DYNAMICS OF URBAN GROWTH PATTERN AND URBAN HIERARCHY, A CASE STUDY FOR NORTH CENTRAL PROVINCE OF SRI LANKA.

D B S K DISSANAYAKE

(08/9698)



DEGREE IN MASTER OF SCEINCE IN TOWN & COUNTRY PLANNING

Department of Town & Country Planning

University Of Moratuwa Sri Lanka

March 2013

DYNAMICS OF URBAN GROWTH PATTERN AND URBAN HIERARCHY, A CASE STUDY FOR NORTH CENTRAL PROVINCE OF SRI LANKA.

D B S K Dissanayake

(08/9698)



Thesis submitted in partial fulfillment of the requirements for the Master

Degree of Science in Town & Country Planning

Department of Town & Country Planning

University Of Moratuwa

March 2013

DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Also I hereby grant to University of Moratuwa the non-exclusive right to reproduce and distribute my thesis/dissertation, in whole or any part in print, electronic or other medium. I retain the right to use this content in whole or part in future works (such as article or books)

Signature

Name of the student University of BISK Disssanayakeanka.

Group Electronion Laborate & Dissertations

Index No www.lib.mrt ac.lk

Date : March 8, 2013

CERTIFICATION

The above candidate has carried out research for the Masters dissertation under my supervision.

Signature of principal supervisor

Prof. P K S MahanamaDean (Faculty of Architecture)
University of Moratuwa.



Acknowledgement

I wish to record its sincere thanks to the following for their support and contribution to the successful completion of the report on dynamics of urban growth pattern and future urban hierarchy, of North central Province.

- Prof. P K Mahanama, Dean, Faculty of Architecture, and Dr Jagath Munasinghe, Head of the department, Town & Country Planning) Moratuwa university, for providing valuable guidance, critical comments and a useful feedback to improve this report.
- Mr. R M B Ranathunga who is the Provincial Director (NCP) of UDA for the support and encouragement extended to me in preparation of this report.
- All the chairmen of local authorities, Heads of government institutions in the North Central Province who provided data for this report.
- University of Moratuwa, Sri Lanka.

 All those who provided data and on on the www.lib.mrt.ac.lk
- Mr. M P Maurawansa and all the staff in my office who help in computer typing and preparation of required maps for the report.
- Mrs. S P A Dahanayake, my wife always encourages me and contributes to the report in data collection, data tabulating and computer work.

TABLE OF CONTENTS

Conte	ent		Page No.
Decla	ration		i
Certif	cication		ii
Ackno	owledge	ement	iii
Table	of cont	ent	iv
List o	f Figure	es	vi
List o	f Maps		vii
List o	f Table	s	viii
List o	f Apper	ndices	X
CHA	PTER	ONE – INTRODUCTION	
1.	Introd	luction	01
	1.1	Problem Identification	02
	1.2	Objectives of the Research	03
	1.3	Scope and Limitations	04
	1.4	Methodology	04
CHA 2	PTER An	University of Moratuwa, Sri Lanka LITERATURE REVIEW Electronic Theses & Dissertations Verview Www.lib.mrt.ac.lk	od.
	2.1	Dynamics of urban growth pattern	06
		2.1.1 The concept of urban hierarchy	08
	2.2	Urban Growth Theories	16
		2.2.1 Economic Base Theory	16
		2.2.2 Keynesian model	17
		2.2.3 Input-Output Analysis	17
		2.2.4 Location Theory	17
		2.2.5 Optimal City-Size and Urban Growth theor	y 18
		2.2.6 Central Place Theory	19
	2.3	Critical Review of Urban Growth Theories	21
	2.4	Indicators of Urban Growth Pattern	22
CHA	PTER '	THREE - RESEARCH DESIGN	
	3.1	Introduction	24
	3.2	Conceptual concept	24
	3.3	Research Design	26
		3.3.1 The study area	26

3.3.2	Data collection	26
3.3.3	Data analysis	26
CHAPTER FOUR-	- CASE STUDY	
4.1. Data An	alysis	27
4.1.1	Population	27
4.1.2	Connectivity Analysis	30
4.1.3	Administrative State	31
4.1.4	Local Government State	34
4.1.4	State of Education Institutions	34
4.1.5	State of Health institutions	35
CHAPTER FIVE -	CONCLUSIONS AND RECOMADATIONS	
5.1 Conc	lusions	40
5.2 Reco	mmendations	41
References & Anne		
Annexure Populati	University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations ion detail in each town centre WWW.lio.mrt.ac.lk	
Annexure 2 Connect	tivity Analysis	
Annexure 3 Cell val	ue table	

List of Figure

Figure No	Description	Page No
Figure No 01	Keynesian model diagram	19
Figure No 02	Central Place Theory Diagram	21



List of Maps

Map No	Description	Page No
Map No 01	Urban Centers in North Central Province	29
Map No 02	Connectivity Diagram for NCP	33
Map No 03	Existing Urban Hierarchy of NCP	39
Map No 04	Proposed Urban Hierarchy of NCP	43



List of Tables

Table No	Description	Page No
Table No 01	Connectivity Analysis (Interactive Metrics)	39
Table No 02	Cell Value Table	40
Table No 03	Existing Urban Hierarchy of North central Province	41



List of Annexure

Figure No 1	Description Page	e No
Annexure No 0	Population in Identified town centre in NCP, 2001.	46
Annexure No 0	Annexure 2: Connectivity Analysis	48
Annexure No 0	Cell Value Table	49

