

Examining the Role of the International Community in Building Disaster Resilience: A Case Study on the Central Visayas Region of the Philippines

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Examining the Role of the International Community in Building Disaster Resilience:

A Case Study on the Central Visayas Region of the Philippines

A Master's Thesis Submitted by:

Tashana Dominique Villarante

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TITLE OF MASTER'S THESIS

Examining the Role of the International Community in Building Disaster Resilience: A Case Study on the Central Visayas Region of the Philippines

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Confirmation of Authorship

I certify that this is my own work and that the materials have not been published before, or presented at any other module, or program. The materials contained in this thesis are my own work, not a "duplicate" from others'. Where the knowledge, ideas and words of others have been drawn upon, whether published or unpublished, due acknowledgements have been given. I understand that the normal consequence of cheating in any element of an examination or assessment, if proven, is that the thesis may be assessed as failed.

Date: 8th September 2015

Place: Grenoble

Signature of the Author:

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Abstract

Recent major disasters in the Philippines have resulted in the increase in number of international organizations and their operations. This thesis seeks to find out whether the interventions introduced by the international community contributes to building disaster resilience among communities.

In order to do so, a review of related literature on disaster resilience and the involvement of the international community is conducted. This thesis also looks at two cases of varying degrees in the Central Visayas region of the Philippines: the Province of Bohol and the Municipality of Bantayan. In addition, a review on policies was also conducted: the Hyogo Framework for Action from the international scale, and its application in the Philippines through Republic Act 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010.

Results of the review of literature and policies, as well as analysis of the interviews conducted, show that international organizations are highly influential in effective disaster management in the country. However, their efforts are mainly limited to the relief, recovery, and rehabilitation stage after a major disaster. More often than not, these interventions do not see long term results such as building disaster resilience in order for the communities to withstand recurring shocks, stress, and changes.

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1. Chapter One: Introduction

1.1. Introduction

On 16 December 2011, Mindanao, in the southern region of the Philippines, experienced one of the deadliest tropical cyclones that ever hit the country. Tropical storm Sendong (international name Washi) made landfall in the region, carrying with it 10 hours of torrential rains that resulted in disastrous flash floods across Mindanao – one of the regions in the Philippines that rarely experience tropical cyclones (ABS-CBN News, 2014).

The Philippines experiences an average of 20 tropical cyclones in a year. The extreme change in climate that is being experienced globally has affected the Philippines too. Although the number of storms has not significantly increased, their intensity has changed drastically over the past ten years. The number of damaging tropical cyclones has considerably increased, particularly typhoons with more than 220 kilometers per hour (kph) of sustained winds. Because of this, the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) has recently made amendments to the existing four-level warning system, to include Category 5 – giving emphasis in warning of super typhoons with more than 220 kph sustained winds that can bring "very heavy to widespread damage" (PAGASA, 2015). Besides tropical cyclones, the Philippines is also part of the Pacific Ring of Fire, which is a string of volcanoes and sites of seismic activity, such as earthquakes, around the edges of the Pacific Ocean.

One can say that disasters have always been a part of the daily life in the Philippines. With an average of 20 tropical storms a year, residents in the Philippines have somehow learned to cope with this changing of weather – very wet and rainy months during the monsoon season and extremely warm and humid weather during the summer. Traditional houses are built elevated from the ground, with high roofs and wide eaves, and light, breathable walls. These time-tested traditional houses were not only strong enough to withstand accustomed typhoon winds, but were also built to endure the extreme heat that is experienced during the warm months. Moreover,

farmers and farm laborers were able to properly prepare for extreme weathers of drought and rainfall, as this was more predictable and foreseeable in the past. In recent years, however, preparing for extreme weather conditions has proven to be more challenging. As tropical cyclones continually increase in intensity and extreme weather conditions become more and more unpredictable, the Philippines cannot just continue on being reactive and respond to one disaster after the other. In addition to intensified climate disturbances, rapid population growth in the country also means more and more people living in vulnerable situations. Emphasis on disaster resilience has been increasing among scholars and practitioners alike, so that communities are able to carry on with their usual activities even after a major disaster strikes.

When major disasters such as Typhoon Yolanda (international name Haiyan) hit the Philippines, the international community plays a critical role in the immediate assistance extended as the country tries to normalize functions and operations again. Relief operations and recovery are quickly carried out because of international aid. In a country where financial and technical resources are limited and constricted, the involvement of the international community certainly helps in responding quickly to the disaster at hand. Reports show that the presence of international organizations have increased in the Philippines since 2013, following the destruction of Typhoon Yolanda in the provinces of Eastern and Central Visayas. The number of international organizations operating in the country may not have increased significantly, but an increase in their operations and human power can be notably observed.

1.2. Problem Statement

In this increasingly globalizing world, events in one part are directly or indirectly affecting the other parts. Instability of the US dollar, for example, has its repercussions on the sugar cane farmer in Latin America. In the same manner, land reforms in Africa may influence the goods and produce exported to Europe. Disasters caused by natural events are not so different from these scenarios either. One example would be the tsunami experienced in Banda Aceh, Indonesia in December 2004 that also affected countries as far as Sri Lanka. Pelling (2003) in the

introduction of his book, *Natural Disasters and Development in a Globalizing World*, states that the changing conditions brought about by globalization have changed our understanding of the relationship of disasters and development. Disasters, although having a local context, have become a global phenomenon, and efforts to address it have been highlighted in the international scale as well. Cooperation among different entities, most importantly nation states, is being emphasized to achieve a unified goal of what development is supposed to be. A closer look into the relationship of disasters and international cooperation is thus necessary, and this is what my research is about. My research will be beneficial to various groups who want to study the link between disasters caused by natural events and how local governments, with the help of the international community, address them.

The world has moved beyond the discourse of sustainable development towards creating communities that are able to withstand stress, shocks, and changes. As a development practitioner seeking to learn more about urban development in the international scale, I am interested to know whether the increased presence of international organizations contribute to making communities more disaster resilient. As someone who has worked extensively in governance in the national and local level in the Philippines, I am interested to know more about the cooperation of these international organizations with the local government, and specifically how the local governments value their contributions.

Disasters in the line of urban planning are perhaps one of the most widely researched topics in the development discourse. In the same manner, governments have worked hand in hand with civil societies and development practitioners on how to manage disasters. However, there is an obvious gap between scientific knowledge in the global level and the knowledge that can be derived at the local level (Gaillard and Mercer, 2012). In addition, the help that is being provided by the international community aftermath of a disaster may be temporary and short-term, however, it is overwhelmingly massive in scale as well. Following Typhoon Yolanda, the Philippine government launched FAiTH, Foreign Aid Transparency Hub, which is an online portal of information of pledged calamity assistance. As of this writing, FAiTH shows that the Philippines has received foreign aid amounting to approximately 386 million

US dollars (FAiTH, 2014). With this amount, it is important to find out whether all these efforts have transcended beyond the initial relief and recovery phase, and have contributed to building resilience among communities.

1.3. Research Design

As a guide to my research, I intend to answer the following research questions:

- To what extent do international organizations in the province of Bohol and the island of Bantayan contribute to creating disaster resilient communities?
- What is the perception of the local government about the efforts carried out by these international organizations?

In order to look into the matter more thoroughly, the following sub-questions may be used as a guide as well:

- What policies are set in place by international bodies and how are these being implemented in the Philippines?
- What are the projects and programs being undertaken by international organizations in relation to disaster management?
- What is the current organizational structure of the local government in terms of their collaboration with international entities?

I am assuming the hypothesis that there is a valuable collaboration between the local government units (LGUs) and the international organizations (IOs) that have operations in the LGU's respective jurisdiction. The technical knowledge and the financial capacity of IOs complement the local expertise of the LGU in order to produce meaningful results for the communities. However, in relation to disaster management, these collaborative efforts may only be limited to the relief and recovery phase.

In order to test this hypothesis, I base this research on a case study methodology. I focus my research on two case studies of varying degrees: One in the provincial level (Bohol) and one in the municipal level (Bantayan). Interviews are conducted in both

levels, inquiring into the local government's cooperation with international organizations in various aspects such as logistics, research, and finance, as well as their perception of working with international entities. I then investigate international policy documents such as the Hyogo Framework for Action, and then investigate how this is being implemented in the country by reviewing national legislations such as the Philippine Disaster Risk Reduction and Management Act of 2010.

My objectives of this study are to find out whether the projects and programs that are being implemented by international organizations transcend beyond the recovery phase after a major disaster, and to learn what the views are of the local government, who is ultimately the middleman between these international organizations and the people they wish to serve.

1.4. Overview of the Case Studies

To narrow down the scope of my research, I have chosen two case studies: the Province of Bohol and the Island of Bantayan. Both are located in central Philippines but are different in terms of scale and influence of governance, geographical area, and scope of economic activities. I introduce my case studies in this section, and will provide further discussions in the succeeding chapters.

Bohol

Bohol is an island province located in the Central Visayas region of the Philippines, having a land area of 4,120 square kilometers. The latest census of 2010 recorded Bohol having a population count of 1,255,128. The province, headed by a governor and a vice governor, is divided into 48 local government units, each headed by the local mayor.

On October 15, 2013 a 7.2 magnitude earthquake struck Bohol and its neighboring provinces. Within seconds, bridges, buildings and churches collapsed, resulting not only in massive infrastructural damages but panic among the residents as well. Three weeks later, on November 08, super typhoon Yolanda made landfall in Eastern

Visayas and swept through the whole Visayas region, including the province of Bohol.

Bantayan Island

The island of Bantayan lies 136 kilometers off the northern coast of Cebu in the Central Visayas region of the Philippines. The island is divided administratively into three local government units, each headed by its respective mayor. As of 2010, the whole island has a population of 114,314.

Agriculture is the main source of income of the island, from livestock to fishery. When super typhoon Yolanda swept across the Visayas, up to 90 percent of the structures in Bantayan were heavily damaged, including the local municipal hall, schools and health centers.

1.5. Scope and Limitations of the Study

This research will focus on the study of disasters caused by natural hazards, particularly tropical cyclones and earthquakes, which have occurred in the immediate areas of where the case studies are located. Specifically, I will study the natural events that have occurred in the Central Visayas region of the Philippines. Other disasters caused by technology or conflict will not be studied in this thesis.

Projects and programs implemented by international organizations that have operations in the case study areas will be studied. Specifically, I will focus on the collaboration of these organizations with the local governments concerned. The projects and programs taken on by the local and national government are onlyincluded if they are in one way or another related with the efforts of international organizations.

1.6. Clarification of Key Terms

Research on disaster-related issues is, for most part, unclear and puzzling. The terms used in literature and in practice have similar and interchangeable meanings, and can easily be confusing even for advanced researchers. In this section, I am

establishing a unified understanding of the terms used in this research and in the discourse on disaster in general.

- Hazard

The Hyogo Framework for Action defines hazard as "a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydrometeorological, and biological) or induced by human processes (environmental degradation and technological hazards)" (UNISDR, 2005: 1). For the purposes of this research, I will be focusing on the natural processes or phenomenon of hazards specifically tropical cyclones and earthquakes.

- Vulnerability

These are the "characteristics and circumstances of a community, system, or asset that make it susceptible to the damaging effects of a hazard"(UNISDR, 2009: 30). Vulnerability can arise due to several factors such as poor design and construction of buildings, lack of awareness or limited access to information by the individuals, or when risks are not properly recognized resulting in weak preparedness measures, and mismanagement of the environment and its resources. Further explanation by the UNISDR identifies vulnerability as "a characteristic of the element of interest (community, system, or asset) which is independent of its exposure." To put it simply in the context of my research, vulnerability occurs because of the *exposure* of the communities to risks and their *inability to respond* to it.

- Disaster

Disaster is "a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources" (UNISDR, 2009). As Pelling (2003: 5) states, disasters are "the outcome of hazard and vulnerability coinciding."

- Disaster Risk Reduction and Management (DRRM)

The UNISDR have separate definitions of Disaster Risk Reduction and Disaster Risk Management. A combination of both definitions would describe DRRM as the systematic process of reducing disaster risks through *institutional* (policies, strategies, and coping capacities) and *structural* mechanisms in order to analyze and manage the causal factors of disasters. The end goal of which is reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and environment, and improved preparedness for adverse events (UNISDR, 2009). In other words, DRRM is the assessment of risks and predicting of disasters through soft (policies) and hard (infrastructural) elements.

- Disaster Resilience

While not starkly different from DRRM, disaster resilience is defined as "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions" (UNISDR, 2009: 24). The terms DRRM and disaster resilience are certainly not independent of each other and both have the same goal in sight. However, I will be emphasizing on disaster resilience in my research to highlight the capacity of the community and the system to "bounce forward" from the stress and shocks brought about by climate events (López-Marrero & Tschakert, 2011: 230). In other words, disaster resilience *acknowledges that there will be more shocks and changes* to the system and the changing intensity of these events should be kept in mind when designing, planning, and building communities.

