaster governance processes and output of the collaborative disaster management in the country.

Lastly, an elaborate discussion on the performance of the disaster management networks and the evaluation of the disaster governance is presented subsequently.

7.1.2 Disaster Governance processes

7.1.2.1 On Initial Condition: Previous Performance

Generally, based on the data available in the Accomplishment Report of the Region X, most of the items were not attained due to several organizational factors that significantly affected the inability of the network to attain the targets. This ineffectiveness of the network to achieve goals is supported by the Evaluation Report of the Tropical Storm Washi response operations in 2011 which revealed that the preparation and capacities of both Iligan and Cagayan de Oro Cities were insufficient. Some of the problems encountered in Cagayan de Oro and Iligan City were related to inadequate social services such as scarcity of drinking water, shelter, food and NFI; poor management of relief goods at the local DRRMC command posts and coordination centers; and lack of coordination between LGUs and cluster leads, among others.

On the other hand, the survey among the respondents on how they perceived their performance during disaster response revealed that majority of the member-agencies (respondents) believe that their performance is relatively good. On the basis of the disaster response targets stipulated in the DRRM plan, the respondents believe that they did their best despite the several shortcomings they encountered. Hence, previous performance as used quantitatively in this study is considered good based on the assessment of the respondents (where mean scores are high ranging between 3.50 to 4.90).

Moreover, the summary of path analysis and hypotheses testing reveals that the previous performance of the disaster management network in the Region is statistically significant with the initial agreement, leadership and managing conflict of the

network. These data suggest that generally the previous performance of the disaster management network significantly affects the aspects of governance processes. Therefore, disaster management has greater chances to be effective and successful if the previous performance of the network boosts the motivation of the member-agencies, improves leadership capacities and able to facilitate in managing the conflicts in the network.

7.1.2.2 Governance Process: Initial agreement and Leadership

The initial agreement which refers to the altruism and the desire to increase the legitimacy of the office is significantly associated with leadership. As revealed, the member-agencies of the disaster management network have a high level of altruism that despite the challenges, they are able to explore ways of improving the delivery of their mandates. Hence, the issuance of the mentioned new policies (Joint Memorandum Circular No 2013-1 and Joint Memorandum Circular 2014-1) motivated the member agencies to harness its potentials in fulfilling their respective disaster-related mandates. Therefore, the altruistic tendencies of agencies and institutions to provide better public services, as well as their desire to increase their respective legitimacy, contributes to better disaster leadership.

7.1.2.3 Governance Process: Leadership and Trust

Generally, leadership in the disaster management network should be effective in order to pull out the necessary resources to ensure that member-agencies are getting what they need especially in times of disasters. The data indicated that leadership which refers to creativity and innovation, collaboration, motivation and empowering people has a statistically significant relationship with

trust which refers to competence and dependability. The respondents affirmed that there were several challenges that the DRRM network have faced since the implementation of RA10121 in 2010. However, the Regional and City Council's leadership was able to facilitate the various concerns that have occurred. For instance, the common issue on the validity and reliability of the information being shared during disasters which led to doubt and miscommunication between agencies was addressed by institutionalizing the regular meetings before, during and after the disaster to update and share correct and real-time information with the network. Therefore, leadership capabilities particularly in creating strategies to address challenges in times of disaster strengthen the trust between agencies lead to an effective exchange of reliable information that is vital towards an efficient disaster response.

7.1.2.4 Governance Process: Trust and Planning

Also, the reliable exchange of information between and among agencies facilitates the planning activities of the Council despite the inability of the member-agencies to attend disaster planning of the Council. Generally, the data shows that the trust between and among the members of the Council in terms of competence and dependability among its member-agencies transcends the complexity and challenges attached to disaster management planning. Moreover, the Republic Act 10121 provides a guide on how disaster funds should be utilized. Hence, the DRRM Councils in the country is steeped in the planning of disaster-related activities. However, the effective allocation of resources among each member-agency depends on an efficient planning. Therefore, with stronger trust shared in the Council, a

consensus in the allocation of resources and other decision-making processes is most likely to achieve.

