

Spatial Variation of Illegal Narcotic Drug Detections in Sri Lanka

By

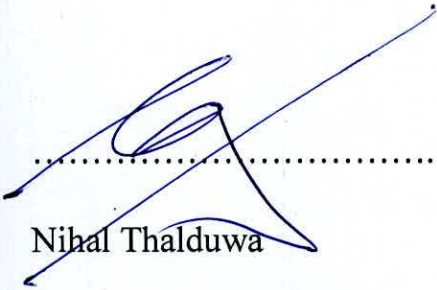
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DECLARATION

The work described in this thesis was carried out by me under the supervision of Dr..Ranjith Prmasiri and a report on this has not been submitted in whole or in part to any university or any other institution for another degree or diploma.



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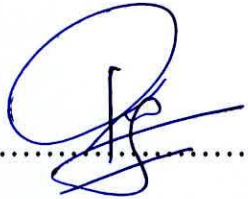
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I certify that the above statement made by the candidate is true and that this thesis is suitable for submission to the university for the purpose of evaluation.



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TABLE OF CONTENTS

CHAPTER 01.....	1
1. INTRODUCTION.....	1
1.1 How these Narcotic drugs effects to peoples' health?.....	3
1.2 Social impact of drugs	5
1.3 Terrorism and drug abuse	7
1.4 Major drugs in the world.....	8
1.5 World Narcotic drug production and distribution	11
2. RESEARCH PROBLEMS.....	15
3. LIMITATION OF THE STUDY	17
CHAPTER 02.....	19
2. LITERATURE SURVEY	19
2.1 Limitation of data in the usage of Narcotic drugs.....	19
2.2 Situational Analysis of the Sri Lanka Narcotic Drug usage and distribution	19
2.2.1 The main Narcotic drugs available and use in Sri Lanka	19
2.3 The rules and regulations related to narcotic drugs in Sri Lanka.....	21
2.4 The Importance of GIS in drug detection.....	23
2.5 The technology development of criminal and drug detention in the world ...	27
2.6 The Importance of GIS in police investigations.....	28
2.7 HotSpots: Definition in geographic space	30

2.8 Drug detection and tourism	34
2.9 Important of information data in crime analysis	36
CHAPTER 03.....	38
3. METHODOLOGY	38
3.1 The mapping process	38
3.1.1.Primary data	38
3.1.2.Secondary data	38
3.1.3.The survey department data	40
3.2 Data preparation	40
3.2.1 Generating Provincial maps	40
3.2.2 Creating police Divisions maps	41
3.2.3 Generating District maps	43
3.3 Rationale to select the study area as Colombo district	44
3.4 Generating the Colombo ciistrict maps	44
3.5 Framework for the Methodology.....	48
CHAPTER 04.....	51
4. DATA ANALYSIS	51
4.1. Recorded Heroin in provincial level of Sri Lanka	51
4.2 Recorded Cannabis in provincial level of Sri Lanka.	58
4.3 GIS analysis in district level of drug cases in Sri Lanka.....	64
4.4 Drug detection by police stations in Colombo, January 2013.....	72

CHAPTER 05.....	100
5. DISCUSSION,CONCLUSION AND RECOMMENDATION	100
5.1 discussion	100
5.2. Recommendations	103
5.3 Conclusion	104
References	105

LIST OF FIGURES

CHAPTER 1

Figure 1.1: Type of some drugs available in the world	2
Figure 1.2: Illegal Narcotic drugs	4
Figure 1.3: Illegal Narcotic drugs in the world and Sri Lanka	8
Figure 1.4: Opium cultivation in Afghanistan	9
Figure 1.5: Main drugs available in the world	12
Figure 1.6: Drug transportation routes in Central America	13
Figure 1.7: Drug trafficking routes in the South Asia	14
Figure 1.8: Cannabis and Opium producing countries	14
Figure 1.9: Major drugs trafficking routes in the World	15

CHAPTER 2

Figure 2.1: Officers destroying the cannabis arrested in the dry zone in SL	21
Figure 2.2: Foreign National arrested in Sri Lanka during 2008-2012	25
Figure 2.3 Sri Lankans arrested in abroad during 2008-2012	26

