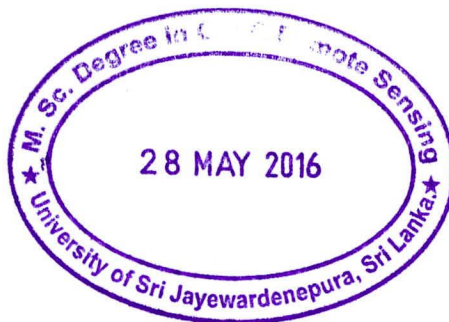


**GEOSPATIAL ANALYSIS OF GRAVE CRIMES IN
BORRELLA POLICE AREA**

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**THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
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DEGREE IN GIS AND REMOTE SENSING ON 20TH MARCH 2016**

DECLARATION OF THE CANDIDATE

I do hereby declare that work described in this thesis was carried out by me under the supervision of Prof. R.M.K. Rathnayake and Dr. Sunil Rajaneethri, and report on this thesis has not been submitted in whole or in part to any University or any other institution for another Degree/Diploma.

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CHAPTER STRUCTURE

Declaration of Candidate	ii
Acknowledgement	iii
Content	iv-vi
Abstract	viii
Abbreviation	ix
List of Table	x-xi
List of Figures	xii
CHAPTER ONE - INTRODUCTION	1-7
1.1 Introduction	1
1.2 Background of the Study	3
1.3 Problem of the Study	4
1.4 Importance of the Study	5
1.5 Objective	7
CHAPTER TWO - Literature Review	8-25
2.1 Introduction	8
2.2 Crime definition	10
2.3 Crime Analysis and Mapping	11
2.4 The history of crime mapping	13
2.5 Environmental Criminology and Crime Analysis	18
2.6 Types of crime analysis	19
2.7 Methods for automating the geographical analysis of crime incident data	20
2.7.1 The Geographic Analysis Machine	20
2.7.2 Contemporary environmental approaches	22
2.8 Crime Mapping Case Studies	22
2.9 The Short-Term impact of Crime Mapping	23
2.10 Strategic Crime Mapping	25

CHAPTER-THREE - METHODOLOGY	27-41
3.1 Study area	27
3.2 Sampling	31
3.3 Data Sources	36
3.3.1 Data Analysis	37
3.3.2 Primary Data	39
3.3.3 Secondary Data	40
3.3.4 Quantitative Analysis	41
3.3.5 Descriptive analysis	41
CHAPTER-FOUR - RESULTS AND DISCUSSION	42-55
4.1 General	42
4.2 Specific Results	42
4.3 Low income communities in Borella Police area	47
4.4 Grave Crime in Borella Police area -2013 -2015	49
4.5 Distribution of IRC Deployment in Borella Police area	52
4.6 Create the model builder for Crime analysis	55
CHAPTER FIVE	65
5.1 Conclusion and Recommendation	65
REFERENCES	66
ANNEX 01- 15	67

ABBREVIATIONS

- CRD - Centre for Research and Development
FGD - Focus Group Discussion
SSI - Semi Structures Interview
SSQ - Semi Structures Questionnaires
GIS - Geographical Information System
DBMS - Data Base Management System
KDE - Kernel Density Estimation
DSD - Divisional Secretariat Division
GND - GramaNiladari Division
KDE - Kernel Density Estimation
KML - Keyhole Markup Language
ATM - Automatic Teller Machine
AG - Attorney General
DIG - Deputy Inspector General
GCR - Grave Crimes Record
GAM - Geographically Analysis Machine
GEM - Geographically Examination Machine
HB - House Braking
STAC - Spatial Temporal Analysis of Crime
RS- Remote Sensing
ICJIA - Illinois Criminal Justice Information Agency

ANNEXURE

1.1	Summary of D-Report crimes year-2013	i
1.2	Summary of D-Report crimes year-2014	iii
1.3	Summary of D-Report crimes year-2015	v
1.4	D- Grade Crimes in year 2013 to 2015	vii
1.5	Crimes in Day & Night-2013-2014-2015	viii
1.6	Total crimes D/N from 2013-2015	x
1.7.	High income Families in Borella	xii
1.8.	Middle income Families in Borella	xiii
1.9.	Low Income Families in Borella Police area in connection	xiv
1.10.	Commercial Custer and crimes	xv
1.11	Distance from Post to Crime records-2013-2014-2015	xvi
1.12.	Time Period of Crimes	xix
1.13.	Interrogation of Arrested suspects	xxi
1.14.	Questionnaires for Criminals	xxiii

