

Subsubjectivity and Response Behaviors of Flood-affected People during the 2011 Mega Flood Crisis

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The study explored the subjectivity of flood-affected people and behavioral response to the 2011 mega flood crisis in Thailand. The study used a qualitative approach, conducted with ten flood-affected people in a community located in Phra Nakhon Si Ayutthaya Province of Thailand. Data was collected through in-depth interviews, observations, and documentary review and examined by content analysis. The results of content analysis revealed subjectivity reflected in the feelings and actions of flood-affected people. These participants originally perceived flooding as a natural phenomenon and believed it to be normative. Subjectivity was influenced by local knowledge based on prior flood experiences, which were significant factors for response behavior during the flood crisis. Flood-affected people assumed the flood situation was controlled and prepared to live with flooding by buying food, constructing levees, and moving belongings within their home, but the flood situation became uncontrollable; the situation was beyond their expectations and generated subjectivity that this was a man-made phenomenon related to poor water management and environmental degradation. Coping behaviors related to seeking shelter depended on proximity and the social networks of individuals. Recommendations for future flood response include collective behavior rather than individual response and integration of local knowledge in standard warning systems. The recommendations generated by this study were derived from subjectivity and behavioral response, which rely on social contexts. It was suggested that local knowledge should be integrated for disaster management with advanced local management, like monitoring systems, and aid social network systems.

Keywords: subjectivity, behavior, prior experiences, flood-affected people, mega flood crisis

Intense disasters occur throughout the world, Asia experiences the highest mortality rate from disasters. Flooding is the most common global natural disaster, which accounted for over 3,000 disasters since 1900 (Centre for Research on Epidemiology of Disaster, 2010), and tends to increase in frequency and intensity.

Flooding occurs in Thailand annually and is considered the highest risk factor of disaster (Shook, 1997). Rains during July 2011 to December 2011 produced a mega flood which caused huge damages and affected three quarters of the country. The World Bank estimated the value of loss was THB 1.4 trillion and directly impacted 13 million people (World Bank, 2012), including almost 800,000 people in Phra Nakhon Si Ayutthaya Province (Theerapuncharoen, 2011). This research explored subjectivity and response behaviors of the flood-affected people in Phra Nakhon Si Ayutthaya Province, to determine influencing factors of response behaviors.

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The concepts of study

The study uses the subjectivity concept for eliciting the inner life and action behavior of flood-affected people. The concept of subjectivity studies modes of perception, emotion, thought, desire, and fear, all of which animate acting subjects (Ortner, 2006). Kleinman and Fitz-Henry (2007) reviewed the concept of subjectivity since the 12th century; originally, a 'subject' was one who under political power. In the 19th century, subjectivity referred to an

essential individuality; the consciousness that one perceives and emphasizes on the human mind or experience includes feelings, thoughts, concerns, and perceptions. The current understanding of subjectivity involves inner life processes. The study of subjectivity explores the inner complexity that reflects experiences of everyday life.

Anthropology examines subjectivity and the behaviors of individual actors, including groups within the events surrounding a disaster. The anthropology of disaster response has focused on experienced changes occurring within cultural institutions, religion, ritual, economic organizations, and politics. Moreover, it especially concerns the ability of individual and local institutions to mitigate the impact of a disaster, and the differential capabilities of response due to ethnicity, gender, age, and socioeconomic status (Oliver-Smith, 1996). Research has also focused on how vulnerable populations vary in their responses to crisis and the provision of aid, in particular the social network, gender, beliefs, and socio-cultural contexts that influence different coping mechanisms and capabilities (Gaillard, 2007).

Biehl (2007) used the narrative method to elicit illness experienced by Brazilian marginalized people. The lived story, produced by the narrative method, manifests the counter reactions of medical sciences, social life, and the subjective process. Good, Subandi, and Good (2007) conducted ethnographic research in Indonesia. They analyzed the meaning of the dominating powers that influence illness experiences. The story presents the texture of the world that reflects the subjectivity of those suffering from mental illness in Java as well as the ideology of religion that is embodied in the subjectivity of everyday life. Scheper-Hughes (2007) used ethnographic methods to compare subjectivity of black and white people during political violence in South Africa. They expressed their painful experiences and asked the question, "Why me?" On the other hand, the anthropologist asked the question "Why did suffering happen?" and to tried to link suffering to social contexts.

In conclusion, the studies found common ground in subjectivities and behavior response. Subjectivity is constructed from meaning and interpretations; it relates to structure that reflects contextual position and behavioral response. Therefore, the construction of meaning in relation to disaster response is complex and dependent on socio-cultural contexts.