- International Organizations

For the purposes of my research, I will be referring to international organizations (IOs) as organizations that have an international scope and presence. This will include, but are not limited to, international non-governmental organizations that have operations globally, and the inter-governmental organizations that are made up of sovereign states. Other organizations that have their headquarters and/or head offices outside of the Philippines, although not necessarily having operations in

several continents, will also be considered in this research as having an international scope.

1.7. Content Outline

My research will be divided into seven parts. This part, **Chapter One**, is the Introduction where I have given a brief overview of what my research is about, stated what my motivations and objectives are for studying it, and established the key terms in disaster discourse. **Chapter Two** is the review of related literature where I put forward the arguments and debates that have been presented in the fields of disaster resilience and international development. I conclude the literature review by stating the gap in knowledge and how my research contributes to fill this gap. **Chapter Three** is where I explain my methodology of how I have conducted this research. **Chapter Four** is where I explain in detail the two case studies that were chosen and discuss the data that I have gathered through the interviews. In **Chapter Five**, I discuss the Hyogo Framework for Action and its implementation in the Philippines through Republic Act No. 10121. **Chapter Six** is where I analyze the data that have been gathered. **Chapter Seven** is my concluding chapter where I discuss recommendations on how this study can be advanced further.

2. Chapter Two: Literature Review

In this chapter, I review what academics and practitioners have put forward in the discourse of disaster, resilience, and the involvement of the international community. I first discuss points and arguments that have been raised about disasters by taking a closer look into the two components that constitute a disaster: hazards and vulnerability. Next is the discussion on resilience, the efforts to streamline disaster resilience, and the different challenges on its operationalization. I then provide a brief overview on the role of the international community in disaster management. I conclude my literature review by stating thegaps in the knowledge presented.

2.1. Disasters = Hazards + Vulnerability

One of the most common misconceptions about disasters is to assume them as a naturally occurring phenomenon. Perhaps it is also because of how the media interprets the disasters that occur. When a landslide happens for instance, the more popular notion is to focus on the torrential rain mixed with soil that swept through houses and communities, stressing more on the impact of nature. However, this is an inadequate way of understanding disasters that are triggered by natural events. Several scholars (Wisner *et al.*, 2004; Weichselgartner, 2001; Pelling, 2003, to name a few) all agree that the social environment of people is the determinant of how a natural hazard can escalate to a disaster. Weichselgartner (2001) provides the example of a volcanic eruption not being referred to as a disaster when it occurs in an area where there are no human settlements.

In order to give us a better understanding of disasters, it is important to have a closer look into the two components that contribute to the occurrence of a disaster. One component of a disaster is a hazard. Burton and Kates (1964: 413) define natural hazards as:

> *"those elements in the physical environment, harmful to man and caused by forces extraneous to him."*

This is one of the earliest definitions of hazards, and still holds true to some extent in the current discourse. In other words, hazards pose a potential harm to individual or human systems and are attributed from natural, physical, or environmental elements (Pelling, 2003), whose interaction can result in a disaster (Mitchell, 2001). These can be everyday occurrences such as the lack of accessible potable water or episodic such as a volcanic eruption (Pelling, 2003).

These natural risks caused by hazards have been referred to by people as acts of God, nature, luck, fortune, or fate. In fact, in the Philippines, one can avail of the Acts of Nature add-on to their basic auto insurance in order to be compensated if something happens to their vehicle in the event of earthquakes, typhoons, and floods. However, Weichselgartner (2001: 85) argues that interpreting natural events as acts of God "paralyzed scientific arguments, prevention, and technical measures." Moreover, it also devoids the the fact that men and society as a whole share the responsibility in the creation of these extreme events (Paul, 2011). In this physicalist view of disasters, people and our activities were considered as having a minimal contribution in the production of disasters. As such, proposed interventions were focused on engineering and infrastructural solutions, such as building seawalls, instead of introducing change within the society (Pelling, 2001).

The description by Burton and Kates, however, is still valid regardless of the cause of these events because hazards are still essentially a threat to man. What makes this harmful to man is when he is exposed to this threatwithout any means to address it or prepare for it, making him vulnerable. Vulnerability then becomes a factor of how a hazard can escalate to a disaster.

Vulnerability has been thoroughly researched in the the scientific community, and there are numerous definitions of the term, most of them essentially stating the same concept. Weichselgartner (2001) provides a comprehensive list of definitions of vulnerability by several scholars. The approaches to the term have significant differences which can be interpreted through several classifications and typologies (Gaillard, 2010). A simplified working definition that can be easily understood in the context of my research is provided by Wisner *et al*. who state that:

> *Vulnerability is "the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard (an extreme natural event or process)."* (Wisner *et al*., 2004: 11)

As I emphasized in the previous chapter, vulnerability occurs because of the *exposure* of communities to risks and their *inability to respond* effectively to it.

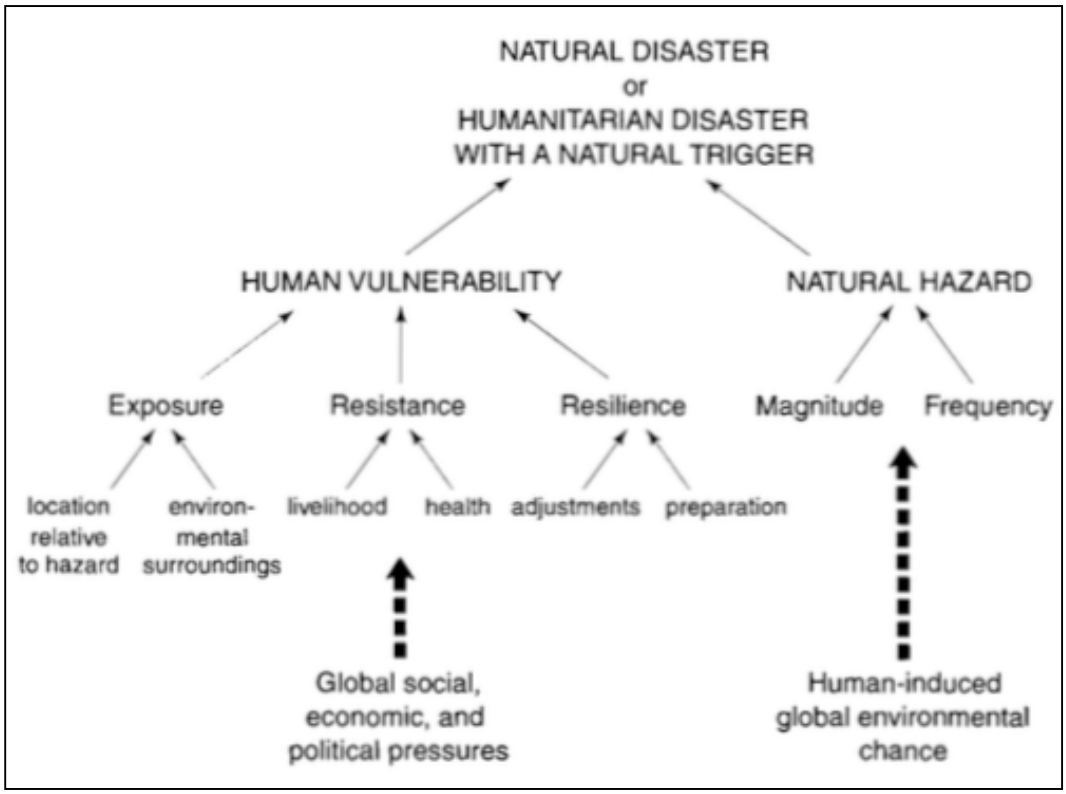
The characteristics that make people vulnerable may be due to demographic or environmental reasons (Paton and Johnston, 2001). This is further explained by Weichselgartner (2001) who discusses the concept of vulnerability in three distinct themes: the biophysical risk, the social capacity, and the geographical location. The first theme states that vulnerability is a pre-existing condition, where the focus is on the source of the hazardous condition, how it is occupied by human settlements, and the degree of loss associated when a particular event happens. The second theme talks about vulnerability as a tempered response. This highlights the social construction of vulnerability that is rooted in the individual's or society's historical, cultural, social, and economic conditions which may affect their ability to cope with and respond to disasters. Studies have emerged highlighting on the "people's capacity to protect themselves rather than just the vulnerability that limits them" (Wisner *et al*., 2004: 13). This shifts the focus from people being passive about their weaknesses and limitations, to emphasizing their ability to be proactive in creating security for themselves before and after the occurrence of a disaster (*ibid*.). The third theme focuses on vulnerability as hazard of place. This is a combination of the first two themes as both a biophysical risk and as a social response, but gives emphasis to a specific geographical area. Over the time, studies have moved away from discussing "vulnerable groups" to focusing more on "vulnerable situations" (Wisner *et al.*, 2004: 14). Attention used to focus on social characteristics such as gender, age, health status and disability, ethnicity, religion or caste, and the like. While this is helpful in categorizing particular needs of each group, it does not provide a better understanding of how and why they are vulnerable in the first place. In this regard, information about the buildings (safety or susceptibility), economies, geological classifications (slopes, soil types, etc.), and geographical location (hazard-prone or not) would provide better explanations to their vulnerability (*ibid.*). In other words,

vulnerability is fundamentally a "social causation that occurs because of the negligence and inappopriate response of the social system, making a disaster out of a situation that could have easily been avoided" (Cannon, 1994: 16). The desire to measure vulnerability has also emerged in order to bring forward a more quantitative approach for disaster management practice (Gaillard, 2010), as well as planning and policy making (Wisner et al., 2004).

From the physicalist origins of how disasters were viewed in the 1920s, i.e., the emphasis on nature, alternative theories have emerged since the 1980s taking into account the social aspects of disasters, i.e., vulnerability of communities(Pelling, 2001). In 1976, O'Keefe *et al*. published an article entitled "Taking the naturalness out of natural disasters," emphasizing on the fact that without a vulnerable human population, there is no disaster. In fact, scholars would argue that the term "natural disasters" is incorrect as there is nothing natural about how disasters occur. The United Nations International Decade of Natural Disaster Reduction (1990-2000) has been criticized on the use of the misleading term (*see* Wisner et al., 2004 *and*Pelling, 2001). As Pelling (2001) argues, the term puts the bias and emphasis on the naturalness of disasters and downplays the human dimensions to it. In addition, by putting the emphasis on the impact in nature, we are highlighting the "dominance of technical interventions, focused on predicting the hazard or modifying its impact" (Cannon, 1994: 13). By focusing on the mitigation of hazards and limiting our understanding of the social and and economic systems, we may be creating more inadequate and potentially dangerous situations (*ibid*.). As such, a more holistic and integrated view on disasters was seen necessary if we are to properly address them.

The shift from the physicalist origins to the alternative theories on disasters called for a more integrated approach on disaster management. Figure 1 shows the diagram that Pelling (2001: 183) uses to discuss an integrated view of *natural* disasters, which he prefers to refer to as "humanitarian disasters with a natural trigger" in order to highlight the relationship between natural hazards and the continuing vulnerability of human population.

Figure 1. Integrated Approach on Disasters



Source: as cited from Pelling, 2001: 182.

It is evident from this discussion that disasters need to be prevented. However, some would argue that the change that result from the interactions between development and climate change adaptation and disaster risk reduction could potentially bring positive opportunities for growth. Birkmann *et al*. (2010: 638) state that "disasters can catalyze structural and irreversible change by creating new conditions and relationships within environmental, socio-economic, and political structures, institutions, and organizations." In other words, disasters may be the avenue of change that would allow building more resilient nations and communities (*ibid*.). As such, not everything that has resulted because of disasters brings a negative effect or a decline in development. In some cases, these may be seen as a window of opportunity to reinvent and innovate.

2.2. Disaster Resilience

The discourse on addressing disasters has been continually evolving: from the more conservative view of hazard prevention, to disaster preparedness, to disaster

mitigation, and to a more integrated approach of disaster risk reduction and management. Ultimately, all these strategies have the common goal of protecting the most vulnerable of populations from the stresses and threats brought about by extreme natural events. Without undermining the importance of the aforementioned strategies, my research focuses on disaster resilience because I want to emphasize the fact that disasters are *recurring* and at a more intense rate and in more massive scales, with our vulnerable population increasing rapidly. As stated in the previous chapter, disaster resilience is defined as:

> *"The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to, and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions."* (UNISDR, 2009: 24)

Scholars claim C.S Holling to have coined the term 'resilience' when he wrote his breakthrough paper in 1973 on systems ecology. In this paper, entitled "Resilience and stability of ecological systems," Holling defines resilience as:

> *"…a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables."* (Holling, 1973: 14)

Alexander (2013) gives a detailed discussion of how the term 'resilience' has developed in scholarly work. He presents evidences that while Holling may have been the one to bring the term to prominence, 'resilience' has been used several times in different disciplines some years earlier.