LIST OF TABLES

POPULATION OF COLOMBO DISTRICT	28
POPULATION OF BORELLA POLICE AREA.	28
BORELLA POLICE RECORDS	32

LIST OF FIGURES

OFFICE OF COMMUNITY ORIENTED	12
OFFICE OF COMMUNITY ORIENTED	14
POLICING SERVICES COOPERATIVE AGREEMENT	15
LANDSCAPING ARE VISIBLE.	16
STUDY AREA MAP	30
GRAVE CRIMES AND INCOME LEVEL	31
“D” GRADE GRAVE CRIMES REPORTED 2013 TO 2015	43
GEOGRAPHICAL CHANGES	44
ECONOMIC STATE OF THE COMMUNITIES	45
LOW INCOME COMMUNITIES	47
RECORDED GAVE CRIMES	49
IRC IN BORELLA POLICE AREA	52
ORGANIZED CRIMINAL GROUP	54
MODEL BUILDER FOR IDW	55
RISK MAP OF CRIMES	56
PATROL ROUTES	58
CRIME DENSITY MAP	60

Geospatial Analysis of Grave Crimes in Borrella Police Area

N.D.L. Gunawardane

ABSTRACT

Crime, the level of criminality, the sense of personal security and violence are major issues in Borella discourse, and are dealt with extensively in the media. This study presents demographic and socio-economic profile of criminals and their residential environment, as well as a spatial analysis of grave crime in Borella. Objective of this study is to minimize and control the criminal activities by making use of Geographic Information System tools and techniques.

Technology involves in many fields as the present day context therefore for this analysis also technology should be incorporated extensively. This study was initiated with the absence of proper mechanism to dominate existing problematic situation.

Criminal activities are varied spatially and temporally as per the analysis of previously reported incidents in the study area. Therefore it is very important to implement a systematic mechanism to achieve more effective and efficient results incorporating technological perspectives. This systematic approach was tested in many ways to achieve more realistic results.

Borella Police division was selected as the study area evaluating population density, cultural and economic variation, variation of reported criminal activities and many other relative concerns.

The present analysis enables experts in the field to take decisions and make predictions and also this could be applied in other police divisions in the country.

Key words: Crime Statistics, Criminals, Crimes, Convictions, Demographic Characteristics, Criminal Rates, Crime Rates, Spatial analysis.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Criminal offenses were done a extensive damage to the society which was highlighted in the constitutional low by giving a separate section in the penal code as section 38 (Penal Code, 1970).

Crime is a critical issue for already developed countries also which was highlighted in the statement "Is as proportional to race as Grave crime" made by a former president of United State of America (George W. Bush, 2003). A very serious crime for which a person will normally be sent to the Crown Court for trial as for the cases like robbery, murder or indecent assault or an illegal act for which someone can be punished by the government.

Punishment could be awarded by the court for a crime considering the options of community service, fine, for feature of property, imprisonment, institutional treatment, probation, suspended sentence, whipping, and death; while the death penalty is available in the country but there have been no executions since 1976.

Therefore the involvement of Sri Lankan Police also to dominate crime world should be higher than the other related parties like military. Sri Lankan Police play as major role to control and minimize criminal activities. Police vision "Creating a peaceful society-Taking adequate measures to prevent committing crimes Winning the confidence of the People by actively Participating in the Criminal Justice System when crimes are committed" and mission "Getting Involved in implementing the Community Based Policing-Collecting criminal intelligence -Taking prompt action to investigate crimes -Educating the public of their roles and rights in curbing crimes-Training police officers to perform anti-criminal work investigation and assess the work of Territorial Divisions- Maintaining a good rapport with all relevant agencies involved in the criminal Justice System -Getting the fullest co-

operation of the law abiding citizens to curb crimes" (Police Constitutional Act, 1890) (www.police.lk, 2015).

Understanding of Instructional circulars on Crime and allied matters and handling in relation to crime analysis. In Sri Lanka grave crimes categories in to 21 sub categories. In this study will narrow down to these grave crimes. Following are the categories fallen in to Grave crimes;

1. Abduction/Kidnapping
2. Mischief over Rs. 5000/=
3. House Breaking & Theft
4. Grievous Hurt
5. Hurt by Knife etc
6. Homicide/Abetment to commit suicide
7. Attempted Homicide
8. Rape/ Incest
9. Robbery
10. Unnatural Offense/Grave sexual abuse
11. Extortions
12. Cheating/ Misappropriation C.B. trust over Rs.100,000/=
13. Theft of property including prandial produce over Rs.5,000 & Cycle & Cattle
14. Irrespective of their value.
15. Counterfeiting Currency
16. Offence against the state
17. Cruelty to children & sexual exploitation of children
18. Procuration/Trafficking
19. Offenses under the offensive weapons act
20. Possession of Automatic or Repeater Shot Guns
21. Manufacture or any quantity Heroin, Cocaine, Morphine, trafficking, import or possession of dangerous Drugs of an above 2 Gms, of Heroin, 2 Gms. of