7.1.2.5 Governance Process: Managing Conflict and Planning

Moreover, the significant relationship between managing conflict and planning suggest the importance of effective mechanisms in managing conflict towards a more emergent and efficient disaster planning. As discussed, conflicts and disagreements are inevitable in any collaborative set-up. the capacity of the network to resolve conflicts out of coordinating failures creates strong ties and facilitates the planning processes of the disaster management network.

In summary, this research shows that among the 21 hypothesized relationship in this study, only 7 have a significant relationship. Accordingly, previous performance of the disaster management network has a significant relationship on the initial agreement, leadership and managing conflict in the network. However, the effect size of previous performance to initial agreement, leadership and managing conflict is weak. On the other hand, initial agreement is significantly associated with leadership only, leadership with trust, trust with planning, and managing with planning. The effect size among these significant relationships is moderate, except for managing conflict which shows a substantial effect on planning.

7.1.3 Output and Outcome of collaborative disaster governance

7.1.3.1 Output: Existing relationship

As the output of the cross-sector collaborative disaster governance in the Philippines, the existing relationship is

quantitatively measured in terms of the frequency of the respondent's interaction with the other members of the network. The respondents assessed the frequency of their interaction with other agencies in the delivery of their mandates. In Chapter IV, the higher the frequency the more connected the agency with the other members of the network (network analysis) while in Chapter V, the sum of such frequencies is considered the value of existing relationship which was utilized in SEM together with the other variables in this study.

Generally, the lesser number of agencies involved in the Regional level of disaster management, lesser connections are made particularly towards the member-agencies in the local disaster management networks. Practically, the data showed that each agency is at least 3 agencies apart from the other agencies. This data suggests that the member-agencies in the network lack familiarity with each other. Hence, various challenges are encountered during disaster response operations. This finding is consistent with the data presented in Chapter V that the major problems in times of the disaster management are the lack of available resources and the absence of reliable information.

Moreover, the less centralized nature of the disaster response networks disrupts the governance processes. The mandated structure of the network strengthens the capacity of the lead agencies to steer the disaster response operations in the region. Kapucu (2006) asserted that a network should remain highly centralized in decision-making and becomes decentralized in the implementation of policies. The data revealed that decision-making is shared by the members of the network as well as its implementation. Further, the data indicated that there are agencies which are not as active as they should be given that their mandate on disaster management is just among of the mandates given to

their agencies. As a result, in times of disasters, decision-making is slow as it requires that the network convenes, and a consensus is reached before an important action is done. Thus, disaster response is considered slow and ineffective.

7.1.3.2 Outcome: Social capital

7.1.3.2.1 On trust and solidarity, and social cohesion

Trust and solidarity as a dimension of social capital refer to the extent to which people feel they can rely on relatives, neighbors, colleagues, acquaintances, key service providers, and even strangers, either to assist them or (at least) do them no harm. In measuring the trust and solidarity dimension of social capital, key informants were asked about the goods or services that they have received from the people who have more than they have, people who have less than they have, people who have the same capacity as they have, and from closely related family members. These findings suggest that solidarity is felt in the community with a significant level of generalized trust.

In terms of social cohesion, the findings revealed that social cohesion in the disaster-affected communities is bound by common interests and abilities which are commonly demonstrated through communal activities such as Barrio fiesta commonly for religious groups, and other activities which the group has initially agreed. For example, some groups are organized to help the family of the member who is in need or provide financial assistance or in-kind services whenever there is a funeral. Moreover, the findings revealed that the success of these groups lies in the members' adherence to norms and agreed policies. In doing so, some members of the community are excluded from these organized groups.

7.1.3.2.2 On social networks

Generally, in times of disasters, key informants commonly go to non-government organizations and closely related family members such as siblings, parents, and children. Key informants from Iligan City go to religious organizations, charities and rural relatives more than the informants from Cagayan de Oro. While informants from Cagayan de Oro turn more on their nearby friends, neighbors and community elder or traditional leaders. These findings suggest that key informants in Cagayan de Oro have stronger bonding social capital, while key informants in Iligan City have stronger bridging social capital.

7.1.4.2.3 On Institutional Analysis

Significantly, the findings revealed that key informants, particularly from Cagayan de Oro City have relatively higher trust in political institutions such as public hospitals, village, barangay and city officials (Mayor, Councilors, DRRM Office), army and the police forces, which imply that social capital is either unaffected or strengthened after the disaster. The data also revealed that local and international NGOs are the most trusted institution of the key informants in times of disasters.