The emphasis on disaster resilience is mainly due to the effects of climate change that is being experienced around the world. Efforts to reduce the risk because of disasters, as well as efforts to improve the capacity of cities to normalize operations after a major disaster, have been in the forefront of international agendas, and most especially in its application in the national contexts. Below are some definitions provided by scholars of what being disaster resilient means:

"A resilient system is able to absorb hazard impacts, without changing its fundamental functions; at the same time, it is able to renew, reorganize, and adapt when hazard impacts are significant." (López-Marrero & Tschakert, 2011: 230)

"Resilience is the ability of a social system to respond and recover from disasters and includes those inherent conditions that allow the system to absorb impacts and cope with an event, as well as post-event, adaptive processes that facilitate the ability of the social system to re-organize, change, and learn in response to a threat." (Cutter *et al*., 2008: 599)

"[Disaster resilience is] the ability of countries, communities and households to manage change, by maintaining or transforming living standards in the face of shocks or stress – such as earthquakes, drought or violent conflict – without compromising their long-term prospects." (DFID in Weichselgartner & Kelman, 2014: 250)

"Resilience = resistance + coping capacity + recovery + adaptive capacity" (Johnson & Blackburn, 2014: 48)

"From a social and psychological perspective, resilience is a function of the operation of personal characteristics, the ability to impose a sense of coherence and meaning on atypical and adverse experiences, and the existence of community practices (e.g. supportive social networks) which mitigate adverse consequences and maximize potential for recovery and growth." (Volanti *et al*. in Paton & Johnston, 2001: 273)

Although the effects of global climate change is being experienced around the world, the most affected of the these events are the countries from the Global South, the developing countries. In 2004, the United Nations Development Programme (UNDP)

published a report calculating that while only 11 per cent of the people exposed to disaster risks live in low-development countries, this equates to 53% of the deaths due to disasters (UNDP in Schipper & Pelling, 2006). The same way socio-economic factors play a role in people's vulnerability to disaster, their access to resources, technology, and rights is also a determinant of how they are able to prepare themselves against these stresses and threats. Cannon (1994) states that countries in the Global South arethe most vulnerable because they have limited capability to put in place the necessary preparedness measures, and also because of their level of livelihood and resilience. When disasters strike in countries like the Philippines, more than the safety of the population, an important consideration is also the safety of the people's livelihoods, which is their primary, if not only, source of income. Moreoever, cities in the Global South are at a "[high] risk of climate change-induced disasters due to their high population densities, lack of urban infrastructure capacity, ubiquitous informal settlemens and urban sprawl to vulnerable areas" (Pelling in Khailani & Perera, 2013: 616). McEntire (1997) adds to this notion by stating that many developing nations are not able to formulate and implement disaster policies as they are extremely costly to prepare.

This is consistent with Cannon's (1994) explanation that developed countries are regarded as more resilient because their general livelihoods are more secure and and most have insurance for unforseen circumstances. In addition, he states that the way loss due to disasters is interpreted forms a crude and misguided understanding of the value we put on properties. Homes, goods, animals, and general properties in developing countries may have a lower monetary value when converted to Western currencies, but the value that is put on these goods are greater to the the people concerned than what figures would say. Furthermore, wealthy countries accummulate large surplus which enables them to allocate for aid and reconsutrction post-disaster (*ibid.*). Countries in the Global South barely have enough to operate with, much less set aside for a future event that is both unknown and uncertain. To use McEntire's (1997: 226) words: "affluence affords preparation."

As the discourse on disaster-related issues continually evolve, efforts to streamline disaster resilience in countries' agendas have been emphasized more and more.

These efforts mainly rely on the urban governments themselves, having an important institutional role in organizing their cities. Many of these urban governments still use the traditional way of planning and developing a city – through land use (zoning) and building regulations (Khailani and Perera, 2013). This approach highlights the physical development of cities, with little to no emphasis of socio-economic and environmental cohesion. In the past decades, scholars have pushed for the reforms in urban planning and development processes to include strategies for climate change adaptation which could affect the sustainability of cities (*ibid.*). As such, international policy documents such as the Hyogo Framework for Action (HFA) highlighted the need to mainstream disaster risk reduction (DRR) in development planning. In fact, the first strategic goal of the HFA is to attain "more effective integration of disaster risk considerations into sustainable development policies, planning, and programming at all levels, with special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction" (UNISDR, 2005: 3).

The emphasis on disaster resilience in the global level is further highlighted in UNISDR's toolkit for local government leaderson the "10 Essentials for Making Resilient Cities" as shown in Table 1. Four types of activities can be observed from this list: incorporating DRR in urban planning plans and regulations; creating bodies of authority dedicated to DRR; constructing infrastructures to mitigate hazards; and highlighting the use information and education campaigns to raise awareness (Johnson and Blackburn, 2014).

Table 1. 10 Essentials for Making Resilient Cities - UNISDR

1. Put in place organisation and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role in disaster risk reduction and preparedness.
2. Assign a budget for disaster risk reduction and provide incentives for homeowners, low income families, communities vusinesses and the public sector to invest in reducing the risks that they face.
3. Maintain up-to-date data on hazards and vulnerabilities. Prepare risk assessments and use these as the basis for urban development plans and decisions, ensure that this information

and the plans for your city's resilience are readily available to the public and fully discussed with them

4. Invest in and maintain critical infrastructure that reduces risk, such as flood drainaige, adjusted where needed to cope with climate change.
5. Assess the safety of all schools and health facilities and upgrade these as necessary
6. Apply and enforce realistic, risk-compliant building regulations and land use planning principles. Identify safe land for low income citizens and upgrade informal settlements, wherever feasible.
7. Ensure that education programmes and training on disaster risk reduction are in place in schools and local communities.
8. Protect ecosystems and natural buffers to mitigate floods, storm surges, and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.
9. Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.
10. After any disaster, ensure that the needs of the affected population are placed at the centre of reconstruction, with support for them and their community organizations to design and help implement responses, including rebuilding homes and livelihoods.

Source: UNISDR, 2012.

While efforts are grand and plenty among the international community, decision makers, and the scientific community, the application and operationalization of disaster resilience nevertheless face several challenges. One of the challenges is the definitional problem of the term 'resilience.' Despite the wide range of definitions and explanations of the term, resilience does not have a universally accepted definition that applies to different fields such as disaster risk reduction, climate change adaptation, humanitarian aid or urban planning (Weichselgartner and Kelman, 2015). In fact, as resilience gains more distinction in the policy arena as well as in practice, authors such as Johnson & Blackburn (2014: 46) call for a definition of resilience that is "tangible, meaningful, and operational, informed by academic reasoning and practical experience, and premised on principles of equity and human well-being."

In this regard, language plays a significant role in the theories that are used to address an issue, but the complexities of how this language is created makes it even more confusing to apply the theories. Alexander (2013: 2713) summarizes it clearly by stating that if only the terms used in the academic work on resilience is kept simple, "much of the debate about what terms mean and how to interpret them would be quite unnecessary." In addition, Weichselgartner & Kelman (2015: 259) argue that even if the term 'resilience' is used as encouragement for changes and positive approaches, they are nonetheless merely reframing the same challenges discussed in disaster risk reduction and vulnerability, essentially putting "old wine in new bottles." They further cite Chambers who asserts the significance of fashionable words such as 'resilience'in science, which is used to "impress colleagues and win research proposals" (*ibid.:* 259).

However obvious this need for a clear definition is, there is still the challenge of bridging the gap between theory and practice, which is not unique in the field of disaster management. Most of these dominant policies and strategies are put together by technocrats and scientific experts, and might not be in line with the reality on the ground. The technical concept of resilience remains difficult in terms of communication and operationalization despite its popularity (Bahadur and Tanner, 2014). While efforts are exhaustive in the global level, there is limited influence from the United Nations and the nongovernmental organizations to foster appropriate DRR policies at the national level (Gaillard, 2010). Moreover, this may be detrimental in the development of cities as it is the primary and sovereign responsibility of national governments to oversee the proper implementation of these policies (*ibid*.). In addition, even with all the guidance and recommendations of the international practictioners, city authorities in developing countries usually have limited finances and the technical knowledge to appropriately address DRR-related issues (Bahadur and Tanner, 2014).

In relation to the role of national governments, authorities are usually reluctant to put disaster management as a high priority because it is not as visible as infrastructure projects, for example. The local authorities prefer not to address the causes of disasters such as vulnerability because it might affect their plans for

economic investment and growth (Cutter *et al*., 2008). Moreover, over-all reduction of disaster risk has lower visibility than mere emergency relief, which deters governments to place this as a priority because they are chasing votes and international recognition, and even for NGOs that are dependent on disasters themselves for funding (Schipper in Schipper & Pelling, 2006).

Besides the gap in theory and practice, there is also the gap in utilizing the knowledge that is already available, especially in contextualizing disasters in the local level. Gaillard & Mercer (2012) discuss the challenge in recognizing that local knowledge is a legitimate resource in introducing more sustainable approaches in addressing disaster-related issues. They state that "in the context of disaster science, policy, and practice, the local and global are laregely disconnected and stretched apart by this process of glocalization," which utilizes "global scientific knowlesge on hazards and vulnerability, on the one hand, and the context-specific nature of local knowledge and community-based actions on the other hand" (p. 94). They also echo Wisner's assertion that this is a major challenge in effectively reducing disaster risks in a sustainable manner and on a large scale.

Other challenges on the application of disaster resilience thinking is its "lack of normativity and direction, failure to address trade-offs, and its epistemological bias towards technical responses" (Bahadur & Tanner, 2014: 202).

2.3. Disasters and the International Community

Now we ask the question, why is the international community important in disaster management? Essentially all nations suffer from disasters, whether these are triggered by natural events or as a result of technological or socio-political adversities. By this fact alone, it is important to study disasters and its actors at the global level. My research does not, in any way, attempt to discuss the complexities of the discourse on international cooperation, international development nor the widely researched field of international relations. I will, however, touch upon these topics as they relate to the management of disaster and disaster resilience.

It is important to study disasters and their actors in the global level because disasters and their effects are not only constricted to the borders and territorial jurisdiction of the areas where these disasters took place (McEntire, 1997). Schipper & Pelling (2006) state that the increasing economic and human costs of disasters, and how this is related to inappropriate development, has put the importance of disaster management in the international agenda.

Current strategies and policy frameworks are results of several efforts in the global level to emphasize the importance of reducing disaster risks. One example would be UN's dedication of the 1990s as the International Decade for Natural Disaster Risk Reduction. Although it has been criticized as a misnomer for the use of the term "natural disasters", the continued interest it sparked on reducing disasters lead to several other strategies such as the Hyogo Framework for Action 2005-2015 (Schipper and Pelling, 2006). Another important development in the international agenda was the establishment of the Millenium Development Goals. Although its primary target was poverty reduction, it highlighted the integral link between reduction of poverty and reduction of disaster risk (Cutter *et al.*, 2008).

Globalization is also another reason why the international community is an important actor in disaster-related issues. Virtually all nations in the world have been influenced by globalization in one way or another. Pelling (2003: 68) cites Rosenau and Castells in explaining that "globalization points to the influence of new forms of non-territorial economic and political organizations … with the emergence of inter-regional networks and systems of exchange and interaction."

The international community's involvement in disaster management comes in several forms. These are through bilateral agreements, multilateral organizations and international financial institutions, and non-governmental organizations (NGOs) and the scientific community.

Bilateral assitance are provisions from the government of one nation state to another nation state that is in need. These provisions come in different forms such as direct monetary donations, provision of supplies, equipment and logistical needs,

and provisions of technical and skills expertise (Coppola, 2011). The donor government act through their overseas diplomatic missions, such as embassies and consulates, and international development agencies. Examples of international development agencies whose development activities include disaster management are United States Agency for International Development (USAID), Canada International Development Agency (CIDA), and Australian Agency for International Development (AusAID), among others (*ibid*.).

Among the different actors in the international community, multilateral organizations and international financial institutions perhaps have the widest in scope and most considerable expanse in influence. A multilateral organization is an organization made up of the governments of several sovereign nations. These can be regionally-based like the European Union (EU) or the Association of South East Asian Nations (ASEAN), or globally-based like the United Nations. Consequently, international financial institutions (IFIs) are international banks composed of sovereign member states. These banks use public money from the member states to provide support for developing countries (Coppola, 2011). These international institutions work through their specific streams in disaster management such as the UN and its attached agencies through the International Strategy for Disaster Reduction, which has been mentioned several times in this literature review, and the Global Facility for Disaster Reduction and Recovery (GFDRR) by the World Bank. The GFDRR is working with over 400 partners, providing grant financing and technical assistance in mainstreaming disaster and climate risk management policies into country-level strategies, as well as serving as a global platform for knowledge-sharing and capacity building for disaster and climate resilience (GFDRR, 2015). The International Monetary Fund (IMF) provides structural adjustment lending to countries in need, provided they meet certain economic, political, and environmental requirements (Pelling, 2003).

