



UNIVERSITI PUTRA MALAYSIA

***CASE STUDY OF FLOOD DISASTER RELIEF SHELTERS AT KAMPUNG
LALOH AND KAMPUNG KARANGAN, KELANTAN, MALAYSIA***

TAMARA A.A EBAID

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By

TAMARA A.A EBAID

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia, in Fulfilment of the Requirements for the Degree of
Master of Science**

May 2018

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Master of Science

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May 2018

Chair: Mohd Nasir Baharuddin
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Though floods are considered an annual disaster in Kelantan, the record-setting flood of 2014/2015 caused a widespread flooding in different Malaysian states, causing one of the most devastating flood disasters recorded in history. While the disaster itself is traumatic, the experience of evacuation and shelter provision can be extremely challenging. Due to the country's high-risk and repetitive flood disaster occurrence, an implementation of a well-equipped disaster relief shelter is vital for the victims. It is one of the most crucial and immediate needs for victims, which continues for a long period of time after a disaster. A review of the literature, case studies, guidance, and reports relating to the design of disaster relief shelters indicates that their provision and performance are not currently as effective as they could be.

The objective of this paper is to review current provision of disaster relief shelters in the 2014/2015 flood disaster in Kelantan, examining the repeated issues and proposing possible solutions for a better disaster relief shelter. The aim of this study is to improve current shelter provision to the victims that experience floods yearly.

A case study was conducted on 2 towns in Kelantan, Kampung Laloh and Karangan to explore the disaster relief shelters used, while interviews were conducted with individuals from NGOs that have had a contribution during the floods in Malaysia. Case study data and interviews were analyzed for themes, and comparisons of these themes were made between different sources of information. The problems with current disaster relief shelters were then listed in the form of planning considerations that can be used and applied before the next disaster occurs. The research proposes planning

considerations to improve the current shelter approach which will allow for a more efficient response to the next major disaster. The key findings of the research revealed that it is necessary to have the provision of better-quality shelters, and the way forward is implementing new planning consideration. A new approach to the planning consideration, that is, timing to providing these shelter, long term shelter possibilities, evolvement of temporary shelters to permanent housing and lastly preparedness is identified and discussed. All these factors are vital in the post-disaster scenario and are all inter-related with each other. This study will contribute to the knowledge of disaster relief shelters and will offer a guide for other agencies responding to the next disaster to measure their current response in terms of shelter.

Keywords: *Disaster Relief, Shelters, NGO, planning*

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**KAJIAN KES KE ATAS PUSAT PEMINDAHAN BANJIR DI KAMPUNG
LALOH DAN KARANGAN, KELANTAN, MALAYSIA**

Oleh

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**Pengerusi: Mohd Nasir Baharuddin
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Walaupun banjir dianggap bencana tahunan di Kelantan, banjir yang memecahkan rekod pada 2014/2015 menyebabkan limpahan yang meluas di negeri-negeri yang berbeza di Malaysia, justeru mengakibatkan salah satu bencana banjir paling dahsyat pernah dicatatkan dalam sejarah. Walaupun bencana itu sendiri merupakan trauma, pengalaman di pusat pemindahan dan perlindungan juga amat mencabar. Memandangkan risiko berlaku bencana banjir amat tinggi dan berulang di negara ini, pelaksanaan perlindungan bantuan bencana yang lengkap amat penting bagi mangsa. Ia adalah salah satu keperluan yang paling penting dan segera untuk mangsa, yang berterusan bagi tempoh masa yang panjang selepas bencana.

Penyelidikan ini di jalankan di tempat perlindungan bantuan bencana yang digunakan semasa bencana banjir 2014/2015 di Kelantan. Ini dilakukan menerusi analisa kajian kes terhadap 2 buah kampung, Kampung Laloh dan Karangan. Beberapa sesi temubual telah dijalankan dengan wakil NGO yang memberi sumbangan semasa banjir di Malaysia. Selepas itu beberapa kajian dan penilaian telah di lakukan terhadap beberapa isu yang kerap berlaku berulang kali di pusat perlindungan bantuan bencana. Ia di susuli dengan cadangan perancangan untuk di pertimbangkan bagi tujuan meningkatkan pendekatan perlindungan semasa seterusnya membolehkan tindak balas yang lebih berkesan pada bencana besar yang akan datang.

