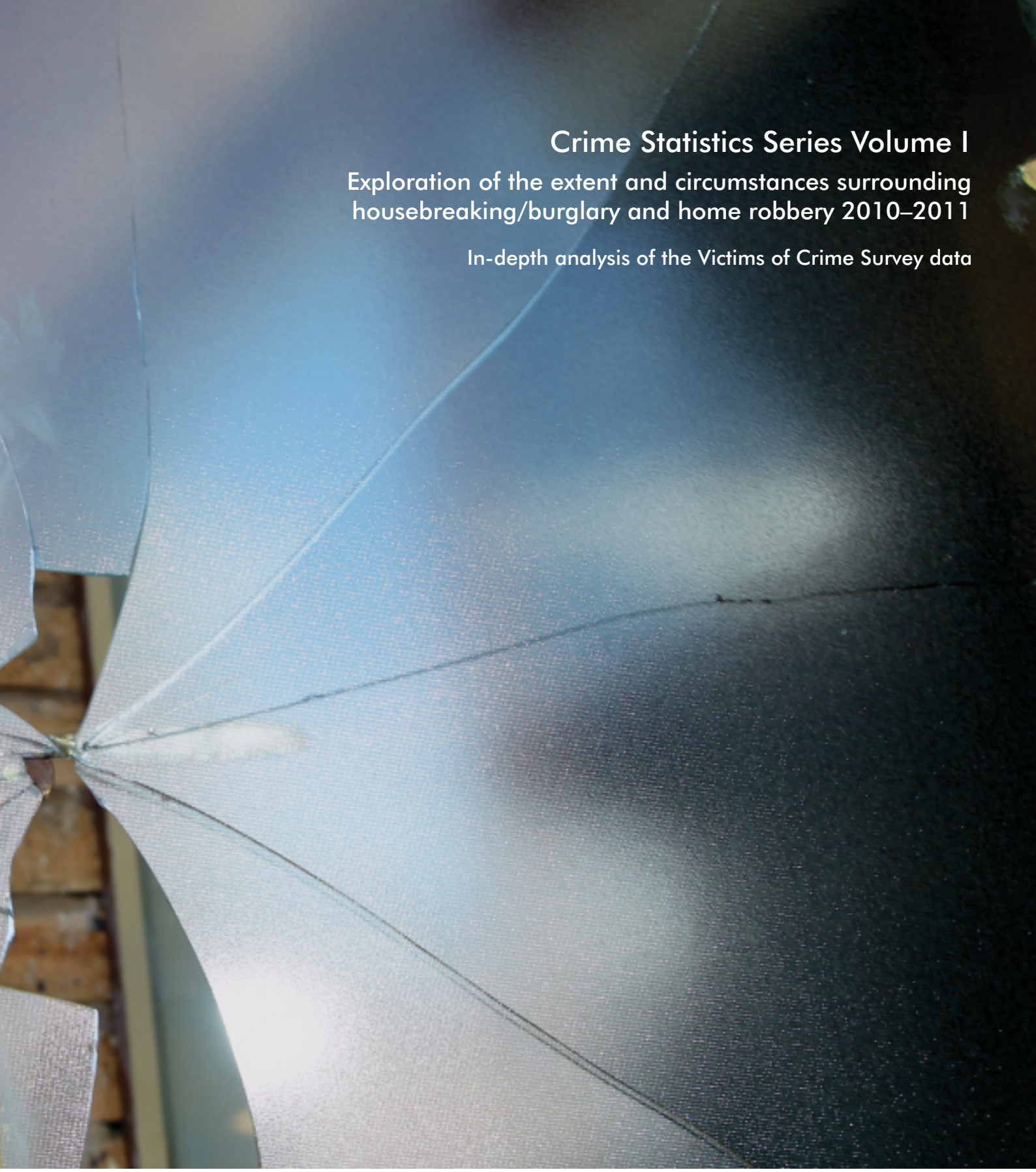

Crime Statistics Series Volume I

Exploration of the extent and circumstances surrounding housebreaking/burglary and home robbery 2010–2011

In-depth analysis of the Victims of Crime Survey data

Statistics South Africa

20 YEARS OF FREEDOM

The South Africa I know, the home I understand

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In-depth analysis of the Victims of Crime Survey data

2010–2011

Statistics South Africa

Report No. 03-40-02 (2010–2011)

Pali Lehohla
Statistician-General

Exploration of the extent and circumstances surrounding housebreaking and home robbery in South Africa based on the Victims of Crime Survey data (In-depth analysis of Victims of Crime data: 2010–2011) / Statistics South Africa

Published by Statistics South Africa, Private Bag X44, Pretoria 0001

Stats SA Library Cataloguing-in-Publication (CIP) Data
Exploration of the extent and circumstances surrounding housebreaking and home robbery in South Africa based on the Victims of Crime Survey data (In-depth analysis of Victims of Crime data (2010–2011))/ Statistics South Africa. Pretoria: Statistics South Africa, 2014

Report No. 03-40-02 (2010–2011)
95 pp

ISBN **978-0-621-41564-3**

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Preface

The Constitution of the Republic of South Africa recognises the importance of freedom and security of every individual within the country's borders. As a result, safety and security remains a central theme of the Government's strategies, such as the National Development Plan, which highlights safety as a core human right.

It is evident that crime instils fear amongst households and it may hinder their ability to engage in their day-to-day activities. In order to fully understand the multi-faceted dynamics of crime and the extent that it affects the society, there is a need for empirical information that will facilitate evidence based decision making. As a statistical agency, Stats SA is not directly responsible for crime prevention, but it has a mandate to provide information on the nature of crime and victimisation in South Africa.

Crime statistics are mainly produced through administrative data sources within the South African Police Service (SAPS), which are useful in quantifying crime, as well as identifying crime hotspots. However, this data does not always contain information necessary to measure the full extent of crime and relevant demographic and socio-economic indicators related to crime and victimisation. Survey data, from the perspective of the victims, has been used to complement existing administrative data.

Despite the measures that exist to combat crime, it continues to be a challenge for the victims and those responsible for crime prevention. An estimated 730 000 households in South Africa experienced housebreaking/ burglary in 2011 and a further 200 000 households were victims of home robbery, making these crimes the most prevalent household crimes. Although these two crimes are also most feared by households, they remain largely unreported to the police, thus distorting the true magnitude of crime in the country.

This report, the first in a series of thematic crime reports, examined the extent of housebreaking/burglary and home robbery in the country; circumstances around which these crimes occurred, including the time of day, mode of entry, property lost and identity of perpetrator. Consequences of the victimisation experience were also discussed detailing precautionary measures taken to protect the household following the victimisation experience, injury related to resisting robbery and the characteristics of households that are likely to experience victimisation. It is envisaged that the findings presented in this report will provide meaningful information that can assist in assessing the crime situation in South Africa and further aid in expanding the statistical information base in order to strengthen policy formulation.

Mr. Pali Lehohla
Statistician-General: Statistics South Africa

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Glossary of abbreviations

CAS	Case Administration System
CSVR	Centre for the Study of Violence and Reconciliation
DCS	Department of Correctional Services
DME	Department of Minerals and Energy
DoJ & CD	Department of Justice and Constitutional Development
DPME	Department of Performance Monitoring and Evaluation
DTS	Domestic Tourism Survey
DU	Dwelling Unit
EA	Enumeration Area
EC	Eastern Cape
FS	Free State
GHS	General Household Survey
GP	Gauteng
JCPS	Justice, Crime Prevention and Security
KZN	KwaZulu-Natal
LP	Limpopo
LSM	Living Standard Measure
MDG	Millennium Development Goals
MP	Mpumalanga
MS	Master Sample
NC	Northern Cape
NDP	National Development Plan
NPA	National Prosecuting Authority
NSA	National Statistical Agency
PSU	Primary Sampling Unit
QLFS	Quarterly Labour Force Survey
RSA	Republic of South Africa
SA	South Africa
SAPS	South Africa Police Service
SASQAF	South African Statistical Quality Assessment Framework
SG	Statistician-General
Stats SA	Statistics South Africa
UNODC	United Nations Office of Drug and Crime
VOCS	Victims of Crime Survey
WC	Western Cape

Concepts and definitions

Absolute measure of the extent of crime (Incidence): The number of crime events occurring during a given time period (i.e. a year) within a specified population. For example, number of home robberies
Assault – attack, physical beating or threat to attack without taking anything from the victim.

Note: Includes domestic violence.

Home robbery – unlawful and intentional forceful removal and appropriation of tangible property from residential premises while there is someone at home.

Housebreaking/burglary – unlawful and intentional breaking into a building or similar structure, used for human habitation, and entering or penetrating it with part of the body or with an instrument, with the intention to control something on the premises, intending to commit a crime on the premises, while there is nobody in the dwelling.

Household – a group of persons who live together and provide themselves jointly with food and/or other essentials for living, or a single person who lives alone.

Note: The persons occupy a common dwelling unit (or part of it) for at least four nights in a week on average during the past four weeks prior to the survey interview, sharing resources as a unit. Other explanatory phrases can be 'eating from the same pot' and 'cook and eat together'.

Household head – the main decision-maker, or the person who owns or rents the dwelling, or the person who is the main breadwinner.

Individual crime – crime affecting a single person rather than an entire household.