Another important actor in the international community are the nongovernmental organizations (NGOs). These are organizations which are non-place-specific and independent of the governments, whose primary mission deals with social, cultural, environmental, and educational agendas (Coppola, 2011; Pelling, 2003). NGOs are

seen as effective drivers of change because of their ability to improve stakeholder feedback mechanisms and their close links with local organizations. Moreover, as Coppola (2011: 489) asserts that "NGOs have a deep institutional knowledge and understanding of the customs, language, politics, and other general characteristics of a society, making their operations more finely tuned to the special needs of the affected area." NGOs of international scope, such as the International Federation of the Red Cross and Red Crescent, are able to tap on their international networks for information and resources expenditure (Pelling, 2003). In order to improve effectiveness and accountability among NGOs working in disaster response, the Sphere Project was developed in 1997 by a group of NGOs (Coppola, 2011). The Sphere Project put together a handbook, Humanitarian Charter and Minimum Standards in Humanitarian Response, which sets common principles and universal minimum standards in life-saving areas of humanitarian response (The Sphere Project, n.d.).

The scientific community, composed of the academe, unversities, and research institutions, also plays a significant role in creating a "culture of disaster prevention" (Blanchard in Coppola, 2011: 509). They are the central source of hazard and disaster knowledge, which has deepened the understanding of the threats of hazards and the possible actions that may be used to address them (Coppola, 2011).

Despite their evident importance in international disaster management, there are several criticisms on international organizations and their operations. One criticism is on the very nature of international institutions such as intergovernmental organizations. For example, Ness & Brechin (1988: 253) state this about the UN system: "They are human collectives that serve the personal interests of their members as well as the general ends of their mandators. How the balance is struck between these sets of interests depends, for the most part, on the larger political-economic environment, the structure controlling the organization itself, and the other internal characteristics, such as leadership." In other words, multilateral organizations like the UN are first and foremost goverened by the member states that created them, in turn reflecting on their specific interests. The bureaucratic

process that made these institutions influential is perhaps the reason why it is problematic as well.

In the same manner, international NGOs are also criticized for operating according to media and donor priorities (Christoplos, 2003). Despite having close ties with the local communities, there are few mechanisms in place to ensure that they or their donors are accountable for their activities (*ibid*.).

What is perhaps the most apparent is the coordination problem between and among government units and international organizations. As Suparamaniam & Dekker (2003: 312) state, the coordination problem in international disaster management is primarily about "getting in touch with one another." Immediately after a disaster, most communication lines are down which makes it physically difficult to coordinate with each concerned authorities. However, it does not get easier even a few weeks later because of the confusion of who to contact and what information is to be relayed.

2.4. Intermediary Conclusions

In this chapter, I have explored several salient points on the discourse on disaster resilience and disaster management as a whole. These are arguments that renowned authors have put forward. I have first discussed the production of disasters: how it was incorrectly assumed to be of purely natural origin. I discussed the importance of socio-economic factors in contributing to vulnerability, which amplifies a hazard to produce a disaster. I then discussed disaster resilience: how the term came about, its relation to climate change adaptation efforts, and the efforts in mainstreaming disaster resilience into overall development agendas. I have also examined the different challenges on the operationalization of disaster resilience thinking on the local level. Next I looked into the involvement of the international community in disaster management: why they are important, who the actors are, and the criticisms on how they operate.

The purpose of this literature review was to give me sufficient background on the contribution of the scientific community about my research. This is to help me better understand the concepts and terms as I test their application and operationalization in the local level through my case studies. My literature review has helped me better understand how my research fits into this study and the gap I am trying to fill in the existing knowledge. Furthermore, with this review of related literature, I am able to better structure my approach for my methodology and data gathering.

It is important to note several conclusions I have developed this far in my research. Like most urban issues, disaster management is continually competing with the myriad of problems being dealt with in both the international arena and the local level.

There is enough evidence and scientific knowledge to make cities disaster resilient. However, there are several gaps that need to be filled in order to achieve this. Firstly, there is the gap between theory and practice. There are challenges in the application and operationalization of scientific knowledge on the ground. In the same manner, there is also the challenge of integrating global technocratic knowledge with the local indigenous knowledge. These gaps pose a challenge on the sustainability of projects and programs.

Although much has been studied and published about the involvement of the international community in disaster response, most of it focuses on the relief and recovery operations that happen following a major catastrophe. There is difficulty in evaluating whether the projects and programs that international organizations implement transcends beyond the first few months of a disaster, and whether these contribute to overall disaster resilience.

With the help of this literature review, my research will then connect the gap of the already thoroughly researched discourse of disaster resilience and international cooperation to the studies conducted in the specific context of the Philippines and its role in local governance.

3. Chapter Three: Research Methodology

In this chapter, I discuss the methodology that I used in order to obtain the necessary information that I need for this research. I have used two sources of data: primary information from the case studies through interviews and questionnaires, and secondary sources through policies and reports.

3.1. Case Study Method

In order to bring focus to the ideas and concepts discussed in the literature review, I will be using case studies as my research methodology. According to Denscombe (2003: 32), "case studies focus on one instance (or a few instances) of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences or processes occurring in that particular instance."

There are several advantages in choosing a case study for a research, all of which proves that this is the best approach that I can use given the nature of my research. Firstly, this approach allows me to focus on one particular situation while shedding some light on the general situation of the field. Disaster resilience and disaster management in general is an extensive topic, and by discussing two areas in the Philippines, I am able to bring focus to the issue. Case studies also work well when focusing on relationships and processes as they "tend to be 'holistic' rather than deal with 'isolated factors'" (*ibid*.: 31), which proves to be helpful as I focus on the collaboration of local governments with international organizations. In addition, the case study approach allows me to use different sources and methods, allowing me to be more flexible in my research in order to obtain the optimum data that I need.

3.2. Selection of Cases

At the start of this Masters program, I already knew that I wanted to study disasters in my home country, The Philippines. When I had finally decided on my research focus, I had several local government units in mind to take as my case studies. I read up on these cities in order to make an informed decision as to which ones are the

best to choose, given the constraints in distance and time for me to conduct this research.

Several factors led up to my decision to finally choose both Bantayan and Bohol. Most of it was because of the familiarity of the context and a personal interest in learning more about the efforts that are on going in the region. Certainly, there are places in the Philippines where disasters are more frequent and assistance from both national and international entities are more in terms of number and visibility. I am from the region myself; hence, my interest in both places is mainly personal than academic. Both are close to my home province of Negros Occidental, and I have been to both places a few times, I speak the local language, and I know people who live there and have lived through the disasters.

My personal interest in the case studies proved to be helpful when I started gathering data for my research. Having worked in governance at the local level before, I knew which offices and departments to contact in order to get the needed information. Although I have not personally worked in either of the two places, I have found people within my professional network who have. With their help, I was able to contact people working in the local government whom I can get insights from and potentially interview.

In addition, I also wanted to study areas of varying characteristics, but not so different that I can also draw on some of their similarities. Both case studies are located in the same region of the country and are less than 200 kilometers apart. As such, both places are almost always experiencing the same tropical cyclones and other such disasters. However, they are varying in terms of degree of influence, areas of jurisdiction, and access to resources. Bohol has a bigger land area with more constituents to consider, but also has more resources as it has the influence of the provincial government; whereas Bantayan has a significantly smaller area and population, but it also only depends on the resources that the local government has and the visibility that it can get. With these different characteristics, I will be able to compare and contrast the local governments' efforts and their cooperation with international organizations.

3.3. Interviews and Questionnaires

In order to learn more about the case studies, I conducted interviews with local government employees and officials and prepared a guide questionnaire (*See* Annex 1). I prepared a guide for the interview questions with four major themes: the department's role in the overall development of the local government;their work with international organizations (in terms of project implementation, finance and budget, administration and logistics, and research and development); their perception on disaster resilience work; and the challenges that they face with this kind of work.

The first contacts that I gathered were from Bohol. There were several correspondences before the actual phone interview took place. The first email that I sent was a basic introduction of myself and a brief description of my research. After sending a second email of reiteration, my request for interview was forwarded to Engr. Ronilita M. Bunado, head of the Environment Management Sector of the Provincial Planning and Development Office (PPDO) of Bohol. I then provided Engr. Bunado a brief description of what my interview will be about, and the details of their collaboration with international organizations that I wanted to know more about. The first phone interview was scheduled on 17 July, however it was moved a day earlier since that day was declared a national holiday in observance of Eid'l Fitr. The phone interview did not last for more than 15 minutes. Although it started out as somewhat more casual, I made it a point to refer back to the interview guide questions that I have prepared. For specific questions like the list of international organizations that they have worked with and their programs and projects, Engr. Bunado suggested that I email her the questions after the interview so she can give me a more comprehensive answer. I then proceeded to ask the other questions, taking note of how she answered them, as I was more concerned with her opinions and perceptions, rather than the technicality of the projects. I also asked Engr. Bunado for contact details of her other colleagues whom I can interview for my research. The phone interview ended with her agreeing to provide the other additional information through email.

The second phone interview was with the Mayor of the Municipality of Bantayan, Ian Escario. The interview lasted for about 30 minutes. After a few pleasantries, Mayor Escario started discussing about the relief efforts that international organizations extended during Typhoon Yolanda, which he claims to be the worst disaster they have encountered so far. Mayor Escario talked more about the relief and recovery work they had with international organizations, national government agencies, and some Philippine-based NGOs. I kept the conversation on track with disaster resilience and emphasized about the people's ability to prepare for recurring disasters. Mayor Escario also discussed a few programs that were already in place even before Typhoon Yolanda struck the island, which he claims to be helpful in making the communities more prepared to disasters.

A few days later, the third interview with Mr. Edgardo Layese took place. Mr. Layese is a member of the local legislative council of Bantayan, who is also the designated Disaster Officer. The interview lasted approximately 10 minutes, where he also detailed different relief operations of the international organizations. By this time I already had a general overview of how the interview would take place, and I was able to keep the discussion on track and concise.

The other respondents are Mr. Peter Retutal of PPDO Bohol, who is in charge of the Early Recovery Cluster of the Provincial Disaster Risk Reduction Management Council, and Ms. Dorivic Espina, the officer in charge for the Planning Office of Bantayan. They preferred to answer my questions in the written format. I sent them a questionnaire form of my interview guide, with the detailed explanation of what my research is about and what kind of information I hoped to get from them.

There are several challenges while gathering the needed information. First and foremost was the distance. I had decided to stay in France for practical reasons while I was conducting my research. As such, I could only rely on technology to be able to contact and follow-up on my potential interviewees. This had significantly posed limitations on the different methods and sources I could have utilized had I been able to gather information on a face-to-face basis. Second, and in relation to the distance, was the time difference between France and the Philippines. I gave my interviewees

the liberty to set the date and time of the interviews, and all of them chose to conduct the phone interview between 09:00 and 10:00 Philippine time, which means between 03:00 and 04:00 in France. Understanding that my respondents are busy in their daily activities in the office, I also had to be strategic when sending emails to them – ensuring that they receive them in the first few hours of the workday. Third, it was a challenge to make sure that I utilize the resources that were readily available. In the case of Bantayan, access to reliable Internet line was limited. As such, I could not conduct the interviews using video-conferencing. Some areas in the island have still not been fully rehabilitated since Typhoon Yolanda; thus, there is limited access to electricity, Internet, and phone lines. For most part of my interviews with Bohol and Bantayan respondents, the phone lines were working fine, except for a few times that the line was cut and I had to call again. Another challenge was the issue of language and interpretations. Although English is widely used in the Philippines especially in administrative matters, there are still some terms that do not have direct translation in any Filipino language, or could have interchangeable meanings.

From the multiple methods I used to gather information, I found that letting respondents answer a questionnaire is the most effective way I can obtain the needed data. With the questionnaire, the respondents were able to check their reports and database for the needed information, like the list of international organizations and the projects that they were implementing. The questionnaire also gave them enough time to think about the questions in order to answer them more comprehensively. By asking them information through email, they were also able to provide additional data and also gave me access to some reports that their office has. However, I had to wait for them to send me back the questionnaires, therefore the timeliness of their responses could not be guaranteed. In some cases, I had to send an email reminding them about the questionnaires.

The phone interviews proved to be helpful in complementing the information that I gathered through the questionnaires. The phone interviews invited a more casual approach to the conversation that, on one hand, it is easy to lose track of the points that needed to be discussed, but on the other hand, as I am looking into their

perception of the work of international organizations, the casual nature of the interviews made it easier for them to express their opinions on the particular issue. During the phone interviews, I was able to get a better feel and understanding on their regular activities and work with different stakeholders – the local communities, national government agencies, and NGOs both locally and internationally based.