CHAPTER 3

Figure 3.1: Quantity of drug seized by PNB	42
Figure 3.2: Population density by district, 2011	43
Figure 3.3: Study area map	45
Figure 3.4: Model method used in GIS	49
Figure 3.5: The model method used for create Colombo city maps	50

CHAPTER 4

Figure 4.1: Heroin court cases by province 2009-2013	51
Figure 4.2: Heroin suspects arrest by provinces during 2009-2013	52
Figure 4.3: Other drug categories by provinces in the year 2013	54
Figure 4.4: Heroin quantity seized by province in SL during 2009-2013	55
Figure 4.5: The variation of average suspects arrest for heroin by province 2009-13	56
Figure 4.6: Variation of Heroin court cases by Province in SL during 2009-2013	56
Figure 4.7: Variation of Heroin quantity arrest by province during 2009-2013	57

Figure 4.8: Court cases by provinces for Cannabis in SL during 2009-2011	58
Figure 4.9: Variation of average court cases of Cannabis by provinces 2009-2013	60
Figure 4.10: Variation of average arrested suspects of Cannabis during 2009-2013	61
Figure 4.11: Variation of average quantity arrested cannabis by province 2009-13	61
Figure 4.12: Map of suspects arrest for Cannabis by province in SL 2009-2013	62
Figure 4.13: Map of Cannabis quantity seized by province 2009-2013	63
Figure 4.14: Map of suspects arrest for Cannabis by district in SL 2008-2012	65
Figure 4.15: Map of suspects arrest for Heroin by district in SL 2008-2012	66
Figure 4.16: Map of suspects arrest for Opium by districts in SL 2008-2012	67
Figure 4.17: Map of suspects arrest for other drugs by districts in SL 2008-2012	68
Figure 4.18: Ratio maps for heroin and cannabis 2013 in Sri Lanka provincial level	69
Figure 4.19: Trend map of Heroin detections in Sri Lanka, 2012	70
Figure 4.20: Trend map of Cannabis quantity seized in Sri Lanka, 2012	71
Figure 4.21: Map of drug detections by CMC police stations, January 2013	72
Figure 4.22: Map of drug detections by CMC police stations, February 2013	73
Figure 4.23: Map of drug detections by CMC police stations, March 2013	75
Figure 4.24: Map of drug detections by CMC police stations, April 2013	76
Figure 4.25: Map of drug detections by CMC Police stations, May 2013	77
Figure 4.26: Map of drug detections by CMC police stations, June 2013	78
Figure 4.27 The trend of drug detections by CMC area during January-June 2013	79
Figure 4.28: Map of drug detections by CMC police stations, July 2013	80
Figure 4.29: Map of drug detections by CMC police stations, August 2013	81
Figure 4.30: Map of drug detections by CMC police stations, September 2013	82
Figure 4.31: Map of drug detections by CMC police station, October 2013	83
Figure 4.32: Map of drug detections by CMC police stations, November 2013	84
Figure 4.33: Map of drug detections by CMC police stations, December 2013.	85
Figure 4.34: Map of drug detections by CMC police stations, 2013	86
Figure 4.35: Drug detections trend of police stations CMC during July-Dec 2013	87
Figure 4.36: Drug detections trend of police stations in CMC during -2009-2013	87
Figure 4.37: The trend of drug detections of police stations in CMC during 2009-13	88
Figure 4.38: Maps showing Drug detections in C M C area during 2009-2013	90
Figure 4.39: Satellite image of CMC area showing land use pattern	91

Figure 4.40 Map of Population density by GND in CMC area in 2011	93
Figure 4.41: Map of Land use pattern in CMC area - 2012	94
Figure 4.42: Metal sheet roof distribution by GND in CMC area in the year 2011	95
Figure 4.43: Map of Not attending schools in CMC -2001	96
Figure 4.44: Comparison of households and population density in CMC – 2011	97
Figure 4.45: Comparison of total drug detections in CMC - 2009-2013	98

LIST OF TABLES

Table 2.1 Total numbers of arrests in the 03 district during 2011 - 2012	32
Table 3.1: Drug related detections by CMC Police stations area in the year 2013	46
Table 3.2: Drug related detections by CMC Police stations area from 2009-2013	47

