

**UNIVERSITI TEKNOLOGI MARA**

**MEASUREMENT OF PROPORTIONAL PILING AND  
NARRATIVE EXPERIENCE ON FOOD SECURITY  
ASSESSMENTS IN BERA PAHANG, MALAYSIA.**

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Thesis submitted in fulfilments  
of the requirement for the degree of  
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## **AUTHOR'S DECLARATION**

I declare that the work in this thesis was carried in accordance with the regulations of Universiti Teknologi MARA. It is a presentation of my original work unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academics Rules and Regulation for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## ABSTRACT

Food security or rather insecurity is a term employed to describe the adequacy of food access that will meets people food preferences as well as their dietary need in term of physical and economic access. It is a basic cause of malnutrition and mortality and important factor in the longer term livelihood security. This study was conducted on August 2015 for nearly one month at Bera District of Pahang which involve 12 villages that comprise high risk area as well as low risk area in order to assess food security during emergency situation. The purpose of this study is (1) to measure the proportional piling for food security assessment during flood disaster and (2) to identify the relationship between mapping and chronology to food security. This study has been done by using mixed method. In determining the measurement of proportional piling, quantitative study involving cross-sectional design was conducted. Whereas qualitative study was conducted by using retrospective design in order to assess experience and chronological event of study population during flood disaster. Methodologies are also depended on rapid assessment techniques such as interviews, observation, mapping, chronology and proportional piling. The data on qualitative parts was presented narratively. Upon the completion of data analysis on proportional piling, approximately 47.2% (n=50) drinking water as their significant source to sustain lives during emergency flood situation. While fast and dry food encompassed of 34.9% (n=37), the second highest needs that was preferred by respondent across Bera District. The neighbourhoods' lives in flooded zone has been found as well-prepared and develop their own approaches to overcome the upcoming flood calamity. 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. As conclusion, the food security assessment should be conducted during emergency situation to prevent the occurrence of food shortage associated with flood circumstances.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 RESEARCH BACKGROUND**

Malaysia is situated in the South East Asia and covered region approximately 329,750km<sup>2</sup> that comprise of Peninsular Malaysia that also be classified as West Malaysia and the states of Sabah and Sarawak which located northwest of Borneo Island and known as East Malaysia (D/iya, Gasim, Toriman, & Abdullahi, 2014). Malaysia is largely encircled by over 4800 km of seaside, and the climate along these seaside is affected by rain distribution that significantly influenced by geography and the monsoon winds (Ching et al., 2013). The utmost overwhelming natural calamity experienced in Malaysia is flood.

Flooding are most common natural disaster that happen during monsoon season and happened almost every single year. It can be defined as any high water movement that controls the natural or any artificial banks in parts of river system (Ching et al., 2013).. Flood occurrence has affected many regions in Malaysia since 1971. D/iya et.al, (2014) stated that approximately 9% of total Malaysia region are susceptible to flood calamity. This gave an impact to almost 4.82 million which equal to 22% of Malaysian population (Department of Irrigation and Drainage, 2009). The fact that most floods occurrence are as a result of Malaysia's geographical position and repeated monsoons during the local tropical wet season that are described by heavy and regular rainfall from roughly October to March. The average rainfall for all states in Malaysia is approximately 2,500 mm a year, making it the one of the countries with the heaviest rainfall in the world (M. K. Negara, 2011).

Malaysia had experienced serious flooding in 2010 where it had given negative impact on the economy as well as the society in several states. Therefore with aim of reducing the flood damage and to prevent loss of human life, government had taking an action by established the flood relief operations at national, state and district level. Majority of Malaysian society are less concerned about environmental issues mainly disaster because they think that the issue is a minor issue which should be fixed by the district or local authority, and they believe the government to be the