International Journal of Academic Research in Business and Social Sciences
2017, Vol. 7, No. 12
ISSN: 2222-6990

Flood Relief Management for Residents in Temerloh, Pahang, Malaysia

Kamarul Ismail, Mohd Hairy Ibrahim, Nor Kalsum Mohd Isa and Mazdi Marzuki

Department of Geography & Environment, Faculty of Human Sciences,
Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak, Malaysia

DOI: 10.6007/IJARBSS/v7-i12/3763 URL: http://dx.doi.org/10.6007/IJARBSS/v7-i12/3763

Abstract

Floods are natural disaster occurred frequently over worldwide including Malaysia. Floods are an overflow or increasing volume of water level which occurred within a specific time and temporary. The objective of this research was to identify the management of flood relief for people who live at Temerloh, Pahang area. Among the objectives includes in this research is to identify the impacts of victims in terms of psychology, next to determine the types of assistance provided to flood victims during and after the disaster and finally to investigate the effectiveness of the assistance provided. A quantitative approach was done in this research by distribution of questionnaires involving 400 respondents. Descriptive analysis and inferential of percentage, frequency and independent sample t-test for study the management of assistance was used in this research. Results showed about 73.3 percent respondent respondents strongly agreed that the phenomenon of flooding lead to emotional stress while others 26.8 percent respondents stated the opposite. In additional, about 42.8 percent respondents agreed that assistance is given inadequate. Besides that, about 52.0 percent respondent disagreed with the statement related disaster relief management is on a satisfactory level. In overall, the management of the assistance provided to the victims was at moderate level

Keywords: Flood, Sea Level Rise, Emotional, Impact Of Disaster, Flood Relief Management, Psychology

Introduction

Malaysia is a country which often hit by flood disaster especially during the monsoon season. This flood often happens due to monsoon change (Muhammad Barzani Gasim et al. 2010). Furthermore, within a few years ago, our country has undergone massive flooding accurence and if view thoroughly, the states in East Coast area better known with monsoon flood occurrences that due to heavy rain brought by seasonal wind. This monsoon flood can come about due to heavy rainfall in East Coast area that are also known as rainy season until can bring an occurrence of massive floods. Noorazuan (2003), states that town drainage density undeveloped in accordance with town increase that altogether cause occurrence of flood disaster.

Indirectly, the flood disaster that happened almost every year will cause a lot of loss to the flood's victim such as loss of life, disease spread, property destroy, plant's destroy and other major losses (Chan & Parker, 1996). Furthermore, the relief centers for the flood victims are less maintenance and it will increase the victims stress because their house and property were flooded at the same time including the destroy of plant and farm animal (Mohd Zulhafiz et al, 2013) .

Research Background

Flooding is an overflow of excess water of a drainage system and flood disaster that occurred in Malaysia can be categorized into the monsoon floods. Moreover, flooding is one of the incidents caused by non-stop heavy rains and cause the water flow peaked quickly. This will make the drainage system receives the amount of water that is more than the usual and it will cause the drain water to spill out. Balkema et al. (1993), and Shulz et al. (1972), states that the floods will cause water levels rise from the normally and it could bring a disaster to the people in the surrounding areas. However, flooding is the significant natural phenomenon because it can bring serious impact on the country and the people, especially for the population in the East Coast and the areas that close to the river. However, flooding is also sometimes the unexpected can happen because it can be happen to the area that never ridden before even getting worse when it was happens for the first time.

Generally, flooding also occurred in Temerloh, one of the districts in the state of Pahang. The area is also experiencing major floods than in Maran, Jerantut and Kuantan. This happens when the heavy rains is continuously and cause the surrounding area flooded when the water overflow is plent from Sungai Pahang in LubukPasu, Temerloh until the water is spill the Temerloh town and nearby villages. Floods in Temerloh also make many exit routes closed especially for the East Coast Expressway due the water level increased until reach 3 to 3.5 feet. In addition, the floods this time is very severe because the number of flood victims at the relief centers is increase every day until reach 22,765 victims that comprising from 4,553 families around Temerloh and involves 80 relief centers (Department of Irrigation and Drainage Kuantan, 2015). Table 1.1 shows the highest water level in Sungai Pahang station involving the Temerloh and compared with other areas that involve the same station.