3.4. Secondary Sources

To complement the primary data that I gathered from the interviews and questionnaires, I also looked into the policies that are introduced in the international and national level. In the international level, I look into the Hyogo Framework for Action (HFA). This framework was adopted during the World Conference on Disaster Reduction in 2005, detailing the strategies used in building disaster resilience among nations and communities.

As a response to the HFA, the Philippines adopted Republic Act No. 10121, also known as the Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010. This law details how the country plans to strengthen its DRRM system, provide for the national DRRM framework, and institutionalize the national DRRM plan, as well as appropriating funds for all of these operations.

4. Chapter Four: The Case Studies

My two case studies, Bohol and Bantayan, are both located in the Visayas region of the Philippines. In this section, I provide general information about the country before going into the details of each case.

4.1. The Philippines[1]

The Republic of the Philippines is an archipelagic country in South East Asia with a land area of around 344,000 square kilometers, comprising of 7,107 islands, with its current population at 99.2 million. Manila is the capital and the center of business and trade in the country. The Philippines is divided into three island groups namely Luzon, Visayas, and Mindanao. Both Bantayan and Bohol are located in the Visayas group of islands. Figure 2 shows the location of the Philippines among its neighboring countries.

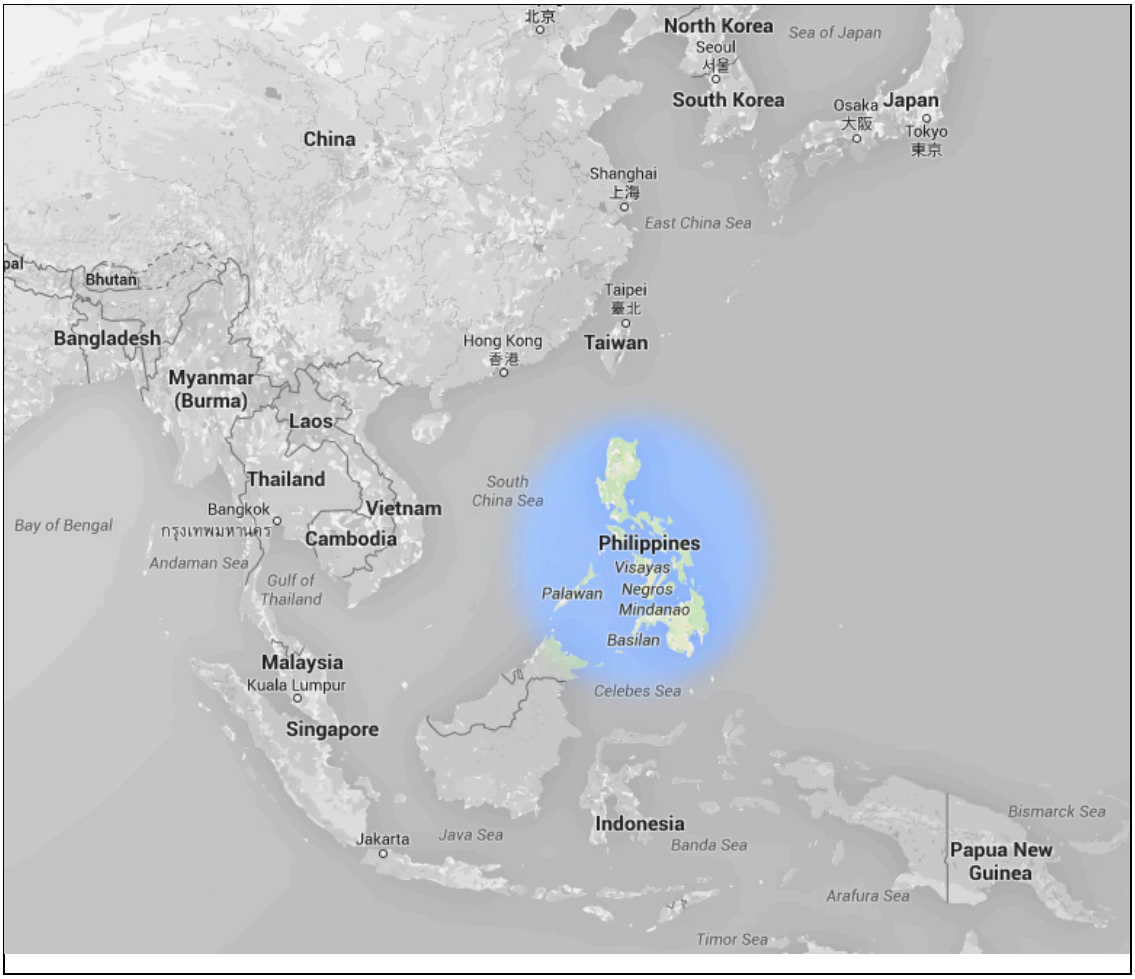
Decentralized Government

The country is under a unitary presidential constitutional form of government. The government is divided into three branches: the executive branch, headed by the President as the head of state and head of government; the legislative branch represented by the Senate and House of Representatives, and; the judiciary branch represented by the Supreme Court and its lower courts.

In 1991, Republic Act No. 7160, also known as the Local Government Code, was approved and enacted, providing local government units more powers, authority, responsibilities, and resources by instituting a system of decentralization. The local government code provides local government units the discretion on how to manage their resources. As such, the support provided by entities like international organizations is directly under the supervision and jurisdiction of the concerned local governments, and does not necessarily need the approval of the State.

[1] *Information stated herein is based on the data provided in the websites of national government agencies, particularly http://www.gov.ph/about/philippines/*

Figure 2. Location Map: Philippines



Sourced by the author from Google Maps

Disaster Management

Disaster management is one of the biggest challenges in the country. The majority of its population is living in vulnerable areas with no capacity to protect themselves, which has prompted some to consider the issue as a humanitarian crisis with very little resources set aside to address it (Rappler, 2015). However, recent catastrophic events have urged the national government and local government units to put disaster management in their development agenda.

International Organizations in the Philippines

According to the Union of International Associations, 185 international organization headquarters were located in the Philippines in 2013 (Union of International Associations, 2013). The range is varied from the more prominent intergovernmental organizations like the United Nations and the World Bank and its

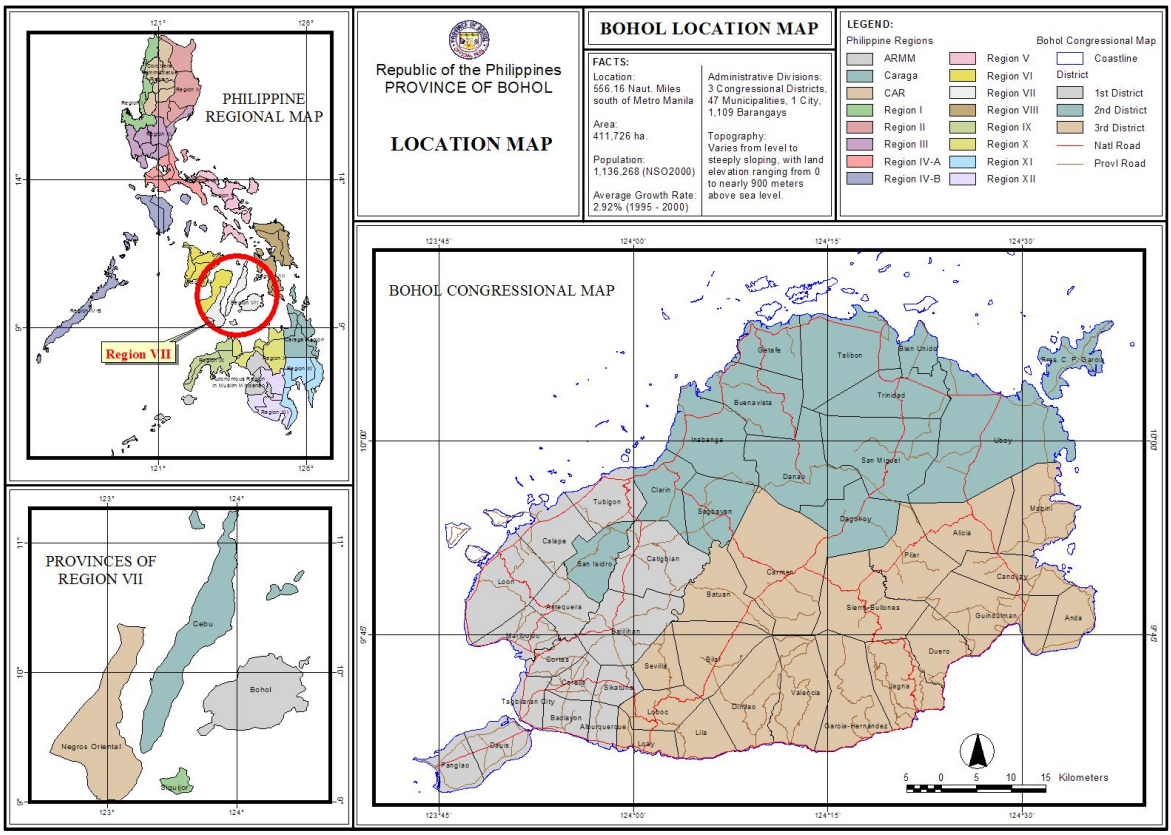
attached agencies, to country-specific development agencies like JICA of Japan, GIZ of Germany, USAID of the United States, and the like. In fact, the headquarters of the Asian Development Bank is located in Manila. Other international organizations are cause-specific NGOs like Save the Children, World Vision, International Committee of the Red Cross, and the like.

4.2. Bohol[2]

General Information

The island province of Bohol is located in the Central Visayas region of the Philippines, with a land area of around 4,120 square kilometers and a population of about 1.3 million. The province has 47 municipalities and one city, Tagbilaran City, which is also the capital of the province where the seat of government is. Figure 3 shows the location map of the province of Bohol.

Figure 3. Location Map: Bohol



Source: Bohol Provincial Planning and Development Office

[2]*Information stated herein was taken from the websites of the provincial government and its attached offices, and their published reports, and the author's interviews with the respondents.*

Commerce and Industries

Majority of Bohol's economic activities is derived from the agriculture and tourism industries. The province thrives in agricultural productivity as well as agro-fishery. Rice is widely produced in the province, harvesting 165,132 metric tons in 2014 alone. Other important crops includecorn, peanuts, coffee, and other vegetable crops. Marine aquaculture and upland aquaculture are also constantly developed in the province, in addition to livestock and poultry raising. Figure 4 shows a photo of a river in Bohol where mangroves are abundant.

Bohol is one of the more popular tourism destinations of the Philippines. Situated near Cebu City, the international hub of Central Philippines, access to the pristine beaches and luxury resorts in Bohol is very easy. It is a widely known eco-cultural tourism destination in the country. Among the most popular destinations are the beaches in Panglao Island, located off the southwest end of province, and the Chocolate Hills, more than 1,200 uniquely shaped mounds known to change its color according to the season and weather.

Figure 4. Photo: River in Bohol



Source: http://bohol.gov.ph

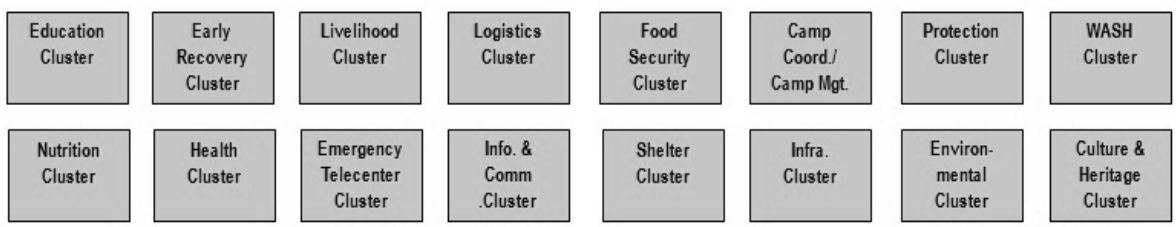
Disaster Context: 2013 Earthquake

Several disasters are continually experienced in Bohol, much like the rest of the country. The province is vulnerable to droughts, storm surges, flooding, earthquake, tropical cyclones, and landslides. These disasters result in significant economic and environmental losses, with an average estimated annual direct damage at PHP 14 million, approximately EUR 280,000.00 (Provincial Government of Bohol, 2014).