Living Standard Measure: A Living Standard Measure(LSM) groups people and households into ten distinct groups based on criteria such as their level of urbanisation, ownership of vehicles and major electrical appliances. The measurement is classified from LSM 1 to LSM 10. For the purposes of this report, these categories are combined as follows:

Low LSM: comprising LSM 1 to LSM 4
Intermediate LSM: comprising LSM 5 to LSM 7
High LSM: comprising LSM 8 to LSM 10.

Malicious damage to property – unlawful and intentional damaging of property belonging to another.

Note: Excludes forced removals.

Multiple victimisation: Refers to when a household or individual experiences more than one incident of different crime types within a specified reference period.
Perpetrator – person (s) who committed the crime.

Personal property – something belonging to an individual rather than a group of persons.

Physical force – bodily power, strength, energy or might.
Note: In the context of this survey, physical force includes actions where the human body is used to compel/force someone to do something or to hurt or kill someone. It can include actions such as pushing, pressing, shoving, hitting, kicking, throttling, etc.

Prevalence: The percentage or proportion of the specified population (of persons or households) experiencing crime during a given time period.

Property crime – taking something from a person by the use of force or the threat of force, for example, pointing a knife at someone.

Repeat victimisation: Refers to when a household or individual experiences more than one incident of the same crime within a specified reference period.

Robbery involving force – refers to all crimes where a person's property was threatened but not his person such as theft of property, burglary, etc.

Theft – Stealing of property belonging to someone else while they are not aware.

Vandalism – deliberate damage to property belonging to someone else.

Violent crime – crime where a person was threatened, injured, or killed.

Weapon – an instrument used to cause harm or death to human beings or other living creatures.
Note: Includes knives, guns, pangas and knobkerries, metal or wooden bars/rods, broken glass, rocks, bricks, etc.

1. Introduction

The threat of crime creates a climate of fear and anxiety in society and often prevents people from engaging in their day to day activities. South Africans from all walks of life are dissatisfied with their personal safety (Moller, 1995). Levels of crime continue to be of concern in South Africa (SA) in spite of the guarantees of the Constitution of South Africa (Act No. 108 of 1996) that everyone should be protected from all forms of violence, whether from public or private origin.

Incidents of violence emerge from the interaction of different factors, such as family history, social context, environmental factors and/or economic factors. In order to fight crime effectively, comprehensive statistics on patterns of crime and victimisation should be available. During the past two decades a number of studies have been done to provide insight into the nature, and the level of crime in the country, including several victimisation surveys related to crime, crime victims and users of services. Furthermore government departments in the safety and security cluster collected crime related data in accordance with their respective acts. Administrative data collected by the South African Police Service (SAPS) remains one of the main sources of crime statistics. However, questions about under reporting rates have always been a topic of public debate. Some crimes go unreported, and for this reason, neither the victimisation survey results nor the police crime statistics can produce an accurate count of total crime. Integrated information systems that enable evidenced based decision making will go a long way to respond to the South African government's commitment of providing "a better life for all"[1].

In addition to direct measures to improve safety and security, the Government's social development program may also indirectly impact on the levels of crime. For example, one of the primary commitments made by the government is the provision of, and improved access to, permanent housing that provides secure tenure and protection against elements as described in the Housing Act 1997 (Act No. 107 of 1997). The General Household Survey (GHS) (2012) found that there has been a significant improvement in the nature of dwellings in which people live, access to various basic services and facilities and a significant increase in the number of individuals and households who benefit from social grants. All of these provide an important indication of the well-being of household members.

Even though it debatable whether poor living conditions lead to crime, shelter satisfies a basic human need for physical security and comfort. Quality of life is affected by the levels of crime and the fear of crime has an impact on people's wellbeing.

1.1 General overview of the safety and security sector

1.1.1 Legislative framework

South Africa has a legislative framework in place to address challenges regarding crime in the country, (but programmes initiated to mitigate these legislative objectives should be based on credible information).

The Bill of Rights (Section 12), under the chapter: Freedom and security of the person provides that: "Everyone has the right to freedom and security of the person, which includes the right—

[1]Details on the Legislative frame work, National Development Plan, and Medium Term Strategic Framework are discussed in Section 1.1 of this report.

a) Not to be deprived of freedom arbitrarily or without just cause;

b) Not to be detained without trial;

c) To be free from all forms of violence from either public or private sources;

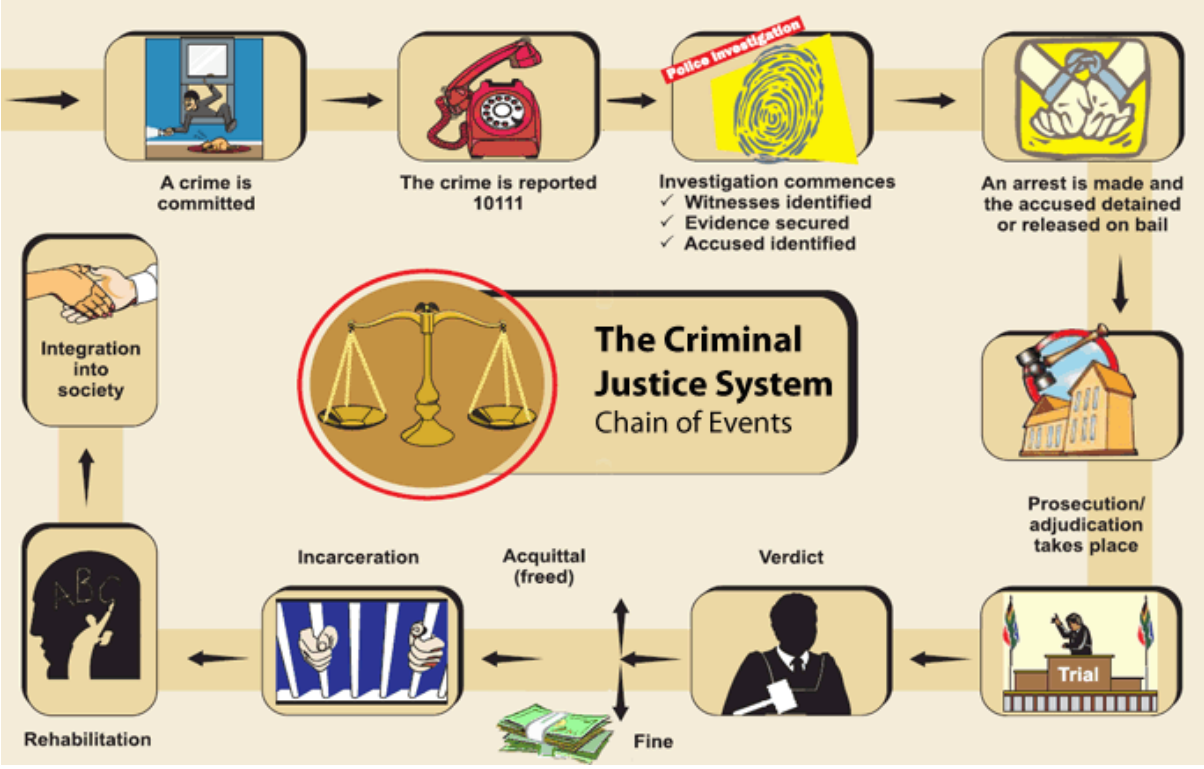
d) Not to be tortured in any way; and

e) Not to be treated or punished in a cruel, inhuman or degrading way"

Figure 1 demonstrates the chain of events in the criminal justice system. Various departments play a role during this process, but the main role players are:

1. South Africa Police Service
2. Department of Justice and Constitutional Development
3. National Prosecuting Authority
4. Department of Correctional Services

Figure 1: The Chain of events in the criminal justice system[2]



Even though there are several Government departments active in the safety and security cluster, the primary agency responsible for law and order is the South African Police Service (SAPS). The Constitution of the Republic of South Africa (1996) stipulates that "the South African Police Service has a responsibility to prevent, combat and investigate crime, maintain public order, protect and secure the inhabitants of the Republic and their property, uphold and enforce the law, create a safe and secure environment for all people in South Africa, prevent anything that may threaten the safety or security of any community, investigate any crimes that threaten the safety or security of any community, ensure criminals are brought to justice and participate in efforts to address the causes of crime."[3]

[2] Source: http://www.justice.gov.za/about/cjschain.html

[3] Statutes of the Republic of South Africa-Constitutional Law *Constitution of the Republic of South Africa Act, No. 108 of 1996, section 205, No .3*

The SAPS derives its mandate from Section 205 of the Constitution, 1996 (Act No. 108 of 1996). The objectives of policing are to:

- prevent, combat and investigate crime
- maintain public order
- protect and secure the inhabitants of the Republic and their property
- uphold and enforce the law.

Other departments that play a direct role in safety and security include: the National Prosecution authority (NPA) whose primary role is to prepare cases for prosecution on behalf of the state, the Department of Justice and Constitutional Development (DoJ & CD) which is responsible for the administration of justice through the court system and the Department of Correctional Services (DCS).

A single NPA was created in Section 179 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996), and it has the power to:

a) Institute and conduct criminal proceedings on behalf of the State.
b) Carry out any necessary functions incidental to instituting and conducting such criminal proceedings (this includes investigation).
c) Discontinue criminal proceedings.

