

**AN APPLICATION OF INTEGRATED FLOOD  
MANAGEMENT IN KUALA LUMPUR**

**By**

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## TABLE OF CONTENTS

<b>ABSTRACT</b>	<b>i</b>
<b>ABSTRAK</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iii</b>
<b>APPROVAL SHEET</b>	<b>iv</b>
<b>DECLARATION FORM</b>	<b>v</b>
<b>LIST OF ATABLES</b>	<b>vi</b>
<b>LIST OF FIGURES</b>	<b>vii</b>
<b>LIST OF ABBREVIATIONS/NOTATIONS/GLOSSARY OF TERMS</b>	<b>viii</b>
<b>INTRODUCTION</b>	<b>1</b>
<b>DESCRIPTION OF STUDY AREA</b>	<b>3</b>
<b>PROBLEM STATEMENT</b>	<b>6</b>
<b>LITERATURE REVIEW</b>	<b>10</b>
<b>IFM INSTRUMENTS</b>	<b>15</b>
<b>IFM IMPLEMENTATION IN MALAYSIA</b>	<b>21</b>
<b>IFM IMPLEMENTATION CHALLENGES</b>	<b>38</b>
<b>CONCLUSIONS AND RECOMMENDATIONS</b>	<b>45</b>
<b>REFERENCES</b>	<b>48</b>

## ABSTRACT

### A N APPLICATION OF INTEGRATED FLOOD MANAGEMENT IN KUALA LUMPUR

By

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September 2007

**Supervisor: Mohd Nor Bin Mohd Desa, Ph.D.**

Klang river basin has been developed for residential, commercial, industrial and institutional use as a result of the extensive and rapid urban development in the basin area, problems emerged in the form of river overbank flood, flash flood that afflicts clogged drainage systems and environment degeneration. This prompted the commissioning of the number of flood mitigation and river environment enhancement programs as the problems and the associated social and economic costs were escalating with more urbanisation.

This study therefore addresses the implementations Integrated Flood Management in urban area Kuala Lumpur as well as the challenges in manage the flood problems. It comprise the structure measures and non-structure measures actions taken by the Government and the non-government organisations. Conclusions and recommendations are drawn to improve the IFM in IWRM implementation in Kuala Lumpur.

## ABSTRAK

### APLIKASI PENGURUSAN BANJIR BERSEPADU DI KUALA LUMPUR

Oleh

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September 2007

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Pembangunan yang pesat di Kuala Lumpur tidak dapat dinafikan lagi. Pembangunan ini yang melibatkan pertumbuhan pesat dalam perumahan, kawasan industri dan komersial di kawasan lembangan Klang menimbulkan masalah-masalah alam sekitar seperti banjir kilat. Banjir kilat terjadi disebabkan pengurusan perparitan yang kurang sempurna dan kelumpuhan alam sekitar terumatanya di kawasan bandar.

Kajian ini melihat secara mendalam pelaksanaan pengurusan banjir bersepadu yang telah di ambil oleh pihak kerajaan dan badan-badan bukan kerajaan untuk mengangani masalah banjir kilat di kawasan Kuala Lumpur. Kajian ini juga melihat kepada iniatif Pengurusan Sumber Air Bersepadu (PSAB) dalam perangkaan Pengurusan Banjir Bersepadu di Kuala Lumpur. Kesimpulan dan cadangan dibuat bagi mempertingkatkan pencapaian Pengurusan Sumber Air Bersepadu (PSAB) dalam perangkaan Pengurusan Banjir Bersepadu di Kuala Lumpur dapat dilaksanakan dengan berkesan.

## LIST OF TABLES

Table 6.1 Legislations In Malaysia

## LIST OF FIGURES

- Figure 2.1 Klang River Basin And Its Tributaries
- Figure 3.1 News Paper Cutting : Flash Flood In Kuala Lumpur On 10 June 2007
- Figure 3.2 News Paper Cutting : Flash Flood In Kuala Lumpur On 10 June 2007
- Figure 3.3 Statistics Flood in Kuala Lumpur Year 2000-2006
- Figure 3.4 Statistics Flash Flood in Kuala Lumpur Year 2000-2006
- Figure 4.1 Categorization of Flood Losses
- Figure 6.1 Malaysia : Projection of Water Supply Versus Demand

## CHAPTER ONE

### INTRODUCTION

The recurrence of extreme precipitation anomalies, leading to the availability of too much storm water runoff results in floods. The adverse impacts of floods include loss of life and property; displacement of people and animals, environmental degradation, and shortage of food, energy, water and other basic needs. The degree of vulnerability to such natural disasters has been highest in developing countries, where, often it is the poor who suffers the most as sheer necessity forces them to occupy the most vulnerable areas.

This study is based on the conceptualizes Integrated Flood Management (IFM) as a subset of Integrated Urban Water Management (IUWM) in Integrated Water Resources management (IWRM) and describes the interplay between floods and the development process (Colin Green et al., 2004). It takes a look at traditional flood management options from the IFM angle and identifies the major challenges encountered by flood managers and decision makers before describing the basic tenets and requirements of IFM.

Societies, communities and households seek to make the best use of the natural resources and assets available to them in order to improve their quality of life. However, they are subject to a variety of natural and man-made disturbances such as floods and droughts, economic recessions and civil strife. These disturbances adversely impact their assets or the multipliers that build their capacity to increase their incomes. Since not all sections of society

have equal opportunities to improve their quality of life with respect to access to resources, information and power to participate in the planning process and implementation of development policies these disturbances have varying effects on different social groups.

Natural disasters cause much misery, especially in developing countries where low-income economies are greatly stressed by their recurrence. Statistics show that around 70 % of all global disasters are linked to hydro-meteorological events (Colin Green, et al., 2004). Flooding is one of the greatest natural disasters known to humankind. Flood losses reduce the asset base of households, communities and societies by destroying standing crops, dwellings, infrastructure, machinery and buildings. In some cases, the effect of flooding is dramatic, not only at the individual household level but on the nation as a whole. It may, however, be argued that looking at the impact of floods on a piecemeal basis, rather than making holistic appraisals, has too narrowly assessed their impact.



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