Collaboration between Hulong Subdistrict Administrative Organization and Hulong Community on Flood Management in Pak Phanang District, Nakhon Si Thammarat Province

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ABSTRACT

Findings are presented from research which studied: 1) collaboration between the Hulong Subdistrict Administration Organization (SAO) and the Hulong community on flood management, based on the disaster management cycle; and 2) factors which contributed to successful collaboration between the Hulong SAO and the Hulong community on flood management. In-depth interviews with 18 flood victims and from a focus group discussion with eight participants consisting of administrators, members of council, and officers of the Hulong SAO were also undertaken using interview forms as the research tool. It was found that the collaboration between the Hulong SAO and the Hulong community over three periods of time consisted of: 1) pre-impact phase: collaboration in terms of preparation for tools, appliances, food, shelter, domestic animals, and disaster warnings; 2) impact phase: collaboration in terms of community management, coordination, and communication; and 3) post-impact phase: collaboration in terms of damage management, aid, and recovery. The nine factors leading to success in collaboration for flood management in Pak Phanang district consisted of: capable administrators, effective communication, capacity building, knowledge development, public relations, public motivation, cultural activities encouraging safety, flood simulation, and improved accountability.

Keywords: collaboration, flood management, Hulong Subdistrict Administration Organization

บทคัดย่อ

บทความนี้มีวัตถุประสงค์เพื่อนำเสนอผลการวิจัยที่เป็นการศึกษาความร่วมมือระหว่างองค์การบริหารส่วนตำบลหูล่องและชุมชนหูล่องในการจัดการน้ำท่วมตามวัฏจักรของการจัดการภัยพิบัติและศึกษาปัจจัยที่ส่งผลต่อความร่วมมือระหว่างองค์การบริหารส่วนตำบลหูล่องและชุมชนหูล่องในการจัดการน้ำท่วม โดยทำการสัมภาษณ์เจาะลึกประชาชนที่ได้รับผลกระทบจากภัยน้ำท่วม จำนวน 18 คน และผู้วิจัยได้ทำการสนทนากลุ่มกับผู้บริหาร สมาชิกสภาข้าราชการองค์การบริหารส่วนตำบลหูล่อง จำนวน 8 คน โดยเครื่องมือที่ใช้ในการวิจัยเป็นแบบสัมภาษณ์ ผลการศึกษาพบว่า ลักษณะความร่วมมือระหว่างองค์การบริหารส่วนตำบลหูล่องและชุมชนหูล่องในการจัดการน้ำท่วม แบ่งเป็น 3 ช่วง คือ 1) ช่วงก่อน

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เกิดภัย มีสภาพความร่วมมือด้านการจัดการอุปกรณ์ เครื่องมือ เครื่องใช้ อาหาร ที่อยู่อาศัย สัตว์เลี้ยง และด้านการเตือนภัย 2) ช่วงขณะเกิดภัยมีสภาพความร่วมมือด้านการจัดการชุมชน การประสานงาน และการสื่อสาร 3) ช่วงหลังเกิดภัยมีสภาพความร่วมมือด้านการจัดการความเสียหาย การช่วยเหลือ และการฟื้นฟู โดยมี 9 ปัจจัยที่ส่งผลต่อความร่วมมือในการจัดการน้ำท่วมในอำเภอปากพนัง คือ ความสามารถของผู้บริหาร การสื่อสารที่มีประสิทธิภาพ การเพิ่มขีดความสามารถ การพัฒนาความรู้ การประชาสัมพันธ์ การสร้างแรงจูงใจแก่ประชาชน การจัดกิจกรรมทางวัฒนธรรมเพื่อส่งเสริมความปลอดภัย การสร้างสถานการณ์จำลองน้ำท่วม และความโปร่งใส

คำสำคัญ: ความร่วมมือ การจัดการน้ำท่วม องค์การบริหารส่วนตำบลหูล่อง

INTRODUCTION

Disasters caused by climate change have been evolving in terms of frequency, severity, timing, and duration. Unfortunately, these disasters have effected severely and negatively on the Hulong community and it is therefore necessary to strengthen community safety, especially from such disasters by encouraging people and stakeholders in the community to collaborate on activities to prevent disasters in order to live safely, to prevent exposure to danger, and to protect properties and benefits (Bates, Kundzewicz, Wu, & Palutikof, 2008).

