

UNIVERSITI TEKNOLOGI MARA

**MEASUREMENT OF THE RISK
FACTORS OF FOOD SECURITY
DURING FLOOD DISASTER AT
BERA, PAHANG**

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the degree of

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. The thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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

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ABSTRACT

Flood is one of disaster that can cause damage and destruction. During flood, people can easily get foodborne illness due to the food storage and supply. This condition deals with the food security. However, limited information about the risk factors of food security during flood disaster. Therefore, this study aims to identify and measured the risk factors of food safety during flood disasters and its relation with the nutritional status. A cross sectional study was conducted using District and Community Questionnaire among the villagers that affected by flood. There were hundred respondents from 13 villages of Bera district were chosen as it located along the Pahang basin area. Data were obtained through self-administered questionnaire and anthropometric data. Based on the data obtained, it reported that the risk factors of food security during flood were in term of foods and beverages, living place and clothing, water access, electricity and transportation with frequency of 96%, 77%, 74%, 50% and 43% respectively. The association of risk factors with sick persons and meal intakes during floods give result of no significance at all with the other factors however, shows the significance at the factors of living place and clothing with meals intake, which the $P= 0.027$ ($P<0.05$). Findings on the relationship of live impacts with nutritional status shows that the Chi-square test are not significance as the P value was $P< 0.352$. Flood disasters can risk the livelihood due to all the factors.

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CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

Natural disasters were a natural phenomenon which give impact to our life. It cannot be estimated when the exact time it will happen. It came naturally to all of the countries in this world. Disasters that can be classified as naturally such flood, earthquake, drought, volcanic eruptions, tsunamis, sinkholes, limnic eruptions, blizzards, storms, hailstorms, heat waves, tornadoes, wildfires, avalanches and mudslides. Not all of the countries over the whole world faced all of the listed problems. Common problem that happened to most of the countries were floods, drought, volcano eruptions, earthquakes, storms, tornadoes and wildfires. All of the disasters maybe occurs in a mild situation and affect certain population but it can be worst when most of the problems faced by worldwide. The stages or level of the disaster's conditions was depend on the damaged and how frequent it occur. The more frequent it happened, the more higher the level. Besides, the higher the damaged rate, the higher stages the disasters were. Some of the countries not faced some disasters such as volcanic eruptions or blizzards because of the geographical. Volcanic eruptions mostly happened to the countries that lies on the volcanic plates or known as Ring of Fire (Sanyal, 2010). The ring of fire was the location of most of the active volcanoes in the world. Meanwhile, for blizzards, the disasters only happened to the country that have winter.

When there were volcanic plates, it also caused the landslide and earthquakes. Earth plate changing was the most reasons why landslides and earthquakes happened. It also related with the tsunamis. Ring of fire was the location of the most earthquakes in the worlds. When there were earthquakes happened in oceans, it result a big tidal wave. The tidal wave or what been called as tsunami mostly happened with unexpected wave from the oceans and thus sinks all the things along its way. On 2004, there was an occurrence of tsunamis that impact many countries such as Indonesia,