Literature review

Disaster research can be conducted during the prevention and preparation phase, as well as during and after the particular event (Garcia-Acosta, 2002). Most studies have used quantitative methods to explain and predict factors related to disaster and investigate adaptation behavior of affected people and other variables. Qualitative studies were started by anthropologists, who have been studying disasters since World War II (Oliver-Smith, 1996). The first approach focuses on response behavior that stresses the conduct of individuals and

groups with social and cultural factors including gender, age, and ethnicity; all these factors influence disaster impacts. The second approach emphasizes social and cultural change that affected disasters occurrences and response. Anthropological studies have demonstrated resilience and adaptation to hazards. The third approach focuses on interactions between humans and the environment. The 20th century approaches to disasters moved from the individual to the underlying structure which includes physical, economic, political, social, and cultural factors.

The anthropological perspective has been used to study many disasters. Many concepts are applied to their study such as political ecology, vulnerability, and interpretation. Dyer and McGoodwin (1999) used observation and interviews to study the flood-affected people from Hurricane Andrew. The response 'Tell that we're hurting' reflects the negligence of local government. Minority ethnic groups were ignored; assistance was delayed because they were poor. Therefore, adaptation depends on power relations, which in this case are unequal. Zaman (1999) stated that social and economic vulnerability determines coping capacity. Kinship plays an important role in disaster management but policy rarely considers this.

There are both quantitative and qualitative studies of disasters in Thailand. Quantitative research has proposed structural solutions that emphasize a physical approach such as a drainage system for reducing flood levels (Mano, 2007), and raising the street level. Non-structural solutions emphasize empowering communities through knowledge (Kamolvech, 2011). Lohapaiboonkul (2007) used qualitative research to present flood impacts and suffering as well as flood assistance in Chainath Province.

Several articles have considered disaster management in Thailand. Arunothai and Kortsriphet (2011) discussed experiences and structural inequality in flood management. Chanthawong (2005) stated the uncertainty of receiving precipitation leads to water storage for potential drought conditions. After intense rains come, water must be drained from reservoirs, so Kampangeth Province experienced severe flooding in 2003. Wungeao (2006) presented disaster management policy that emphasizes integration of systemic processes.

It was determined from the literature review that there are few studies on flood disasters. Qualitative studies of flooding that consider the subjectivity of flood-affected people are even fewer in number. Therefore, this paper presents subjectivity and behavior in response to flooding, in order to reflect the gap of flood assistance. The study addresses social contexts and local knowledge that are key elements for flood disaster management.

Methodology

This study implemented a qualitative method that was an appropriate approach to obtain a comprehensive understanding of flood-affected people's subjectivity and behavior response to the mega flood crisis. The qualitative approach contributes by conveying voices from the community (Batniji, Ommenren, & Saraceno, 2006). The research was conducted in a small community located in Phra Nakhon Si Ayutthaya Province in Thailand.

The researcher used purposive sampling. The selection criteria were based on the feasibility of doing the study, dependent on informative and active respondents (Cresswell, 1998). More respondents were obtained using a snowball technique that relied on peer social networks. The research studied a total of ten respondents, which was a sufficiently diverse

and adequate sample for achieving all goals of important data collection. The respondents consisted of seven females and three males, aged 30- 67 years. Respondents had different socio-economic status depending on their job. There were three market vendors, three laborers, two unemployed, one agriculturalist, and one housewife.

In order to ensure diversity of information, several data collection methods were used, such as documentary reviews, observations, and interviewing for methodological triangulation. The researcher used focus group discussions and key informant interviews for the data triangulation. The researcher listened to the respondents' flood experiences, evaluated the responses, and presented more questions until the data reached a saturation point or it was obvious the information being gathered was redundant. All data was categorized and then analyzed. The duration of data collection was nine months, from October 2011 to June 2012, starting from the beginning phase until the recovery phase of the mega floods.

Results

The subjectivity of flood-affected people

The given meaning and interpretation of the flood phenomenon is important to reflect the logic of thinking, experiences, and behaviors of flood arrangement. Floods are perceived as a common natural phenomenon that relate to prior experiences. Before flooding comes to the community, people feel at ease because they have faced flood waters almost every year. Floods are a part of their lives and because of this they are able to stay at home and conduct normative behaviors and routine activities at the time of flooding.