"Collaboration" is defined as a very positive form of working in association with others for some form of mutual benefit, and some examples of collaborative arrangements are strategic alliance, joint venture, public-private partnership, and co-ordinated service delivery (Huxham, 1993). Bryson and Finn (1995) noted that when groups and organizations embrace collaborative processes they were in essence inventing a new type of organization. The first dimension focused on collaboration as an organizational form. In addition, Metcalfe (1981) drew on the idea of collaboration, whose task was to cope with two interrelated sets of problems—the integration of the parts into the whole, and the integration of the whole with the broader environment. The key point about this definition is that it focuses on the output of collaboration that could not have been achieved except through collaboration. It has relevance for both the self-interest and moral imperative arguments for the value of collaborative action. Thus Mattessich, Murray-Close, and Monsey (2001) identified the factors influencing success in collaboration formed by nonprofit organizations, government agencies, and other organizations, as consisting of environment, membership characteristics, process and structure, communication, purpose, and resources.

The concept of collaboration was mentioned at the Global Platform for Disaster Risk Reduction Year 3 (Invest Today for Safer Tomorrow, Increased Investment in Local Action) by the United Nations International Strategy for Disaster Reduction (UNISDR) in Geneva, Switzerland in 2011 (International Institute for Sustainable Development, 2011). The importance of the concept of collaboration among stakeholders was recognized in the International Conference on Disaster Risk Management held 2–4 December 2003 in Kobe, Japan (Department of Disaster Prevention and Mitigation, 2010). Due to international acknowledgement and recognition of the importance of collaboration in successful management, it is vital that all countries should adjust their strategies on disaster management. The success of disaster management depends on the relationships among stakeholders, and on a fair and transparent set of rules for stakeholder participation (Ashley & Carney, 1999). In addition, Jha, Bloch, and Lamond (2012) recommend that collaboration, experience, and suitable knowledge from the community along with a swift response to the disaster are the most important factors to prepare for disaster prevention and recovery.

Flooding is one of the natural disasters which has a cycle of occurrence requiring constant management based on a disaster management cycle that consists of the pre-impact phase, the impact phase and the post-impact phase (Beachley, 2005). Flooding issues are influenced not only by the physical causes of flooding but by the overall social, economic, and political settings in the area concerned. Furthermore, flood impact assessment is an important and integral part of flood risk assessment and management. In flood management planning, achieving the common goal of sustainable development requires collaboration among the decision-making processes of any number of separate development authorities (Green, Parker, & Tunstall, 2000).

However, in Thailand this management strategy is not effectively implemented when there is a disaster. Hulong subdistrict, Pak Phanang district, Nakhon Si Thammarat province has been determined as a high risk flood area by The Water Crisis Prevention Center, Water Resource Department, Ministry of Natural Resources and Environment of Thailand (Water Crisis Prevention Center, 2012). Despite the fact that many government organizations have roles to play in disaster management and specifically in flood management, there is no main organization tasked with providing information to determine the way to reduce the damage and create collaboration within the community in order to implement important activities to prevent flood disasters (The National Municipal League of Thailand, 2010). The need to consider vulnerability in flood management requires a multidisciplinary approach with close collaboration and coordination among various development ministries, sectors, and institutions at various levels of administration. Thus, if the central Thai government wishes its people to be safe from flood disasters, the relevant organizations directly involved in flood disaster management should be the Local Administrative Organizations (LAO) and local communities because the first groups of people who have to deal with the coming disaster are the local people and the LAO in the affected area, while in addition, they understand best the conditions of the area, the eco-socio conditions, and the people in the communities (Kamonwett, 2011). Furthermore, the LAO is the organization closest to the people (Sharpe, 1981), and therefore its officials are best placed to be able to respond in a timely manner to the people and to best meet their needs (Cheema & Rondinelli, 1983). This approach may require enhancement of the capacity of the LAO and the community to meet the requirements of flood management.

The Hulong Subdistric Administrative Organization (SAO) must clearly outline the procedure for collaboration with the community in the flood beds in order to ensure that people in the community recognize and are aware that flood management is a part of their way of life. If the Hulong SAO can collaborate with the community to cope with the possible crisis or emergency conditions, this could potentially avoid disaster as people will be consciously aware of flood prevention and flood disaster management strategies in order to better cope with possible future disasters. The purpose of this paper was to contribute to the literature by studying the conditions of collaboration and studying the factors influencing the success of collaboration for flood management between the Hulong SAO and the Hulong community in Pak Phanang district, Nakhon Si Thammarat province, Thailand. We explore the recommendations from the participants of this study which argue that collaboration is critical in addressing ongoing challenges in flood management.

Objective

1. To study the collaboration between the Hulong SAO and the Hulong community for flood management based on the disaster management cycle.

2. To study the factors of successful collaboration between the Hulong SAO and the

Hulong community for flood management.