The worst disaster in recent times is the 7.2 magnitude earthquake that struck the province and the neighboring islands on October 15, 2013. "The Great Bohol Earthquake of 2013," as it is now called, had caused extensive damages to service infrastructures, government facilities, as well as historic religious structures that are declared as national cultural treasures. Thousands of residential buildings were totally damaged or partially destroyed. Bridges and roads were inaccessible, further delaying the delivery of needed assistance. Just a little over two weeks after the earthquake, Typhoon Yolanda also swept through the island province. Although the effects of the typhoon were not as severe as the eastern parts of the country, it had still affected the already damaged island. The Great Bohol Earthquake of 2013 took the lives of 211 people with eight more missing, and 877 people injured.

After suffering these two consecutive disasters, the Governor called to "build back Bohol better" and the provincial government of Bohol put together the Provincial Disaster Risk Reduction Management (PDRRM) Plan that details how the province will address disaster risks and vulnerabilities. The PDRRM Plan envisions a "*disaster-resilient, climate-change-adaptive, and safe Boholano communities with a strong spirit of stakeholder commitment, guided by effective local governance, ensuring social protection, economic security, and social-inclusive disaster management towards sustainable development.*" The plan has four thematic areas, namely: disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation and recovery. These thematic areas are similar to the themes specified in Republic Act 10121 or the DRRM Act of the Philippines.

The PDRRM Council of Bohol is made up of several clusters, as shown below:



The clusters are composed of members from the provincial government offices, local government offices, national government agencies, civil society organizations, private sector, international and local humanitarian groups, academe, and volunteers.

Cooperation with International Organizations

There are several international organizations (IOs) involved in addressing disaster management issues in Bohol: various UN agencies (UN-OCHA, UNICEF, UNDP, UN-ILO, etc); Red Cross, Save the Children, World Vision; and country-specific development agencies like Japan's JICA, Australia's AusAID, and the United States' USAID. The projects they are implementing are varied: Relief operations including emergency response and rescue; provision of medical services, facilities for water and sanitation; provision of temporary, transitional, and permanent infrastructure for shelter and education; capacity building and livelihood trainings (e.g., cash-for-work).

The work of IOs in Bohol is in collaboration with the Provincial Government, and come in different forms. In the financing and budgeting of the projects, there is usually a counter-part mechanism where the government provides a portion of the needed funds, and then the IO fills in for the rest. Generally, the government covers around 20 to 30 percent of the total funding costs, usually in terms of human power and logistics. In terms of project implementation, the IOs usually take on the responsibility of training and building on the capacity of the local officials and communities, while the government puts in place the needed legal and legislative actions. The government offices are also being aided when preparing for reports and plans. In terms of day-to-day activities and administration, the IOs work together

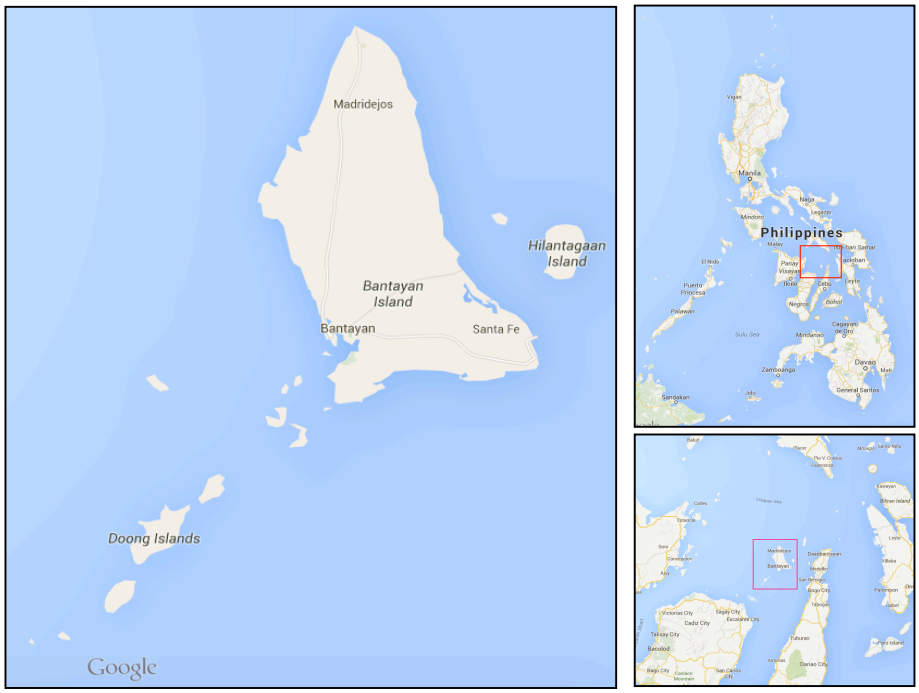
with the government employees through their respective clusters. In terms of research and development, technical assistance is usually provided for by the IOs. In fact, the PDRRM Plan was prepared with technical assistance provided for by the United Nations Development Programme (UNDP) in cooperation with the provincial government.

4.3. Bantayan[3]

General Information

Bantayan is the name of the island and the municipality. Bantayan the island lies 136 kilometers off the northern coast of Cebu in the Central Visayas region of the Philippines, as shown in Figure 5. The island measures 16 kilometers in length and 11 kilometers in width, and is home to three municipalities, the largest of which is the Municipality of Bantayan, considered to be the commercial center of the island. The other two municipalities are Madridejos and Santa Fe. The island is not densely populated, with a population of only 114,314, according to the 2010 census data, with at least 50 percent of the population located along the coastal areas.

Figure 5. Location Map: Bantayan



Sourced by the author from Google Maps

[3]*Information stated herein is taken from "Bantayan Island: A Primer," and other reports prepared by the Consuelo Foundation, personally provided to the author, and the author's interviews with the respondents*

Commerce and Industries

The island is situated in the Visayan sea at the end of Tañon Strait, giving Bantayan a favorable location for rich fishing grounds. The island is close to busy shipping lanes and routes. This contributes to the widespread distribution and accessibility of the locals' products.

Fishing is a major industry and is the sole livelihood of many of the residents. Majority of the local fishermen still use traditional fishing methods. These include fish pots, spear fishing, hand line and hook, and line fishing. Bigger scale commercial fishing is also practiced in the island. Aside from open-sea fishing, aquaculture is also common in Bantayan. Around 260,000 square meters is devoted to fishponds, harvesting an average of 1,050 kilograms of fish a year.

Agriculture plays a major role in the island's economic activities. Aside from fishing, the residents of Bantayan make their living from farming various crops like sugarcane, cassava, coconut, corn, bananas and mangoes. Agribusinesses like poultry raising also thrive here.

Figure 6. Photo: Beach side in Bantayan Island



Photo taken in 2011 by the author

Close proximity to and improved accessibility from the main island of Cebu have contributed greatly to the tourism activities in Bantayan. Its pristine waters, beautiful beaches, and extensive coral formation that bordered the island continuously draw tourists in. Figure 6 shows a photo of one of the many beach resorts along the coast of the island.

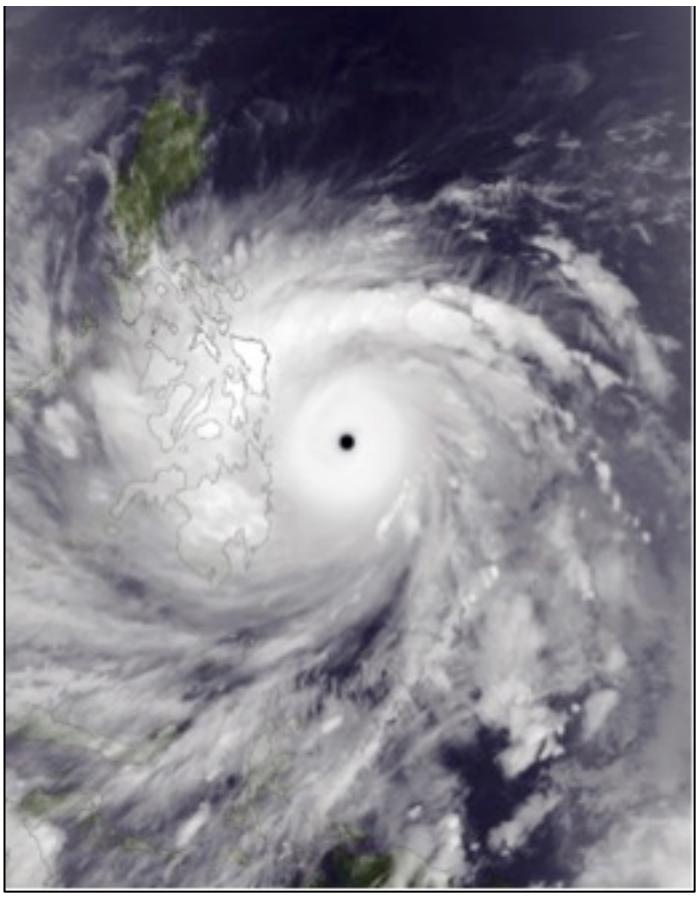
Disaster Context: Typhoon Yolanda

The biggest disaster, and considered the worst by many, was Typhoon Yolanda (International name Haiyan) that struck the Philippines on November 8, 2013, shown in Figure 7. With sustained winds at 230 kilometers per hour, this massive Category 5 typhoon is the strongest storm in recorded history.

According to Mayor Escario, what helped them greatly was the early forecast of the looming tropical cyclone. They were able to prepare and put several systems into place. However, the magnitude of the storm was more than what they could ever imagine. Despite being able to prepare as early as three days ahead, they did not have anything that could prepare them for a storm of that scale. Massive storm surges, higher than the roofs, hit the shores of the island, damaging 90 per cent of the island's built structures and sweeping away people from their homes. The storm left 38 people injured and seven dead in Bantayan alone, and over 6,200 people more confirmed dead across the country.

The storm downed power and telephone lines and uprooted a lot of trees. Roads and streets were inaccessible and the main port of the island was destroyed. As a result, and in addition to unstable seas, it was difficult for rescuers and aid to arrive to Bantayan in the aftermath of Typhoon Yolanda.

Figure 7. Satellite Image of Typhon Yolanda over the Philippines



Source: NASA website, as sourced in Wikipedia

Cooperation with International Organizations

Similar to most of the areas affected by Typhoon Yolanda, most of the foreign aid that came was during the relief and recovery stage. Several IOs were in Bantayan, such as UNHCR, the German Red Cross, Habitat for Humanity, and some Islamic and Buddhist groups. Other IOs such as UNICEF and Oxfam International had been having on-going projects in the area before Typhoon Yolanda happened.

For the municipality of Bantayan, the local government did not directly distribute all the aid that was arriving in the area. Mayor Escario emphasized that for NGOs, both international and local, that had already identified their potential beneficiary for aid, they could approach them directly, and the local government will just provide logistical support. What the local government made sure is that the aid is effectively distributed to all affected areas.

Most of the IOs that went to Bantayan for relief operations left in about six months after Typhoon Yolanda hit the island. Those that had stayed longer were the ones that had infrastructural projects such as building new houses, classrooms, and multi-purpose buildings. Other projects are similar to the WASH Program of UNICEF, which educates the community on the importance of water, sanitation, and hygiene. Another organization that had a project of a longer term is Consuelo Foundation. The Consuelo Foundation has programs in Hawaii and the Philippines that promote the rights of women, children, and families. They have started the Adopt-A-School Program in Bantayan, where they have committed to repairing school buildings and providing computers for the use of students.

5. Chapter Five: Policies

In this chapter, I discuss the strategies that have been introduced to address effective disaster management, and subsequently, climate change adaptation as well. Several international organizations have introduced their strategies to address these issues, and several other countries have also laid out their specific policies that would help them prepare for recurring disasters. For example, World Bank's Global Facility for Disaster Reduction and Recovery published a work plan entitled "Managing Disaster Risks for a Resilient Future – 2016-2018" that details scale up efforts for enhanced resilience in developing countries (GFDRR, 2015).

I narrow down my discussion of policies by focusing on two relevant plans of action. First is the Hyogo Framework for Action to discuss strategies in the global scale. Second is Republic Act No. 10121 of the Philippines, otherwise known as the Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010, which details the national strategy.

5.1. Hyogo Framework for Action 2005-2015

The **Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disaster** is a global blueprint for disaster risk reduction efforts with a 10-year plan, adopted by 168 governments in January 2005 at the World Conference on Disaster Reduction in Kobe, Japan. This has been followed up by the Sendai Framework For Disaster Risk Reduction 2015-2030, which was adopted just this March 2015. For the purposes of my research, I will focus on the HFA because I will be able to compare and evaluate how this has translated into actions in the national context of the Philippines.

The expected outcome of the HFA is the substantial reduction of disaster losses in lives and in the social, economic, and environmental assets of communities and countries. In order to achieve this, three strategic goals are set, with five corresponding priorities for action.

The three strategic goals are: 1) the integration of disaster risk reduction into sustainable development policies and planning; 2) the development and strengthening of institutions, mechanisms and capacities to build resilience to hazards, and; 3) the systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programs.