"I used to live with flood. It was here short period. I could stay at home. The factory was dry, people could work. This time was different." (41-year-old woman, market vendor)

"I have been lived with the normal flood in rainy season. It was normal event in my life. I called "Na Nam" which means to seasonally flood. I stayed at home. This year it was not the same. I never thought that I would have got flood." (52-year-old woman, labor)

"I felt nothing. When I was young, it was flood but I still continue my daily life. I could find fish and vegetable in water. I was not fear of flood. This year, many people told me to leave but I did not pay attention. I usually stress every day. Flood did not make me more stressful. I adjusted my life and way of thinking." (63-year-old woman, unemployed)

"Water had come seasonally in Chainath. Villagers could live with flood. It was controllable. I was not worry about flood. I concerned on my work. When Industrial Park collapsed, I moved." (48-year-old man, unemployed)

Most of native villagers were careless because they thought that the flood was the same scenario as their previous experiences. Because they expected the same conditions as previous floods such as the flooding in 1995, so they felt ignorant to the current flood circumstances. They did not prepare themselves for the excessive water experienced during the mega flood. Most of them underestimated the flood situation and did not prepare themselves properly. The accumulated knowledge of past experiences was inadequate to handle this flood circumstance.

“I grew up within water surrounding but I never ever seen terribly flood. Flood had come early July. Normally it came in September. Moreover, the water flew was speedy. The level of water rises up 5 centimeters per hours. Water came from Rojana industrial park; it came in the late morning. Water level was still until 6 p.m. in the evening. Then, water level was high and high. It was increased very fast.” (41-year-old woman, market vendor)

“It was more than I expected. In the past time, flood was normal situation. This time it was more than I expected. I was too old person I just have met this situation. I saw flood situation from television. I thought that flooded people were poor. I felt empathy. At that time, I never thought that my place would get flooded. I could not move out for my stuff. It was chaotic time.” (51-year-old woman, market vendor)

Flood-affected people experienced massive flood, they perceived to flood as “*Nam Kern*”. It reflects meaning of itself that refer to inadequate internal resources. They are incapable to cope with flood. They face with unexpectedly flood process; moreover, their daily life is changed rapidly. Most of them are not prepare themselves for such chaotic event.

“I never ever thought that it was like this. I expected water level only knee level but it was higher. I almost did not believe that it was flood. If I had known flood like this I would have kept my things better than I did.” (67-year-old woman, market vendor)

“I thought that flood would be only one month. I never thought that it happened for 2 months long.” (46- year-old man, labor)

They interpreted the excessive flood as being man-made. They had not seen any heavy rain and questioned where the water came from?” They believed that humans were part of the cause because of: 1) poor water management, 2) temporary flood protection, 3) restoring and releasing of water and 4) destruction of the environment.

“I thought that the 2011 flood was not from the rain but it was bad management. They constructed the levee badly. The flood was different from the flood in 1996. The flood came slowly. This year, it was sudden.” (51-year-old woman, market vendor)

In this respect, it was beyond their knowledge and capability to deal with a massive flood. Most of them were worried and had anxiety about the flood crisis as well as having to deal with daily life stressors. They were worried about their properties, their job, their income, and the feeling of uncertainty about the future.

“The flood destroyed everything I had accumulated my whole life. I was worried and stressed. My life was changed. If I get a new job, I might not get the same salary. I planned to support my son while he studied for a bachelor’s degree. I planned to retire at the age 55. Because of the flood I was laid off. Everything is uncertain. I used to work but now I have no job. I was worried about income and expenses. I had to have money for my son. I thought that employment was important. If there was no employment, it continually affected everything. I couldn’t afford the family expense without income.” (48-year-old man, unemployed)

“I was unable to settle things in my life. I was too old to start a new life.” (40-year-old man, agriculturalist)

People in communities face collective suffering from losses such as destruction of accommodation, collapse of community relations, and destruction of infrastructure. Their subjectivities reflected suffering in multiple forms. They also faced invisible suffering with feeling of uncertainty, decreased income and loss. Moreover, debt and loans cause poor people to experience difficulties and face financial suffering.

Pattern of response behavior and related factors

This study found that most of the respondents did not expect such a massive flood because flooding is the natural seasonal phenomenon. This resulted in most respondents exhibiting normative behavior. Moreover, the response behavior to flood damages depended on the prior flood experiences. There was massive flooding that occurred in the year 1995 in Phra Nakhon Si Ayutthaya Province. The 1995 flood experience became the accumulated knowledge that embedded in everyday life. However, the flood situation is transformed inevitably; floods are increasing and becoming more devastating so the local knowledge is inadequate. It is not enough to handle a flood crisis.

“Several people had talked, they said flood would come. I did not believe. I thought that if flood had come, it might be the same. I did not keep my things.” (67-year-old woman, market vendor)

“When flood had come, I could not move out anything. I kept all my stuff to the higher level. I could not transfer to other places because the road got flooded already.” (51-year-old woman, market vendor)

Based on prior experiences, they were able to live with flooding by preparing themselves in several ways. First, they have bought and stockpiled food, gas, and all essential items for survival. Second, they construct small sandbag levees, expecting water to accumulate no more than one foot or knee level. Third, they keep all personal belonging inside houses in order to avoid water damage. This study also found the ability to prepare is based on economical resources and social resources. Some of the respondents do not have much money to buy food because they have gained insufficient income. People who have a small social network and low economic status are more vulnerable to flooding because of the limited resources.

