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**FLOOD DAMAGE ANALYSIS PACKAGE (FDA) :  
APPLICATION FOR MALAYSIAN ENVIRONMENT.**

VOLUME I / II

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## Synopsis

*In Malaysia, uncontrolled development over the past year within river catchment have resulted in the gradual deterioration of rivers as efficient conduits of water and sediment. It is now estimated that some 29,000 square kilometers or 9 percent of the total land area of Malaysia is flood-prone. Frequently, this has resulted in an increase in the frequency and magnitude of flooding. In addition, flood damage costs have and will continue to increase with time due to the growth of prosperity and wealth in flood-prone areas.*

*Following the historical disastrous 1926 to 1971 floods, Malaysia has suffered an average annual damage of as much as US\$ 677 million or 0.52 % of the gross national product. Since then, the government has taken several positive steps to deal with the flood problem. These include institutional measures such as the establishment of a Permanent Flood Control Commission, structural measures such as river improvement works and nonstructural measures such as flood forecasting and warning systems.*

*Under these circumstances, new diversified strategies are required to solve the flood damage problems and it is necessary to adopt an efficient method for its analysis. This study will discuss on the capability and applicability of Flood Damage Analysis (FDA) Package as a tool for Flood Mitigation Considerations and Benefits which can be incorporated in the planning and development processes.*

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# INTRODUCTION

## 1.1 An Overview

The Flood Damage Analysis (FDA) Package developed by The US Army Corps of Engineers has nationwide responsibilities in water resources planning and management. The Package enables a variety of flood damage computations regarding an important task to evaluate damage potential due to flooding with and without proposed plans of improvement. Its analysis performed to provide quantitative information on the social cost of flooding and to provide a basis for formulating, evaluating, and implementing a range of remedial construction projects and other management actions.

## 1.2 Study Objectives

The study will cover the capability and applicability of the Flood Damage Analysis (FDA) Package in task to mitigate the flood damage analysis for Malaysian environment.

## 1.3 Study Methodology

Methods to carry out the study are as follows :

1. Study the FDA Package capability in general,
2. Run example problems to familiarize with functions and capabilities,
3. For each of the FDA functions, see whether it can be applied to Malaysian condition,
4. If possible, what are the limitation of each of them,
5. If there are some of the routines are not applicable. What is the modification required?