

THE APPLICATION OF LOCAL AND TRADITIONAL KNOWLEDGE FOR DISASTER MITIGATION IN FLOOD-  
PRONE AREAS OF RURAL THAILAND

By

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## ABSTRACT

This project focuses around the development of a workshop on disaster preparedness and response for a village in rural Thailand. The workshop goals were concentrated around the investigation of solutions to alleviate or lessen the vulnerability of the village toward re-occurring flood events. The objectives were completed through inclusion of stakeholders and outside experts and focused on bringing a conversation to community leaders in regard to their implementation of pre- and post-disaster strategies. The primary audience for this research project is those working within rural communities that are prone to annual or frequent natural disasters. The tools and knowledge gained herein will be able to provide individual and community response and preparedness strategies to improve resiliency and decrease vulnerability.

**Disaster is unlike anything else in human experience. It strikes quickly, it changes the lives of all it touches, and its effects are felt long after the event. Perhaps, most importantly, its forces are largely outside the control of the people whom it most affects.**

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## INTRODUCTION

In this project I provide a brief overview of the Peace Corps, explore my background and personal impetus to join the Peace Corps, and describe the region of Thailand where this project took place. I then describe the flood response project undertaken in Surat Thani Province, provide a guide and template for flood response for volunteers, and look at the broader impacts of this project and flood response around the world.

In January of 2011, I was deployed to Nakhonsrithammarat Province in the southern peninsula of Thailand to fulfill a 27-month term as a community development worker. The objective was to help community members plan, design, and implement community-building projects. Some examples of potential projects included efforts that focused on education, youth development, health and HIV/AIDS, the environment, and/or nongovernmental organization (NGOs) and business development. The reason for including nongovernmental organization and business development in my scope of focus was due to my placement in the sub-district administration office (SAO) which put me in a unique position to work with local community organizers. The SAO shares similar characteristics to an American city hall, housing the mayor, city clerk, facilities management, public works, and finance departments.

Thailand is considered a non-disaster-prone country, as there have been no catastrophic natural disasters such as volcanic eruptions or earthquakes. Therefore, actually experiencing a disaster was not something I expected. Thailand does experience occasional large-scale natural disasters, particularly water-related hazards such as riverine floods, urban inundation, tropical storms and droughts (Thailand Country Report, 2006) (Jacquelyn, 2006). Shortly after I arrived at my host site, the country experienced a major flood that affected many aspects of the livelihoods of the citizens, as well as the community infrastructure, including damage to schools,

farms, factories, and roads. The flood directly impacted my living environment and community, causing damage to my personal property, and forcing wildlife (snakes and frogs) into my living space. I was relocated into a spare room in my host family's house, which was an elevated structure, to wait out the flood. The SAO immediately responded by sending out an emergency vehicle that traveled from village to village to warn residents of the rising floodwaters. My arrival proved timely because the lights, siren, and public announcement speaker switches in the emergency vehicle were in English, so I was able to assist the SAO by turning on the proper equipment to sound the alarms. After the initial flood alert was raised, our efforts were devoted to delivering bulk items, such as rice and water, to homes with restricted access.

My experience in implementing a flood plan helped me to gain a more universal understanding of the efforts involved in flood response, from community organization and effort to logistics. The community preparedness meeting created a good framework for understanding how to create emergency response plans in any rural environment, using traditional knowledge of climate and geography as well as local culture and customs.

## PERSONAL NARRATIVE

Rural lifestyle has been the prominent feature in my life. I was born and raised in Colville, Washington. My family lived in the county, about ten miles from town. My parents, two younger brothers, and I spent most of our time outside fishing, hiking, or four-wheeling. When we ventured out, it would be to Spokane, which we considered "the city." Living in a remote area of Washington had positive and negative attributes: everyone knew each other, and also everyone knew everything about each other. The opportunity to be a part of community organizations was readily available, yet the ability to bring change was not easy and sometimes not even welcome. During high school, I joined the Colville Youth Commission and for one

initiative we tried to develop other venues for the youth of Colville to spend their time in healthy environments. We were able to bring youth bands out into the community for quarterly shows. However, keeping this initiative sustained proved difficult due to shows being limited to a few times in the summer due to financial restrictions from the City Council of Colville. The City Council didn't see the benefit of granting the amount of financial resources necessary to keep the program going. After graduation from high school, I moved to Bellingham, Washington to attend Western Washington University.

After living in a small town, moving to a community with a mix of diverse races, cultures, and livelihoods was new and exciting. At times when the new environment was overwhelming, it was nice to escape back home to a slower pace of life. Soon, I found myself attracted back to nature and focused on graduating with a degree in Environmental Studies. A new track within the Huxley College of the Environment had been released related to Emergency Management. My course load included natural sciences on the hazards our planet holds and how we learn to adapt and evolve with them. For my first international aid experience, I spent a semester on the island of Kefalonia, Greece. I was assigned to a remote village, Farsa, which was located on a hillside and susceptible to the frequent earthquakes that shake the area. In 1953, Farsa was heavily damaged during a 7.2 magnitude earthquake and was rebuilt on another area of the island. Parts of the village's buildings are still visible and have been an educational playground for students to study the impacts of earthquakes and practice community planning strategies. This opportunity to work in emergency management, in an international relief setting, along with rural community capacity building, ignited my passion for international and domestic relief efforts, community capacity building, and emergency management overall.

Once I returned back to Washington, I joined the local American Red Cross—Mount Baker Chapter. I wanted to be a part of an organization that responds to help their communities when these hazards turn into disasters. We responded to local house fires and flooding events which, until this point, I was unaware were impacting our community. We helped victims with their immediate needs and their path of recovery. I also got to witness the effort it takes for a non-profit to continue this type of service delivery.

In 2008, I graduated from Western Washington University with a degree in Environmental Studies with an emphasis on disaster reduction and emergency preparedness. After graduating from Western Washington University, I realized a desire to travel internationally, as well to as partake in a long-term application of my knowledge. However, I struggled with the decision to attend graduate school or join the Peace Corps, as I felt passionate about both of these options. While investigating the Peace Corps, I discovered their Peace Corps Master's International Program in which various universities have joined with Peace Corps to develop a program track which enables participants to merge a master's program with Peace Corps service. I took this opportunity to pursue an advanced degree in Rural Development at the University of Alaska Fairbanks while simultaneously fulfilling my dream of serving in the Peace Corps.

While in the Peace Corps, I was able to synthesize what I had learned at Western Washington University, at the University of Alaska Fairbanks, and the American Red Cross, and turn this information into a workshop wherein a disaster relief plan was developed that my host community could sustainably use when disaster strikes. I did not realize, at the time, the potential that this workshop had to become a tool for future Peace Corps volunteers and others to utilize in order to alleviate pain and suffering in their communities.





*Peace Corps volunteer, Lacey Shoemaker, delivering bulk items to residents. During the floods, many residents were unable to leave their homes. The Sub-District Administrative Office would deliver food and water to villagers.*



*Stone fences would trap floodwater and force water into villagers' homes, leading to more property damage and the water unable to quickly divert through natural waterways.*



*The house of Peace Corps volunteer, Lacey Shoemaker, the morning after flood waters breached the neighboring canal. Un-elevated homes would remain inundated with water for weeks.*

As part of sustaining Peace Corps' longstanding relationship with Thailand, a workshop was formed after the flood to assist a village in developing a preparation plan for disaster risk reduction. The workshop was the idea of my Thai language instructor, Ajaan Wipada Wasin, who had been with the Peace Corps for many years. She was also founder and co-president of a non-profit organization, the Family Learning Center of Surat Thani. In our language lessons, she discovered my background with emergency management, and my work with the American Red Cross. Wipada Wasin approached me after the flood events and asked for my help in facilitating a community discussion on local efforts and planning, with the hope of creating action items and an implementation plan for flood relief. The impetus was primarily focused on flooding events with the flexibility to be adapted to an all-hazards approach.

For my master's project I have documented the workshop and provided guidelines for other volunteers working with communities experiencing unanticipated natural disasters. This project and subsequent written report was intended to help newer Peace Corps volunteers and

other groups navigate through creating and implementing an emergency preparedness plan, taking into account geographic and cultural strengths and needs, while working within the scope of sometimes limited resources. This issue was something for which I held both a professional and personal interest, having been in firsthand flood events in Washington State and then again in Nakhonsrithammarat, Thailand. I was witness to the effects this has on a community in Washington, and then in my own host community in Thailand. In Thailand, I felt the pain of material loss, and was displaced from my home until the floodwaters subsided. After the waters receded, it was time to engage in recovery efforts and for me as a Peace Corps volunteer to help my community.

The Peace Corps has a long history of sending volunteers throughout the world to support social and economic development. In most cases volunteer efforts are planned and coordinated, moving forward smoothly to support local projects. My project arose from a far more rare experience: when a Peace Corps volunteer is thrown into the unexpected, in this case the 2011 flood in Thailand. This project explores the nature of the Peace Corps experience, cross-cultural emergency and flood planning on the fly, and provides guidelines for other Peace Corps and other volunteers on how to assist communities dealing with unexpected natural disasters.

## CALL TO ACTION

### The Founding Moment

One of the signature achievements of President John F. Kennedy was creating the Peace Corps, a new agency and a new opportunity for Americans to serve their country and their world.

The creation of the Peace Corps dates back to an unexpected moment and impromptu speech more than 55 years ago (The Founding Moment, 2016).

*"How many of you who are going to be doctors, are willing to spend your days in Ghana? Technicians or engineers, how many of you are willing to work in the Foreign Service and spend your lives traveling around the world? On your willingness to do that, not merely to serve one year or two years in the service, but on your willingness to contribute part of your life to this country, I think will depend the answer*



*whether a free society can compete. I think it can! And I think Americans are willing to contribute. But the effort must be far greater than we have ever made in the past."*

- *President John F. Kennedy addressing students at University of Michigan. October 14<sup>th</sup>,*

*1960*

The Peace Corps is a service opportunity for motivated change makers to immerse themselves in a community abroad, working side-by-side with local leaders to tackle the most pressing challenges of our generation. The Peace Corps mission is to promote world peace and friendship by fulfilling three goals:

*To help the people of interested countries in meeting their need for trained volunteers.* There are certain criteria which need to be met before a relationship between Peace Corps and a country is formed. Primarily, the most important requirement is that the Peace Corps is invited into a host country. An evaluation of needs is established and programs assigned to the country based on those needs. A volunteer's skills and talents are relied upon to help teach students,

community members, and supervisory counterparts, sustainable skills to replicate upon end of service.