Pendekatan semasa bagi pusat perlindungan bantuan bencana adalah untuk memindahkan mangsa ke tempat perlindungan dalam bentuk khemah atau tempat

perlindungan orang ramai seperti dewan perbandaran, sekolah, masjid dan kemudahan awam yang lain. Selepas itu, keluarga yang kehilangan rumah mereka akan di sediakan perlindungan bantuan bencana yang bersifat sementara manakala menunggu perumahan kekal.

Hasil penemuan kajian menunjukkan wujudnya keperluan untuk menyediakan tempat perlindungan dengan kualiti yang lebih baik. Langkah akan datang ialah melaksanakan perancangan baru, iaitu, tempoh yang di perlukan bagi menyediakan tempat perlindungan, serta kebarangkalian menyediakan perlindungan untuk jangka panjang. Juga perlu di pertimbangkan samada tempat perlindungan sementara ini boleh di evolusikan menjadi perumahan kekal serta persediaan yang di perlukan. Kesemua faktor-faktor ini adalah penting dalam senario selepas bencana dan semuanya saling berkaitan antara satu sama lain.

Kajian ini akan menyumbang kepada pengetahuan tentang tempat perlindungan bantuan bencana dan akan memberikan panduan bagi agensi-agensi berkaitan untuk bertindak balas terhadap bencana yang akan datang serta ukuran tindak balas semasa mereka dari segi perlindungan.

Kata kunci: Bantuan Bencana, Perlindungan, NGO, perancangan

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I certify that a Thesis Examination Committee has met on 8 January 2018 to conduct the final examination of Tamara A.A Ebaid on her thesis entitled "Case Study of Flood Disaster Relief Shelters at Kampung Laloh and Kampung Karang, Kelantan, Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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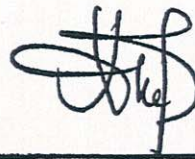
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DEFINITION OF TERMS

Disaster: A common definition for disaster is- “the tragedy of a natural or human-made hazard (a hazard is a situation which poses a level of threat to life, health, property, or environment) that negatively affects society or environment.

Natural Disaster: “A natural disaster is a consequence when a natural hazard (e.g., volcanic eruption or earthquake) affects humans. Human vulnerability, caused by the lack of appropriate emergency management, leads to financial, environmental, or human impact. The resulting loss depends on the capacity of the population to support or resist the disaster: their resilience. This understanding is concentrated in the formulation: "disasters occur when hazards meet vulnerability". A natural hazard will hence never result in a natural disaster in areas without vulnerability, e.g., strong earthquakes in uninhabited areas. The term natural has consequently been disputed because the events simply are not hazards or disasters without human involvement.

Emergency/Temporary Shelter: This refers to a shelter that a disaster victim seeks immediately after the disaster has struck as the house may be permanently damaged or maybe because the utilities for the town are not functioning at that time. There is a possibility that the victims return to their permanent houses after spending a night or two in this type of shelter, e.g. tents, sleeping bags, etc.

Relief - The act to bring emergency supplies, preventing an increase of damage (bringing a disaster into crisis).

Collective centers (mass shelter) - These are usually transit facilities located in pre-existing structures, such as community centers, town halls, gymnasiums, hotels, warehouses, disused factories, and unfinished buildings.

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Within humanitarian practice, the term “disaster” would refer to the effect of natural, social, economic, political, and hazards on communities that at risk to these effects. Disasters caused by conflict, war, political violence or development projects, and those caused by extreme natural events are all types of disasters. For the scope of this thesis, the focus is on disasters caused by natural events, specifically flood disasters. This narrower focus allows for a deeper examination of the current disaster relief shelters and their role during disasters of these kinds.

Over the last several decades, the number of flood disasters in the world has increased each year. For the past 2 decades flood disaster has affected over 400 million people around the world each year, and accounts for 40% of the world's natural disasters. Because of these flood disasters, many individuals are victims of watching their homes being damaged or washed away. These victims are left with nothing and nowhere to go (Child, 2013).

Malaysians have always lived near rivers, from the early days. Due to heavy monsoon rainfall, poor drainage and other local factors, floods have become part of the everyday lives of different Malaysians (Khalid & Shafiai, 2015). Malaysia experienced one of the worst floods during 2014/2015, with it being the worse flood in recent history. Kelantan was one of the worse affected states. Among Kelantan’s ten districts, Kuala Krai has been recorded with the most evacuees during the flooding (A. H. S. Y. Yusoff, Zulkarnain, & Pit, 2015).

