



PUBLIC AWARENESS AND PREPAREDNESS ON LOCAL INSTITUTIONS COPING STRATEGIES TOWARDS NATURAL DISASTER MANAGEMENT

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Abstract

Recent years, Malaysia had experienced natural disasters such as landslides and flood. Lack of emergency management when dealing with natural disaster will exacerbate the problem and lead to financial, structural and even human losses. This study intends to examine the impact of coping strategies by local institutions on public awareness and preparedness towards natural disaster management. This research involved an exploratory phase and a detailed reflective phase which covered the Klang Valley. In this study, about 1500 copies of self-administered questionnaires were distributed to the respondents. Questionnaires were collected once the respondents completed the survey. During the reflective phase, in-depth interviews were conducted to measure the level of awareness and preparedness towards natural disaster management of communities. The local residents and residence association representatives were the targeted respondents for the in-depth interviews. The findings of this study are the coping strategies used by local authorities are unsustainable and had not constructed permanent solution in overcoming the growing negative effects of hazards. This research will help promote a safe and secure urban society in Malaysia through a better understanding of the proactive disaster management activities and the significant role of local institutions.

Research Highlights

As evidenced in the literature and expert interviews as well as the survey, the following findings has been highlighted:

1. Strategies used by local authorities to cope with the rising negative effects of hazards are unsustainable and not able created a permanent solution.
2. Local governments in Malaysia has limited authority and unable to take effective initiative with respect to disaster risk management.
3. Local governments also lack adequate information about their communities ' disaster threats and vulnerabilities as well as appropriate measures for disaster risk reduction. Therefore, it is rather impossible for local authorities to initiate a disaster resilient built environment within the city.

Research Objectives

Based on the problem statement and past literatures, the objective of this research is to examine the impact of coping strategies by local institutions on public awareness and preparedness towards natural disaster management. Thus this study aims to gain understanding on the role of local councils, effectiveness of early warning and communication systems during disaster and local government participation in disaster-related matters. Generally, objective of this research





to ensure that the local institutions able to meet the evolving needs of the citizen during natural disaster as the nation strives toward promoting a knowledgeable society.

Methodology

This research involved an exploratory phase and a detailed reflective phase which covered the Klang Valley with the aim to investigate the impact of coping strategies by local institution which influence awareness and preparedness among the local communities towards natural disasters. During the reflective phase, in-depth interviews were conducted to measure the level of awareness and preparedness towards natural disaster management of communities. The local residents and residence association representatives were the targeted respondents for the in-depth interviews. In this study, about 1500 copies of self-administered questionnaires were distributed to the respondents. Questionnaires were collected once the respondents completed the survey. In-depth interviews were conducted after making appointment with the respondents. A total of 13 local residents and resident representatives were interviewed to obtain their perception of the level of awareness and preparedness towards the issue of natural disasters in the Klang Valley.

The second phase was a questionnaire survey to better understand or build a more comprehensive understanding of the research issue through separate yet complementary data. The respondents for the survey questionnaire were aged between 13 to 65 years old and were selected from various parts of Klang Valley. The reason this study was focused in Klang Valley is because, out of 30.7 million of total population in Malaysia, 25.8% are located at Klang Valley which stands the highest percentage of populations (www.dosm.gov.my). In this study, convenience sampling has been utilized as it is easier to recruit respondents to answer and return back the distributed questionnaires effectively and efficiently. With convenience sampling, large amount of completed questionnaires can be collected (Sedgwick, 2013) and more in-depth interviews could take place. Based on Collis and Hussey (2013), it is noted that a good research required a larger sample size.

Results

There was no effective early flood warning system in place by local authorities. Most people claimed that they were not getting flood warnings. The approach to flood control by the authorities is top-down, with little participation in flood-related planning by local residents. There is no organised method to warn people about impending disasters. Nonetheless, without the active involvement and participation of vulnerable communities, local authorities alone cannot achieve greater success in the prevention, preparedness and response to disasters, as efficient disaster risk reduction requires participation by all vulnerable individuals, families, communities and organizations. For Malaysian, the level of awareness and preparedness to climate change and natural disasters seemed still low and citizens' views on the impact of





natural disasters and acted upon on issues of natural disasters are also low and weak, with majority still maintained a reactive, rather than a proactive attitude. Some common questions posted are: “what is that?” and “what we need to do and adapt to it?” Interviews, however, showed how important it is to increase community resilience and capacity building.

In this research, characteristic of respondents was analyzed base on the result of the questionnaires received. Table 1 shows how respondents rated the five statements. Statement 5 has the highest mean which is 3.0. Meanwhile, Statement 1 has the lowest mean of 2.65. Besides, statements that have highest percentage score of disagree are Statement 1 which is 36.7% and the statement with the lowest score is Statement 5 which is 25%. In addition, Statement 3 has almost similar percentage of disagree and neutral of 30.4% each. The survey also revealed that not all coping strategy by the local council were well received by the respondents. Statement 1 were least supported by respondents, with a mean score of 2.65 respectively.

Table 1: Central Tendencies Measurement of Coping Strategy

Statement	SD	D	N	A	SA	Mean	Std. Dev
1. My local council or community has an Annual Public Awareness Campaign to increase the general population understanding on natural hazards.	10.3	36.7	31.8	19.9	1.3	2.65	0.953
2. My local council or communities have regular exercise on disaster preparedness practice drills.	9.3	30.6	30.5	25.2	4.4	2.85	1.041
3. My local council or community have a natural disaster recovering funding strategy.	7.9	30.4	30.4	28.4	2.9	2.88	1.003
4. My local council have a coping strategy in emotional comforting.	7.4	29.3	31.9	27.7	3.7	2.91	1.003
5. My local council have proper maintenance of the catchment areas/barricade/walls.	5.8	25.0	35.6	30.6	2.9	3.0	0.952

Findings

Despite being prone to natural disasters, Malaysia's awareness of such disasters is remarkably low, as shown by the scarcity of educational materials on preparedness for natural disasters and community mitigation. At present, very little attention has been given to this topic in the school curriculum. The development of educational materials for the planning and prevention of



natural disasters will therefore play an essential role in the implementation of the UN Decade of Education for Sustainable Development in Malaysia. Even though respondents hold high level of education but they still show low awareness and preparedness for natural disasters. Therefore, it further strengthens the argument in previous literature review about early education of natural disaster is important (Shiwaku and Shaw, 2008).

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