*To help promote a better understanding of Americans on the part of the peoples served.* By being essentially on-call and responsible for our personal conduct at all times, we represent American culture from the instant our feet touch the ground. Some members of foreign countries have never met an American and this may be their first (and possibly only) exposure to American culture and lifestyle.

*To help promote a better understanding of other peoples on the part of Americans.* During service, many choose to include family, friends, school and work associates with the experiences of the culture the volunteer is assigned. These encounters can be shared through blogs, pen pal programs, and visitors to the Peace Corps volunteers in country.

The program continues to reflect the evolving priorities of the US government as well as changes in the population of the United States. Today, on average, volunteers are older than their predecessors, and more experienced in specialized fields. After almost five decades of service, the Peace Corps is more vital than ever and is still growing. From John F. Kennedy's inspiration came an agency devoted to world peace and friendship, as well as volunteers who continue to help individuals build a better life for themselves, their children, their community, and their country (Peace Corps, 2016).

### Defining “development”

The word “development” is used in so many ways that it has come to mean different things to different people. Some speak of housing developments or the development of infrastructure, such as roads and bridges. Others speak of the economic development of

countries. For the purposes of this project, “development” is defined in a broad sense as any process that promotes the dignity of a people and their capacity to improve their own lives. For people to live the fullest lives possible they must sometimes struggle to overcome such obstacles as climate, geography, economics, and social conditions; Peace Corps volunteers can sometimes become catalysts for facilitating such change. From its genesis, the Peace Corps has been utilized to aid those in need. This project specifically aimed at providing education and relief for people in high-risk flood environments, thereby developing the capacity of the people involved in the flood workshops to provide outreach and education.

The Peace Corps uses the term “development” in human, people-to-people terms: helping people develop the capacity to improve their own lives. By working within a human capacity building framework, the focus of the work is on the development of people, not things. Many development activities might seem to center around “things” such as community gardens, wells, or a school library. The capacity building approach focuses on helping people learn to identify what they would like to see changed, use their own strengths, and learn new skills to achieve what they believe is most important (PeaceCorps, 2012). Capacity building, to be an effective approach to development, needs to happen at a number of levels.

Individual members of the community, project participants:

Project participants could be the students in a classroom, farmers in a cooperative, members of a household, or clients served by a non-governmental organization (NGO). Building capacities at the individual level is usually a major focus of the volunteer. Individual community members made up a majority of the participant population for this workshop.

#### Professionals, service providers:

Professionals or service providers may be teachers in a school, leaders of an NGO, or managers of a farmers' cooperative. While each volunteer has an identified community partner who may or may not be a service provider, there are others at the same level of leadership as volunteers who provide services to the individual members of the community. Strengthening capacities at this level helps ensure local leadership for continuing activities into the future. Capacity building activities might include training workshops, modeling improved technical methods, or supporting a community activity. For this activity, it was the village headman and police officers.

#### Organizations:

Organizations involved in workshop planning include schools, NGOs, or farmers' cooperatives where volunteers are placed. Strengthening organizational capacities, such as management skills within an NGO, working with teachers to develop organizational skills and materials for a school, and helping health workers develop a record-keeping system for a clinic, all help substantiate other activities in an ongoing, functioning, and supportive environment. For this activity, the staff from the SAO participated in the workshop.

#### Communities:

On a larger scale, whole communities may participate in workshop activities. These communities may include entire villages or neighborhoods in which a Peace Corps volunteer may reside, or an area being served by a Peace Corps member. There are many ways to reach out into communities and build capacities with activities, thereby broadening the base of community

participation and ensuring continuity, such as co-organizing a community health committee, a Parent Teacher Association, or an Earth Day cleanup campaign.

Taken as a whole, this framework provides the structure for planning and evaluating sustainable development work in any sector. Though sending fifty well-intentioned volunteers into a country might ultimately result in some good outcomes, it would be difficult to paint an overall picture of what the Peace Corps is doing. It would also be difficult for the volunteers and host country community partners to see whether or not they were accomplishing something sustainable. To create a positive, long-term impact, it is necessary to know what the host country hopes to accomplish, what the Peace Corps volunteers are actually going to do toward that effort, how they will do it, and how to prepare them for the work ahead.

The Peace Corps ensures a lasting impact by organizing volunteer efforts through country program strategies and projects that have well-defined purposes, goals, and objectives. Peace Corps' country program strategies are designed from three points-of-view. One point-of-view is taking into consideration the priorities and needs expressed in the host countries' national plans for development. Always important are local communities' expressed priorities for assistance. In identifying community priorities, it is important to ensure that all members representing the diversity of the country have a voice in the discussions (e.g., caste/class, age, genders, all ethnic groups, and religions). The Peace Corps' three goals of philosophy, resources, and availability of volunteers must also be considered. Where these three points-of-view converge lays the common ground that provides the greatest opportunity for designing a strategy with sustainable results (PeaceCorps, 2012).



## Role as Community-Based Organizational Development Volunteer

After a competitive application process stressing technical skills, motivation, adaptability, and cross-cultural understanding, the Peace Corps invited me to serve as a Community-Based Organizational Development (CBOD) volunteer in the Kingdom of Thailand. I began an intensive ten-week pre-service training on January 11, 2011 in Uthai, a small village of Ayutthaya Province in Thailand located one-and-a-half hours north of the capital, Bangkok. The program consisted of language training, technical skills training, cross-cultural, safety and security, and area studies training. As part of the technical training, I built relationships with government officers and villagers, practiced using Participatory Community Assessment Tools (PCAT) in order to better understand the village, government organizations and community groups, taught life skills and learned about community development issues related to grass roots development (health, business, environment and agricultural issues).

In Participatory Community Assessments, the process is as important as the results. The key principles of PCAT focus on four key ideas: partnership and relationship building, community capacity building, community driven process, and emphasizing community assets. The end result should give a comprehensive view of the resources and efforts available within the chosen community. Ms. Wasin organized a PCAT using roughly 15 community members over a four-week period. They created a community map showing local resources available during flood events. Additionally, the PCAT helped create an understanding of the more vulnerable members of the community who may require additional or specialized care.

The majority of this training took place within the initial two months of my arrival and training continued during the two-year deployment. In total, I took 141 hours of formal instruction in Thai. At the end of Peace Corps service, a language test is given to determine the

amount of fluency a volunteer has attained. With the amount of hours of training and use of the language at my host site, I have achieved an intermediate to high competency level in the Thai language during my service and used Thai to communicate in my daily life and with various counterparts, colleagues, and friends at the municipality, schools, health stations, and other local government offices. I completed my Peace Corps service in Thailand on March 1, 2013, completing my 27-month assignment. During the initial two months of in-service training, we accrued 36 hours of specific area studies which included history, economics, and cultural norms of Thailand. One criterion the Peace Corps must evaluate is the safety of the country for the volunteer. In order to aid the safety of the volunteer, I took eight hours and thirty minutes of training on safety and security issues for Peace Corps volunteers in Thailand. I was required to complete 139 hours of training in technical skills for my assignment as a Community-Based Organizational Developer, which included community engagement strategies. These hours of training enable a volunteer to strengthen their connections with the host site. By providing the tools necessary to communicate and comprehend the historical and cultural context, the Peace Corps volunteer is more effective in their service to the host community and host country.

On March 21, 2011, I completed training and was sworn in as a Peace Corps volunteer. I was assigned to Namaipai Municipality, a small local government office in the province of Nakhonsrithammarat, roughly 610 km (379 mi) south of Bangkok. The Namaipai Municipality is comprised of 14 villages with a population of 9,004 citizens, predominantly rubber tree and palm farmers. I was a member of the eighth group of volunteers to be assigned to the Community-Based Organizational Development (CBOD) program. This program was designed to bring volunteers into the smallest, most local form of the Thai government to assist municipality staff, elected members of the municipality and local community groups (women's group, farmers'

groups, youth groups, and small businesses) in capacity building activities. My primary assignment was to work with Namaipai Municipality, with secondary assignments taking place at the local schools and health stations. The primary goals were to create networks between organizations, enhance capacity in organizational development, facilitate trainings on community-identified priorities, and improve basic English skills.

I worked in many of these areas throughout my two years of service. Another primary project included teaching natural herbal soap workshops with various women's groups and schools at my site community. These workshops were geared towards income-generation and improved skill building strategies while focusing on consumer demand for a natural and/or organic product. I also addressed the youth development concerns by repairing bathrooms to meet higher sanitary standards and building a playground in a safe, familiar place where children could interact and develop their emotional, physical, and social character. I demonstrated the process and methods of working with sponsors and donators, specifically groups that donate medical supplies and funds for youth development projects. Secondary projects included environment, education, and business skills. I coordinated volunteers in a three-day campaign for environmental awareness designed for students to learn about environmental degradation and exchange ideas with different grass roots groups. I worked with women's groups from other provinces within Thailand and taught a natural soap workshop geared towards using local resources, such as coconut oil and bamboo charcoal, for income generation.

### Description of the Project

This project describes my experience in organizing a flood planning and prevention project in Thailand and provides a potential guide to other volunteers. With my arrival into

Thailand and experience of the 2011 floods, it made sense that one of my primary projects during service was based on emergency management. Through coordination with a proactive community member who also served as my Peace Corps language instructor, a flood planning and prevention workshop was developed that I have since used as my research project for my Peace Corps Masters International M.A. Rural Development degree from University of Alaska Fairbanks. This project was an immediate response to the flooding and, as a result, was quite limited in scope. It is, however, an example of how Peace Corps volunteers can be flexible in response to local needs, and it was chosen over other projects because it holds important ideas for future flood response both overseas and throughout the rural United States.

When devastating floods hit a nearby village, I helped a local NGO coordinate with the Sub-district Authority Organization staff and villagers to organize a multiple day workshop to develop a relief effort strategy. At the time, our goal was to meet and discuss best practices and we were unsure of the product to come. Through incorporating different strategies and deliberating on what could be accomplished we were able to discover potential action items that the community could develop. Over the course of three months, the village created an emergency phone line and emergency plan of action, created volunteer-organized teams of inventory and response of vulnerable populations, while compiling and sharing information with local agencies to create a disaster response center in the affected community.