When the disaster stroke, the need for disaster relief shelters was very crucial and urgent which is when victims needed it the most. While the disaster itself was traumatic, the experience of evacuation and finding suitable shelters for victims was very challenging. Due to this, disaster relief shelters should be categorized as a vital and important aspect to disaster recovery.

After a flood disaster, people usually suffer an interruption in the social and economic part of life, there is an urgent need for protection and shelter. The first place of contact for victims are the disaster relief shelters, in which they will generally occupy them for a certain amount of time, therefore these shelters need to be habitable.

Previous disaster relief shelters illustrate the need for better preparation prior to natural disasters. During the post-disaster phase, the process to rescue and shelter provision, it can be a very complex process. There are many aspects to consider, and there is a need for resources, various skills and experiences by the different actors involved in this. There are many organizations and agencies (governmental, intergovernmental, NGO's etc.) which work to help survivors (Torus & Şener, 2015). For this paper, the main actors focused on are NGOs, that have contributed in terms of shelter. During the 2014/2015 flood disaster many organizations participated in disaster evacuation missions and shelter distributions, in which each organization had their own criteria for the design and construction of these shelters. No one NGO can cover the whole emergency phase of the disaster, and requires different agencies working at different levels. In this study, the selected NGOs are the front liners and were the first to provide support and help in different forms during the flood disaster.

The 2014/2015 flood disaster allows an opportunity to learn from it on how to approach the next future disaster, how to prepare beforehand and also how to improve current shelters and methods of shelters approaches.

1.2 Statement of problem

Malaysia experiences serious flood disaster during the heavy rainy season. The period of monsoon season is usually between November to February. With the increase of rain during this period, the country is very vulnerable to floods. The floods have exposed Malaysia's vulnerabilities regarding recovery solutions and disaster shelters. There is a need for a shift in current approach to pre-disaster preparedness. Problems arise during the initial emergency response and recover period, in which people are displaced and are seeking shelters. This can create a major sheltering problem which needs urgent solutions. Since flood disasters have intensified in Malaysia, it has been a great need to highlight the need to address the increase necessity to the provision of disaster relief shelters, which is of great importance especially in the initial stages of protecting and providing a safe place for people affected by the flooding. However, current disaster relief shelters fail to meet the urgent survival needs of disaster affected victims and are not as effective as they should be.

1.3 Research questions

Taking into consideration the above assumptions, the study will be conducted to seek to address the following major research question:

1. What are the current forms of shelters in a flood disaster?
2. What are the current issues of disaster relief shelters provided to victims?

3. What are ways to improve the current disaster relief shelter based on the issues identified?

1.4 Objectives of the study

This thesis explores issues relating to the implementation of sheltering in the aftermath of flood disaster. It focuses on the activity within disaster recovery which is disaster relief shelters. The following points are the main objectives to the study:

- To review the current provision of disaster relief shelters in a flood disaster
- To examine some of the repeated issues of current disaster relief shelters
- To propose possible solutions for the repeated issues for a better disaster relief shelter

1.5 Aim of the study

The aim of this study is to improve current shelter provision to the victims, by examining and highlighting some of the repeated issues with the current disaster relief shelters provided to the victims of flood disaster. This is on hopes to provide better and more well-equipped shelters for victims displaced by floods.

1.6 Significance of the study

This research was undertaken to address the failings in terms of disaster relief shelters currently provided during a flood disaster, and to recommend solutions so that those responding to the next large-scale disaster can benefit from the mistakes of the past. It is the hope that in doing so, the work in this dissertation can be viewed as a real contribution to the field of disaster studies. People's first instinct when a disaster occurs, is to escape to a safe place. When disaster relief shelters are prepared in the pre-disaster phase, it creates a large difference when it comes to the evacuation process when a disaster occurs. This can also lead the process to successfully providing and designing more efficient relief shelters. The solutions proposed can assist decision makers such as the National Security Council, government agencies, fellow professionals and NGOs in their efforts to creating more resilient societies easing the recovery operations process.