METHODOLOGY

This paper highlighted the results of a qualitative method of research. Data were collected from 18 flood victims in Hulong subdistrict, Pak Panang district, Nakhon Si Thammarat province using in-depth interviews, and from discussion with a focus group which consisted of administrators, members of council, and officers of Hulong SAO. All participants who were invited, agreed to be interviewed and signed an informed consent document prior to the interview. The interviews were conducted in March and April 2013 and each interview lasted between 30 and 60 minutes. Interviews were tape-recorded and transcribed verbatim. Validation of the resulting themes and conclusions was completed through triangulation with the results and conclusions being presented to the interviewees for peer checking. The multiple perspectives from these people helped to ensure that the results were sufficiently comprehensive and provided accurate representations of experience.

RESULTS

The results are shown in three categories, as follows.

Overview of the Hulong community

One interviewee described the area: "Hulong was formerly called Bangtuad. It is the only area where people do local fishing using the local fishing tool called 'Pongpang' (set bag nets). Therefore, local people call this area Hulong. Hulong subdistrict consists of seven villages. The landscape is flat and the Pak Phanang River flows through the area. Therefore, this area is suitable for growing rice" [QL01]. "This community covers 24 square kilometers. Most people work in the agricultural sector involving wet season rice, dry season rice, joint plantation, perennial plants, and part-time fishing. There are also community activities such as a savings group and a local dessert-making group" [QL02].

Another interviewee explained, "even though the Pak Phanang River provides economic growth and is the commercial center and is related to the way of life of the Hulong people, it causes increasingly severe flooding [QL03]. The water level is higher and flooding has increased every year, causing flooding problems for people who live along the Pak Phanang River and those who live on the lowlands [QL07]. Flooding was considered as an extremely large scale disaster to life and property. Subsequently, there is gradual flooding in Hulong communities especially between October and January every year" [QL12]. This causes a long period of waterlogging; for example, in 1973, 1975, 1988, 1996, 1999, 2000, 2005, 2008, 2009, 2010 and in the beginning of 2011 [QL09]. The annual flood in the Hulong community causes a lot of damage to the lives and property of the people. [QL11]

Collaboration on flood management

Collaboration between the Hulong SAO and the Hulong community on flood management based on the disaster management cycle consisted of the pre-impact phase, the impact phase, and the post-impact phase are outlined below.

Pre-impact phase

The Hulong SAO prepares for the flood disaster by summoning the people and warning them about many matters such as household preparation, storage of belongings, supply and preparation of basic necessities—food, water, and medication [QL04]. The members of council collaborate with the volunteer civil defense members to prepare the areas for evacuation, to inspect and to repair buildings for use as flood shelters, to inventory flood prevention tools such as sandbags, and to inspect river banks. They will then report this information to the Hulong SAO and also organize

emergency contact details such as phone numbers of the relevant organizations, and periodically inform people about the flood conditions through the local radio. The local people are encouraged to listen to the radio or to watch the government news on television in order to be prepared and to be ready to cope with any impending flood disasters. Furthermore, this process allows the people to revise their ancestors' local wisdom and to better understand future flood phenomena [QL10]. Villagers living near the highway build wooden bridges to connect to the road. In yards, grass is mown, branches trimmed and weeds in canals are removed to avoid debris blocking the water way [QL05].

Impact phase

When it rains heavily, water from the Pak Phanang River overflows and boats become the main form of transport for the Hulong community [QL18]. The members of the Hulong SAO from each community together with the village chiefs are the leaders in the flood management activity during this period. They collaborate with the Hulong SAO or call for help from provincial organizations which are ready to assist them. The Huong SAO focuses on assisting people who are not able to take care of themselves very well, especially the elderly, children, and sick people [QL16]. Another interviewee indicated that when floods reach emergency or crisis conditions, the Hulong SAO will evacuate people and domestic animals to areas they have prepared as shelters. Domestic animals will be assembled together in a large stable. The people will be divided into two groups. One group is responsible for keeping an eye on the animals and the other is responsible for finding grass. The Hulong SAO supplies food to the affected villagers throughout the flood period. However this support is terminated after the flood waters have receded, flood damage has been repaired, and the villagers are able to safely return to their homes [QL14]. In addition, flags are used as warning symbols. Red flags indicate high risk and dangerous areas as well as damaged roads. This symbol and signs will alert people not to go to such areas [QL17].

Post- impact phase

The Hulong SAO manages aid in the form of donations so that the money is used effectively; for example, money collected is used to help flood victims to source food during the flood period and for repairing damage [QL13]. The Hulong SAO has the responsibility of managing the safety of people who have been victims of flooding to help them adjust to ways of learning, thinking, and implementing principles and their way of life to the changed conditions [QL06]. The people can complement their ancestors' local wisdom with modern strategies to prevent future flood disasters and to create effective collaboration between themselves and the SAO, in order to confront and cope with future floods [QL15].

