

Abstract

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Project Title : Disaster Preparedness in Thailand: Examining Risk Perception and Preparedness Behavior among Thai Local Governments, Business Organizations and Households

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The objective of this research projects was to examine disaster preparedness among Thai local governments, business organizations and households. Since 2004, disasters have continued their ways to pose a threat to the well-being of Thai people, especially flooding in 2011. In fact, a series of floods that occurred in the year 2011 was considered Thailand's most destructive disaster in terms of number people affected and economic damage. With the effect of climate change, it has been speculated that climate-related disasters such as flood, storm and extreme weather events will be more frequent, server and more difficult to predict. To be able to respond effectively to and recover quickly from such disasters, we all need to be prepared. Thus, this research examined strategies and the extent to which local governments, businesses and households have been prepared for the flood disasters that might occur in the future. To accomplish this research objective, both qualitative and quantitative research methods were employed. Qualitative data were collected using a series of in-depth interviews with 52 key informants from local governments and businesses in seven provinces across the four regions of Thailand. Quantitative data were collected through survey questionnaires that distributed to 367 local governments, 280 business organizations and 1,594 households across Thailand. Qualitative data were analyzed using grounded theory approach and quantitative data were analyzed employing descriptive statistics and multiple regression analysis.

Results revealed that local governments in Thailand seemed to prefer to choose structural mitigation strategies than non-structural measures. This indicates that, in case of a heavy rain, these cities might be able to reduce the impact of flooding only up to a point of flood protection capacity of these structures. However, if the floodwater exceeds the capacity of these structural protection systems, losses can be huge as people's dwelling, property and buildings are still located in those flood prone areas. In terms of preparedness, research showed that, most of local governments in Thailand chose to implement all typical preparedness strategies, except for developing business continuity plan and practicing business continuity management. This suggests that, if a flooding occurred, local governments might be able to perform warning, evacuation, sheltering, search & rescue and mass care operations effectively. However, their ability to continue doing their normal jobs in providing governmental services to the citizens would be uncertain as most of them did not manage to plan for continuity of operations and practice business continuity management.

In the private/business sectors, research showed that, Thai companies located in the 7 flood prone industrial estates had done a variety of preparedness activities. This could help ensure their response ability in performing the tasks of warning and evacuating the employees and protecting the five key resources of the companies. However, their ability to reduce or mitigate the impact of flood disaster was quite minimal as most of them did not implement any structural mitigation which was important in helping the company to minimize flood impact. In addition, as most of them reported that they did not have business continuity management systems (BCMS), their long-term ability to produce and deliver goods and services to clients could be problematic.

At the household level, findings suggest that Thai households tend to choose basic, low-cost and self-managed activities such as storing food and basic medical supplies and tracking weather information through multiple sources as their first choices. Choices that require higher budget, extra effort and rely on other organizations will be, however, less likely chosen. As a result, if flooding occurred in the future, Thai households would be able to provide mass care and first aids by themselves in a short period. However, if flooding prolonged, their daily life activities could be problematic as they had not planned for transportation, had no information about evacuation and shelters, and had no extra money to spend on emergency needs during the flood. By only choosing the basic, self-managed, and low-cost preparedness activities, their ability to repair or rebuild their premises as well as their occupational recovery ability would be limited as well.

Regarding flood risk perception, research suggests that the three most influential factors affecting the way Thai households perceive the flood risk are the weather or flood information tracking behavior, flood experience and the impact of previous floods on household's property and asset, respectively. In terms of preparedness intention, findings indicate that the intention to prepare for flooding of Thai households depends on several factors. The factors that seem to have the most influence on their preparedness intention, however, are environmental cue, flood risk perception and the level of weather and flood information tracking. This suggests that the decision of Thai households to take preparedness actions depends heavily on the level of flood risk they perceive, the information they receive and the interpretation of the environmental conditions they are observing.

Finally, to gain deeper insight, it is recommended that, future research should examine the factors that enhance disaster risk reduction implementation progress, explore the successful cases of disaster preparedness in business organizations to gain best practices or lessons learned and examine the relational mechanism that explains how disaster risk perception affects intention to prepare for disaster.

Keywords: Emergency Management, Disaster Preparedness, Disaster Risk Perception, Community Resilience, Flood