

**CENTRE OF STUDIES FOR QUANTITY SURVEYING
FACULTY OF ARCHITECTURE, PLANNING &
SURVEYING**

UNIVERSITI TEKNOLOGI MARA PERAK

**THE IMPACT OF ENVIRONMENTAL DISASTERS
(FLOOD) ON LOCAL DEVELOPMENT IN PASIR MAS,
KELANTAN.**

Dissertation submitted in partial fulfilment of the
requirement for the award of Bachelor of Quantity
Surveying (Honours)

**PREPARED BY: SITI NUR AINI BINTI MOHAMED
(2022771613)**

SEMESTER: OCTOBER 2023 – FEBRUARY 2024

DECLARATION

I declare that the work in this dissertation titled “THE IMPACT OF ENVIRONMENTAL DISASTERS (FLOOD) ON LOCAL DEVELOPMENT IN PASIR MAS, KELANTAN” has been carried out by me for my Bachelor of Quantity Surveying (Hons.) from College of Built Environment, Universiti Teknologi Mara Perak (UITM). The information derived from the literature has been duly acknowledged in the text and a list of references provided.

STUDENT SIGN : 

STUDENT'S NAME : SITI NUR AINI BINTI MOHAMED

DATE : 02/01/2024

ABSTRACT

The environmental disasters especially floods, on local development in Pasir Mas, Kelantan, Malaysia, is examined in this study. Floods are a serious hazard to both present and future generations because they are caused by acid rain, global warming, and biodiversity loss. This research used a direct methods approach to evaluate the factors that lead to floods, observing the impact of floods on local development, and provide the best solutions for appropriate development in Pasir Mas, Kelantan. The results show a strong relationship between the increased risk of flooding in the area and environmental vulnerabilities such the breakdown of water management systems, heavy rainfall, and deforestation. Numerous factors, including property prices, business operations, and general community well-being, are impacted by the influence on local growth. Suggestions for appropriate local development including the deployment of sophisticated monitoring mechanisms, enhancements to infrastructure, and the adoption of sustainable urban drainage techniques. This study provides practical insights and advances knowledge of the interrelated problems caused by floods and provides practical advice to policymakers and stakeholders to enhance resilience and advance environmental sustainability

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful.

All praises and glory and Almighty Allah SWT for lending me strength, ability, and inspiration to complete this final project or dissertation in time. My heartfelt gratitude to Prophet Muhammad (Peace be upon him), whose way of life has been a constant source of guidance for me.

This dissertation involved many people who contributed to the complete process to make it possible until the end. First and foremost, I cannot fully express him deepest gratitude to my thesis supervisor, who has been assisting and giving helpful advice for the improvement and the completion throughout my thesis process.

Debt gratitude to all 108 respondents involved who have spent their precious time in taken part in my questionnaire survey even on their hectic schedule and situation. The involvement has given a major contribution to make this thesis achievable.

I express a sincere appreciation to my parents and family members who deserve special acknowledgement for their unwavering support and prayers. Their endless support during my thesis writing has encouraged and led me to perform the best I could to make this piece of research exist.

Last but not least, my most enormous thanks to all my Classmates and friends who always willing to give advice throughout the writing process. I am sincerely grateful for all the support and blessings that I received.

Contents

ABSTRACT	i
ACKNOWLEDGEMENT	ii
CHAPTER 1	1
1.0 INTRODUCTION	1
1.1 BACKGROUND OF THIS STUDY	4
1.2 PROBLEM STATEMENT	8
1.2.1 Environmental Disasters Interrupted Development Projects	8
1.2.2 Lack of Development and Outsider Investment	10
1.2.3 Local Market had to rely to outsider supply	12
1.3 RESEARCH AIM	13
1.4 RESEARCH OBJECTIVES	13
1.5 RESEARCH QUESTION	13
1.6 SCOPE OF RESEARCH	14
1.7 RESEARCH METHODOLOGY	16
1.7.1 Research Strategy	16
1.7.2 Study Population	16
1.7.4 DATA COLLECTION METHOD	18
1.7.5 DATA ANALYSIS TECHNIQUE	19
CHAPTER 2	22
LITERATURE REVIEW	22
2.1 INTRODUCTION	22
2.2 ENVIRONMENTAL DISASTER	22
2.3 FACTOR THAT CONTRIBUTES TO ENVIRONMENTAL DISASTER (FLOOD)	27
2.3.1 Failure of dams or levees designed to control water flow	27
2.3.2 The shape and slope of the land	28
2.3.3 The poor drainage systems are more prone to flooding as water cannot easily drain away	30
2.3.4 Intense or prolonged rainfall which the amount of rainfall exceeds the capacity of the land to absorb	33
2.3.5 Urbanization and inadequate infrastructure that reduces the ability of the land to absorb water	35
2.3.6 Deforestation and soil erosion	37
2.3.7 Climate change can influence the frequency and intensity of extreme weather such as massive rainwater	39
2.4 THE IMPACT OF ENVIRONMENT DISASTER (FLOOD)	42
2.4.1 Environmental damage, including soil erosion, sedimentation of rivers, and contamination of water	42