The DoJ & CD administer the justice function through a tiered court system which includes: the Constitutional Court; the Supreme Court of Appeal in Bloemfontein; the High Courts with fourteen provincial divisions; Circuit Courts which are also part of the High Court; Special Income Tax Courts which sit within provincial divisions of the High Court; Labour Courts and Labour Appeal Courts; Land Claims Court; the Water Tribunal; the Truth and Reconciliation Commission (TRC); the Magistrates' Courts which deal with the less serious criminal and civil cases; the Small Claims Courts; the Community Courts; Equality Courts; Child Justice Courts and Maintenance Courts; Sexual Offences Courts; Children's Courts and Courts for Chiefs and Headmen. The latter have jurisdiction to hear certain matters on the level of magistrate's courts and primarily deal with issues related to customary law.

Finally the vision of the Department of Correctional Services (DCS) is to 'contribute to a just, peaceful and safer South Africa through effective and humane incarceration of inmates, rehabilitation and social reintegration of offenders'.[4] The DCS has three strategic goals:

Goal 1: Effective criminal justice through the effective management of remand processes
Goal 2: Society is protected through incarcerated offenders being secure and rehabilitated
Goal 3: Society is protected by offenders being reintegrated into the community as law abiding citizens

1.1.2 National Development Plan

The government has recognised the need for an intervention; and safety and security has been identified as one of the strategic priorities of the government in both the National Development Plan 2030 and the Medium Term Strategic Framework. In its introduction, the National Development Plan (NDP) 2030 highlights that safety is a core human right and a necessary condition for human development and improving productivity. The NDP therefore proposes, as one of its strategic priorities, that crime be reduced through strengthening the criminal justice system and improving community environments. It is further stated in the plan that by 2030, "people

[4] Source: http://www.dcs.gov.za/AboutUs/OurMission.aspx

living in South Africa should have no fear of crime. Women, children and those who are vulnerable should feel protected."

1.1.3 Medium Term Strategic Framework and Criminal Justice System

One of the broad strategic frameworks of the MTSF (2009-2014) is that all people: "**All People in South Africa Are, and Feel Safe**".

As part of this process, the Justice and Crime Prevention and Security (JCPS) Cluster in partnership with the DPME have developed an outcome-based monitoring and evaluation framework for the priorities as contained in the Medium-term Strategic Framework for the period 2009 to 2014. For the priority, "Intensify the fight against crime and corruption", a broad outcome for the JCPS was developed, namely "Ensure that all South Africans are and feel safe"[5]

Among other things the strategy focuses on:

- Mobilising the population in the fight against crime;
- Accelerating efforts to reduce all serious crimes by the set target of 7–10% per annum (the January 2010 Cabinet Lekgotla changed the target to 4–7% over the period 2009-2013);
- Intensifying efforts to combat crimes against women and children and the promotion of the empowerment of victims of crime; and
- Combating corruption in the public and private sector

Data collected by Stats SA and other agencies should be used to assist in this regard as a complementary source of crime statistics to the statistics already provided within the JCPS cluster.

1.2 Objectives

This report is the first in a series of Victims of Crime Survey (VOCS) thematic reports aimed at providing an in-depth understanding of victimisation phenomena. This report primarily focuses on housebreaking/burglary and home robbery. The main objective of this study is to use the historical VOCS data to provide statistical measures of trends and conditions about housebreaking/burglary and home robbery in South Africa between 2010 and 2011. More specific questions that were addressed include:

1. What was the status of housebreaking/burglary and home robbery in SA in 2011?
2. What do the indicators on housebreaking/burglary and home robbery reveal about the likelihood of households being victimised?
3. Are there specific household characteristics that can explain why households were victimised?
4. What measures are to be taken by victims to avoid injury during home robbery?
5. What were the precautionary measures taken by victims to protect homes and property after the victimisation experience?

Victimisation surveys aim to provide information about the dynamics of crime from the perspective of households and the victims of crime. The results complement administrative data collected by the SAPS who release figures of crime that were reported to them, as well as crime that they detected. Victimisation surveys and police administrative crime data provide complimentary information on the crime situation in South Africa. The results

[5] Source: http://www.saps.gov.za/saps_profile/strategic_framework/strategic_plan/2010_2014/strategic_plan_2010_2014_2.pdf

of this report could be used for the development of policies and strategies, as well as crime prevention and public education programmes.

Details about the methodology and limitations of the study can be found in Section 2.

1.3 Organisation and presentation of the report

This report has four main sections. In Section 1 the general overview of the Safety and Security sector and the objectives of the report are provided. Section 2 outlines the methodology and data analysis techniques used in the report and points out some of its limitations. The third section provides a detailed exposition of the findings of the report, while the conclusions and recommendations can be found in Section 4.

2. Methodology and limitations

2.1 Methodology

This study used the Victims of Crime Survey (VOCS) data series (2010–2011) as indicated in the objectives. VOCS is based on a random sample of approximately 30 000 dwelling units (DU) drawn from 3 080 Primary Sampling Units (PSUs) across the country. By drawing on a representative sample of the population and systematically covering a range of crime types, the survey provides statistically representative data across a specified geographic area that fills the gaps in administrative data due to under-reporting.

The sample design for the VOCS 2012 used the Stats SA Master Sample (MS). The MS design is based on information collected during the 2001 Population Census conducted by Stats SA. The MS has been developed as a general-purpose household survey frame that can be used by all household-based surveys irrespective of the sample size requirement of the survey. The VOCS 2012 used a MS of primary sampling units (PSUs) which comprise census enumeration areas (EAs) drawn from across the country. The sample was designed to be representative at provincial level.

A questionnaire with a standardised set of questions was used during data collection. The questionnaire is administered using face-to-face interviews by trained survey officers. The VOCS 2012 interviews were conducted from January 2012 to March 2012 and they referred to crime that occurred in the previous calendar year, i.e. from January 2011 to December 2011. The VOCS 2012 sample was weighted using population estimates for mid-November 2011. The final weights were benchmarked to the known population estimates of 5-year age groups by population groups and gender at national level, and broad age groups at provincial level. The VOCS had an additional selection process where one person, aged 16 years or older, was randomly sampled in each household to complete sections on the individual experience of crime. The individual weights were benchmarked to an estimated national population of persons aged 16 and older as of mid-November 2011. The final survey weights were used to obtain the estimates for various domains of interest at household level, for example, victimisation level in South Africa and South African perceptions of crime levels in the country. More details related to the sampling and fieldwork methodology can be found in the VOCS (2011) and VOCS (2012) reports.

2.2 Data analysis

The statistical analysis programs SAS 9.3 and SAS Enterprise Guide 4.3 were used for statistical analysis and ArcMap 10 for spatial data analysis.

Missing and unknown values were excluded from totals used as denominators for the calculation of percentages, unless otherwise specified. Frequency values have been rounded off to the nearest thousand. In addition to the use of basic descriptive statistics, multivariate techniques such as multinomial logistic regression and Chi-squared Automatic Interaction Detection (CHAID) tests were also used for selected indicators. CHAID is a type of decision tree technique, based upon adjusted significance testing and can be used for prediction classification, and for detection of interaction between variables.

Several composite data sets were constructed during the analysis process. These included:

- Living Standards Measure (LSM) Data from the Domestic Tourism Survey (DTS) were merged with the Victims of Crimes Survey (VOCS) in order to attribute LSM feature to the PSUs sampled in VOCS based on the assumption that neighbourhoods have relatively uniform LSM characteristics. This was made possible

by the fact that the two surveys were drawn from the same master sample and even though different dwelling units were visited most PSUs were shared by the two surveys.

- The VOCS and South African Police Services (SAPS) data was merged spatially to analyse crime by rural-urban police station boundaries in order to look at the victimisation survey data within the context of the two types of policing areas. In cases were the police station geographical boundaries differed from Census 2001 enumeration areas (EA's) the nearest neighbour profile was analysed and data was allocated according the (80/20)% decision rule. This means that all the polygons with areas greater or equal to 80% or less or equal to 20% were to remain with the policing area greater or equal to 80%. Areas between 20 and 80 were manually investigated and the link was assigned based on dwelling unit distribution and the size of the policing area. The following decision rules were used during this process:
    - The PSU with the most dwellings was assigned to the policing area.
    - In the case of the same number of dwellings, than the PSU area/size was used (the biggest PSU got the policing area ID).

- South African Police Services (SAPS) boundaries were merged with Census 2011 data. This was done in order to superimpose the administrative records of reported crimes onto the Census 2011 data frame to firstly determine crime hotspots and thereafter conduct spatial regression analysis. Similar decision rules as described in the preceding paragraph were used during this process.

- Thematic maps of crime in each province were created so as to see the general pattern of crime and where in the country it occurs. A spatial autocorrelation (Moran I), was performed to establish if a relationship exists in the data, as well as to investigate the possibility of clustering. The spatial autocorrelation determines whether or not the analysis needs to be done. Without clustering it is fruitless to do any analyses which are based on the clusters such as hot spot analysis. Once the spatial autocorrelation has confirmed clustering within an area under study, a hot spot analysis (Getis-Ord GI*) is conducted. The hot spot analysis is performed to show in which areas the clusters of crime are found and if the clusters are high value clusters (hot spot) or low value clusters (cold spots). Once this is done, a cluster and outlier analysis (Anselin Local Moran's I) is done to identify statistically significant hot spots, cold spots and spatial outliers. These three processes were done for the provinces as well as for metropolitan areas to get a more in-depth understanding of the patterns of crime.