### Project Purpose

Rainfall in March of 2011, over the area of northern Thailand, was an extraordinary 344% above the mean (Shrestha, 2012). In April 2011, flooding in southern Thailand had affected people in many southern provinces impacting their possessions, fields, and agricultural

products. Bhumibol Dam in particular received 242.8 mm of rain, 224.7 mm above the normal 25.2 mm. Since January 1, 2011, the dam had accumulated 245.9 mm, 216.0 mm or 186% above normal (Pundit, 2011). This created a risk for the province of Surat Thani because it is the last province where water collects before flowing to the ocean. This end accumulation caused Surat Thani to have the highest flood levels in 80 years (Shrestha, 2012). Our objective as a group was to determine current strategies the village had in preparation for disasters and the effectiveness of the current plan, and then adapt a more cohesive plan incorporating the changes of the region, culture, and attitudes of the village. The goal was to institutionalize the separation of activities of agencies responsible for reducing vulnerabilities and preventing disaster, providing relief and emergency responses, and recovery.

## THE STAGE

### Language

The official and most prominent language of Thailand is Thai. Several other languages are spoken including Chinese, Lao, Khmer, and Malay. Most participants of the workshop are Thai nationals who spoke Thai. There were three U.S. Peace Corps participants who spoke English as their primary language and Thai with beginner/intermediate competency. The workshop was carried out in Thai and the English-speaking volunteers would speak in Thai to the best of their abilities. This was encouraged to build a trusting relationship with Thai nationals. As the founder of Family Learning Center of Surat Thani, Ms. Wipada Wasin acted as facilitator and interpreter as she is bilingual in Thai and English (this would happen if the U.S. volunteers were unable to express their idea in Thai). In the southern region of Thailand, a southern dialect is spoken in the rural communities. Compared to the central dialect of Thailand, Southern Thai is described as having quicker speech patterns and most common words and

phrases are shortened. Most southern Thais are able to understand Central Thai. The three U.S. Peace Corps volunteers were trained in Central Thai and, while at their host sites, were able to learn their host communities' distinct dialect.

## Geography

Aside from Central Thailand (also referred to as the Chao Phraya River Basin), there are considered to be three other regions that Thailand is divided into; the North, the Northeast (sometime referred to as Issan) and the South or the Southern Peninsula. The northern region's terrain is mountainous and prone to water-related hazards such as flash floods, landslides and debris flow. The arid northeastern region frequently experiences flash floods during the rainy season, as well as severe droughts and cold spells during the summer and cool season. The central region, the vast fertile land, often referred to as the country's "Rice Bowl," frequently encounters riverine floods and urban flood inundation during the rainy season. The southern region is hilly along the west coast with a low-lying coastal plain along the east coast and experiences flash floods, mudslides, tropical storms and forest fires (Jacquelyn, 2006). Flooding is a yearly occurrence in the country.

## Climate

Thailand has a tropical monsoon climate. Southwest monsoons arriving between May and July signal the start of rainy season lasting until October. The cycle reverses with northeast monsoons in November and December, ushering in the dry season. Cooler temperatures give way to extremely hot, dry, weather from March through May. Rainfall is heaviest in the Southern Region and lightest in the Northeast Region.

## Site

Surat Thani is a province located within the Southern Region of Thailand. Ban Na Doem is a district in the center of Surat Thani province. Tha Ruea is one of four sub-districts of Ban Na Doem district and was chosen as the site of our workshop. It is also the sub-district with the lowest population of the four: around 3000 people.



Figure 1- BAN NA DOEM DISTRICT, THAILAND, by Ahoerstemeier - Own work.  
Licensed under CC BY-SA 3.0 via Commons



*Figure 2- SURAT THANI PROVINCE, THAILAND. locator map" by NordNordWest - self-made, using Thailand location map.svg. Licensed under CC BY 3.0 via Commons*

## Religion

The geography and climate of Thailand do not have much bearing on the distribution of religion in the country. While there is a small Muslim population residing in the south of the country, Buddhism is the national religion of Thailand. Buddhism is one of the five major world religions, with at least 500 million adherents worldwide. There are three to four million



Buddhists in the United States (two-thirds of whom are Asian American). Adherents follow the teachings of Siddhārtha Gautama, the historical Buddha (“Awakened One”) who lived in India around the fifth century BCE. He taught four “noble truths:” (1) the truth that life is suffering/anxiety/dissatisfaction/stress, (2) the truth of its cause, (3) the truth of its cessation, and (4) the truth of the path toward its cessation (Gethin, 1998). Religion is closely tied to the foundation of Thai lifestyles. About 95% of the Thais are Theravada Buddhists, 3% of the population is Muslim, and the remainder split between many religions including Christianity. Religion plays a very important part in a Thai’s life but it does not dictate his or her every move.

Upon the opening and closing of each workshop, we visited the monk at our host temple and he blessed the participants for donating their time for the workshop. Buddhist temples are located at the heart of many villages. By providing information on efficient disaster management, local governments can support and include Buddhist temples in dealing with all kinds of hazards. In addition, local governments may facilitate cooperative relationships between other temples. Accordingly, Buddhism must build its social safety network, not only with temples but also with civilian groups for all-time disaster mitigation, as another aspect of dependent origination (Linnerooth-Bayer & Mechler, 2007). Religious views in Thailand, and the culture associated therewith, are intertwined and inseparable, as evidenced by the Thai flag, in which the color red represents the blood spilled to maintain Thailand’s culture and independence from external domination, the color white represents purity and is the color of Buddhism, and the color blue, which is Thailand’s national color, and represents the Thai monarchy.

## Culture

Outside of Bangkok, residents of rural communities might have had little direct exposure to other cultures, races, religions, and lifestyles. The Thais cultivate cohesiveness when working with foreigners and so are open to information on most issues. They live in a concrete, associative, pragmatic world where the present is more important than the future. And the concerns and needs of the person take precedence over the rule of law. The truth develops from subjective, fatalistic feelings on the issue modified by faith in the ideologies of Theravada Buddhism. Thais with higher education from European or U.S. universities may develop their truths based on objective facts as defined by western cultural traditions (Morrison, Conaway, & Borden Ph.D., 1994).

The individual is responsible for his or her decisions. Thais are nonassertive, as well as being very conscious of the feelings of other and their position in the social hierarchy. Thais refrain from developing specific expectations whenever possible because fate and luck play a major role in any event. You cannot plan because you cannot predict, so Thais live with a great deal of uncertainty. Decision-making revolves around the hierarchical, centralized nature of authority and the dependence of the inferior upon the superior. Thus, the typical supervisor is authoritarian. The superior makes decisions autonomously, and the inferior unquestionably obeys. A benevolent superior and a respectful inferior is the Thai ideal (Morrison, Conaway, & Borden Ph.D., 1994). Status is of primary importance, as hierarchical relations are at the heart of Thai society. However, people are believed to gain their social position as a result of karma, not personal achievement. The royal family and the nobility are the only real class-conscious segment, although a class-conscious society is emerging. Regional and ethnic differences are socially and politically significant. These notions must be considered by the U.S. Peace Corps volunteers who are not used to working with these cultural conditions.

## Hierarchy

Thai culture is strongly hierarchical. Respect must be given to those of higher status, which includes elders. There are many factors that indicate an individual's status including age, education, and profession. These all help to place a person within this hierarchy and to shape the way that that person is treated by others. A person's social status also determines how they should be greeted. The typical Thai greeting is called the *Wai*, and involves pressing your palms together and bowing your head slightly. Usually, the person of lower status offers the *Wai*, such as a youth to an Elder, or a student to a teacher. Thais of very high social status, such as monks, are not expected to return the *Wai*.

## Education

Community response and awareness efforts about the climate and flood patterns were in part made easier due to the literacy and education rates in Thailand. The Thai government supports universal free, primary education. Most children attend school several years at least, and more than 85 percent of the population is literate. Fewer than three out of ten children continue beyond elementary level. More than a dozen universities and specialized postsecondary institutions provide higher education for about three percent of youth (World Bank, 2015). The relevance of the literacy rates of the Thai population to the project of flood preparedness workshops is that the people who attended the workshops were able to easily access and comprehend the information provided, and then add their own perspective and knowledge.

## Health

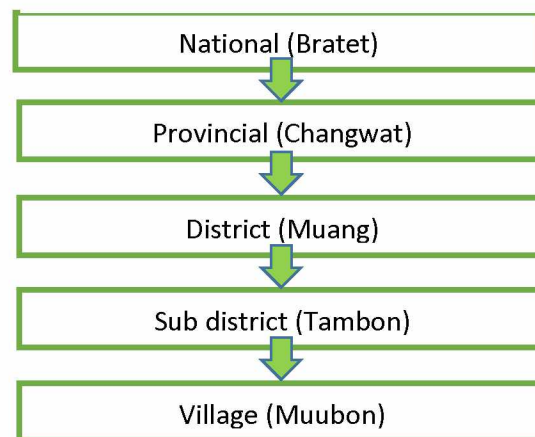
The rural Thai population is educated about the fact that there is a lack of health resources available in the villages. A concern for project development is lack of accessible, local

healthcare in small, rural villages. There is, however, abundant access to modern medical care and trained physicians who reside chiefly in Bangkok and provincial towns, and the government has been developing more rural health centers. Unavailability of potable water for most of the rural population contributes to disease and many rely on bottled water for consumption (World Bank, 2015). During the floods, transportation of bottled water is an uncertainty.

### Administrative Divisions

To better understand the functions of services toward the population, one must understand the political structure that leads to resource distribution from national to local resources. This includes health resources. The country is divided into 76 provinces (*changwat*); subdivisions include districts (*amphoe*), sub-districts (*king amphoe*), communes (*tambon*), villages (*muban*), and municipalities (*tesaban*). Village chiefs are elected by local citizens. The chiefs of the villages in a sub district elect one of their number to also serve as the chief of the sub district. These sub-district leaders help organize emergency relief for villages in times of need; additional resources can also be requested from higher levels of government.

Figure 1 Thailand Political Geography Structure



## PROJECT DESIGN

The project design was established through the Family Learning Center of Surat Thani and incorporated in-person workshops that were scheduled to cooperate with the agriculture schedule of the local farmers. There were several factors to consider when deciding which community members would best communicate the information to the rest of the community, including the location of the workshop and which type of community leadership would be present.

### Participants

The group consisted of the village headman, village leaders, village committee, health volunteers, village community members, a women's group, a farmers group, police officers, three U.S. Peace Corps volunteers, and the Family Learning Center of Surat Thani volunteers, as well as sub-district administrative organization staff. The sub-district administrative organization functions to oversee the laws and policies of the central government. They supervise the collection of taxes, keep basic registers and vital statistics, register schoolchildren, administer local elections at the commune and village levels, and coordinate the activities of field officials from Bangkok.