Table 1.0: Highest River Water Levels in Pahang River Station from 22/12/2014 until 13/01/2015

Bil	Stations	Highest Water Level	Warning of water level (Metres)		
	SUNGAI PAHANG		Normal	Alert	Danger
1	Kuala Tahan	77.70	60.00	64.00	68.00
2	Sg. Yap, Jerantut	59.44	44.00	48.00	52.00
3	**LubukPasu, Temerloh**	**38.09**	**26.00**	**29.00**	**33.00**
4	Kg. Chenor	28.28	16.80	20.70	23.50
5	LubukPaku, Maran	23.39	14.00	17.00	19.00
6	Bdr. Pekan, Pekan	3.62	1.00	2.44	3.66

Source: State Drainage and Irrigation Department Pahang, (2014)

RESEARCH METHODS

The study was conducted in the flood-hit settlements lived in the area around Temerloh like in Kuala Krau, PayaPulai and Taman BahagiaSeberangTemerloh. Temerloh district chosen for this study because in December 2014, the region was hit by floods which are larger than other years. This area is located in central Pahang and the meeting point between the West Coast of Peninsular Malaysia and the East Coast of Peninsular Malaysia (Figure 1.0). Temerloh district is an area of 228,190.09 hectares and it is located in the Central Corridor to the east of Maran, Jerantut and Raub in Northern Border, Bentong district on the border of West and Bera districts in the South. Temerloh District consists of 10 parishes with a total population of 155,232 people in 2007 and by 2015 the total population is 183,579 (Local Area Plan Temerloh, 2015). The selection of this area is to look after the condition of the area affected by flood and seek the views of victims about the psychological problems and support from community. This analysis can be done on the basis of data that will be obtained from flood victims from the different areas (Figure 2.0). This study used qualitative methods which refer to the data obtained using the survey method using a questionnaire to make sure getting the whole data. All data were analyzed by using frequency analysis and test-sample T using Statistical Package for Social Science (SPSS) 20.

Figure 1.0: Location of study Temerloh, Pahang

Source: Adapted From Official Website JKR Temerloh, Pahang

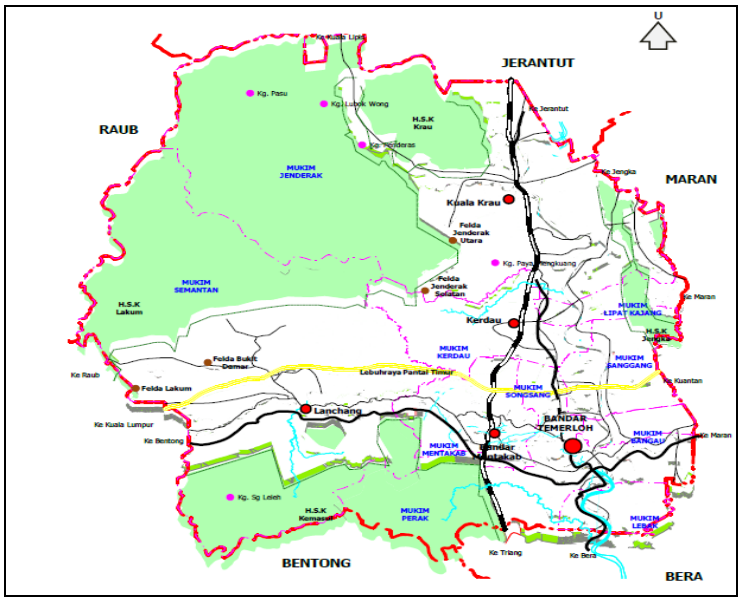

Figure 2.0: Location Map of Area Studies in MukimTemerloh, Pahang
Source: Temerloh District and Land Use Office, 2015