Five priorities for action are set in order to achieve these strategic goals. Within these defined set of actions, more detailed sub-actions are further explained. The first priority for action is to ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation. Among the sub-actions emphasized here are legislation support, decentralization, and community participation. The second priority for action is to identify, assess, and monitor disaster risks and enhance early warning. Sub-actions include scientific and technological development, risk assessments and mapping, and data and statistical loss information. The third priority for action is to use knowledge, innovation, and education to build a culture of safety and resilience at all levels. The use of standard DRR terminology is emphasized here, in addition to inclusion of DRR into formal and informal education, and strengthened information sharing and cooperation. The fourth priority for action is to reduce the underlying risk factors. Among the sub-actions are public-private partnership, sustainable environmental management, and the integration of DRR strategies with climate change adaptation. The fifth priority for action is to strengthen disaster preparedness for effective response at all levels. Sub-actions include dialogue, coordination, and information exchange between disaster managers and development sectors, setting up of emergency funds, and the development of disaster management capacities.

All of these priorities will highlight several cross cutting issues such as multi-hazard approach, gender perspective and cultural diversity, community and volunteers participation, as well as capacity building and technology transfer. In addition, all these goals and actions are to contribute to the fulfillment of internationally agreed development goals such as the Millennium Development Goals and the Sustainable Development Goals that were set by the United Nations.

In order to achieve the strategic goals, the HFA has also detailed tasks for its implementation and follow-up. It has highlighted that different stakeholders, with the participation of the civil society, scientific community, and private sector take on the implementation of the HFA. Three groups of actors are identified: the state, the regional organizations and institutions, and the international organizations, including the UN Systems and international financial institutions. The primary responsibility lies on the State, with several identified tasks such as designating national coordination mechanisms within the country and with the ISDR secretariat; assessing the national baseline status of DRR, and; promoting the integration of DRR with climate variability and climate change into DRR strategies andadaptation to climate change. Regional organizations and institutions will take on the task of promoting regional programs, coordinate and assist reviews on progress, and provide support for regional development. International organizations are to, among others, encourage and strengthen DRR integration into the humanitarian and sustainable development fields, and strengthen international mechanisms to support nations in need in post-disaster recovery. All of the tasks done by the three groups of actors are to be coordinated with the ISDR Global Platform for Disaster Risk Reduction.

5.2. Philippine Disaster Risk Reduction and Management Act of 2010

On 27 May 2010, Republic Act 10121 also known as the Philippine Disaster Risk Reduction and Management Act of 2010 (DRRM Act) was approved for enactment. The DRRM Act is the Philippines' response on the implementation of the Hyogo Framework for Action in the national context. This shifts the country's disaster management system to focus on disaster risk reduction, away from previously focusing only on disaster relief and response.

The DRRM Act repealed the previously existing law, Presidential Decree No. 1566 that was approved in 1978. As the discourse on disaster management evolved, the government also saw the need to update the existing law. Presidential Decree 1566 mainly focused on the provision of relief goods and infrastructural interventions

such as dikes and flood control systems. In other words, the old law's emphasis was on hazards and the impacts of disasters, rather than addressing the issue proactively.

The DRRM Act features important points about how to manage disasters in the Philippines. Firstly, it is coherent with an international framework, specifically the HFA. It adheres to universal norms, principles, and standards of humanitarian assistance. Good governance is emphasized through transparency and accountability. It focuses on integrated, multi-sectoral, inter-agency, and community-based approach to disaster risk reduction. It gives importance to empowerment of local government units and civil society organizations as key partners in disaster risk reduction. It also pushes for the integration of DRRM into the educational system. It has also made resources more fluid by establishing a DRRM Fund at the national and local levels. The DRRM Act also has provisions on the declaration of calamity, specific remedial measures, as well as prohibited acts and the penalties when these are committed.

Perhaps the most important provision of the DRRM Act is the creation of the National Disaster Risk Reduction and Management Council. The NDRRMC is a multi-sectoral body composed of the heads of the different executive departments of government, government institutions, local government associations, civil society organizations, and the private sector. It has the task of overseeing the DRRM System in the Philippines. The NDRRMC replaced the National Disaster Coordinating Council, and is operating under the management of the Department of National Defense, with the Office of Civil Defense as its secretariat. Other national agencies that work closely together with the NDRRMC are the Department of the Interior and Local Government, Department of Social Welfare and Development, Department of Science and Technology, and the National Economic and Development Authority.

Under the DRRM Act, the NDRRMC is tasked to develop the National DRRM Framework. This serves as the principal guide to disaster risk reduction and management efforts in the country. It provides for a comprehensive, all-hazards, multi-sectoral, inter-agency and community-based approach to DRRM, as mandated in the DRRM Act.

The National DRRM Framework is then integrated to the National DRRM Plan, which is implemented by the Office of Civil Defense. The Plan sets out goals and specific objectives for reducing disaster risks, which includes the identification of hazards, vulnerabilities and risks to be mandated at the national level; application of DRRM approaches and strategies in managing these hazards and risks; identification of agency roles, responsibilities and line of authority at all government levels, and; vertical and horizontal coordination of DRRM in the pre-disaster and post-disaster phases. The National DRRM Framework also details how the plan is carried out in the local level through their respective Local DRRM Plans and by their Local DRRM Councils.

Under the DRRM Act, a national DRRM Fund is included. This fund can be used for disaster risk reduction or mitigation, prevention and preparedness activities such as, but not limited to, training of personnel, procurement of equipment, and capital expenditures. This DRRM Fund appropriates for a few local government units that are determined upon the approval of the President of the Philippines. Before the DRRM Act was enacted, the local governments could allocate up to 10 percent of their annual budget for calamity fund. This fund, however, can only be utilized upon declaration of a state of calamity by the local legislature. Now, with this provision of the DRRM Act, the local government can use a sizable portion of their funds for pre disaster activities.

6. Chapter Six: Analysis

As I have explained in the introduction, my research seeks to find out the extent of the involvement of international institutions in contributing to disaster resilience in the Philippine context. In this chapter, I present my analysis and further explanation of the data I have collected through the interviews and the information I gathered through the review of strategies and legislations. I then compare and reflect this from the knowledge that has been presented through my literature review. I divide this chapter to separate my analysis on the case studies, and my analysis on the policies.

6.1. Analysis: Case Studies

The case studies presented in this research are both similar and different in variety of ways. Both Bohol and Bantayan are located in the same region of the country and experience the same disasters almost simultaneously. They are also different in terms of geographical scale, access to resources, and the scope of influence of the government. Bohol is a province, while Bantayan is a municipality.

Disaster relief vs disaster resilience

After easing into my questions about the involvement of international organizations (IOs) in the local disaster management efforts, I asked my respondents whether they think these projects would mean that their constituents are now better prepared to handle recurring disasters. The general consensus was no, it does not. Some answered indirectly, and some answered with a direct "no." However, this is not to say that IOs are not at all helpful. The first few hours and days after a disaster are the most crucial, and this is when the IO intervention is the most valued. Due to bureaucratic processes, it takes longer for support from the national government, or even to some extent from the local government, to be distributed to the communities in need. The IOs have already established their protocols for relief operations, thus it is easier for them to proceed to distribution. Moreover, most IOs have already established local partnerships, making it faster and easier for them to identify target beneficiaries. Humanitarian relief efforts of these IOs are highly valued, for without

their interventions, it would take these government units even longer to normalize daily operations again.

As effective and crucial as it may be, this does not necessarily translate to better preparedness nor resilience of the communities to disasters. Most of these IOs operate for only six to 18 months after a disaster event, and only focus on relief and recovery. Recovery operations include the building of temporary shelters and multi-purpose centers. These temporary shelters are made of lumber and thin plywood, and use old tarpaulins as makeshift roofs. One reason why these IOs operate only for a short term is because of budgetary constraints. Most of them only allocate resources specifically for relief efforts, and would pull out their operations after a few months. One recommendation from practitioners is to come up with a funding mechanism for IOs to operate for both relief and disaster risk reduction. This is also to ensure the continuity of their projects, instead of two separate projects where one is started if and when they find additional funds to continue what they already started.

Long-standing IOs such as UNDP and GIZ are well connected with several government agencies like the National Economic Development Authority, the Department of Environment and Natural Resources, and the Housing and Land Use Regulatory Board. Apart from their well-established partnership with national government agencies, they have also been having several projects and programs in the local level, and have built partnerships there for several years as well. With these programs, they incorporate the principles of disaster risk reduction, mostly through capability building and trainings. In this sense, when an IO has had established partnerships with the communities already, they are more effective in sharing knowledge on how to better prepare for disasters.

Political in nature

The people who I have interviewed are also of different positions and roles in their respective government structure. My interviewees in Bohol are all regular employees of the provincial government. These are employees whose tenure is not dependent on the appointing authority, which means they are still in service

regardless if the administration changes. On the other hand, my interviewees in Bantayan were elected officials, which means that they are subject to re-election in order to remain in office after three years of service. In this sense, the research is very political in nature, which can serve both positive and negative insights in the workings of the local government. On the negative side, my interviews, especially with Bantayan, were biased to some extent as they were highlighting their own political agendas, and were at times sidetracked by an explanation of some political disputes. This reflects the reality that the extent to which disaster resilience is prioritized is first and foremost a political agenda. As discussed in the literature review, it is a challenge to make local officials prioritize programs that promote disaster resilience because of its low visibility, and this is also reflected in my case studies. My respondents rarely discuss projects of long-term scope; instead they focus on the short term but more visible solutions of building temporary shelters. When the conversation discusses some of their shortcomings, they also tend to give lengthy explanation of how political parties are the reason for some administrative decisions.

In the case of Bohol, their work focused more on the production of plans. Their plans are comprehensive, taking into account all concerned sectors. In doing so, they are also able to properly create extensive databases, especially in assessing the damages after the 2013 earthquake. The creation of the Provincial DRRM Plan was done in cooperation with UNDP, another IO that has had long-standing partnership with the provincial government.Because my respondents in Bohol did not have a co-terminus employment such as my respondents in Bantayan, my interviews with them did not mention any political agendas. However, they also did not have the authority to make final decisions. They still had to follow other elected officials in order to follow-through with some projects. As emphasized in the Provincial DRRM Plan, it was after the Provincial Governor called to “build back Bohol better” that the Plan materialized.

Confusion with the terms

This is one of the biggest challenges in the operationalization of disaster resilience, as evidenced in the literature review of this thesis. The lack of a universal definition

of disaster resilience makes it difficult to distinguish this from the other terms used in disaster-related discussions, which may have similar or interchangeable meanings. In the same manner, as I was conducting my interviews, I had to repeat and emphasize *disaster resilience* and *preparing for future disasters* because the respondents constantly go back to discussing what they have done for disaster relief operations. Even after constantly emphasizing the difference, they still seem to interpret it as the same approach.

This is quite surprising as these are urban practitioners that I chose as my respondents. More specifically, they work on disaster-related issues on a regular basis, but it is still easy for them to confuse the different terms. When I was identifying possible interviewees for my case studies, I specifically chose those departments because I am aware that they would be the most knowledgeable in disaster management in the local government. Their tendency to confuse or interchange the terms was quite surprising for me. This further gave me the impression that if they tend to mix-up the terms, given their constant exposure to the field, this would even prove to be more of a challenge for everyone else in the government service. The application and operationalization of disaster resilience is thus not only a challenge in the scientific community, but even in practice it also faces challenges.

Capacity of the local government units to critically assess

Given the political nature of how disasters are managed in the local level, it is then difficult to evaluate whether it is within the local government's capacity to critically assess the interventions introduced by the international community. As mentioned earlier, the respondents in Bantayan were particular about their political agendas. This may result in biases when giving assessments that would potentially be detrimental to their political career. In addition, these people in authority are most of the time politicians first before they are urban managers.

Too early to tell

Considering the time when these major disasters (the 2013 Bohol earthquake and Typhoon Yolanda), perhaps it is also too early to tell whether these efforts would

transcend to resilience. Some of these places have not even functioned fully yet, as some still do not have stable electricity, steady communication lines, or fully functional roads. It has been around 21 months after both disasters hit these areas. Some of the IOs have left, while some are still continuing their projects. Those who are still there are mostly building infrastructural projects.

Sense of ownership

A counter-funding mechanism is in place for almost all the projects that is being implemented by IOs. For a community-wide project, the local government provides a portion of the total project cost, while for individual projects, the households provides contribution usually in terms of labor. This mechanism has proved to be beneficial and better for the long-term as it promotes a sense of ownership in the local and individual level. Initiatives that have been implemented with a counter-funding mechanism is able to last longer because their owners feel that they have worked hard to get it, therefore taking care of it as their own.