The village headman generally serves as the middleman between villagers and the district administration. The headman's other duties include attending meetings at the district headquarters, keeping village records, arbitrating minor civil disputes, and serving as village peace officer. Each village also elects a leader who represents the community; the village leaders then elect a village headman to represent all of the villages collectively. The sub-district is usually the only point of contact between the central authority and the populace; the central government has no appointed civil service officials below this level. The Family Learning Center

of Surat Thani is a non-profit organization that focuses on building programs to support the family. Examples of past programs have included classes in infant CPR, nutritional/healthy eating classes, and tree planting for schools.

### Materials

Materials for the workshop activities were donated by the sub-district administrative organization. The materials included notepads, pens, markers, and poster board. The workshops were held at the local temple, which supplied chairs and tables. Food and beverages were donated by the Family Learning Center of Surat Thani for each day of the workshop. In Thailand, it is customary to provide refreshments and food for meetings and gatherings. Since the workshop was held at the temple, an offering was also given to the monks as a sign of respect and gratitude for allowing workshop participants use of the space. The limited electricity to the temple made it difficult to use technology during the workshop (i.e., computer, projector). The materials used, including poster board, markers, notepad paper, pens, and rolls of tape, were sufficient. A representative from the Family Learning Center of Surat Thani was able to transcribe the findings into electronic format for ease of sharing, editing and record permanence.

### Timeline

We anticipated a three-day workshop which could be extended if required. The first day of the workshop was geared as orientation which included project purpose and workshop overview. The first day was scheduled based on the availability of participants, which was determined by the facilitator Ms. Wipada Wasin, founder of Family Learning Center for Surat Thani. The second day of the workshop focused on planning and outlined the response effort.

The third and final day of the workshop was postponed to August 21, 2011 due to scheduling conflicts of the participants.

## Keys to Help a Volunteer Begin Defining His or Her Roles

### Clarifying My Role

First and foremost, a general introduction of my background, studies and expertise helped the community build an understanding of my role in the preparedness efforts. It was also important to answer some key questions for the preparedness effort such as: Who are the individuals and groups in my community? Which of these people are most greatly affected by/involved in my Project's areas of focus? Which individuals or groups are identified in my Project plan as key stakeholders? Additionally, I sought out answers to questions about past Peace Corps volunteers roles in the community to better gain an understanding of what ways their relationships and developmental activities might affect my role in serving the same community, as well as what other "development" organizations work in or around my community, their mission, potential support and resources and how this may affect my project assignment.

### Understanding Community Needs

Identifying community needs is fundamental in implementing a preparedness plan, as the particular needs of the members should be addressed to help facilitate the best response effort. Key questions were presented to the group in order to gain better understanding of how to move forward and address these issues. Likewise, building an understanding of community resources to help accomplish these goals, further helped clarify the efforts needed in planning and capacity building for the flood response. Some important questions were presented to the planning

committee to help me further gain an understanding of how my Peace Corps Project goals, the community's priorities for change, and my expertise interrelate as this intersection defines the areas of my primary focus and needs assessment.

#### Collaboration

Clarifying how to work in a collaborative effort with the community helped in facilitating the best flood response and allowed me to learn how to engage with community members without overstepping my role. I sought out approaches, strategies, methods, and tools that will help the community achieve its goals while also improving an understanding of how the community members currently or previously communicate and collaborate in their development activities. Most importantly, I gained knowledge around how to build on indigenous knowledge and tradition in my developmental work to blend cultural norms and customs into the collaborative effort.

#### Timing

As important as the other key components of the effort is timing. It was important to gain an understanding of the best time to start planning efforts with my counterpart and community. Furthermore, I had to decide when the best time was to begin doing participatory analysis activities with community members/groups as well as when to start co-planning projects with interested people/groups in my community. The timing of these aspects of the project was important due to the presence of cultural and seasonal activities as well as the lack of availability of community members during peak harvest seasons for local palm, rubber and agriculture.



As you work to find answers to these questions, you are effectively joining your community in its development process. “To be truly capacity focused, the community will always be your partner in gathering information, making decisions, taking action, and improving on your successes or learning from your mistakes (PeaceCorps, 2012).”

### Capacity Building Guidelines

There are guidelines that the Peace Corps teaches volunteers at pre-service training that increase project sustainability at the local level. At the beginning of any project, it is important to articulate and define roles, especially for the Peace Corps volunteer as a development partner and capacity builder. Once that has been established, it becomes easier to relate skill training and experience to your project. Most of the participants in Tha Rua had heard of the Peace Corps and were familiar with our mission. At the introductions stage, I introduced myself as a facilitator and reinforced that this was a community-led project. My role in the project development would be limited to the preparation and planning areas.

Part of community development means understanding the community. An introduction of the participants and their experience can be a meaningful way to intake the personnel resources and experience available. The first step is getting to learn about people (who they are, how they live and work together, what they want/need) and begin building relationships. For our introduction activity, we used a Thai game and song that children play called “Gai Young” or “Fried Chicken”. The familiarity of the game proved to be a fun activity that energized participants and motivated everyone on the community platform.

The next step is to select and use appropriate participatory tools and methods for helping communities; ensuring that you involve all stakeholders (including women and youth), assess their strengths and resources, identify changes they want, and plan, implement, and/or evaluate

activities or projects to achieve and sustain those changes. It is necessary to facilitate participatory processes—teambuilding, decision-making by consensus, problem solving, conflict management/negotiation—that encourage critical thinking, information gathering and analysis, and sustainable change. An important aspect of this process is demonstrating respect for indigenous knowledge by consistently gathering and applying it in work-related decisions and plans.

After utilizing appropriate participatory tools and methods, the next point of action is to initiate and build relationships with supervisors and counterparts, partnering with them in ways that promote personal and professional growth for all involved. It is imperative to demonstrate strong interpersonal skills—listening, creating appreciative conversations, encouraging others, giving/receiving feedback—that model positive leadership. Another integral part of the process is also creating opportunities—mentoring relationships, skills training, exposure to new ideas—that encourage leadership development for your counterparts and others in the community. It is also important to plan intentional and timely actions to ensure you successfully “share leadership” with others throughout their service.

### Project Goal

The goal of this project was to build community resilience to disasters in two processes: preparation and response. At the core of any disaster risk management efforts is the goal of improving livelihoods, strengthening social resilience, building local partnerships and trust among communities and public authorities. Considerations for the preparation and response stages are to review the preparation strategies in place, as well as available resources, and areas where there can be improvement. The goal of the facilitators was to demonstrate that disaster preparedness is attainable, given the appropriate resources and motivation. The community’s

goal, in turn, was to create a list of preparation strategies and a concrete community response plan.

## PROJECT CONSIDERATIONS

### Preparation

For this project, I created a Community-Led Plan (CLP) that incorporated the LEAD<sup>1</sup> Model. The LEAD model helps communities produce high quality plans which demonstrate unique characteristics. This process was explained to interpreter Wipada Wasin beforehand in order to be explained at the initial meeting. This was done to be courteous of the time of participants and utilize the workshop and reduce redundancy. We then discussed the positive characteristics of our CLP. As suggested in the name, Community-Led Plan functions because it is owned and led by the community. This ensures that there is motivation and includes the involvement of local residents and partners. There are four items to consider when implementing community-led action, in order to narrow down the scope of the issue and create sustainability.

*Deliberative decision-making* is about understanding the point-of-view of the community members you're working with, as well as implementation of specific processes to set those decisions in motion. Without a comprehensive understanding by all participants, community members' feelings can be hurt, misunderstandings and resentments can occur, and motivation diminishes. Without deliberate, focused decision-making, protocol can be implemented that is not directly relevant to the initial purpose of the project.

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<sup>1</sup> L= Lay out a plan E= Engage the community A= Address the needs D= Develop a strategy

*Evidence-based actions* are necessary because there can be temptation to launch new protocols that have never been field-tested, for the sake of ingenuity. Sometimes, these issues have already been addressed, and there is an effective protocol in place. There are several factors to take into consideration when implementing evidence based practices, including whether the practice encompasses the most up-to-date norms, new technological trends, and whether or not all vested parties have been included.

*The project considers a range of different local issues*, not just a perceived single problem with a simple, easily implemented solution. For the scope of this project, we had to consider whether or not the myriad local issues we were facing were interrelated, meaning that the same underlying problems were affecting each of them. This careful scrutiny allowed us to acknowledge the patterns that developed and bring these patterns to the attention of government officials who had the power and resources to affect change.

*Maintaining awareness of the bigger picture is necessary* after considering the possible range of local issues, we had to maintain perspective of the overall goal of aiding the community's effort toward implementing updated response strategies in collaboration with provincial, district and local officials. The main purpose of the project can easily be overlooked when working to figure out logistics and collaboration. Keeping this in mind, it remains important to have a focus on the bigger picture of creating and implementing a plan that works well for all those involved. With these four vital concepts in mind, and with collaboration, the product can provide a sustainable, realistic, and measurable outcome for stakeholders.

### Launch the Plan

The impetus for starting any Community-Led Plan should come from within the community. It is recommended that the process is started with a launch event where people can

find out what can be achieved with a plan, how it's put together and what work is involved. This step includes inspiring people to get involved, setting up a leadership structure, and scoping out the work ahead. It is a good idea to designate someone who can take notes on what was discussed as well as ideas for future growth.

### Evidence of Local Needs and Aspirations

Having launched the plan, we developed an understanding of local needs and aspirations. This is the time for researching existing facts and information to identify key issues, features or trends for the local area. This leads to a discussion with the rest of the community about how they experience life locally—what they value in the present and what they think could be improved in the future.

### Agree and Prioritize Actions

The next stage of the Community-Led Plan is to make sense of the evidence that has been collected and use this to formulate and prioritize future action. This leads to analyzing and discussing the plan with members of the community, to identify priority actions (or projects) that will improve the local area. It is a good idea to have this discussion documented by the person taking notes. That way, there is always an option to write up and present the ideas to outside stakeholders for approval, if outside funding is required.

### Deliver and Monitor Actions

Ultimately, the community will need to lead on the delivery and monitoring of actions proposed in the plan. These may be undertaken in isolation, or with the support of other organizations and service providers where needed. Having documented the steps and information

throughout the process, the community may even choose to completely or partially review the plan later on. This creates a sustainable way to make sure the community has achieved everything and whether there are new actions they may wish to pursue.