Results and Discussion

Results of the study is divided into three main focus on the effects of the flood disaster, management of flood relief to the victims and lastly is the effectiveness of the management of the relief provided to the flood victims in Temerloh, Pahang. The issues about the management of relief often raised by various parties, especially for the flood victims. This is because the management of relief provided should be further improved because there are victims who help need have been isolated and less receives help even if there are many groups of volunteers who contribute to charitable relief efforts (UKM News Portal, 2015)

Frequency of psychological help received by victims

The findings indicate that psychological help received by 400 surveyed victims. All of the victims from the sub-district in Temerloh district that affected by flood. Table 2.0 shows the category of people who give the psychological help to the flood victims while Table 3.0 shows the frequency of the psychological help in the form min. According to Table 2.0, it can be seen that the percentage of categories of family members and friends is high compared with professional counselors and government officials. This shows that the people closest to the flood victims will often provide psychological help such as providing advice and always listen to the victims. If we see from the frequency of psychological help received by the victim is in line with the percentage taken into account in Table 2.0. This is because the category of family members and friends are at a moderate level compared with the help of professional counselor's category.

Table 2.0: Psychological Help Received by Victims by Percentage

Category	1 f %	2 f %	3 f %	4 f %	5 f %
Professional Counselor	321 (80.3)	33 (8.3)	23 (5.8)	16 (4.0)	7 (1.8)
Government Officials	201 (50.2)	64 (16.0)	53 (13.3)	62 (15.5)	20 (5.0)
Family	84 (21.0)	21 (5.3)	91 (22.8)	128 (32.0)	76 (19.0)
Friends	83 (20.8)	44 (11.0)	88 (22.0)	132 (33.0)	53 (13.3)

Source: Field Study

Likert scale: 1-Never, 2- Rarely, 3-Medium Regular, frequent 4-, 5-Very Frequent

Table 3.0: Frequency of Psychological Help Received by Victims

Variable	Min	Standard Deviation	Stage
Professional Counselor	1.3875	0.89686	Never
Government Officials	2.0900	1.30428	Rarely
Family	3.2275	1.38764	Moderate
Friends	3.0700	1.34149	Moderate

Source: Field Study

Frequency causes the victim to suffer emotional problems during floods

The findings in Table 4.0 shows the percentage of victims who suffer emotional problems involved 400 respondents living in Temerloh. Overall it can be seen that the loss of property and loss experienced by respondents are intertwined when it has a high percentage of the most frequent causes them facing emotional problems during this tragedy occurred. While Table 5.0 can explain more about the frequency that causes the victim to suffer emotional problems during floods in 2014. This shows that the loss of wealth and significant losses were moderate compared to other factors such as the loss of a family member and loss their living at the level of never and rarely.

Table 4.0: Factors Victims Have Emotional Problems during Flood Disaster by Percentage

Category	1 f %	2 f %	3 f %	4 f %	5 f %
Loss of family members	328 (82.0)	23 (5.8)	9 (2.3)	25 (6.3)	15 (3.8)
Loss of property	104 (26.0)	28 (7.0)	46 (11.5)	115 (28.7)	107 (26.8)
Loss of residence	195 (48.8)	42 (10.5)	51 (12.8)	79 (19.8)	33 (8.3)
Significant losses	93 (23.3)	28 (12.0)	67 (16.8)	103 (25.8)	89 (22.3)

Source: Field Study

Likert scale: 1-Never, 2- Rarely, 3- Simple Frequent, Frequent 4-, 5-Very Frequent

Table 5.0: Frequency Cause Emotional Problems Encountered During the Flood Disaster

Variable	Min	Standard Deviation	Rank
Loss of family members	1.4400	1.05792	Never
Loss of property	3.2325	1.55547	Moderate
Loss of residence	2.2825	1.43975	Rarely
Significant losses	3.1175	1.47958	Moderate

Source: Field Study

Cause Assistance Obtained

The findings relating to the cause of the relief that received by respondents is based on Table 6.0 in percentage and in Table 7.0 are in the level of relief sources obtained by min. The results were obtained from 400 respondents around Temerloh district. This suggests that the relief received by evacuees from the private sector, government and the private is at a low level. Respondents stated that the aid received from all parties is not sufficient to repair the damage suffered by them. This is because the flood of 2014 has led to huge losses both in terms of residence, business and personal. On the whole, the parties especially the government and the private sector should ensure the distribution of assistance whether financial or food is fairly and equitably so that the assistance provided is appropriate to really need.