Factors in successful collaboration on flood management between Hulong SAO and Hulong community

This study implemented a focus group discussion methodology with eight administrators, members of council, and officers of the Hulong SAO on 5 April 2013. It focused on the factors for successful collaboration between the Hulong SAO and the Hulong community on flood management. The results of data analysis are shown in Table 1.

DISCUSSION

This study found that collaboration and the factors contributing to successful collaboration between the Hulong SAO and the Hulong communities on flood management can be voluntarily developed by accumulating knowledge and passing on experiences and lessons learned. Training for the implementation of preventing and coping with dangerous conditions during the three stages of the disaster management cycle (pre-impact phase, impact phase and post-impact) will help the affected villagers cope more effectively during a

disaster. Training would help the villagers cope with and be prepared for flood disasters; collaboration can be voluntarily developed by the LAO and the local people. According to the communities engaged in flood risk management in Jakarta, flood mitigation and preparedness measures were implemented to raise the community's understanding and awareness on the physical and social implications of floods, and strengthen people's capacity to cope with floods. To ensure the success of any initiative, and to maintain continuity of the project, local organizations were actively involved in all processes, and carried out the various project activities, which included: a collaborative assessment study, public education and training, and capacity building for community organizations (The United Nations Educational Scientific & Cultural Organization [UNESCO], 2004). Furthermore, this

Table 1 Factors of successful collaboration on flood management between Hulong SAO and Hulong community

Factor	Method
Capable administrators	Policies, vision, and mission to create collaboration among people in the communities.
	Allocation of resources to respond to requests and suggestions for creating collaboration among people in the communities.
Effective communications	Declaration of policies, plans, and guidelines for flood management.
	Public relations through local radio towers, leaflets, posters, information bulletins in each village to inform people about flood conditions.
Capacity building	Knowledge and skills of personnel to create new attitudes and adjust the behavior of people to be able to seek knowledge, learn, and control themselves until they have clear behavior in terms of collaboration.
	Preparation of materials, appliances, tools, and utensils to prevent flood pre-impact and impact, including the ability to recover to former or better conditions post-impact.
Knowledge development	Providing knowledge, passing on experiences, instilling values, local wisdom, and constant training for collaboration.
	Determining the desired guidelines of collaboration from Hulong SAO.
Public relations	Slogans emphasizing the importance of collaboration.
	Warning notices about the guidelines during the flood crisis.
Motivation for people	Praising people who are collaborating and using the local wisdom as a guideline to be safe in a flood crisis.
	Rewarding to encourage creating collaboration between people in the communities.
Cultural activities encouraging safety	Safety-based cultural activities during flooding through the collaboration of people.
	Frequent revision of local wisdom and guidelines on a safety-based culture.
Flood simulation	Simulations of flooding to encourage collaboration.
	Practice on the guidelines during the crisis or flood.
Improved accountability	Understanding that creating collaboration is everyone's responsibility.
	Intention of performing and setting an example for creating collaboration.

was related to 20 factors influencing the success of collaboration (Mattessich et al., 2001) and to the "seven Cs" of strategic collaboration (Austin, 2000).

CONCLUSION

The higher priority according to disaster risk management in international discussion mandates it assimilation in much closer development collaboration. The issue should be mainstreamed in national and local development strategies and policies through specific measures and activities. A significant number of local administrative organizations have passed regulations that require collaboration in the decision-making process, and flood management requires the collaboration of all stakeholders including civil society and the communities that are directly affected. When collaboration has been developed to its highest capacity, actions and behaviors will become natural and voluntary to the people in the community in times of flood disasters. To enable people to be aware of and to act responsibly with regard to the dangers which can affect their safety, they must have knowledge, understanding, and recognition of the importance of good safety practices as well as understanding the consequences from a lack of such measures.

Procedures to help develop an understanding require local administrative organizations to provide knowledge and training sessions by an expert or experienced person responsible for managing the process. Activities at the pre-impact phase include registering past disasters and major natural events; precise studies, including specific geological and climatic hazards and their causes; participatory preparation and updating of hazard maps and vulnerability profiles; and participatory drafting of emergency plans. Managing at the impact phase requires setting up and operating communications systems; delivery of technical equipment; conducting risk assessments; demarcating roles; and improving collaboration amongst individual actors. Managing at the post-impact phase requires flood proofing construction methods; development schemes; shelters; raising awareness in the population living in risk areas of the hazards and vulnerabilities; and promoting the opportunities for flood risk management. If this paradigm of collaboration is regularly implemented, the villagers will develop safety consciousness automatically. Consequently, flood management seeks to attain a mutually beneficial collaboration between the interests of local administrative organizations to promote community prosperity and to improve the people's well-being through the best possible use of local resources.

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