Arguably, the most vital characteristic of this method is that it is owned and led by the community. It is important that plans are developed by communities and not done for them. Where communities are supported to lead on the process from the outset, a sense of collective ownership for the plan and its outcomes is likely to result. This encourages people to take responsibility for getting things done themselves, attracting higher rates of participation and reducing the need for external intervention. Another important feature is that it involves everyone locally. In any community there will be many different interests. A good CLP will allow everyone to get involved and put forward their views and opinions as to how the neighborhood should develop. For the purpose of this project we invited key players first, (e.g., village headman, sub-district authority organization, police officers) to ensure that they would be able to direct the forum in a way that is progressive and remains on-topic (Eardley & Vincent, 2011).

Thoughtful decision-making is critical to the success of any CLP because it is an extensive deliberation between individuals and community groups. This could also incorporate input from external organizations and service providers where appropriate. This provides everyone with the chance to share their views and listen to the needs and concerns of others before reaching collective solutions that benefit the community as a whole. Communities are expected to gather information about their community that will enable them to identify local needs and aspirations. Only once this has been done can they propose actions that will derive

local benefit and be accepted by all. What is left is a diverse, individualized path that considers a range of different local issues (Eardley & Vincent, 2011).

Communities are advised to develop a range of different actions, considering the impacts these might have on the social, economic, cultural and environmental aspects of their neighborhood. Where this happens, people are more likely to identify with at least some parts of the plan leading to greater levels of participation and inclusion. It also encourages communities to think about the broader impact of any actions they wish to pursue, e.g. the building of new homes may help to sustain local services and business in a rural setting but may also increase road traffic. During the entirety of the CLP, there needs to be a continued and constant awareness of the bigger picture. Throughout the process communities are expected to work with local authorities and other service providers in order to understand the bigger picture. This is particularly important for actions that require external support or where they may need to consider the broader priorities for the area (Eardley & Vincent, 2011).

## Three day implementation

### Day 1- July 17, 2011

The initial day focused on orientation and information gathering to better gauge the direction and outcome for the remainder of the workshop. A total of 47 people participated in this activity. There were 40 Tha-Rue people, three U.S. Peace Corps volunteers (from the provinces of Pattalung, Nakornsrihammarat, and Surat Thani) and four Family Learning of Surat Thani Center workers.

Every participant went to the temple around 12:30 PM. When we arrived, we went to pay respect to the monk. We talked about the aims and the establishment of using the center as a possible meeting site for family and community members as well as command center for

emergency personnel during a disaster. The monk was kind to our workshop participants and was responsive to our requests. He allowed the workshop to take place and gave his support to opening the temple for use during a disaster. At 1:00 PM we had the welcoming ceremonies and Mr. Chaiyot, community group representative, went over the purpose of the day. Mrs. Wipada Wasin then gave guest consultants, Mr. Joel Gerstman, Ms. Lacey Shoemaker, Mr. Mark Del Greco, Ajarn Chamlang Damsanit, Mrs. Chongchai Pansung and Mrs. Petnamneung Poontek, the opportunity to introduce themselves. Next, Mr. Gerstman described the purpose of this workshop and why Tha Rue sub district was chosen:

*“In the last flood (March/April 2011) I, Aunt Tim (Mrs. Wasin), Aunt Jeaw (Ajarn Chamlang), Aunt Chong (Mrs. Chongchai), Mew (Mrs. Petnamneung) and friends from Sri-U-Rai village found money for helping victims at Pun-Pin district, Tha-Sa-Ton sub-district and Tha-Kham sub-district. But we never helped victims at Tha-Rue sub-district. I was able to gather monetary donations from my family in the U.S. But money is not all we need. We need to help victims at three stages; immediate response level, treatment level, and rehabilitation/recovery level. Now, we are helping at rehabilitation level. The reason that we chose Tha-Rue sub-district is this sub-district used to be the place that a previous Peace Corps volunteer, Ms. Hayden Shelby, had lived. Once the flood hit, Peace Corps made the decision that, for the safety of volunteers, those in flood impacted areas would be evacuated. Because the evacuation was close to the time that Ms. Shelby would be returning to the U.S. they made the decision to return her home and not have it be a temporary evacuation. With tears on her face and limited time to say good-bye to her community, she was loaded onto a soldier’s truck and taken to the airport. We want to hold the activity to let her know that we miss her.”*



To get everyone comfortable and prepared to handle some negative and unhappy discussions, Mr. Joel Gerstman and I led everyone in a light-hearted icebreaker activity. The game was similar to “Simon Says” except we called it “Khun Joel says”. Those who lost the game were then brought to the front of the group and danced a children’s dance called “Kai Yang” (Grilled Chicken). The activity was a great way to bring smiles to everyone as we were all strangers, both Thai and American.

For the first activity, we divided the participants into groups of six people and had them create a list for what they wanted to see as an end result from the workshop. After coming together as a big group, we combined every group’s list together to form one list and to see where views aligned, and if there were any special circumstances to consider. It was agreed that the community wanted to establish an early warning system and create a “victim’s center” in their community. Mr. Sommay, Mr. Pathom, and the village headman, Puyaibon, suggested that the working group would need to be per volunteer status and that the positions would not be paid. Every person would need to know their roles and tasks, so when the workshop meets on 31, July, 2011 for developing the community idea into a plan, that it is feasible for the community and its resources. We then opened up the meeting for discussion and for individuals to express their concerns, hopes, ideas, and stories. One of the community members opened up and said with tears, “Thank you for coming and paying an attention to us. We don’t need things, but we have a better feeling when others give us power.” Another community member, a former police officer, presented the loss that occurred during the floods. He sobbed and said that “I feel pity for people who lived near the river the most, but I can’t help them. I couldn’t do anything for them because I needed to move my pigs to the safe place.” Another community member who lost

domesticated animals because of flooding talked about how the community needs to stop selling pieces of land to investors, because, “When they fill up the bought land with soil, our house will be lower than their land.”

Universally, the men and women in this community had courage to show their ideas, told authentic and heartfelt stories, and had strong will to resolve the problem. From our discussions, it was clear that each of them had been negatively impacted and don't want to see the catastrophe occur again.

Day 2- July 31, 2011

Warning center pattern at Pattanaram Temple (1 pm.)

Our intent for day two was to develop best practices and to see how these practices could be implemented in the community. This included listening to outside perspectives from professionals within Thailand as well as the United States on the topic of best practices in preparedness and recovery strategies for flood events.

There were 21 participants: 15 community members, four Family Learning Center volunteers and two U.S. Peace Corps volunteers. The community members were chosen based on their experience with past events and the level of involvement with the community, ranging from retired mayors, school principals, and village leaders. The group reached the temple at 12:30 pm. To increase collaboration between both the community and the visiting speakers, it was decided that each day of the workshop would have a new facilitator. The sub-district has four schools and the director of Durunothay School, Mr. Saway Keawmanee, was next to share his opinions. As facilitator for this day, he shared his knowledge in catastrophes, global warming, and psychology development which we used to relate to the workshop.

He praised the community for coming together to tackle an issue that had affected everyone and encouraged community involvement for developing a disaster center. He then took nominations for a community member to act as chairman of the warning center during both times of disaster and non-disaster. There was one nomination for Mr. Saelim, who is also the village leader for village #3. The first responsibility assigned to him was to announce the creation of the disaster center to the community.

The impression at this time was that there were few people willing to help with volunteer recruitment; it was suggested that the local sheriff send out invitation letters to villagers and invite them to participate and volunteer for roles on the final day of the workshop. The agreement was “we should depend on ourselves”. Mr. Saelim, village leader of village #3, felt that we would get a great turnout of people as this was a collaboration of both Thai and American nationals that the community would be interested to see and participate in the planning process.

The first part of establishing a disaster center is to understand its roles and functions. As a Peace Corps volunteer with experience in response and recovery strategies during disasters with the American Red Cross and with a B.A. in Emergency Management, I was asked to share the American procedure of response on the local, state, and national scale. This was to help the Thai participants understand what other strategies are available and to determine if any similar strategies could be implemented on the local level based on the population and resources of the community. I prepared some documents for explaining the disaster management pattern in the USA in English as my Thai writing skills were at beginner’s level; for the sake of time it was determined that it would be more effective to have Ms. Wasin translate. The initial lesson was to describe the different levels that are involved with a response effort. I explained that everything

is based on scale. Response efforts try to remain as contained as possible. It begins at the smallest stage (local) and expands to the next larger stage (state) if efforts and resources extend past the local range of containment. Similarly, once state efforts and resources are extended past their threshold then the response efforts would extend to the largest state.

### Disaster Relief in the United States

I explained the different levels of organization in the United States involved in preparing, mitigating, recovering, and responding to disasters. Disaster relief in Thailand is decentralized, focusing their attention for flood mitigation on Bangkok and other sites of historical significance which are a main source of income due to high rates of tourism. As a result, smaller effort and resources are given to individual communities and villages. Conversely, within the United States, there are local organizations available to aid in disaster relief, as well as centralized efforts on a federal level to address large-scale issues.

### Federal/National

The Department of Homeland Security's Federal Emergency Management Agency's (DHS FEMA) mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain and improve our capability to prepare for, protect against, respond to, recover from and mitigate all hazards. While on-the-ground support of disaster recovery efforts is a major part of FEMA's charter, the agency provides state and local governments with experts in specialized fields and funding for rebuilding efforts and relief funds for infrastructure by directing individuals to access low interest loans. Some of the programs it offers include education in schools, businesses, and homes about disaster safety, provision of financial relief assistance, and provision of first response with evacuation, use of technology, and transportation.

State

All states will have an Office of Emergency Management department. The mission of the Washington State Department's Emergency Management Division (EMD) is to minimize the impact of emergencies and disasters on the people, property, environment, and economy of Washington State. The Division notifies and alerts state agencies and local governments of impending emergencies and disasters. The EMD provides education on disaster preparedness and safety to schools, businesses and homes to help minimize harm and inform the public on the importance of preparedness efforts and plans. Additionally, they provide first response by using technology (online, televised and radio media, transit systems, emergency broadcast systems) to facilitate evacuations, deliver supplies and perform search and rescue. The EMD helps to set up shelters and provides immediate resources during or shortly after an emergency.

During state emergencies, EMD manages the State Emergency Operations Center (EOC). An emergency operations center (EOC) is a central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency, and ensuring the continuity of operation of a company, political subdivision or other organization. At the EOC, information gathered is used by executives to make decisions concerning emergency actions and to identify and prioritize the use of state resources needed to respond to the emergency. The EOC may issue emergency warnings or disseminate critical information and instructions to government personnel and the public who may need to take emergency protective actions.