7.2 CONCLUSIONS

a. Therefore, the tall-structure and the lead-organisation form of network governance which is centralised in nature, does not work in the local and regional disaster management networks in Region X Philippines. Disaster management network at the Regional level should be highly centralized in such a way that disaster management decision making, and operations are directed by the Office of the Civil Defense and Department of Social

Welfare and Development, and all other agencies in the Region gather valid and reliable reports from the local government units and submit directly to the OCD and DSWD for consolidation towards immediate actions.

Also, in the local level, a flat-structure or a highly decentralized form of disaster governance should be installed. Instead of the Local Chief Executive, the disaster management network should be led by a disaster management champion in the local government unit where consensus is sought from the member across the different sectors in the community. With disaster management champions, leadership capabilities are easily nurtured. The involvement of the non-government agencies (NGAs) such as the Philippine Red Cross, Habitat Foundation, and Group Foundation Incorporated are also sustained. With a flat-structure, stronger relationships are established, there will be lesser bureaucratic protocols in the actual operations, more importantly, politics and political dynamics between and among conflicting parties in the LGU will not get in the way during disasters as politicians no longer play significant roles in the structure and process of collaboration. In doing so, when the Regional agencies takes over the disaster operations in the local level, transition is facilitated by a stable and capable local disaster management networks. Hence, disaster operations will most likely to succeed.

b. It is also concluded that there is a positive association of structure and governance processes in disaster governance. Building on the capacities of the local agencies, organizations, and communities could lead to an improved network structure and effective disaster management governance. In the absence of a strong intergovernmental and inter-organizational relationships and

disaster management champion/s, disaster response operations in the country will remain in limbo.

c. Communities trust the government institutions that they are doing their best and disaster response in the country will get better as efforts are already made by the government in improving disaster management in the country. Hence, communities develop a certain level of understanding in terms of the failure and appreciation of the performance of its government and social institutions in times of disasters.

7.3 IMPLICATIONS

7.3.1 Implications on Theory

This study further corroborates the findings of Chang-Seng (2010) that the structure may be ideal, but it does not necessarily imply that it is suitable in the community as factors such as social norms and political culture might get in the way. This finding also confirms the study of Kapucu and Van Wart (2008) that decentralized decision making in the form of an excessive reliance on centralized authorities could bring more harm than good particularly if the authorities are not fully committed to addressing the needs and resolving the various challenges along the way.

This study enriches the existing understanding of cross-sector collaboration which Bryson et al., (2006) refer to as an ideal but difficult and complicated approach towards the successful outcome. With its focus on the influences of the initial conditions to the aspects of governance process - leadership, initial agreement, trust, planning and managing conflict and its impact on the outcome of collaboration, this study reaffirms the previous studies conducted on cross-sector collaboration and disaster governance emphasizing

the relevance of the aspects of governance processes particularly leadership in collaborative disaster management (Fung, 2015; Tang and Mazmanian, 2008; Lester and Krejci, 2007; and Kapucu, Arslan and Demiroz, 2010).

Meanwhile, this study does not fully agree to the findings of Lester and Krejci (2007) who postulated that the planning process should be participated by the leaders of the institutions involved in the disaster operations to ensure the successful result. However, this research supports the findings of Kapucu and Van Wart (2006) when they postulated that the problems on poor or nonexistent planning come along with incompetent managers. Thus, this research argues that with good leadership, trust enhances the planning process of the network.

Finally, this study joins the theoretical discussion on the relationship between the impact of initial condition to the collaborative process where institutional design and sector failure, sets the basic ground under which collaboration takes place (Ansell and Gash, 2008).

The summary of this research's contribution to theory is shown in Figure 7.1 below.

