

#### KUMPULAN PENYELIDIK

IR BASIR NOORDIN KETUA PROJEK

Tanda tangan

### PROF. DR. ROSLAN ZAINAL ABIDIN AHLI PROJEK

Tanda tangan

MOHD FAIRUZ BACHOK AHLI PROJEK

Tanda tangan

. . . . . . .

. . . . . . . . . . . .

# TABLE OF CONTENTS

## Contents

Page

Acknowledgement	i
Table of Contents	H
List of Tables	v
List of Figures	vii
Abbreviation	viii
Abstract	ix

#### **CHAPTER ONE - INTRODUCTION**

1.1	An Overview	1
1.2	The UiTM Sabah Branch, Kota Kinabalu Campus	1
	(UiTMKK)	
1.3	Aim	5
1.4	Objective and Scope	5
CHAPTER T	WO – LITERATURE REVIEW	
2.1	Types of Soil Erosion	7
	2.1.1 Geological Erosion	7
	2.1.2 Accelerated Erosion	7
2.2	Mechanics of Soil Erosion	8
	2.2.1 Sheet Erosion	10
	2.2.2 Rill Erosion	11
	2.2.3 Gully Erosion	11

2.3	Factors Affecting Soil Erosion	13	
	2.3.1 Physiography	13	
	a. Slope steepness	14	
	b. Slope length	15	
	c. Slope curvature	15	
	2.3.2 Rainfall	16	
	2.3.3 Soil	21	
	2.3.4 Moisture Characteristics of Soil	23	
	2.3.5 Vegetation	25	
2.4	Estimating Soil Erosion Loss Using the "Universal Soil	26	
Loss Equation" (USLE)			
	2.4.1 Rainfall Erosivity Factor, R	27	
	2.4.2 Soil Erodibility Factor, K	28	
	2.4.3 Slope Length and Steepness Factor, LS	29	
	2.4.4 Cover and Management Factor, C	29	
	2.4.5 Conservation Practice Factor, P	30	

### CHAPTER THREE - METHODOLOGY

3.1	Research Methodology	34
3.2	Rainfall Data	36
3.3	Soil Erosion Features Reconnaissance	40
3.4	Collection of Soil Sample	40
3.5	Soil Sample Category	42
3.6	Soil Erodibility	43
3.7	Slope Length Measurement	44
3.8	Steep Steepness Degree of Measurement	45
3.9	The Campus Land Use	46
3.10	Contributing Factors	47
3.11	Estimating Soil Erosion Loss, A	47
3.12	Early Action and Preparation	48

## ABSTRACT

Recently, the state of Sabah is facing a serious problem with landslides occurrence. With rapid development from government and private sector, this activity will worsen the said problems. However, with good planning and management on the development programme, the landslide problems can be minimized.

As such, a research titled "Evaluation of Contributing Factors Towards Landslide Risk at UiTM Sabah Branch, Kota Kinabalu Campus " was carried out to identify the factors causing landslide.

The scope of the research is to analyse all the factors such as rainfall, soil composition, land use, slope length and slope steepness at the campus. From the study, it is found the main factors contributing towards landslide event in the campus area are rainfall and soil composition. Other factors such as land use, slope steepness and slope length are also contributing towards landslide but at a very minimal degree.

Therefore, it is hoped that the outcome of this research will highlight the important of knowing the actual care of any landslide occurrence in our country rather than blaming the nature besides taking into consideration the possibility of human disturbance.