2.3 Limitations of the study

It should be noted that the data from VOCS 2011 and 2012 were collected between January and March, and survey data is based on respondent recall, while the police records covered incidents that were reported as they happened from April to March of each financial year.

Victimisation surveys are likely to produce higher crime estimates than police-recorded administrative data. This is due to the fact that many crimes are not reported to the police. Victim surveys deal with incidents which may not necessarily match the legal definitions of crime. Although data from crime victim surveys are likely to elicit better disclosure of criminal incidents than data from police records, they can also be subject to undercounting, as some victims may be reluctant to disclose information, particularly for incidents of a sensitive nature, such as sexual assault. The accuracy of statistics in victimisation surveys is influenced by the ability of people to recall past victimisations. The longer the elapsed time period, the less likely it is that an incident will be recalled accurately. Surveys are also subject to sampling and non-sampling errors. Stats SA has since however changed its data

collection methodology to a continuous data collection methodology, the results of which will be published in 2014.

Comparisons between the SAPS administrative data and the VOCS data deal with slightly different reference periods. In the report the VOCS data for 2010 refer to the reference period January to December 2010, whilst the police data would refer to the period April 2010 to March 2011. The same is true for the VOCS 2012 with reference period January to December 2011 which was then compared to the police administrative data for the period April 2011 to March 2012.

It should be noted that due to a printing error in the questionnaire used for VOCS 2011 (recall period 2010) there was a vague delimitation between housebreaking/burglary and home robbery which may influence the comparison of the incidences of these two crimes between 2010 and 2011.

3. Findings

3.1 Extent of housebreaking/burglary and home robbery

3.1.1 Introduction

Key objectives of this report are to provide an in-depth understanding of housebreaking/burglary and home robbery in South Africa. Although there may be similarities between home robberies and housebreaking/burglary, the distinct characteristic that differentiates home robbery from housebreaking/burglary is that there is contact between the victim and the perpetrator during a home robbery, whereas there is no direct contact between the victim and perpetrator during housebreaking/burglary. Crimes that occur at residential premises, especially housebreaking/burglary and home robbery have a potential to violate basic human needs for physical security and comfort. Unlawful entry into someone's property, regardless whether they are present or not, can be traumatic to those affected and may also lead to individuals and households becoming victims of multiple crimes (multiple victimisation is discussed in Section 3.1.4).

This section focuses on the incidence of victimisation, including repeat and multiple victimisations. A distinction should however be drawn between repeat victimisation and multiple victimisations. Repeat victimisation refers to when a household experiences more than one incident of the same crime within a specified reference period, while multiple victimisations refer to a household experiencing different crime types once or more often within a specified reference period.

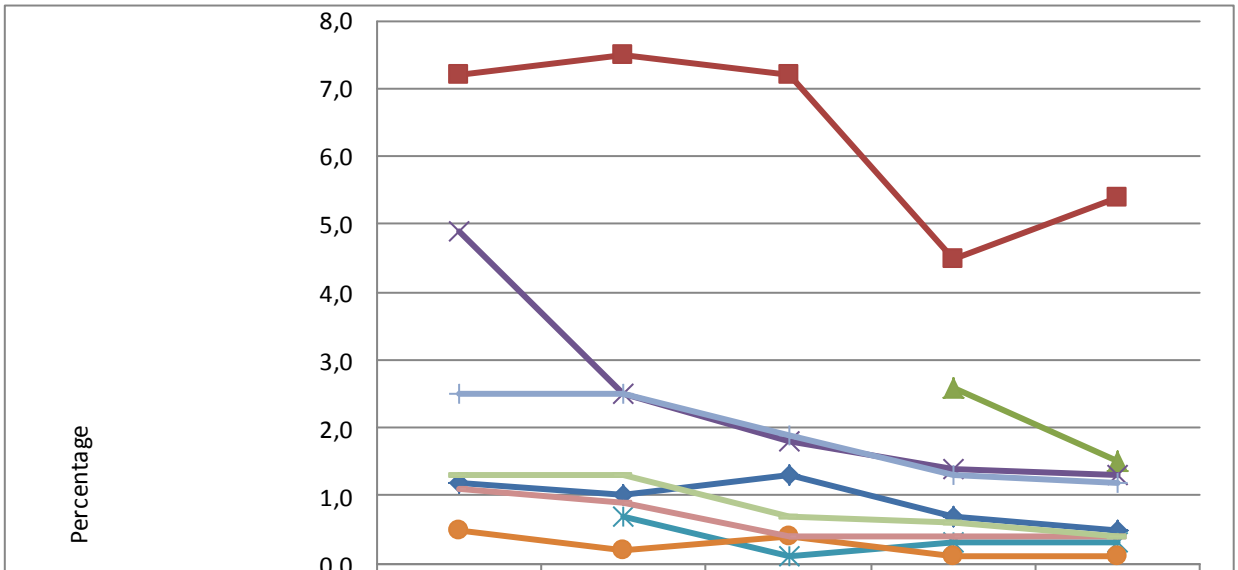
As indicated in Section 2, Stats SA's Victims of Crime Survey is used to provide statistical measures of trends and conditions about housebreaking/burglary and home robbery in South Africa. Most of the figures and tables refer to the 2010 and 2011 calendar years. Sometimes there are references to the VOCS 2011 and VOCS 2012 and it is important to note as indicated in section 2, that the VOCS 2011 measured crimes that occurred between January 2010 and December 2010, whilst VOCS 2012 measured crimes that occurred between January 2011 and December 2011. In some, albeit limited instances, it was possible to refer to older victimisation surveys that were conducted in 1997 and 2004 respectively. Where data from these surveys are included it will be indicated as such. Data from SAPS was used as a complimentary source to aid the exploration of the extent of victimisation. Where SAPS data was used, the periods under review are the 2010/2011 and 2011/2012 financial years. It will further highlight results relating to the prevalence of housebreaking/burglary or home robbery.

3.1.2 Incidence of victimisation

Crime is a topic commonly discussed among households and frequently features in the media. The Victims of Crime survey included questions that asked about household crimes experienced by South African households.

Figure 2 shows trends shared by different crime types. The results indicate that incidents of household crime have remained fairly stable over the years, where crime rates showed a general decline since 1998. Figure 2 reflects the percentage of households that have been victimised at least once between 1998 and 2011. In 2010, 4,5% of households had been the victims of housebreaking/burglary in the preceding 12-month period, compared to 5,4% in 2011. While the rate of most crime types has decreased since 1998, housebreaking/burglary has increased by 0,9% point in 2011.

Figure 2: **Change in incidence of household crime between the 1998, 2003, 2007, 2010 and 2011 VOCS**

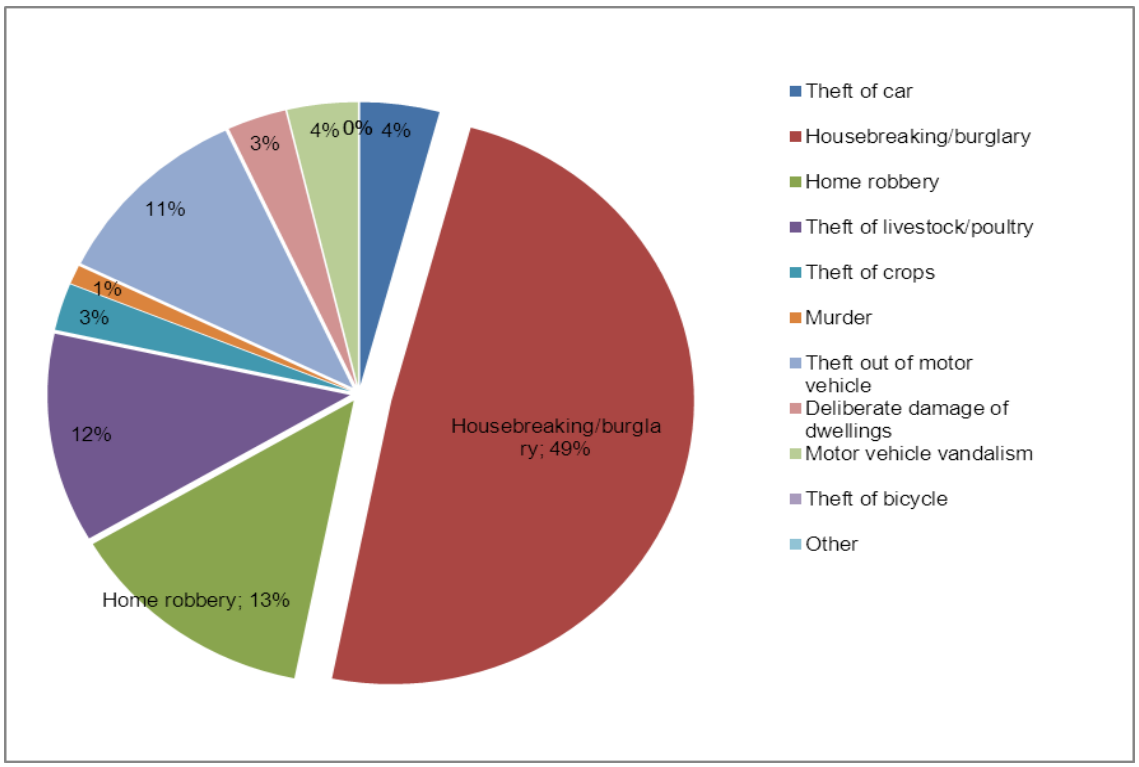


	1998	2003	2007	2010	2011
Car theft	1,2	1,0	1,3	0,7	0,5
Housebreaking/burglary	7,2	7,5	7,2	4,5	5,4
Home robbery				2,6	1,5
Theft of livestock	4,9	2,5	1,8	1,4	1,3
Theft of crops		0,7	0,1	0,3	0,3
Murder	0,5	0,2	0,4	0,1	0,1
Theft from car	2,5	2,5	1,9	1,3	1,2
Deliberate damaging of dwellings	1,1	0,9	0,4	0,4	0,4
Motor vehicle vandalism	1,3	1,3	0,7	0,6	0,4

Note: A question on home robbery was not included in VOCS 1998-2007

The results presented in Figure 3 provide estimates of all household crimes as measured in the 2012 survey. Housebreaking/burglary was the most common category and it constituted about 49% of household crimes, while home robbery was the second most experienced household crime, where it constituted about 13% of household crimes. Theft of livestock (12%) was the third most experienced household crime in 2011. Housebreaking/ burglary and home robbery accounted for more than sixty per cent of the measured household crimes.