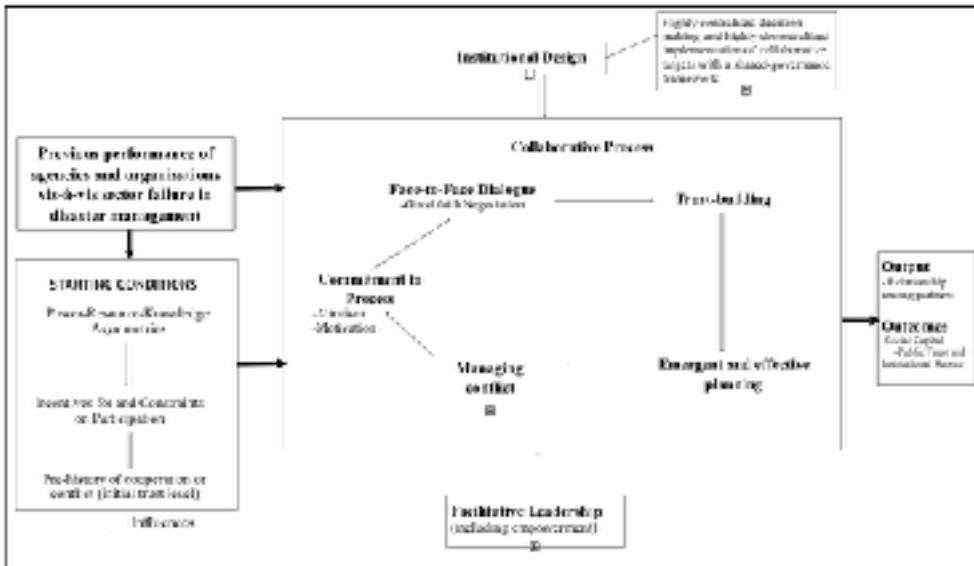


Figure 7.1 Proposed model for cross-sector collaboration in disaster management (modified model of cross-sector collaboration from Bryson, Crosby and Stone (2006) and Ansell and Gash (2008)).

As presented in Figure 7.1, the contribution of this research to the theory of collaboration in the public sector is on the emphasis of how significant previous performance of the agencies and organizations to the process of collaboration. Such that, the failure of one or two sectors in addressing a social concern determines how collaboration operates. Also, together with the previous performance as the starting condition of collaboration, power-resource-knowledge asymmetries and incentives and constraints on participation affects collaborative processes. Meanwhile, leadership capacities and structural configuration or institutional design of the group or network also determines collaborative practices. Collaborative process as indicated in this study should begin with a strong commitment from the network members either through altruism or their respective motivations or both. In doing so, face-

to-face discussions is facilitated which lead to familiarity and trust in terms of the competence, integrity and dependability between member organisations. With this, planning processes becomes highly effective as well as managing conflicts.

Therefore, the impacts of previous performance are either enhanced by leadership capacities or by effective institutional design, otherwise, professional relationships among member agencies and organizations weakens resulting to less effective and efficient delivery of targets. Hence, social capital in the community particularly institutional support declines over time.

7.3.2 Implications for Practice

Practically, this study implies that at the national and regional levels where many organizations are part of the network, centralized decision making is necessary and disaster operations should be decentralized (Kapucu, 2005). However, shared governance should be cultivated in the local government units where the network has relatively few members and highly dense relationship can be built (Provan and Kenis, 2008).

More importantly, disaster management networks should have disaster management champions who are committed to public service, adaptable to the shifting conditions of the response operations, capable of ensuring that collaborative activities are attended by the head of the agencies and institutions to avoid tensions in the implementation of network level goals and skillful enough to provide incentives aligned to the motivation of the individual and organization to improve the exchange of information and better communication between agencies.

7.4 RECOMMENDATIONS

This study recommends that a highly centralized disaster network with a shared-governance and a flat structure should be considered to enhance the competence of the local agencies through an inclusive collaborative process in order to attain agreements, foster interdependencies and sustain reliable partnerships in the Region's disaster management networks.

Also, the presence of the non-government agencies should be strengthened and sustain as it could lead to a more effective disaster management network, thus, better disaster response. With definite and sound government structures, CSOs can harness its potentials in crisis situations which could go beyond rapid damage assessments (Alegado, 2014; Paramita, 2012). Thus, adopting a highly centralized network with shared-governance in structuring the disaster management networks lead to sustainable and effective structures and processes in the disaster management operations.

Lastly, this study recommends that future researchers on disaster governance may expand the scope of the study and explore other methods (i.e. comparative approach to disaster management response) in understanding cross-sector collaboration in disaster management as this research is limited only to the data gathered in Region X, Philippines.