

UNIVERSITI TEKNOLOGI MARA

**THE NUTRITIONAL STATUS AND
FOOD SECURITY ASSESSMENT
AMONG FLOOD VICTIM
COMMUNITIES**

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Thesis submitted in fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Nutrition)

Faculty of Health Sciences

January 2022

ABSTRACT

Floods and its impacts are part of recurrent global disasters and are considered a significant issue, even in Malaysia. There are various factors attributed to floods, including heavy rainfalls, high tide, and human factors such as blocking of channels or aggravation of drainage channels, improper land use, and deforestation in headwater regions. Due to this, food crises during disaster and food-related emergencies may cause food security or rather an insecurity issue. Food security is a term employed to describe the food access's adequacy to meet people's food preferences and dietary needs. Food insecurity has long term impacts and needs to be explored in detail. As part of that effort, a post-flood study was in Bera District of Pahang on January 2015. The aim is to determine food security during an emergency by assessing nutritional status, the right quantity of food aid, needs of food security, risk factors, and proportional piling with the relationship between mapping and chronology for food security status during the flood. This study was carried out using both quantitative and qualitative methods. In determining the nutritional status, food availability, and affordability with the right quantity of food aid, quantitative data collected was conducted using a cross-sectional design and analyzed using SPSS 2.0. Qualitative method was conducted retrospectively to assess the needs of food security, risk factors, and proportional piling and was analyzed using Nvivo 11. Results indicated that all flood victims have a specific requirement to maintain their nutritional status after flood disasters. Median number of food intake for flood victims was 3 times per day and they do not have a problem with food insecurity. The suggested estimation of total energy for flood victims is 2000 kcal based on their basal metabolic rate (BMR). Qualitative data indicated different risk factor of food security for flood victims such as 'management' and 'accessibility' for adult, 'food supply', 'food choice' and ' food intolerance' for children and 'inappropriate food assistance', 'feeling insecurity' and 'mental and emotional stress' for elderly. Management of food aid is crucial for measuring food security, it was indicated that inappropriate food assistance, feeling insecurity and mental and emotional stress. Also, food supply, food choice and food intolerance may play as a vital part in food security during flood disaster. In addition, accessibility such as transportation being highlighted as the important thing needed when floods. As from the identification of the risk factor it can be conclude that it is very important to be specifically and directly focus on the needs, pay more attention, and understand the situation of the elderly as they tend to be food insecure especially in emergencies situation. Other than that, proportional piling was carried out. It is a measure of the relative importance of an item for specific uses. Drinking water is the respondents' main item chose as the water and drainage system were affected during flood disaster. The measurement of proportional piling can be concluded because most of the flood victims chose drinking water over fast and dry food. This is due to the water shortage during the flood. Those who lived in the flooded zone has been found as well-prepared and develop their own approaches to overcome the upcoming flood disaster. This is evidenced through their preparation in terms of food stock as well as build high shelf inside their house to save their household goods. In conclusion, the access to the town are down, food aid are crucially in order to make sure flood victims can get adequate nutrition and thus greater food security. Furthermore, food security assessment should be conducted during emergency situations to prevent the occurrence of food insecurity.

ACKNOWLEDGEMENT

In the name of Allah, the Most Merciful and Most Generous, whose blessing has provided me with good health, sufficient time, and rational thinking throughout my journey. Since this thesis marks the end of that journey, I would like to take this opportunity to formally acknowledge those who have helped me come this far. Special appreciation goes to my supervisor Assoc Prof Dr. Norazmir Md Nor, whom I am indebted to. He is always encouraging, guiding and supporting me from the beginning until the final level of this study. I am also taking this opportunity to acknowledge and sincerely thank my co-supervisor, Assoc Prof Dr Nur Islami Mohd Fahmi Teng, who has assisted a lot by providing advice, comments and support to refine my research questions and final thesis.

I would also like to extend a huge, warm thank you to my Science Officer and Assistant Scientific Officers of Post-graduate Department, Universiti Teknologi MARA, Puncak Alam, Mdm. Nurajulie Mat Jamin for their help during the process of this study. I would also like to express my gratitude to all post-graduate friends, for always being there for me whenever I need their help. Last but not least, this project would have been impossible without the support of Fundamental Research Grant Scheme, KPT (600-RMI/FRGS 5/3 (98/2015) and thanks to those who have supported directly or indirectly and contributed to the completion of this study in Faculty Health Sciences.

No amount of words can adequately express the debt I owe to my family. My beloved husband, Mohd Fazli Ismail deserves my utmost gratitude for his unwavering love, encouragement, patience and sacrifice endured. His great patience at all times has made three and half years of this PhD journey bearable, for which my sheer expression of thanks does not suffice. My deepest appreciation goes to my parents, Mr. Alias Latip and Mrs. Sarinah Mohd, my children Aira Sofia and Aryan Sufi, and my siblings, Muhammad Syafiq, Nur Nabihah, Nur Suhailah and Muhammad Afif, who have given unequivocal support and surpassed encouragement throughout my good and bad times. Not to forget to thank my father-in-law, Mr. Ismail Hamat and mother-in-law, Mrs. Jamaliah Che Hassan who have been patience and given a consistent moral support. I am indeed grateful for all of you that have made this path wonderful, Alhamdulillah, all praises to Allah.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

1.1.1 Natural Disaster

World Health Organization (WHO) define disaster as ‘the result of disruption of the functioning of a community or a society causing disturbance of human welfare, material, economic or environmental losses and needs extraordinary efforts to cope with it, with outside help or international aid’ (WHO, 2014). Additionally, disaster is also known as ‘an emergency of some complexity that will cause the loss of lives, property damage and the environment, and harm local social and economic activities as defined by the Malaysian National Security Council Directive 20 (2003) (AlBattat & MatSom, 2014). Malaysia is surrounded by over 4800 km of seaside, and the climate along these seashores is affected by rain distribution that significantly influenced by geography and the monsoon winds (Baharudin et al., 2013) and has also become one of the regions affected by frequent flood disaster (Ali Khan, Shaari, Baten, & Nazaruddin, 2014; Torti, 2012). A flood is defined as any high water flow that dominates the natural or artificial banks in whatever region of the river system. Flood becomes hazardous to society when it disrupts human activities, sometimes lasting more than a week. They are also categorized as a natural disaster, commonly occurring during a short time of high-intensity rainfall. In addition to that, flood disasters can also be human-induced, such as those resulting from poor disposal of solid wastes, obstructing drainage and irrigation systems. Therefore, time-saving and cost-effectiveness measures are crucial for managing floods (Saifulsyahira, Edre, Ahmad Farhan, & Juni, 2016).

There are 189 river basins in Malaysia, including Sabah and Sarawak, with major rivers flowing straight to the South China Sea. As one of the countries with the heaviest rainfall in the world, with approximately 2500 mm a year across all states (Khalid & Shafiai, 2015), 9% of Malaysia, amounting to 29, 800 km², are vulnerable to flood disasters (Department of Irrigation and Drainage Malaysia, 2009). Apart from that, the Malaysian Drainage and Irrigation Department (MDID) has also categorized floods in Malaysia as either flash floods and monsoon floods (D/iya, Gasim, Toriman, &