An EOC is responsible for the strategic overview of the disaster, and does not normally directly control field assets, instead making operational decisions and leaving tactical decisions to lower commands. The common function of all EOCs is to collect, gather and analyze data,

make decisions that protect life and property, maintain continuity of the organization, within the scope of applicable laws, and disseminate those decisions to all concerned agencies and individuals. In most EOCs there is one individual in charge, and that is the Emergency Manager. Other state agencies with emergency roles may come to the EOC to help coordinate the state response. Federal government agencies, along with state and local volunteer organizations, also may provide representatives as will be discussed in the following sections.

#### Local

The role of law enforcement, police and fire departments, in responding to a disaster is very similar to the day-to-day role of public safety and supporting the community. In preparing for a disaster, police officers trust in their training and capitalize on their knowledge of their local community. Law enforcement officials know their communities best and interact with residents on a daily basis. This knowledge gives them the ability to provide valuable situational awareness to response and recovery groups coming in to help, which gives responders the ability to quickly help vulnerable populations (elderly, disabled, etc.) and provide transportation and traffic revision for evacuation efforts. Most local law enforcement officers are also able to provide basic medical assistance and some may be specially trained to help with emotional trauma. During a disaster, police officers play a key role in many operations including search and rescue, evacuations, door-to-door checks, and maintaining overall public safety within the community. These are critical actions that support not only their own communities but neighboring towns as well (Hylton, 2013).

#### Support Agencies

The American Red Cross prevents and alleviates human suffering in the face of emergencies by mobilizing the power of volunteers and the generosity of donors. The organization has the ability to work on all three stages (local, state, and national) and interdependently. The American Red Cross provides educational presentations on individual preparedness that covers home protection and what to expect during a disaster event, trains in First Aid/CPR, and distributes supplies for immediate needs and cleanup. The American Red Cross has a team of local volunteers on-call at all times known as the Disaster Action Team that can quickly respond to aid in home fires and other local emergencies. Local therapists also volunteer their time to help with emotional support and can provide support for events ranging from loss of property to death of a loved one. Each local chapter of the Red Cross has a storehouse of resources to use in the case of emergency that includes clothing, cleaning supplies, water, food and blankets as well as financial assistance for repairs or replacement of damaged property.

By explaining the different levels of emergency response and their responsibilities, we were able to compare what strategies are already in place in Thailand on the same levels (Sub-district, District, Provincial, and National) and incorporate new processes. Granted, the group is only able to change to the sub-district level but with the ability to adapt with higher levels of response.

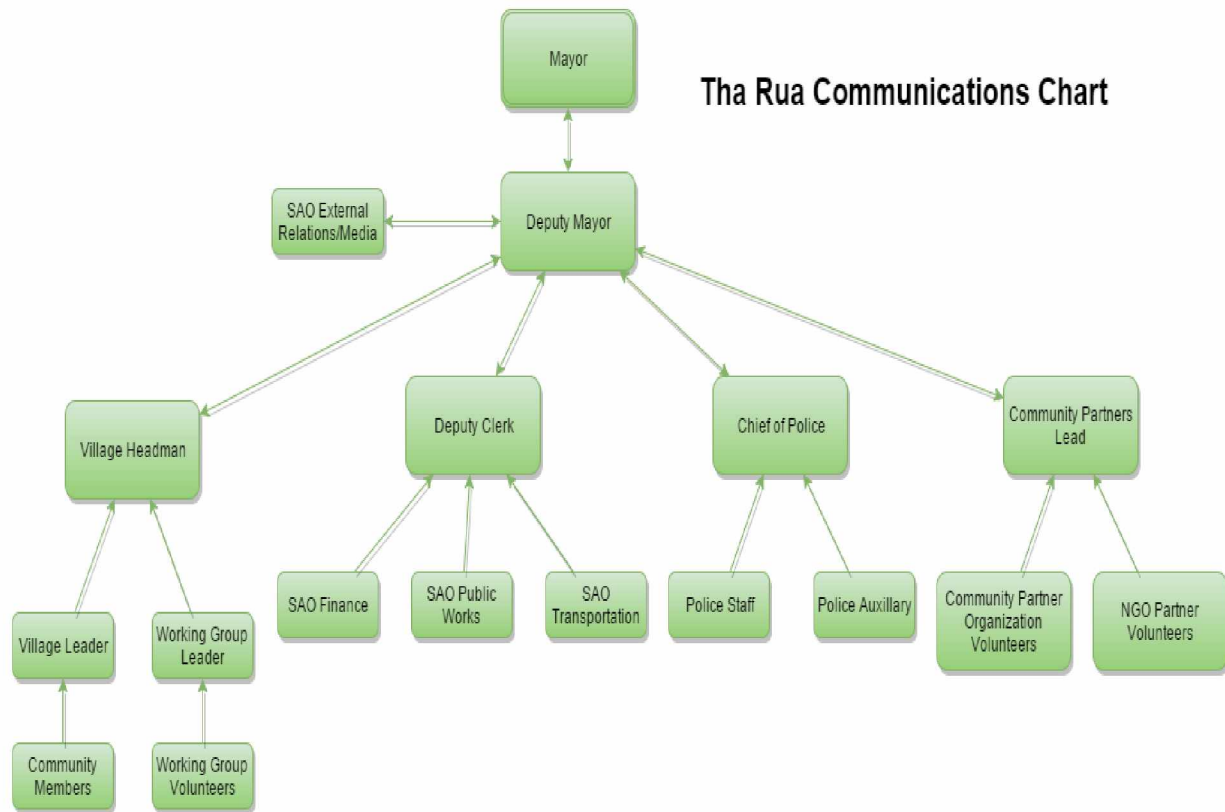
After I explained how the USA manages disaster response, Mrs. Wasin translated into Thai. The participators shared ideas and discussed the specific aspects of a response effort they wanted to develop while keeping in mind the scope and resources the community had at hand. It was determined that the EOC was to be set up at the temple and would also serve as community

shelter for displaced community members. We then created a list of what specific aspects they wanted to focus on for the day.

#### Developing an Emergency Phone Tree

An emergency phone tree is a tool utilized for efficiently communicating on a hierarchical platform. We developed it in a way that information could easily flow “up” and “down” to all parties. When developing a phone tree, it is important to establish the access, audience, scope, and guidelines necessary for efficient information collection and dissemination. The number of people involved at the higher points of the “tree” must be limited in order to help focus the flow of information to the decision-making person at the top. The community of Tha Rua is relatively small, so the established means of access to new information is readily available, and is both posted at centralized locations and broadcast through local radio and emergency vehicles. It is beneficial to have a designated phone line available for people to contact in order to both receive and provide new and relevant information. In order to have effective and efficient decision-making, it is vital that communications be kept short and concise. This is to enable quick decision-making and to lower the risk of misinterpretation or assumption of messages. Another way to limit assumption is to supply the facts and each caller should avoid speculation. In most cases of casualty, confidentiality should be emphasized especially if confirmation is needed or if the situation is sensitive such as terrorism. It is recommended to update the phone tree annually to ensure accurate phone numbers and persons of contact.





#### Mapping homes of vulnerable community members

Create a volunteer group to survey households and understand the vulnerable community members. After determining where households are located that may need extra support in an emergency, create a map marking where those homes are located. Vulnerable populations include those who are elderly, those with disability, and children who may be home alone for certain hours of the day. At the next day of the workshop a team was developed who will use the map in times of disaster to check on these households.

#### Community Warning System

Emergency warning systems alert occupants in an emergency by broadcasting a warning message or tones over a network of monitored loudspeakers. It is a life safety system installed to safeguard occupants from illness or injury by warning them of an emergency and to safeguard

occupants during the orderly evacuation of an area. They assist in these functions by providing mass notification of an emergency and providing a method to communicate with and direct building occupants in the event of an emergency. The Sub-district Authority Organization has vehicles that are already outfitted with loudspeakers and have the capability to broadcast messages or emergency tones, especially evacuation messages and centers.

#### Community Education

Because information is processed through multiple stages, hearing the information, understanding it, and perceiving its relevance; education can shape the degree to which individuals accurately perceive and assess risks and make a decision to take on preparedness actions (Nigg, 1982). This can take place in different aspects such as preparedness kits, making a response and recovery plan, and being informed of where to find pertinent information during the events and having emergency training (ex. CPR and First Aid). A preparedness kit is a stock of emergency supplies for an individual or family that is used in case there is no access to immediate supplies. The idea of a preparedness kit was brought to the attention of the group but was not well received. In the United States, a kit usually includes items such as food, water, and medical supplies among other things. In rural communities of Thailand, which may not have the ability to store extra supplies due to financial hardships, the preparedness kit might not include food and water. It was pointed out by a community member that the idea does have merit and could be useful for villagers but most do not have the capacity to store food as it is day-to-day living. Another member mentioned that a kit does not have to be like a “foreigner’s standard” but it could be unique to the household such as copies of IDs, phone cards, and extra money.

Another issue that was brought up is community health. Following a disaster, it is important to be aware of health concerns such as communicable disease and potable water. One

of the community members is a volunteer at the health station and described some of the ways to protect yourself and your family. I mentioned that American Red Cross health and mental health volunteers are a vital part of recovery. Health workers provide first aid treatment for injuries; monitor the well-being of people staying in shelters, and replace prescription medications and eyeglasses. There are volunteers that also specialize in providing emotional support and helping people to cope after a disaster. It was discussed to create a list of the people in the community that would be able to help in this capacity so they could be easily called upon in times of disaster.

#### Equipment

Knowing what supplies the community has available and creating a list will ensure that the equipment can be utilized in a rapid way and what supplies the community needs. Boats, generators, gasoline, radios, community maps with roads, and other staples to give to those impacted (clothes, food, phone cards) should be noted in an inventory and updated each year. A volunteer team will be established to take inventory of community resources. It was mentioned that on the invitation we could also state that the group is asking for donations to purchase equipment. The discussion of necessary equipment ended Day Two of the workshop, with only some closing comments left to convene the day.

In closing remarks, Mr. Saway said:

*“Japan, has experience with serious Tsunami events. But there is less loss because Japanese have education and studied in schools, villages, and communities.*

*Interestingly, for one event, when it came time for Japanese’s Prime Minister to distribute relief efforts, there was reported to be no need because each state managed itself. After a month, the Prime Minister visited them and remarked on a job well done.*

*In contrast, when Myanmar experiences floods, the water always destroys lots of things and people. Many people died because of no plan and knowledge.”*

From Saway’s speech, the participants saw the stark differences between a prepared country and an unprepared country. The loss of both life and materials are dramatically different. The next workshop day was scheduled to a later time in August due to time restrictions on some of the core member’s schedules and to allow time for the invitations to be sent to the community.