Figure 3: Type of victimisation as a percentage of total household victimisation in 2011, VOCS 2012



As discussed in Section 1, VOCS alone cannot provide a comprehensive picture of crime committed against households in South Africa as it is based on a sample survey. The results obtained from other sources, more particularly the SAPS will be used as complementary sources,primarily for trends in relation to the levels of crime.

For any set of statistics to be meaningful, it is important to look at trends and make comparisons over time. When the data are not organised using consistent underlying principles, it can be difficult to make such comparisons. The VOCS determines the level of crime perpetrated against households in South Africa. When the victimisation survey is compared to police statistics, the victimisation survey tends to provide more in-depth information on the risk profile of the victim (Centre for the Study of democracy, 2005), as well as information on unreported crimes. Police statistics on the other hand provide more accurate information on reported crime as there is a shorter time lapse between the incident and the time of reporting.

The VOCS included a question that asked the respondent about the crime they had experienced in the last five years prior to the survey. Table 1 shows that about 1 870 250 million households in South Africa were victims of housebreaking/burglary from 2007 to 2011. From about 830 000 attempted incidents of housebreaking/burglary in 2011, an estimated 730 000 were successful. SAPS however recorded about 246 000 incidents of housebreaking/burglary in 2011 (Figure 4).

South Africa experienced an estimated 2,1 million cases of serious crimes in the 2011/2012 financial year. About 29,9% of these serious crimes were from a category of contact or violent crimes (SAPS, 2012).SAPS 2011/12 indicated that home robbery, as a subcategory of robberies, accounted for about 16,5% of aggravated robberies. This was the second largest contributor in the broader category of robbery with aggravating circumstances, which include street robbery, carjacking and robbery at business premises, amongst others. The SAPS crime statistics for the 2011/2012 financial year show that there were 16 766 cases of home robbery that were reported to the police. The latest results from SAPS indicated that about 17 950 000 households in South Africa were victims of home robbery in the 2012/2013 financial year.

VOCS 2012 found that about 600 499 households were the victims of home robbery between 2007 and 2011. More than 246 000 attempted counts of home robbery were recorded in 2011 and about 200 000 of them were successful. The large gap between the numbers of victimisation experienced based on VOCS 2011-2012 and the number of housebreaking/burglary and home robbery incidents recorded in the police stations can be attributed to under-reporting to the police. The reasons for not reporting victimisation to the Police are discussed in Section 3.4.

Approximately nine out of ten attempted housebreaking/burglary and eight out of ten attempted home robbery incidents were successful in 2011. The large number of incidents of attempted criminal activity raises serious social issues in terms of the well-being and security of households and requires the strengthening of crime prevention measures such as neighbourhood watches, increased police visibility and other community cohesion activities.

Table 1: Incidence of housebreaking/burglary and home robbery (attempted and successful), VOCS 2012

Type of crime	Experienced between 2007 and 2011	Attempted in 2011	Successful in 2011
Housebreaking/burglary	1 870 250	831 105	730 077
Home robbery	600 499	246 128	199 387

Figure 4: Comparison of housebreaking/burglary and home robbery incidents (VOCS 2012 and SAPS 2011/2012)

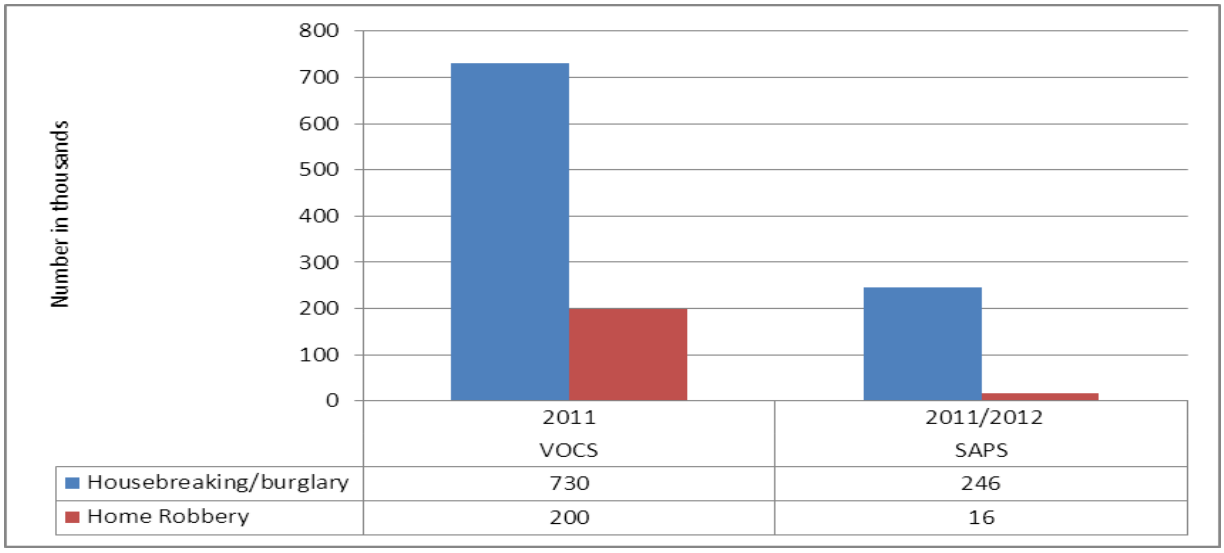
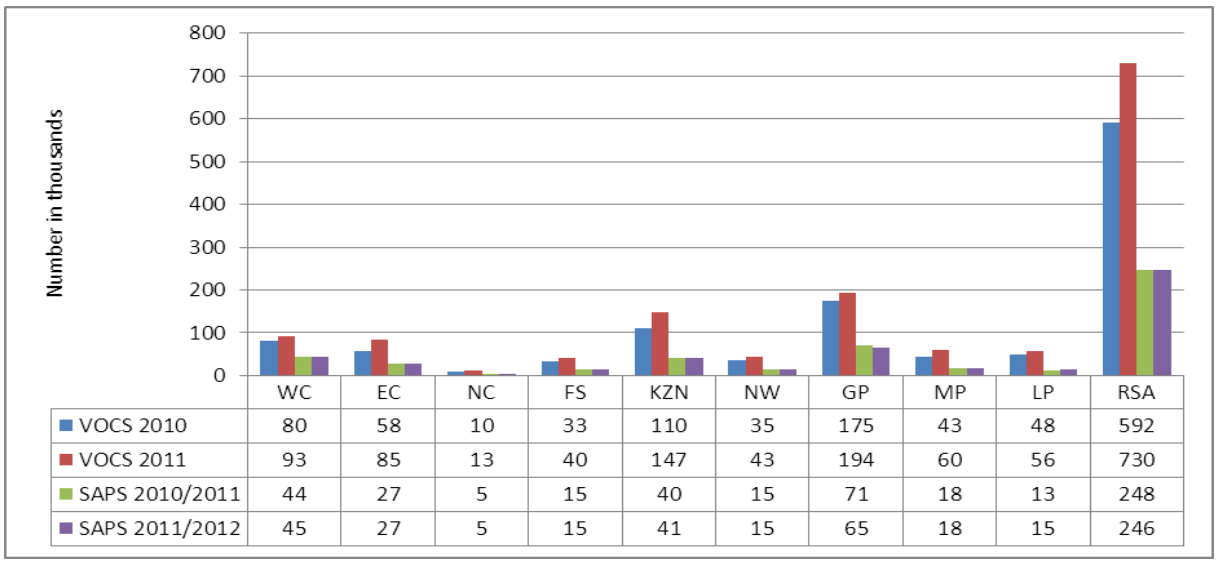


Figure 5 reflects the provincial distribution of housebreaking/burglary in 2011. The 2011/2012 police records revealed that the highest incidence of housebreaking/burglary incidents were in Gauteng (65 000), Western Cape (45 000) and KwaZulu-Natal (41 000), while Northern Cape, North West, Free State and Limpopo recorded the least. Gauteng, Western Cape and KwaZulu-Natal were also the provinces that recorded high incidents as indicated by VOCS 2012. The results of VOCS 2012 and SAPS also show similar trends in relation to provinces with the least incidents of housebreaking/burglary. Provinces with metropolitan municipalities experienced relatively high incidents of housebreaking/burglary when compared to provinces with non-metropolitan municipalities.

