UNIVERSITI TEKNOLOGI MARA

FORECASTING THE IMPENDING FLOOD DISASTERS

UiTM Professorial Lecture

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PREFACE

Floods are the most common natural disasters with serious consequences for Malaysia and many other regions across the globe. Some parts of Malaysia have been enduring annual monsoon floods for years. Although floods are often unavoidable, numerous mitigation and management strategies can be implemented to reduce their destructive effects. This book offers a comprehensive overview of floods, including the history, causes, and mitigation strategies. Different types of floods will require different management and mitigation measures.

While localised urban flash floods may occur just within hours as opposed to the widespread monsoon floods which may last for days, the damages incurred can be greater to the denser populated urban areas. The causes for urban flash floods are primarily due to man-made faults, such as poorly maintained, inadequate, or improperly designed channel flow capacity, especially for areas under new development. The issue of annual widespread monsoonal floods may require drastic mitigation measures like building large reservoirs.

This book focuses on one non-structural flood mitigation measure, namely the flood forecasting and warning system (FFWS). It describes available FFWS strategies provided by the Department

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