### Day 3- August 21, 2011

There were 55 participators: 48 Tha-Rue-Tay villagers, 3 scholars, 2 Peace Corps volunteers, and 2 sponsors (Mr. Teeraporn and Mrs. Sudkanung, who brought a projector for the activity).

On this day we announced the creation of the center. The day’s objectives were to explain the background of the center to the working group and look into volunteer recruitment. Moreover, the center got more than 40 new volunteers. Mr. Saelim, the chairman and facilitator for the day, shared ideas about the responsibility of the working group and took requests from the community for creation of the center’s volunteer staff positions. The working group outlined the various positions and tasks for each of them in the center. This time, there were many moments that showed cooperation. The Sub-district Authority Organization had some of their budget unused and gave a donation to the group chairman. The rest of the time was spent on working with the community to create lists based on scope. I reiterated to the group that it is important to create a response system that can expand and contract in relation to the disaster as it also changes in size and scope. The preparation lists that were developed in Thai and translated

into English for the individual, community, and outside community can be found in the appendix.

It was determined that in times of disaster, the responsibilities of different positions will be altered and either expanded or contracted. The participants and SAO staff present were able to define the roles and responsibilities of the leadership during times of disaster which may or may not differ from their roles during steady state.

<b>Position</b>	<b>Responsibility</b>
<b>Mayor</b>	Oversee the governmental functions and decision making of the community
<b>Deputy Mayor</b>	Second ranking of local government officials. Assists the mayor and accepts the role in his/her absence.
<b>Deputy Clerk</b>	Assists the local government office in administrative and clerical duties
<b>Community Partners Lead</b>	Coordinates community partners and other organization activities within the village including in-kind or financial assistance
<b>Chief of Police</b>	Top official and coordinator of police staff and emergency personnel
<b>Village Headman</b>	Elected official to represent the village leaders
<b>Village Leader</b>	Representative of the village and the voice between the Sub-district Authority Organization (SAO) and villagers
<b>SAO External Relations</b>	Local government official acts as liaison between SAO and public with media relation/ public affairs
<b>SAO Finance</b>	Local government official overseeing funding, budget, and expenses of programs and emergencies
<b>SAO Public Works</b>	Local government official overseeing operation and access of electricity, water, bridges, roadways and building infrastructure in both present and future scope
<b>SAO Transportation</b>	Local government official coordinating transportation logistics of SAO vehicles, emergency, health station, and villager personal vehicles in times of emergency

On completion of the discussion of roles and responsibilities of the SAO staff, Day Three of the workshop came to a close, with culminating remarks by Ms. Wasin. Ms. Wasin shared her own experience during the flood event and what knowledge she took away from it:

*My house is in a high place at Nakornsawan. Now, when the water flowed into my houses, the height is around a half of my house. I could save nearly all my possessions, so I want to share my experience to you who lived in risk areas including Pathunthani, Nontaburi and other provinces.*

*Because of huge flood, it was higher than we thought. From the flood time in Nakornsawan in 1995, the water in my house was at the step of ladder, while the others had lots of water. This year, flood is higher than other years 10 times. Your province is one of the last areas collected area and once that does the water spreads to yours. This is not for frightening you, but I'm trying to estimate the worst situation which is good for you. I have some suggestions.*

- 1. Don't fight with nature. The sand or block wall is problem because this can't stop flood flowing into house. If the wall isn't high enough, your water pump will be destroyed because of water pressure.*
- 2. Prepare reserved habitat which is in high place like foothill. If you can't find some, you should rent it before catastrophe occur a month.*
- 3. Prepare possessions which you can move immediately. Keep your clothes in big bag (you should buy this before it is out of stock.), move electricity's system, gas, and blanket.*

4. *Move big possession to upper floor. If your house has only one floor, you should predict that flood will be high and cover your roof.*
5. *Think about choosing 10 things to take with you, first thing is you. You should not hesitate to leave something. Don't forget to bring the important documents like census, marriage license, and cards in plastic box.*  
*This is just from my experience; it may be you have more ways to prepare yourself. I wish you and your family will be safe and pass this hard time.*

Ms. Wasin's remarks were well received; several participants expressed that having a takeaway list of practical preparations was very helpful. These people agreed that not only would they take the list home; they would also share it with others. Many workshop participants thanked her for her testimony and recommendations. Many participants also thanked Ms. Wasin for coordinating the event and shared their appreciation for her vested interest in the community.

#### The Follow-Up

An After Action Review (AAR) is usually conducted after planning meetings, exercises, and/or incidents. An AAR is centered on four questions: What was expected to happen? What actually occurred? What went well and why? What can be improved and how? An AAR features an open and honest professional discussion, participation by everyone on the team, a focus on results of an event or project, identification of ways to sustain what was done well, and development of recommendations on ways to overcome obstacles.

Directly after the final August 21, 2011 meeting, the key group leaders met to discuss and review the workshop. Ms. Wipada Wasin facilitated. Ms. Wasin stressed impartiality and the openness of discussion. Most members did not know what to expect, as this was the first time

many of the partner organizations had met. This means that their missions had not been fully recognized and shared by the partners. This would be the opportunity for relationships to form and future projects to immobilize. For those that had experience with emergency management, it was understood that this would be a workshop for sharing common practices and determining a plan best suited for the community based on the resources and capacity at hand. With all the languages and dialects interplaying, it would have seemed there would have been a huge communication issue. For most, we accomplished what was expected to happen which was to create a cohesive plan for the community to prepare and respond in a disaster and function in a self-resilient manner. There were a few members who felt that the workshop could have been extended to five days in order to provide more time to meet with other community partners to determine what their role is both inside and outside of the community.

The first day proved to be productive and built a strong foundation for the planning stage. Meeting with the temple monk, the icebreakers with the Peace Corps volunteers, and hearing witness accounts from the flood, proved to be an emotionally charged day. Bearing witness to those who felt the effects of the flood firsthand was difficult; even those people who didn't lose their homes and possessions felt the ramifications of the flooding on a community level. The second day was less emotionally straining; however, it required time for interpretation. The third day was rewarding, as community members felt included and motivated to see the plan through. The numerous languages proved not to be an issue and a few members pointed out that having so many languages was proof that there are many others outside of the community who care about them.

It was beneficial to have community partners from all different facets sharing knowledge and resources with each other. When asked if everyone felt the objective was met participants



were in unanimous agreement that this was the case. There was not much criticism of the workshop from the Thai nationals except for the time of day chosen. The workshop happened during midday, which tends to be the hottest time of the day for the area. It was suggested for future events that the program take place in the evening. For the Peace Corps volunteers, we felt having a recording of the workshop would have been beneficial as it could help with our language skills and also the community would be able to use it for future reference.

The country of Thailand has a rich history and culture based on communities that are at risk of succumbing to natural disasters. It is important that Thai nationals continue preserving this aspect of their culture, the basis of which is implementing preparedness and response strategies on the local level. By developing these strategies on the local level, the community is empowered to take responsibility for their own needs to address the disasters they may face.

### The Broader Impact

Nearly a century ago an old paddlewheel pilot wrote that no matter how much mind and muscle men might pit against the Mississippi, they “cannot tame that lawless stream, cannot curb it or confine it, cannot say to it, ‘Go here or go there’, and make it obey.” The writer was Mark Twain, and he was correct, up to a point. The Mississippi still floods and it always will. Hydrologists shudder at the thought that most of the river’s countless tributaries might someday come into spate at the same time, causing a super flood with dimensions that would defy calculation. Nevertheless, flood-prevention projects on the Mississippi and its tributaries have had demonstrable effects for the better. There is as much rainfall as ever but catastrophic floods occur far less frequently than before. The Mississippi’s tributary system is a marvel. Its drainage basin covers a total area of about 1.25 million square miles in 31 states and two Canadian provinces. It extends westward to within 500 miles of the Pacific Ocean and eastward to within

225 miles of the Atlantic Ocean. Only the drainage basins of the Amazon and the Congo are larger. More than forty of the Mississippi's tributaries are navigable for large parts of their lengths (Clark).

In January 1969, the National Weather Service's river forecasting center in Kansas City, Missouri, began issuing long-range advisory notices that boded ill for riverside towns in Minnesota and in North and South Dakota. Satellite pictures, backed up by wide-ranging ground patrols, had revealed an ominous flood hazard. Across thousands of square miles of frozen prairie lay a blanket of snow four feet thick. By February the snow's moisture content was extremely high. If there was an early spring and a sudden thaw, the entire region could be inundated. To combat the threat, the U.S. Office of Emergency Preparedness initiated a massive campaign, called Operation Foresight, at federal, state, and local government levels. Flood-fighting experts were sent into the region to help authorities build emergency levees along critical streams. The U.S. Army Corps of Engineers blasted apart ice jams in the rivers to drain off as much water as possible prior to the spring melt. Pumps were provided for such vital facilities as hospitals and police stations. Provisions were stockpiled at critical locations. In early April, just as the river forecasting center feared, the Red River, the Big Sioux, the Minnesota, the Blue Earth and others, 3,700 miles of river in all, came into spate and sent water racing downstream.

Damage was moderate because of Operation Foresight—everywhere except for Minot, North Dakota, a town with a population of 33,000 on the banks of the 435-mile long Mouse River. There had been no serious flooding on the Mouse River or on its tributaries for forty years. This was a consideration for Minot to be excluded from the flood alert and Operation Foresight. On Easter, April 6, 1969, the citizens of Minot had only a few hours' notice before the

Mouse River overflowed its banks and came rushing into town. When this last minute word reached Minot, homeowners hastily pooled their resources and hired a bulldozer to throw up earth dikes around their houses. There were no deaths but the floodwaters wiped out one third of all the homes, 212 stores and offices, fifteen churches and two schools. In 2011, fifty years later, the town of Minot experienced another record flooding event. Using similar techniques learned from the previous years, the small town of Minot was able to lessen the impacts of the flooding events (Clark).

While the engagement of the community and of local authorities is often identified as a critical factor in humanitarian action, it is of particular relevance in flood relief operations. That is because of the long-term nature of many flood impacts and because many of the measures required for effective risk reduction require intervention by the local authorities. In Sri Lanka, for example, a Red Cross community-based health project was very thorough in its approach to working with the local authority and was regarded by local officials as being more sustainable as a result (Bang, Nielsen , & Ravichandran, 2008).