Figure 5: Housebreaking/burglary trends for VOCS and police recorded statistics: 2010–2012 (Number in thousands)



	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
VOCS 2010	80	58	10	33	110	35	175	43	48	592
VOCS 2011	93	85	13	40	147	43	194	60	56	730
SAPS 2010/2011	44	27	5	15	40	15	71	18	13	248
SAPS 2011/2012	45	27	5	15	41	15	65	18	15	246

Housebreaking/burglary was the most prevalent crime in 2011, experienced at least once by 5,4% of South African households. Even though the more populous provinces such as Gauteng and KwaZulu-Natal have high incidences of crime, the relative incidence can best be determined as the percentage of the population affected by that crime. Map 1 below shows housebreaking/burglary prevalence rates in South Africa. The VOCS 2012 highlighted that housebreaking/burglary was mostly prevalent in Western Cape (6,5%), followed by Mpumalanga (6,4%) and KwaZulu-Natal (5,8%), while it was least prevalent in Limpopo (4,2%) and Northern Cape (4,5%).

Map 1: Distribution of housebreaking/burglary by province, VOCS 2012

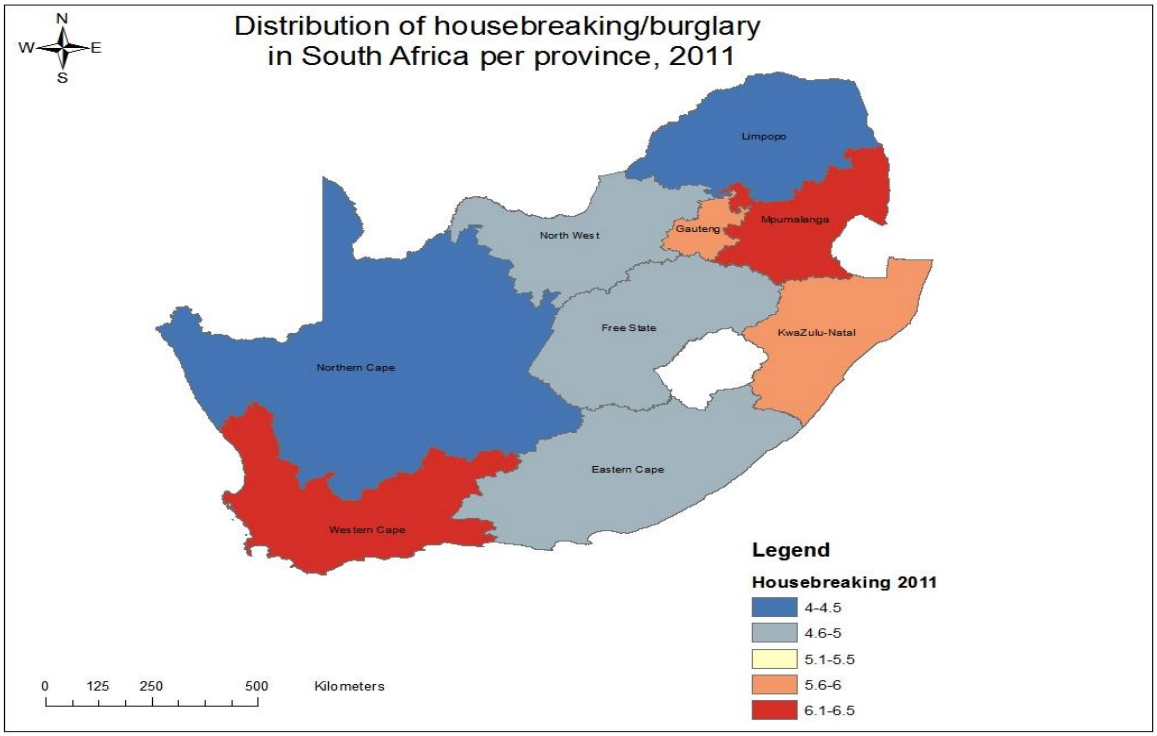
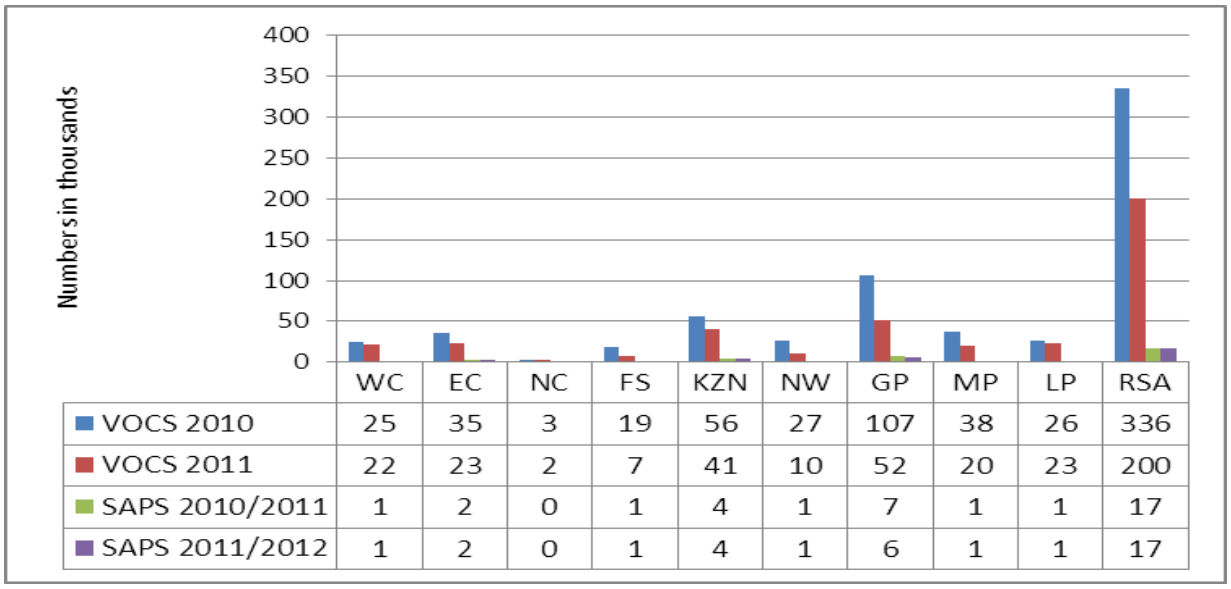


Figure 6 shows incidents of home robbery in residential areas, as recorded by SAPS and in VOCS. SAPS recorded statistics showed similar trends across provinces between 2010/11 and 2011/12, with Gauteng and KwaZulu-Natal contributing more than other provinces in this type of crime. The results of the VOCS show a similar trend, with Northern Cape being the province with the least incidence of home robbery in 2011.

Figure 6: Home robbery incidents by province, 2010–2012 (Number in thousands)

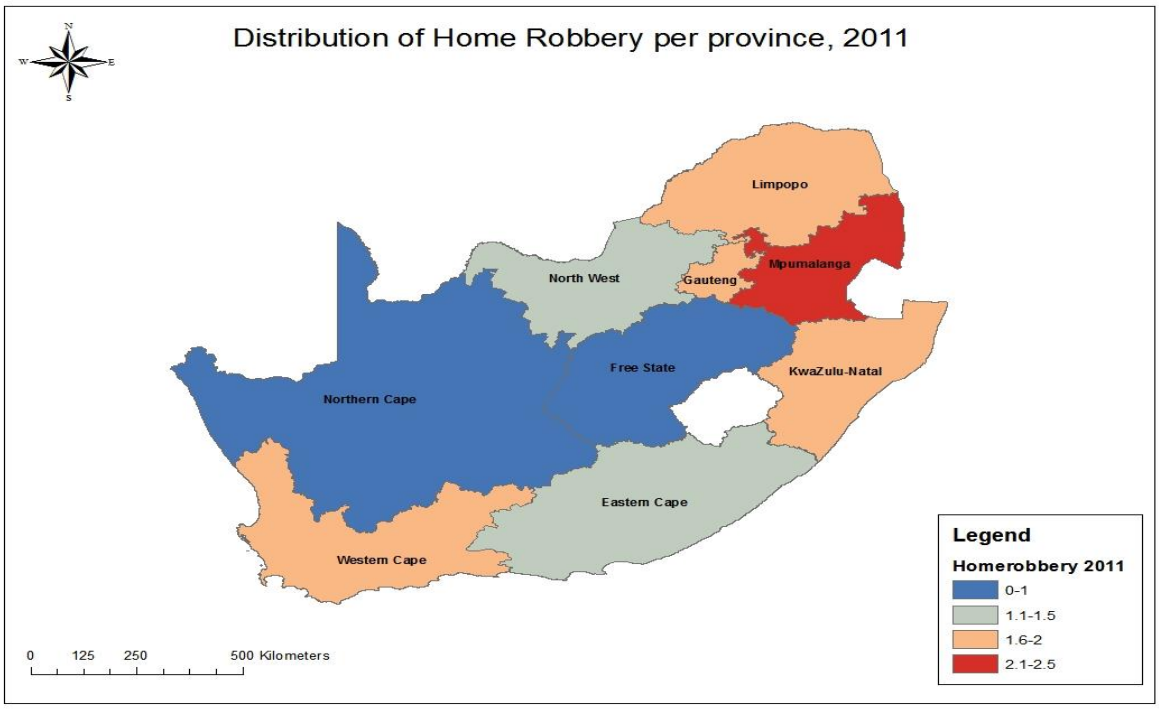


	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
VOCS 2010	25	35	3	19	56	27	107	38	26	336
VOCS 2011	22	23	2	7	41	10	52	20	23	200
SAPS 2010/2011	1	2	0	1	4	1	7	1	1	17
SAPS 2011/2012	1	2	0	1	4	1	6	1	1	17

* SAPS Northern Cape estimates were less than thousands

Home robbery was experienced at least once by 1,5% of South African households in 2011. Map 2 below represents home robbery prevalence rates within the provinces. VOCS 2012 revealed that home robbery was mostly prevalent in Mpumalanga (2,1%), followed by Limpopo (1,7%), while it was least prevalent in Northern Cape (0,7%) and Free State (0,9%).