1.7 Scope and limitation of the study

In terms of the subject generally, it is the study of the flood disaster that affected Malaysia 2014/2015. However, the focus of this research is primarily on current provision of disaster relief shelters, and the problems that accompany these shelters. Scope of the thesis is only concerned with shelter assistance for victims displaced by flood disasters, but does not address shelters for other natural disaster, in which shelter needs might differ. Limitations of the study comprise of the following: The immense differences in culture, climate, geography, and standards of living throughout the world might create a restriction for this research which currently is specific to one region and culture. The topic of disaster has a wide range of aspects in relation to social, political, and economic factors. This study doesn't have the time or capacity to deal with these different scopes. Instead, it attempts to identify and briefly discuss aspects which have an influence on the objectives of the study. Interviews and data analysis is based and limited to different NGO groups and volunteers involved in flood disaster evacuation process.

1.8 Organization of the thesis

The thesis is divided into six chapters. The second chapter presents the literature review. It explores the views and approaches to disasters. It introduces the impact of the flood disaster in the Global and Malaysia context. It pays importance to understanding the categorization of shelters provided after a disaster scenario. This chapter also introduces the humanitarian intervention in a disaster scenario.

Chapter three elaborates on the choice of research methodology for reviewing current disaster relief shelters and examining the repeated issues with them. It explains the study area chosen, chosen research participants and limitations of the research. The research approach and methods are explained in detail.

Chapter four describes the performed case study, and answers question one and two of the research questions. It first explores the current disaster relief shelters that were provided during the flood disaster, and thereafter sheds light on the problems with them.

The fifth chapter describes the results and initiates the discussion on the possible solutions to the current problems faces from disaster relief shelters provided by the NGOs. This chapter will answer the third research question.

The final chapter presents the conclusions, as well as shows the contribution of this study to the body of knowledge on disaster studies as well as indicating the potential future research.

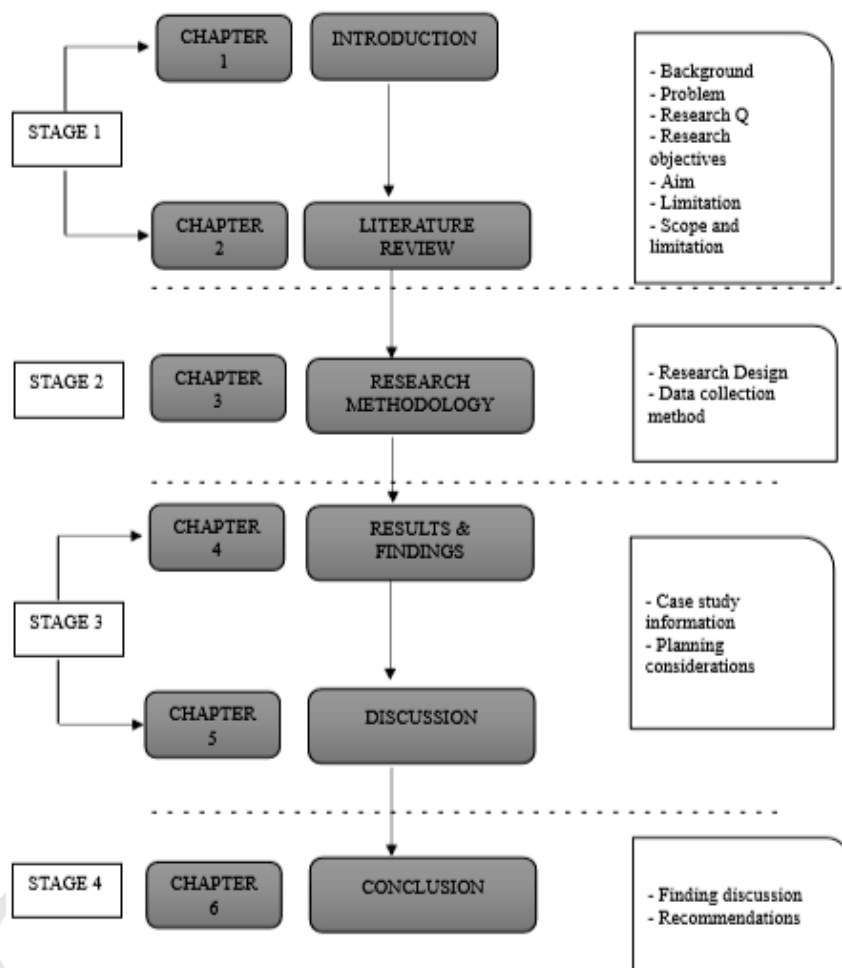


Figure 1: Research structure

(Source: Author, 2018)

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