Cocaine, 3 Gms. of Morphine, 500 Gms. of Opium, 5 Kgs. of Cannabis and 1kg. of Hashish

Source: IG Circular Number 1540/2000, Crime Circular Number 14/2000

1.2 Background of the Study

Sri Lanka faces a high level of criminal activity. The majority of crimes against Americans and Westerners continue to be petty crime (pick pocketing, hotel room thefts, fraud, etc.). Street hustlers or “touts” are common around popular hotels, shopping areas, and other tourism sites. Many of these crimes are preventable. Although official statistics for 2014 are not yet available, higher levels of serious crime in Colombo were reported in Borella area.

American businesses have reported instances of threats and intimidation over business dealings and labor disputes. Criminal threats include residential break-ins, murder, robbery, assault, sexual harassment/assault, drug crimes, financial fraud, kidnapping and most violent crime occurs within the local community. (www.crimeanalysis.com 2015).

In recent years, media, police, and diplomatic reporting indicates sexual crimes against women, including Western women, is a rising concern. While most reported incidents involved non-physical acts (“cat calls,” leers, verbal harassment), there have been several serious incidents ranging from threats of sexual violence to groping and rape. Some incidents involved the surreptitious spiking of drinks. Western women have been targeted with varied levels of harassment/assaults at night clubs, hotels, and on public streets in Borella. Incidents have also occurred at tourist beaches and smaller hotels in the Southern Province. Sporting events can also be hostile or uncomfortable environments for foreign women, especially in economy seating areas. Several incidents involved suspects/aggressors associated with the politically-connected class, and some perceived to have a level of impunity.

Credit/debit card fraud is a persistent threat. Several foreign nationals and organized groups have been arrested for complicity in these types of financial crimes. There have been exports of employees at reputable businesses wearing data skimming devices in their clothing and scanning a victim's credit card. ATM skimming is another threat. The following websites provide more information on ATM skimming, to include photos of skimming devices.

In 2011, the government removed travel restriction and permitted travel to all areas except for military controlled High Security Zones. A temporary restriction on foreigners traveling to the Northern Province was rescinded following the January 2015 presidential, and there are no restrictions on foreigners traveling to any province in Sri Lanka.

Visitors should take particular care when travelling to the areas of the north and east former conflict zones. Some areas in the north and east former conflict zones may contain both marked and unmarked mine fields, making travel potentially dangerous.

1.3 Problem of the Study

Crime is present in various forms in the country. General classification includes grave crime and minor crime. There are various forms of punishment, up to the death penalty, although there have been no executions since 1403. Sri Lanka has a major problem with corruption and war crimes have affected many people in the country. Crime is segmented into two broad classifications: grave crimes (those which are indictable) and minor crimes (those which are not). Exceptions can be made for criminal liability on the grounds of duress, insanity, intoxication, necessity, and private defense.

To identify the problem, we need to study past grave crime incident. When we study the grave crimes there are three similarities exist across.

1. Time - They were committed during the course of work.
2. Location - They occurred in a work setting.

3. Offender - The offender was serving as a worker.

Researchers have also surveyed grave crime victims to increase our understanding about the victimization experiences of this group. In this context, victims could be

1. Individuals.
2. Businesses and nongovernmental institutions.
3. "Government as a buyer, giver, and protector-gatekeeper".
4. Gangsters.
5. May be poor civilian.

One of the issues that arise in such studies is the ability to identify a sample of grave crime victims. Through this survey, the researchers were able to identify complaint patterns, provide insight into the crime (Prof. N Rathnapala, 1999).

1.4 Importance of the Study

Grave crime is a serious problem in our society. Estimates provided by the Sri Lankan police routinely suggest that far more is lost to grave crimes than to traditional property crimes such as larceny, robbery, and burglary. Beyond these economic costs, grave offenses have the potential to cause serious physical and emotional damage to victims.

It is important to recognize that grave offenses affect everyone. While a specific street offense might have just one or two victims, grave offenses tend to have a large number of victims, and on a certain level, some grave crime offenses are so traumatic that they actually may influence all members of society.

It is important to study grave offending is that by studying grave offending we can learn more about all types of crime. Just as medical researchers might learn more about all forms of diseases by studying one form of disease, the study of grave crime allows criminologists,