UTILIZATION OF LOW-LYING LAND FOR INTEGRATED URBAN DEVELOPMENT A CASE STUDY OF COLOMBO NORTH



University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk



711.(043)

37800

A M. S. K. FERNANDO 1982

27

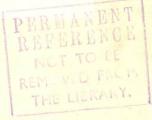
X UTILIZATION OF LOW-LYING LAND FOR
INTEGRATED URBAN DEVELOPMENT
A CASE STUDY OF COLOMBO NORTH -

A DESSERTATION PRESENTED TO

THE DEPARTMENT OF TOWN & COUNTRY PLANNING



මොරටුව මිශ්ව බිද්ධ ලය, ශ්**ලංකාව** මෙරෙටුව.



IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE

MASTER SCIENCE IN TOWN & COUNTRY PLANNING

P.L.A.M.S.K. FERNANDO

MARCH 1982

37800.

37800

University of Moratuwa

37800

711 (043)

LIST OF CONTENTS

SYNO	PSIS	1		
ACKN	OWL EDGEMENT	iii		
Enst	OF TABLES	.\		
LIST	OF MAPS	ų i		
INTR	ODUCTION	1		
Chap	ter I			
entermodes.	Process of development of the City of Colombo	5		
1.2	Introduction	. 5		
1.2	Emergance and growth of the city	5		
1.3	Population concentration	9.		
1.4	Problem of congestion	14		
1.5	The importance of utilization of low-lying areas	20		
annual market	ter II			
2.0	Low-lying areas in and around the city of Colombo	2.4		
2.1	Definition and delineation of low-lying areas	24		
2.2	Identification of low-lying areas University of Moratuwa, Sri Lanka.	27		
2.3	Utilization of Electronic Theses & Dissertations	35		
2.4	Low-lying land a trable for urban development www.lib.mrt.ac.lk	42		
2.5	Existing uses of non-reclaimed low-lying lands	45		
2.6	Environmental impact	49		
2.7	Conclusion	54		
Chapter III				
3.0	Rationale of land reclamation	56		
3.1	Introduction	56		
3.2	Social point of view	57		
3,3	Economical point of view	62		
3.4	Technical point of view	:66		
3.5	Financial point of view			
3.6	C onclusion	84		
Chapter IV				
designation of the	Emparical study of the case study area			
	Introduction	91		
The state of	The case study area	91		
		91		

	de l'actual de est	-96
4.3	Geological aspect	96
	-Geological formation	99
	-Soil	99
	-Topography	101
	-Reinfell	103
1	-Temperature	103
4.4	Existing land use	105
	-Residential cum shanties	109
	-Marshy lands	110
	-Industries and warehouses	110
**	-Commercial activities	111
	-Religious activities	111
	-Infrastructural caulities	
4.5	Land ownership	112
4.6	Demographic aspect	112
4.7	Socio-economic condition	118
4.8	Infrastructural facilities	121
	-Water supply	121
	-Electricity	122
	-Sewerage systemiversity of Moratuwa, Sri Lanka.	122
	-Storad & Lactronic Theses & Dissertations	125
	-Road system www.lib.mrt.ac.lk	129
4.9	Land values	130
4,10	Conclusion	131
Chan	ter 2	
descentanting	Identification of potential low-lying areas and the selection	
3.0	of urban activities	136
5 1	Introduction	136
	Potential areas to be developed	137
	Selection of urban activities	150
	Constraints of locting selected activities	161
3.3	Conclusion	101
Chap	ter VI	
6.0	Approach to an integrated urban development programme	163
6.1	Concept of"Integrated Urban Development"	163
6.2	Integration of urban activities	165
6.3	Evaluation of an integrated urban activities	171

LIBRARY &

Chapter VII			
7.0 Conclusions and Recommendations	198		
7.1 Summary of conclusions	198		
7.2 Recommendations	203		
BIBILIOGRAPHY			
APPENDIX	209		



University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk

SYNOPSIS

Colombo has been the Capital city of Sri Lanka since British rule. Today it has developed in all aspects such as economical, social, political and physical, etc. Owing to the physical growth of the city the availability of buildable lands has now reached the saturation point. As a result, a number of problems have arisen in the city and some of them have become critical.

Nevertheless, there are about 2500 acres of unused low-lying areas situated in and around the city. This study is focussed on a planned method of exploitational Shokanka. University of Morattiwal Shokanka. abandoned low-lying the Electronic Theses & Dissertations www.lib.mrt.ac.lk

The study has been undertaken in seven chapters. The first Chapter has discussed the process of development of the city of Colombo and it has highlighted some of the acute problems that emerged, causing the scarcity of lands. The final section of the chapter also points out the importance of utilisation of the low-lying areas in order to ease the acute problems.

Chapter two has made a detailed examination of availability of low-lying areas in and around the city of Colombo,

Chapter three is devoted to the investigation of the necessity of low-lying land reclamation and its technical possibility as well as the financial aspects of the same.

Having identified the viability of low-lying lands reclamation in and around the city, Chapter four has dealt with an empirical study of an area which is having a University of Moratuwa, Sri Lanka. large extent of university of Moratuwa, Sri Lanka.

The identification of potential low-lying areas and selecting urban activities for them were examined in chapter Five.

Chapter six has discussed the earlier recommendation concept of "Integrated Urban Development" and integration of urban activities. In the final section of this chapter, selection of a reclaimable potential land from the case study area and evaluation of th integrated urban development programme prepared for the same land are made.

Chapter seven of the study comprises conclusions and recommendations.