Table 6.0: Sources of Help Provided By Percentage

Category	1 f %	2 f %	3 f %	4 f %	5 f %
Help from the government	88 (22.0)	49 (12.3)	105 (26.3)	103 (25.8)	55 (13.8)
Help from the private sector	88 (22.0)	59 (14.8)	93 (23.3)	97 (24.3)	63 (15.8)
Help from individual	92 (23.0)	38 (9.5)	108 (27.0)	112 (28.0)	50 (12.5)

Source: Field Study

Likert scale: 1-very low, 2-low, 3-Medium, 4-high, 5-Very High

Table 7.0: Sources of Support Level Learned

Variables	Min	Standard Deviation	Rank
Help from the government	2.9700	1.34671	low
Help from the private sector	2.9700	1.37980	low
Help from individual	2.9750	1.34122	low

Source: Field Study

CONCLUSION

Overall, everyone should work together to ensure the management of relief to each of the victims is effective. This can be done by third-parties on the ground to see the flood victims to be assisted more carefully, especially the elderly. Furthermore, in terms of coordination of financial help should also be adjusted and considered the amount of compensation of losses given consolation to the victims of RM500. In addition, the management of the emotional side must also ensure that upgrade with professional counselors at each center so that it can handle the emotional stress suffered by the victims either during or after. This is due to the flood victims desperately need the support of all parties.

Corresponding Author
Kamarul bin Ismail
Department of Geography & Environment
Faculty of Human Sciences
Universiti Pendidikan Sultan Idris
35900 Tanjong Malim, Perak, Malaysia
Email: kamarul.ismail@fsk.upsi.edu.my.

ACKNOWLEDGMENT

I would like to pay special thankfulness, warmth and appreciation to the Sultan Idris Education University Research Grant Code: 2015-0117-106-01 who made my research successful and assisted me at every point to cherish my goal.

REFERENCES

Brookfield, B. R. (1993). *Hydrology and Water Management of deltaic Areas*. Netherland: Centre for Civil Engineering Research and Codes.

Chan, N.W. & Parker, D.J. (1996). Response to dynamic flood hazard factors in peninsular Malaysia. The Geographical Journal. Vol. 162(3), 313-325.

Drainage and Irrigation Department, Pahang (2015). Flooding report in December 2014 the State. Hydrology: JPS Pahang

Mohd Said, M. Z., Abdul Gapor, S., Samian & Abd Malik, M. N. A. A. (2013). Conflict in Flood Evacuation Center: Case Studies in Padang Terap, Kedah. Malaysian Journal of Society and Space 9(1), 69-78.

Gasim, M. B., Surif, S., Mokhtar, M., Toriman, M. E. H., Abd Rahim, S., & Bee, C. H. (2010). Flood Analysis of December 2006: Focus at Segamat Town, Johor. *Sains Malaysiana*, *39*(3), 353-361.

Official Website of JKR Temerloh, Pahang (2011). Map of the State. Retrieved on May 1, 2015 from http://www.jkrtemerloh.net/v2/index.php?option=com_content&view=article&id=122&Itemid=167.

Temerloh District Local Plan (2015).Population data Temerloh District. Pahang: Office Temerloh District and Land Use.

Schulz, E. F., Koelzer, V. A. & Mahmood, K. (1972). *Floods and Droughts.* United States: Water Resources Publications.

UKM News Portal (2015). Forum: Need Fixing Flood Relief Management. Accessed on March 31, 2016 from www.ukm.my/news/Latest_News/forum-pengurusan-bantuan-banjir-perlu-diperbaiki.