“I thought that I could stay at home. I bought things from market. I bought meat, eggs, rice, fish sauce etc. However, I could buy fewer amounts because the limitation of the budget”. (45-year-old woman, housewife)

“I kept my gear in the higher place. I did not move anything out because I had no car. I lived in the low-lying land. Even if I kept in the high place but my gear were sunk into the water.” (33-year-old woman, labor)

Villagers wished they could have stayed at home. They had prepared themselves and lived the flooding until they were unable. They hardly moved to the shelters though they were facing increasing rising flood water. There are two points of concern for moving.

First, the closet distance was preferable for going back and forth. Some chose to stay on the side road which made it easy to come back home.

“We moved out to the side road. I hugged my daughter and cried. I brought only cloths and blanket in small plastic bag. I felt like a homeless. I floated back and forth. Why I had to face such vicious situation, how unfortunately I was. Well! I was not the only one who fate this bad luck” (52-year-old woman, labor)

Second, social networks play an important role for moving out. Relatives would persuade families to stay together in their accommodations. Public places, such as temples, are used as shelters because they embody the Thai way of life, which focuses on close relationships.

Discussion

This qualitative study aimed to understand the issue of how flood-affected people in Phra Nakhon Si Ayutthaya Province lived with the mega flood. First, the paper presents subjectivity that includes feelings, emotions, and actions related to prior experiences. Second, the response behavior related to past flood experiences and economic factors. Lastly, coping behaviors depend on the proximity of social networks.

Subjectivity that includes feeling, emotion, and action of flood-affected people are different, which are dependent on the flood situation and prior experiences. The beginning flood made people feel at ease because, they thought it would be similar to the past flood experiences. They have faced seasonal flooding called ‘Na Nam’ that illustrates the normative thinking about flood. They compared the mega flood situation to their prior flood experiences and did not evacuate until the flood had arrived. The knowing subject shows thought and agency (Ortner, 2006). However, the mega flood water was called ‘Nam Kern’. Flood-affected people thought that the mega flood was caused by poor flood management procedures, inappropriate levee construction, and environment degradation. All these lead to the uncontrolled flood situation that changed the communities’ feeling, emotion, actions, and generated new subjectivity and meaning. New problems were faced, new needs arose, and everyday life failed to meet the new situation. Subjectivity was changed that depend on flood situation and its contexts.

The prior flood experiences related to response behavior. The prior experience is accumulated knowledge for coping with flood, so they did not worry about the flood at all. They prepared for living with flood by reflecting on their past experiences which was the same as previous studies (Wisitwong & McMillan, 2010). Moreover, this study has found the new meaning of floodwater. It reflects on a belief system and its influence on different pattern behaviors. Flood-affected people have faced normal floodwater and encode floodwater as ‘Na Nam’, meaning seasonal flood. They are able to remain home and maintain a relatively normal life. Following the mega flood, they have recoded ‘Na Nam’ to ‘Nam Kern’, which means excessive floodwater or abnormal flood. They were forced to leave their homes and be surrounded by massive floodwater. This showed the modification of flood meaning that related to behaviors that anthropologists emphasized (Oliver-Smith, 1996). Flood-affected people perceived 2011 flood as a man-made disaster.

Living closely to relative is significant factor. This study showed the uniqueness of Thai culture. Thai people are likely to be at home, or stay close to home. Zaman (1999) illustrated the kinship play an important role for disaster relief in Bangladesh which is a similar coping behavior in this study.

Beyond the past experience and social network, this study found that socioeconomic status also showed a significant role for flood affected-behavior. The preparation for living with flood and moving processes was dependent because of economical reasons; some of them did not move immediately because of their job and earnings. Economic forces play an important role in acting response behavior of flood-affected people, which Ortner (2006) and Kleinman and Fitz-Henry (2007) mention that subjectivity is reshaped by economic and others forces; moreover, the response behavior also are related to socioeconomic status (Oliver-Smith, 1996, Gaillard, 2007).

In conclusion, the study shows that prior experience is a significant factor in response behavior, but economic factors, kinship, and the Thai life style also play an important role. Everyone must take responsibility to disaster vulnerability through a collective behavior response not individual response.

Recommendations and limitations of the research

The vulnerable people must be well equipped and be aware of the potential of flood disasters. Local knowledge should be integrated with advanced local management, like monitoring systems, and aid social network systems.

Limitations of the study were time and resource constraints. In order to understand lived experiences and management of disaster affected people, disaster life cycle (preparedness, response, recovery and mitigation phase) should be studied. This research was conducted in the response and recovery phase. Further research should be undertaken in the preparedness and mitigation phases.

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