LIST OF ABBREVIATIONS

AIDS	-	Acquired Immunodeficiency Syndrome
ATS	-	Amphetamine Type Stimulants
CA	-	Cannabis
CID	-	Criminal Investigation Department
CMC	-	Colombo Municipal Council
CS	-	Cases
GND	-	Grama Niladaree Division
HE	-	Heroin
HIV	-	Human Immunodeficiency Virus
LTTE	-	Liberation Tamil Tigers Elam
MD	-	MD Web Portal
NDCCB	-	National Dangerous Drugs Control Board
NPS	-	New Psychoactive Substances
OCCRP	-	Organized Crime and Corruption Reporting Project
OT	-	Other
PCP	-	Phencyclidine
PNB	-	Police Narcotic Bureau
PS	-	Persons
QT	-	Quantity
SL	-	Sri Lanka
STAC	-	Spatial and Temporal Analysis of Crime
THC	-	Tetrahydrocannabinol
UNDCP	-	United Nations International drug Control Programme.
UNODOC	-	United Nations office of Drugs and crimes

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Spatial Variation of Illegal Narcotic Drug Detections in Sri Lanka

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ABSTRACT

The thesis explains the importance of Geographical Information System (GIS) in identifying the spatial variation of illegal Narcotic drugs detections in Sri Lanka. The study was carried out to introduce the importance of GIS system and create a geographical database and also a spatial analysis system for analyzing the narcotic drug usage as there is not specifically designed system National or institution wise to record, maintain and analyze the narcotic drug related data or information. Specifically the research looking forward to fulfill the objectives such as, to create a spatial database for the illegal narcotic field, to identify the reasons for different dispersal of drugs and to expand the limit of data collecting methods.

The study was carried out using the qualitative method and has used both primary and secondary data for the purpose of analysis. The data was mainly collected by the Police Narcotic Bureau, National Dangerous Drug Control Board (NDDCB) and respective police stations. Two module builders have been used to create the monthly and yearly Colombo city maps. Initially a situational analysis of the provinces was carried out for Heroin and Cannabis respectively and found out that Western province as the major province where most of the drug related activities have been taken place. After generating the separate district maps it was revealed that the Colombo district as the most prevailing district for the narcotic drugs and accordingly the Colombo city was taken as the study area for this research.

According to the individual map analysis the study identified the important hotspots such as Keselwatta, Maradana, Grandpass, Kotahena, Dematagoda, Maligawatta, Modara and Borella where most of the drug arrests have been take place. The study also generated and analyzed the Colombo Municipal Council satellite map, population density, Land use map ,Metal sheet distribution etc and was concluded that lower the

social and economic conditions of the people, there will be higher chance for the narcotic drug related activities in the areas.

The study recommends that there should be a national strategy for effective collection of data and information. Simultaneously the relevant and reliable data should be maintained by the responsible authorities. GIS could be used to identify the hot spots as well as carry out an effective control/prevention system to reduce the drug related crimes.

Key words:

Narcotic Drugs, GIS, Hot spots, Colombo City

CHAPTER 01

1. INTRODUCTION

The word “Narcotic” can be defined as the drug that produces pain relief, narcosis (state of stupor or sleep) and addiction (Physical dependence on the drug). (Encyclopedia Britannica). Also we can define narcotic drugs as, any of a class of substances that blunt the senses in the human body, and when consumed in large quantities it produce, euphoria/disparities, stupor or coma and when used continuously can cause habituation or addiction (Dictionary reference, 2014). Narcotic drugs are the most strongest pain killers that is available that can effectively manage severe pains without consuming toxic doses, and due to the addiction potential most narcotics are available only as prescription medications. Narcotics has broadly classified into 4 classes according to their mode of action:

- 1) Opioids – Codeine, morphine, tramadol and heroine can be included in to this group which used for moderate to severe pain, except for heroine. Tramadol and morphine are use for anesthesia, post-surgical pain relief and terminal stages of cancer.
- 2) Cannabinoids- This group include, THC (Tetrahydrocannabinol), hashish and marijuana. Due to the high addiction potential these drugs not recommended as therapeutic pain killers.
- 3) Hallucinogens- Include PCP and similar agents and never advised as pain killers.
- 4) Stimulants- Include amphetamine, dextroamphetamine, methylphenidate and methamphetamine that are prescription drugs for the management of neuropsychiatric illness and issues.