Map 2: Distribution of home robbery by province, VOCS 2012



3.1.3 Repeat housebreaking/burglary and home robbery victimisation

Understanding the nature of repeat victimisation will allow for the more efficient allocation of crime prevention efforts and resources. Farrell, Chenery and Pease, (1998) identified several factors which are related to repeat victimisation, for example living in a bad area and living a vulnerable lifestyle. Morgan (2001) attributed the likelihood of future burglary experiences to the occurrence of previous victimisations. Although this may have little to do with the characteristics of an individual household, Morgan (2001) was of the view that the experience of repeat burglary was influenced by the attractiveness and accessibility of the neighbourhood to potential burglaries. This repeat victimisation, where an individual or household experiences the same crime more than once, is not limited to housebreaking/burglary, but may occur for a range of other crimes.

The results from previous sections provide a total volume of victimisation, but give no insight into how victimisation is distributed. The VOCS has a question that asks the respondents who experienced a particular crime, how many were successful during the 12 months prior to the survey collection period. Table 2 below presents the frequency of housebreaking/burglary and home robbery victimisation. About five per cent (4,8%) of households experienced housebreaking/burglary during that period. Among households that were victims of housebreaking/burglary, 88,6% were burgled once, 7,8% were victimised twice and 3,5% three or more times. The results also show that about 1,5% of households had experienced at least one incident of home robbery in 2011. Among households that were victims of home robbery, 89,8% were robbed once, 8,0% twice and 2,2% experienced it three or more times.

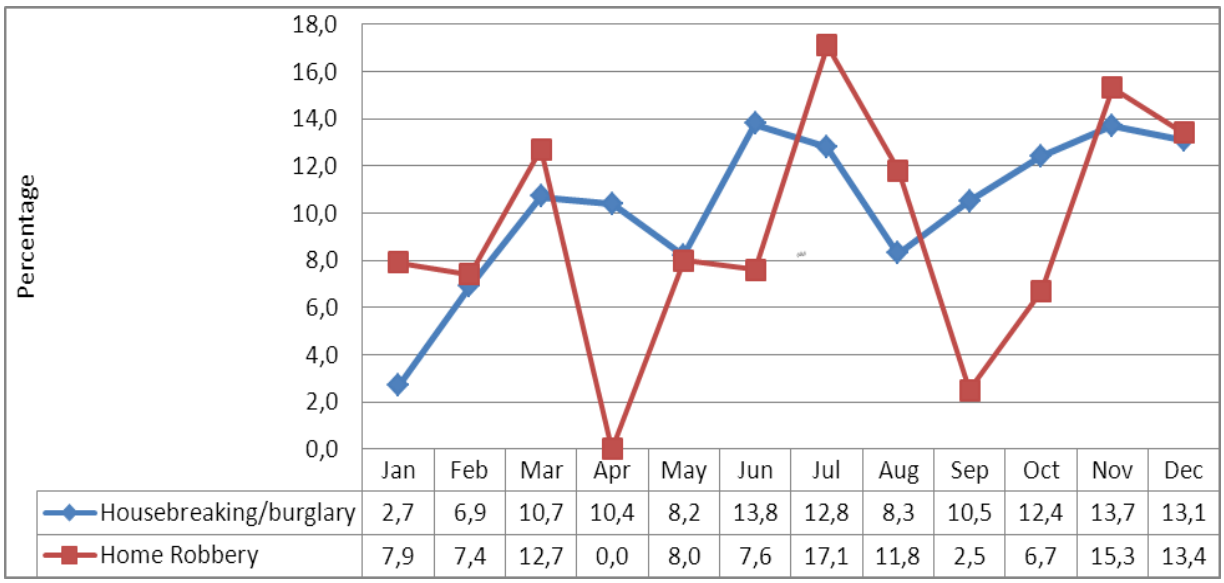
About 11,3 % of those who had experienced housebreaking/burglary in 2011 experienced it more than once, while an estimated 10,2% victims of home robbery experienced it more than once. Although the differences are marginal between repeat housebreaking/burglary and home robbery victimisation, victims of housebreaking/burglary tended to be more likely to be victimised repeatedly. The results of the VOCS 2012 indicated that it is possible for a household to be victimised more than once for the same crime type, although the survey data is limited in that it does not identify whether other types of crimes that were reported occur simultaneously with housebreaking/burglary or home robbery.

Table 2: Frequency of repeat victimisation for housebreaking/burglary and home robbery in 2011, VOCS 2012

	Housebreaking/burglary		Home robbery	
Frequency of victimisation	Prevalence	Percentage of those victimised	Prevalence	Percentage of those victimised
Once	4,8	88,6	1,3	89,8
Twice	0,4	7,8	0,1	8,0
Three times or more	0,2	3,5	0,0	2,2
Prevalence	5,4	N/A	1,5	N/A

Figure 7 presents the results of the frequency of victimisation for housebreaking/burglary and home robbery respectively. Repeat housebreaking/burglary occurred mostly in the months of June (13,8%), November (13,7%) and December (13,1%). Overall, the findings suggest that households are most likely to be victimised during winter seasons as well as during the festive season. About 17,1% of repeat home robbery victimisation occurred in July 2011, followed by November (15,3%) and December (13,4%).

Figure 7: Monthly distribution of repeat victimisation by crime type in 2011, VOCS 2012



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Housebreaking/burglary	2,7	6,9	10,7	10,4	8,2	13,8	12,8	8,3	10,5	12,4	13,7	13,1
Home Robbery	7,9	7,4	12,7	0,0	8,0	7,6	17,1	11,8	2,5	6,7	15,3	13,4

3.1.4 Multiple victimisation for housebreaking/burglary and home robbery

This report also analyses the phenomenon of multiple victimisation, which refers to when the same person or household suffered from more than one criminal incident over the twelve months preceding the survey. Table 3 shows other victimisation experiences that victims of housebreaking/burglary and home robbery had during 2011. Victims of housebreaking/burglary who were also victims of other crimes in 2011 were mostly affected by vehicle related criminality (theft from a car (2,3%), car theft (1,6%) and motor vehicle vandalism (1,9%)). The results also show that theft from a car (2,4%) frequently occurred amongst victims of home robbery followed by theft of crops (2,1%) and theft of livestock (2,0%).

Table 3: Percentage of other crime experienced for the households who were victims of housebreaking/burglary or home robbery (multiple victimisation) in 2011, VOCS 2012

	Housebreaking/burglary		Home robbery	
Crime type	Crime experienced	No crime experienced	Crime experienced	No crime experienced
Car theft	1,6	98,4	0,6	99,4
Theft of livestock	1,0	99,0	2,0	98,0
Theft of crops	0,2	99,8	2,1	97,9
Theft from car	2,3	97,7	2,4	97,6
Deliberate damage of property	1,1	98,9	0,5	99,5
Motor vehicle vandalism	1,9	98,1	1,5	98,5
Theft of bicycle	0,6	99,4	0,8	99,2

3.2 The circumstances surrounding housebreaking/burglary and home robbery

3.2.1 Introduction

This section describes the circumstances under which housebreaking/burglary or home robbery took place, that is, period of the day when housebreaking/burglary occurred, how the burglar gained entry, mode of entry, property lost and victim relationship to the offender.

3.2.2 Time when housebreaking/burglary occurred[6]

Housebreaking/burglary can occur at any time of the day, although there are times when citizens are more vulnerable to victimisation. The time of day usually gives an indication of visibility; morning hours are associated with light whilst night hours are associated with darkness.