Avenue for innovation

Some of the assistance given to disaster victims are rebuilding kits given by IOs which include basic building materials for temporary shelters. These materials are those specified in the Sphere Project, which sets the standards on what to include in a humanitarian assistance. The Filipinos, however, have always been innovative in their ways. In addition to the rebuilding kits that they get, they recycle whatever is left of their damaged house as added materials. Granted this does not make them less vulnerable to future disasters, this is however helpful for them to start over. For families who are not able to rebuild their houses, they are forced to stay in an evacuation center for months at a time. This puts a strain not only on their household life, but also on their livelihoods. The disaster victims of these areas are mostly people who depend on agriculture and fishery as their source of income. As such, they prefer to have their livestock and materials close to where they are staying. Living in evacuation centers prevents them from doing this. However, with the kits provided for them to rebuild their houses and the addition of recycled materials, they are able to create ways to build themselves a house, and an extra space for their livelihoods. In addition, they are able to innovate ways on building a

house that is suitable to the Philippine climate, at least on dry and humid months. To reiterate, this does not promote disaster resilience at all, but this nevertheless makes them innovative in building themselves a house, albeit temporarily.

Promotes cooperation

The influx of IOs in the Visayas region of the Philippines has promoted cooperation among different entities. Evidently, this is not something new, and these government units have been working with different IOs for a long time now. However, the close collaboration of the long-standing IOs and the newer ones with the local government has fostered even better cooperation among them. They have been introduced to new organizations, connecting them to the wider world of urban development, and teaching them new skills and expertise. In fact, through the IOs that were there for the post-Yolanda activities, the Planning Coordinator of Bantayan was sent to Germany to undergo training on disaster risk reduction and management.

6.2. Analysis: Policies

Influence of the Hyogo Framework for Action

At the outset, it is important to note that the Hyogo Framework for Action is a non-binding treaty. As such, nation states are not obligated to apply the strategies. This therefore lessens the authority of the HFA over nation states, which could affect its application in the national context. However, it has indeed brought positive effects on the member states. With the HFA, there is a clear and internationally accepted framework that the Philippines can follow in order to address disaster-related issues. Although it is non-binding, the HFA has pointed out the importance of integrating DRRM in the development plans of member states. In more ways than one, the HFA has prompted the government of the Philippines to re-think they way disasters are handled in the country. It has stimulated the approval and enactment of the DRRM Act of 2010.

Too expensive for developing countries

A closer look at the HFA shows that majority of the responsibilities fall upon the state. Evidently, this is necessary as it is also the state who is not only the one who

will be most affected, it is also the one who has the capability and authority to address disaster-related issues. However, the tasks of the state require a substantial amount of financial resources. For developing countries like the Philippines, this will pose as a challenge. Similar to what the literature states, it is difficult for state governments to impose the prioritization of disaster resilience application because they do not have the means to do so, especially amidst all the other urban issues that need prioritization.

Unspecified tasks

In addition, the tasks to be carried out by the regional and international organizations are not as specific, and has a wide window for possible interpretations compared to the tasks by the state. With these tasks, the full potential of the international organizations' contribution might not be fully utilized, especially considering the extent of influence and resources of these international organizations.

Redundancy

At the national level, several challenges may arise even with the creation of the NDRRMC. After Typhoon Yolanda struck the Philippines, the Presidential Assistant for Rehabilitation and Recovery (PARR) was created to unify the efforts of government and other agencies involved in post-Yolanda rehabilitation and recovery. The PARR is under the Office of the President and coordinates with the NDRRMC, which is under the Department of National Defense. For the same intents and purposes, there are two government bodies operating separately under two different agencies. Although they claim to be coordinating closely with each other, redundancy is nevertheless experienced. The problem here is that it also takes quite a substantial amount of resources to create these government bodies. Not only is it costly in terms of logistics, but also basically there would be twice the amount of labor force being appropriated for than necessary. In addition, this poses a challenge on the flow of communication and coordination. For the local authorities, this might mean not knowing who and where to report or ask for information, or it might result in them reporting the same information to two different agencies. The same is the

case for international organizations, which might face poor coordination with these government bodies.

Authorities in charge

Although the DRRM Act calls for better preparedness prior to disasters, the fact that it is implemented under the management of the Department of National Defense (DND) may still mean the focus is on disaster relief. It has been a practice in many countries, the Philippines included, to deploy its military personnel during times of disasters. Search, rescue, and evacuation activities after a disaster are undertaken by the DND, as well as distribution of relief goods post-disaster. The DND does not have power over how DRRM or disaster resilience is integrated or prioritized in the development plans of government units, nor do they have authority in its implementation.

A closer look at the structure of the NDRRMC shows that the Department of Interior and Local Government (DILG) is in charge of disaster preparedness, the Department on Social Welfare and Development (DSWD) is in charge of disaster response, the Department of Science and Technology (DOST) is in charge of disaster prevention and mitigation, and the National Economic and Development Authority (NEDA) is in charge of rehabilitation and recovery. None of them have the sole purpose of ensuring disaster resilience of cities. Although it is stated that DOST is supposed to oversee the activities on prevention and mitigation, in reality, DOST is merely monitoring and predicting extreme weather conditions. Similar to the DND, the DOST does not have authority in the integration, prioritization, and even implementation of disaster resilience in development plans. It is however important to note that the DOST has been able to produce accurate reports on extreme weather conditions and are able to issue warnings ahead of time. This has been helpful in mobilizing communities to prepare for, say, tropical cyclones before it hits their area. However, for the purposes of *disaster prevention and mitigation*, this is not making communities less vulnerable to disasters or more capable to handle recurring stress, changes, and shocks.

Use of Funds

With the enactment of the DRRM Act, the utilization of funds in the local government level is now more fluid and flexible. In the past, a declaration of a state of calamity by the legislature is needed in order to use the Calamity Fund of the local government. With the provision of the DRRM Act on the DRRM Fund, anything that is deemed necessary in order to equip and prepare the city for future disasters is considered legitimate for the utilization of funds. This is what is usually used to leverage funds with the IOs, especially as part of the counter-funds. This makes it easier for the local governments to appropriate funds for collaborations with IOs. However, in practice, this also tends to be abused because the funds are also sometimes used to fast track other infrastructural projects that do not necessarily contribute to the disaster resilience of the communities.

7. Chapter Seven: Conclusions and Recommendations

I started this thesis seeking to find out the role of international organizations in building disaster resilient communities in the Philippines. The aim was to find out whether the interventions that these organizations introduced are able to make communities prepare better for recurring shocks, stresses, and changes, and if they are able to carry on with their daily activities after a disaster happens. More importantly, I wanted to know the perception of the local government about these interventions. I put high importance on the local government because they have the authority and capability to foresee effective disaster management in their locality. At the start of this research, I assumed the hypothesis that these international organizations are highly influential in disaster management but their interventions may not see long-term effects such as building disaster resilience in the community.

Summary

I first started the research by learning more about the topic in general through a review of related literature. My review of literature shows how disasters are ultimately a result of two underlying factors: hazards and vulnerability. The ways of how disasters are managed have moved away from preventing hazards to a more integrated approach of lessening the vulnerability of communities. My literature review has also showed the efforts of mainstreaming disaster resilience in both the international and local arenas, however this is not without facing several challenges. I also learned more about the involvement of the international community in disaster management. The literature review has helped me better understand the topic and how this has continually evolved over time. It has also helped me structure my research better as I test what the literature says on what is actually happening on the ground. I was able to structure my interview questions better in order to get the optimum response from my interviews. In addition, I was able to critically assess the policies that have been introduced. I understood the importance of the Hyogo Framework for Action, and I was able to analyze this better with the enactment of the DRRM Act of the Philippines. As a whole, my literature review showed the

scientific side of my research in order to understand it fully before I test how this is being applied to the local contexts of my case studies.

While simultaneously developing my literature review, I started on with my case studies. Though I had several challenges in time and distance to gather the information that I needed, my personal experience and knowledge on the region proved to be helpful while I conducted my interviews. The interviews gave me a more personalized insight of government workers who deal with international organizations on a daily basis. The interviews proved to be helpful not only in knowing their perception of this partnership with international organization, but also in learning more about how this partnership works in several aspects such as administration, logistics, financing, project implementation, and research. Using different methods for my case study, interviews and questionnaires, also proved to be helpful in obtaining the preferred information. On one hand, the phone interviews invited for a more casual conversation so I was able to learn more about their perception, and on the other hand, the questionnaires gave me a more detailed answers with the addition of the reports they provided.

The review of policies through a closer look at the Hyogo Framework for Action and how it is applied in the Philippines through the DRRM Act of 2010 complemented the information I have gathered from the interviews. The policies gave me an insight of the influence of the international community in mainstreaming disaster risk reduction and management into the legislative agenda of the country. This also shows the legal and legislative power that dictates the efforts of the people I had the interviews with.

As a whole, the information I have gathered all complemented each other – from the publications from the scientific community, to the first hand information from my case study, and their legislative support through the policies. All of these have proved my hypothesis that, while the interventions introduced by international organizations are invaluable, they do not entirely extend in to the long term to result in disaster resilience. However, it is important to note that without the involvement

of the international community, it would have been more difficult for these places to start with normal operations again.

Conclusions

At the beginning of this research, I stated the following research questions:

- To what extent do international organizations in the province of Bohol and the island of Bantayan contribute to creating disaster resilient communities?
- What is the perception of the local government about the efforts carried out by these international organizations?

As already mentioned a few times in the analysis part of my thesis, the contributions of international organizations in Bohol and Bantayan have not yet resulted in building disaster resilience among the communities. Most of these projects and programs have a six- to 18- month timeframe that only covers relief and recovery after the disaster. Those international organizations that have had long-standing partnership with the local governments have introduced principles of disaster risk reduction and management into their programs. These have made the communities knowledgeable on what to do prior and during a disaster. However, these have not made them resilient enough to be able to carry out normal operations even after a disaster.

Regardless of their extent to achieve disaster resilience, the local governments of Bohol and Bantayan perceive these interventions to be highly beneficial to them and their constituents. The technical assistance extended is helpful for the local government to apply effective disaster management strategies that are otherwise unfamiliar or foreign to them. In addition, and perhaps the most valued, is the financial assistance that these international organizations extend to these local governments. As already discussed in both literature review and the research analysis, one of the main challenges of these local governments is their limited financial resource. It is costly for them not just to introduce projects, but also to prepare the plans to guide these projects.

In addition, policy interventions by the international community like the Hyogo Framework for Action gave way to updated legislation in the Philippines on better disaster management, specifically through Republic Act 10121. This gave the country, and local governments like Bohol and Bantayan, an internationally accepted and locally specified framework on how to better manage disaster-related issues.

The information that was gathered through the case studies and review of literature and policies gives us a better understanding of how the cooperation of the local government and international community may be further improved.

This research is a good starting point into taking a closer look at the significance of the contribution of the international community in disaster management, specifically in the case of the Central Visayas region of the Philippines. It is evident that disasters, although having a local context, is not possible to be dealt with just by local actors. The international community has a significant role in mainstreaming and financing for effective disaster management in order for it to have long-term results such as creating disaster resilience.

Recommendations

Evidently, there are several ways that this research can be taken further. Having only two case studies, and studying disaster contexts that are rather recent certainly puts limitations on our understanding of the broad field of international cooperation and local governance. Different perspectives may be used in order to examine this topic further: examination of more case studies, perhaps with other concerned local government departments; to use international organizations as the case studies and look into their operations, or; examination a specific disaster event in order to assess the extent of its scope, rather than limiting to a specific geographical jurisdiction.

I started this thesis with a narrative about one of the biggest disasters in the Philippines, one that was unforeseen and quite possibly prevented. I end this thesis with the belief that disasters will always be like that: unforeseen and quite possibly prevented. It is a complex issue with more underlying complexities, but if people are

able to live through and act upon these ever-changing complexities, then disasters may not be so disastrous all the time.

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ANNEX 1: Interview Guide Questions

1. **Department's Role**
    a. Name and position
    b. Department's organizational chart
    c. What is your department's role in the overall development of your city/province?

2. **Working with International Organizations**
    a. What are the international organizations in Bohol/Bantayan that are working on disaster management issues?
    b. What are the projects and programs that they are introducing?
    c. Can you briefly describe how they work in the following areas, in terms of their cooperation with the local government:
        i. Project implementation
        ii. Finance and budget
        iii. Administration and logistics
        iv. Research and development

3. **Perception on disaster resilience work**
    a. In what way do their programs and projects help communities better prepare for *recurring shocks and stresses* (disasters)?
    b. Can you state an example of this through one of their projects?
    c. How is this different from the projects introduced by local and national government agencies?

4. **Challenges**
    a. What are the challenges that your department face when collaborating with international organizations?
    b. What are the limitations?
    c. What hinders them to work beyond relief and recovery, towards disaster resilience?
    d. What are the areas for improvement?