Floods may damage water and sanitation systems or may prevent access to safe water sources. Interruptions to water and sanitation systems are a risk factor for increased levels of communicable disease. The nature of flooding, with water covering the landscape, dictates some of the response activities needed after flooding, which can include protecting water sources from contamination or ensuring post-disaster access to water supplies. This can be done by raising tube wells and boreholes above the flood level. Agencies built raised platforms after the 2012 Pakistan floods to ensure the pumps were above flood levels (Cosgrave, 2014). Most rural areas in Thailand do not have infrastructure in place for plumbing or treatment plant capabilities. The plumbing at local schools, government offices, and health administrations directly leads outside

to a cistern that is rotated on an as needed basis. Internal plumbing in facilities and homes comes from a well; however, the water is not drinkable. As discussed with the group, access to drinking water is not an issue. Village residents, in a majority of rural areas, will have their drinking water delivered in five gallon containers. The working group did not feel that access to drinking water would be an issue but they did include it in their list to have an extra supply on hand for easy access and distribution if community members needed.

There is a natural tension between speed and sustainability in humanitarian response. This is particularly relevant in flooding, due to the sustained nature of the flooding itself, when waterlogging lasts several months, or of the impact of the flooding. Responses need to avoid two traps: delaying action while seeking a perfect solution and committing to action that is later revealed to be unsustainable (Cosgrave, 2014).

Waterlogging may not only temporarily prevent use of a field but also destroy assets. After the Bangladesh floods of 2000, in one surveyed village, “All the jackfruit trees and papaya plants were killed as a result of being waterlogged for more than two months. Besides that, 50% of other homestead tree species like mango, pomegranate, hog palm, guavas are also dead for the same reason” (Meyer, 2001). In the case of southern Thailand, the primary crops of palm trees, rubber trees, and fruit trees are vulnerable to flood waters due to waterlogging over weeks or months mixed with harsh chemical runoff due to trash burning and improper disposal of hazardous materials. This also stresses the importance when considering long-term relief efforts, resources, and budgets.

## CONCLUSION

Floods are seasonal and complex events caused by a range of human vulnerabilities, inappropriate development planning and climate variability. Of all natural hazards, they occur most often and are the most widespread in scope and severity. The pattern of floods across all continents has been changing. Floods have become more frequent, intense and unpredictable for local communities, particularly as the number of people living in areas vulnerable to flooding increases due to poverty and development issues. Floods often have a greater impact in rural areas than urban areas (Bangladesh WASH Cluster, 2007).

Throughout the workshop a preparedness list was developed to help community members individually prepare their homes. Community leaders developed a better line of communication to streamline information intake and dissemination in order to foster better teamwork. They also collected community donations to purchase resources such as radios, emergency food and a boat. As a result of these collaborative efforts during the workshop, the community gained strength in their self-reliance and resiliency for future flood issues, as well as an understanding of a more comprehensive community involved response effort as opposed to individual households dealing with the flood in isolation and without the help and support of their local community. Rural Thailand has a strong value of community and interdependence, and thus these workshop efforts helped to strengthen these values in times of natural disaster response efforts.

When deciding whether to intervene, agencies should consider how long their engagement is likely to last. The impact of a flood can last for a considerable time. Even when a flood is of short duration, such as a storm surge or tsunami, its impact – the consequences of the loss of assets, shelter and livelihoods and the deaths of economically active household members, can endure for many years. This makes floods a significant disruption to the developmental narrative of any group (Cosgrave, 2014).

Rural communities have been able to observe changes in nature more prominently than in other human environments. In some countries these communities are not equally prioritized with more urban environments and thus need to be self-sustaining in their efforts to mitigate natural disasters. Most importantly, these community disaster plans have a need to focus on community infrastructure and access to immediate need relief during times of disaster due to a lack of outside assistance from other sources. As a way to help my host community in rural Thailand, a workshop was created to focus attention on the strengths and weaknesses of the preparation strategies and response plans of the village.

The workshop got participants thinking about disaster mitigation on a local level as opposed to a federal level: how to take care of their own needs instead of needing to wait for aid to come to them from the national government. Other at-risk areas could replicate this workshop to prepare their communities in a populace-specific way, considering specific resources, local geography, and demographics. Before my implementation of the flood preparedness workshop, the people of the village of Tha Rua reacted spontaneously to disasters, using whatever materials were available to them at the time. After the workshop, the participants had produced something tangible with which to provide their community members. There is a guideline for what to do where people have well-defined roles, so as to make the most efficient response effort without duplicating efforts. This includes a special focus on how to assist vulnerable populations.

To determine if the efforts are developing and in the scope of what the community can address, scheduling a follow-up six months later to check-in and see where people are in the group, what their duties are and what they're trying to get done would benefit the working group. They would be able to formulate and hone in on the approach to see if efforts can continue to be achievable and, if not, alter the approach and tasks to be manageable. I would recommend

cultivating and maintaining patience, especially in a culture like Thailand where I was not readily trusted due to my age, nationality and gender. Researching the culture beforehand is beneficial so participants can know what cultural norms to adhere to and ways about engaging in regards to the local values, principles, and beliefs. Showing motivation and positive involvement is one side of the puzzle. The community will also need to show the same attributes. The stakeholders should want it more. Our involvement is just one step in a long process for the community to address these issues; do not let the long term goal (which could happen long after you are gone) cloud the process. The time spent with people is short. In all, we should be mindful of our efforts, and enjoy this teaching and learning opportunity with those around you.

## Bibliography

- Bang, T., Nielsen, C. C., & Ravichandran, J. (2008). *Sri Lanka Red Cross Society community based health projects in Nuwara Eliya and Matale*.
- Bangladesh WASH Cluster. (2007). *Bangladesh Cyclone SIDR: WASH related NFI supply and distributions, SitRep*.
- Clark, C. F.-L. (n.d.).
- Cosgrave, J. (2014). *Responding to Flood Disasters: Learning from previous relief and*. London: ALNAP.
- Eardley, A., & Vincent, P. (2011). *Making the Most of Community Led Planning*.
- Gethin, R. (1998). *Foundations of Buddhism*. Oxford: Oxford University Press.
- Hylton, R. (2013). *Law Enforcement's Role in Responding to Disasters*. Retrieved from FEMA: <http://www.fema.gov/blog/2013-08-12/law-enforcements-role-responding-disasters>
- Jacquelyn, P. (2006). *Comprehensive Disaster Risk Management Framework. Natural Disaster Risk Management Programme*. World Bank Institute.
- Linnerooth-Bayer, J., & Mechler, R. (2007). Disaster Safety Nets for Developing Countries: Extending Public-Private Partnerships. *Environmental Hazards*, 54-61.
- Meyer, J. (2001). *Emergency Food Aid Assistance to Flood-affected People in South-western Bangladesh: Household Livelihood Assessment Report*. Tango International.
- Morrison, T., Conaway, W., & Borden Ph.D., G. (1994). *Kiss, Bow, or Shake Hands*. Avon, MA: Adams Media Corporation.
- Nigg, J. (1982). Communication under Conditions of Uncertainty: Understanding Earthquake Forecasting. *Journal of Communication*, 27-36.
- Peace Corps. (2016). Retrieved from JOHN F. KENNEDY PRESIDENTIAL LIBRARY AND MUSEUM: <https://www.jfklibrary.org/JFK/JFK-in-History/Peace-Corps.aspx>
- PeaceCorps. (2012). *Roles of the Volunteer in Development: Toolkits for Building Capacity*. Peace Corps.
- Pundit, B. (2011, 11 03). "The Thai floods, rain, and water going into the dams – Part 2". Asian Correspondent.
- Shrestha, D. S. (2012). Flood Situation at AIT: Chronology of Events and Lesson Learned. Asian Institute of Technology (AIT), Thailand.
- (2006). *Thailand Country Report*. Department of Disaster Prevention and Mitigation. Ministry of Interior.
- The Founding Moment*. (2016). Retrieved from Peace Corps: [www.peacecorps.gov](http://www.peacecorps.gov)
- World Bank. (2015, April 15). Retrieved from The World Bank: [www.worldbank.org](http://www.worldbank.org)



## Appendix

### Appendix A- Individual Checklist

Short-term/long-term preparedness, response, and recovery plan for the individual<sup>2</sup>

- Put precious and need things in the higher place.
- Look after electrical system.
- Move animals to a safe place.
- Move vehicles.
- Prepare enough food and utensils.
- Take good care of family.
- Prepare some medicine like analgesic.
- Jot down the important organization's number for emergency call.
- Collect important documents and precious things in plastic bag and keep in the safe place.
- Prepare sand bag for preventing from flood.
- Keep chemical substances in a safe place.
- Prepare yourself.
- When listening or watching the bad news, don't be hesitate to move

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<sup>2</sup> Note, the checklists were prepared using the exact translation from Thai to English of the Thai participants contributions.

## Appendix B- Community Checklist

### Short-term/ long-term response and recovery plan for the community

- Need volunteers to help others.
- Take care of the aged and disabled people in a safe place.
- Find necessary utensils and tools
- Improve houses
- Around the houses, have nothing to stop the water flow
- Buy boat for each family/neighborhood
- Listen to the news all the time and believe it.
- Build building for keeping agriculture products and animals.
- Prepare space for keep possession and habitat.
- Volunteers look after the community's safe.
- There is a center which can help villagers
- There are walkie-talkies.
- Learn lesson from the nature. (Whatever will be, will be.)
- There is campaign which be about 'don't leave you rubbish in the river.'
- Volunteers monitor the flood situation 24/7.
- There are working staff in community.

- Village leader
  - Sheriff
  - Village Co-leader
  - Police
  - Health Volunteers
- Establish warning center.
  - Establish community volunteers. There are enough preparing volunteers.
  - Establish migration center for victims.
  - There is warning sign.
  - There is radio station which can spread news.
  - Give the catastrophe knowledge to the villagers.
  - There is fund which can help victims.
  - Train volunteers about catastrophe.
  - Resolve the problem about the way water flow.
  - Prepare tools for first aid in the community ex. walkie-talkies, powerless flashlights, candles, boxes of matches.
  - Establish recovering victim's center in the community.

## Appendix C- Outside of the Community Checklist

Short-term/long-term response and recovery plan for outside the community

- Request help from neighboring communities.
- Request help from local Sub-district Authority Organization (SAO)
- Tell the organization for announcing that that place is catastrophe areas.
- Head of the community contact organizations for immediate help.
- Sub-district administrative organization has vehicle fleet.
- Request financial aid from state and private organizations for establishing a recovering victims' fund.
- There are organizations which can cure both mind state and health.
- There are relevance organization's members.
- Train villagers by state organization to resolve the problem.
- Give the information about problems and the way villagers manage themselves in various levels in local policy.