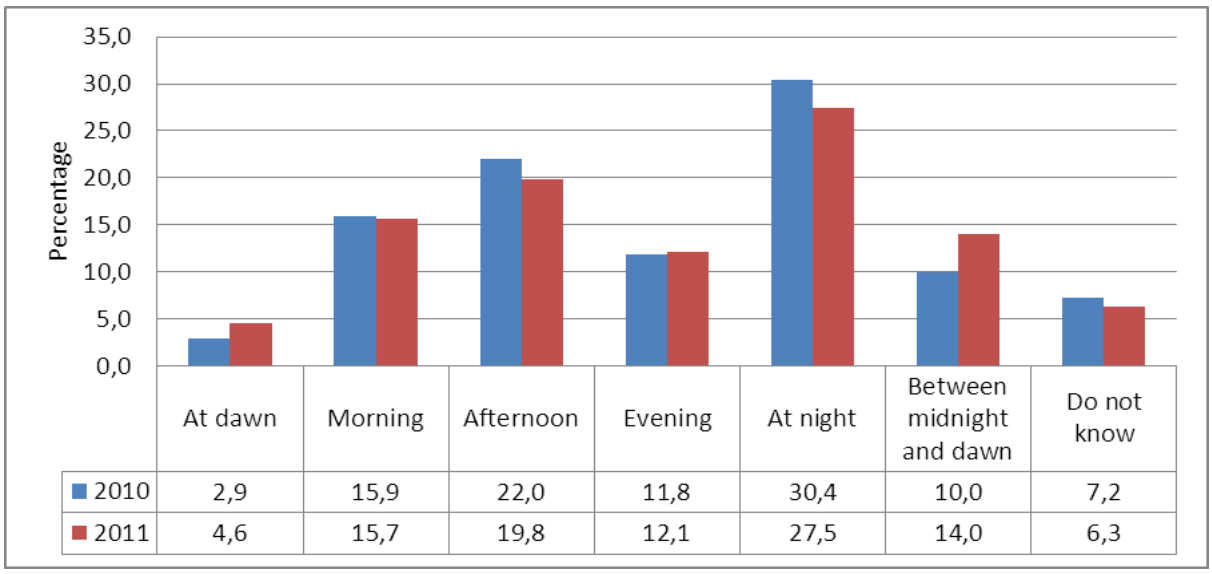
Nee (2003) found that burglars were often more knowledgeable than their victim(s), and were both systematic and rational in their approach towards targeting their potential victim(s). After carefully evaluating the potential risks and rewards associated with it, Coupe and Blake (2006) further asserted that to commit housebreaking/burglary was a rational decision by the offender. A perpetrator of housebreaking/burglary was likely to target residential premises that would minimise the risk of being seen, although there are factors such as the accessibility of the target house and the routine activities of victims which create burglary opportunities.

In the Victims of Crime Survey, respondents were asked to indicate the time of the day when housebreaking/burglary occurred in order to determine the conditions under which housebreaking/burglary was likely to take place. Figure 8 represents the distribution of the timing of housebreaking/burglary incidents in South Africa, as reported by the Victims of Crime Survey. In 2010, about 30,4% of housebreaking/burglary incidents occurred at night, the period associated with darkness, followed by afternoon (22,0%) and morning (15,9%) hours. About 12% of housebreaking/burglary incidents in 2010 took place in the evening hours, while the least (2,9%) happened at dawn. A similar pattern of incidents was observed in 2011, where most incidents (27,5%) occurred at night and the least (4,6%) at dawn, (VOCS, 2012).

Changes in daylight and darkness influence the likelihood of housebreaking/burglary. The results presented in Figure 8, suggest that darker hours heighten the likelihood of housebreaking/burglary incidents, hence incidents that occur in the evening tend to be lower than incidents that occur late at night. This may be attributed to households' activity around their residence, which is expected to be higher in the evening hours than in the late hours of the night and it is possible that higher levels of activity during evening hours may be a deterrent to potential burglaries which per definition takes place without physical contact between the victim and perpetrator.

[6] The question relating to the period of the day when home robbery occurred was not asked in the VOCS 2012, therefore no analysis can be performed on the period of the day when home robbery occurred

Figure 8: Percentage distribution of the period of the day when housebreaking/burglary occurred 2010–2011



	At dawn	Morning	Afternoon	Evening	At night	Between midnight and dawn	Do not know
2010	2,9	15,9	22,0	11,8	30,4	10,0	7,2
2011	4,6	15,7	19,8	12,1	27,5	14,0	6,3

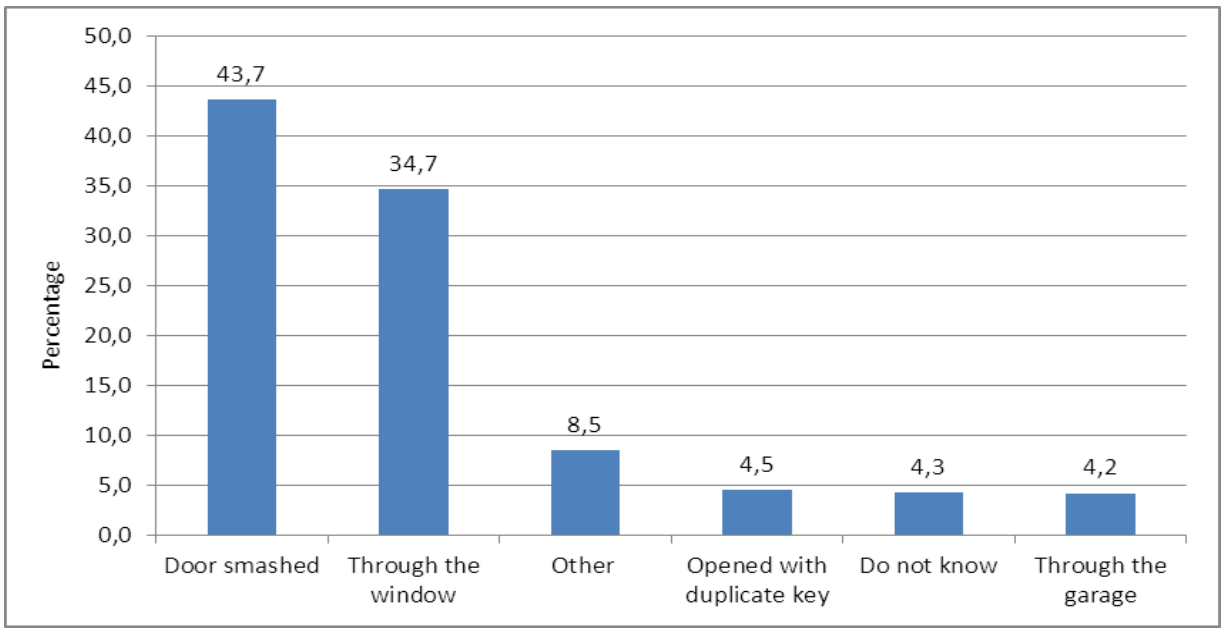
3.2.3 Mode of entry during housebreaking/burglary[7]

There are various ways in which intruders can unlawfully gain entry into a residence. Such unlawful entry violates the households' privacy and may potentially harm the household members. Figure 9 depicts common entry methods used when housebreaking was committed in 2011. The Victims of Crime Survey revealed that forced entry was popular in burglaries that were committed in 2011; where in about 44% of the burglaries, doors were smashed in order to gain access to the residence. Window entry occurred in 34,7% of the burglaries that took place in 2011. Other methods of entry such as entry through the roof or where the door was left open, collectively accounted for 8,5% of entry methods used when housebreaking was committed. VOCS (2012) indicated that entry through the garage (4,2%) or by using duplicate keys (4,5%) were the least common.

The most popular method of entry used by perpetrator(s) during housebreaking/burglary was through a door, followed by through a window. The perpetrator may also have smashed the door or found the window unlocked or broke it. It is important to note that households may have left the house unlocked without anyone available. Furthermore the VOCS is limited by the fact that it does not ask whether the perpetrator(s) smashed the window or the window was open.

[7] The question relating to the mode of entry in a home robbery was not asked in VOCS 2012, therefore no analysis can be performed regarding the mode of entry in home robbery victimisation

Figure 9: Percentage distribution common entry methods when housebreaking was committed in 2011, VOCS 2012



Note: The question on how the burglar gained entry into the house was not asked for home robbery, therefore no information is available

3.2.4 Type of property commonly lost through housebreaking/burglary or home robbery

A variety of items can be stolen in a housebreaking/burglary or home robbery. Table 4 depicts the distribution of the categories of items that were stolen from South African households in 2011. Electronic equipment, such as laptop computers and television sets were burglars' preferred goods. The Victims of Crime Survey (2012) found that 58,6% of households who experienced housebreaking/burglary had lost electronic equipment in the incident, compared to 43,2% of households who experienced home robbery. Personal belongings (watches, jewellery, etc.) were stolen in 30,4% of household burglary incidents, followed by money (23,3%). Items like handbags/wallets (10,9%) and travelling bags (8,2%) were the least likely to be stolen in burglaries. These findings confirm Fitzgerald and Poynton's (2011) assertion that burglars are interested in items that are of high value or can be easily disposed of. Money was popular in burglaries because unlike other items, it does not have to be re-sold.

The perpetrators of home robbery appear to be more interested in items that are easily accessible. About 38,8% of households had their cell phones taken away from them, while about 33,7% of households lost their money and 28,9% lost their personal belongings items such as watches etc. Travelling bags (2,6%) were the least likely to be stolen in home robberies. The findings of VOCS (2012) suggest that home robbers were more likely to steal items that have a high re-sale value than items that could not easily be sold.

Table 4: Type of property commonly lost in housebreaking and home robberies, VOCS 2012

Type of item	Housebreaking/burglary Per cent	Home robbery Per cent
Electronic equipment	58,6%	43,2%
Personal belongings	30,4%	28,9%
Money	23,3%	33,7%
Cell phone	20,8%	38,8%
Hand-bag/wallet	10,9%	19,3%
Travelling bag	8,2%	2,6%

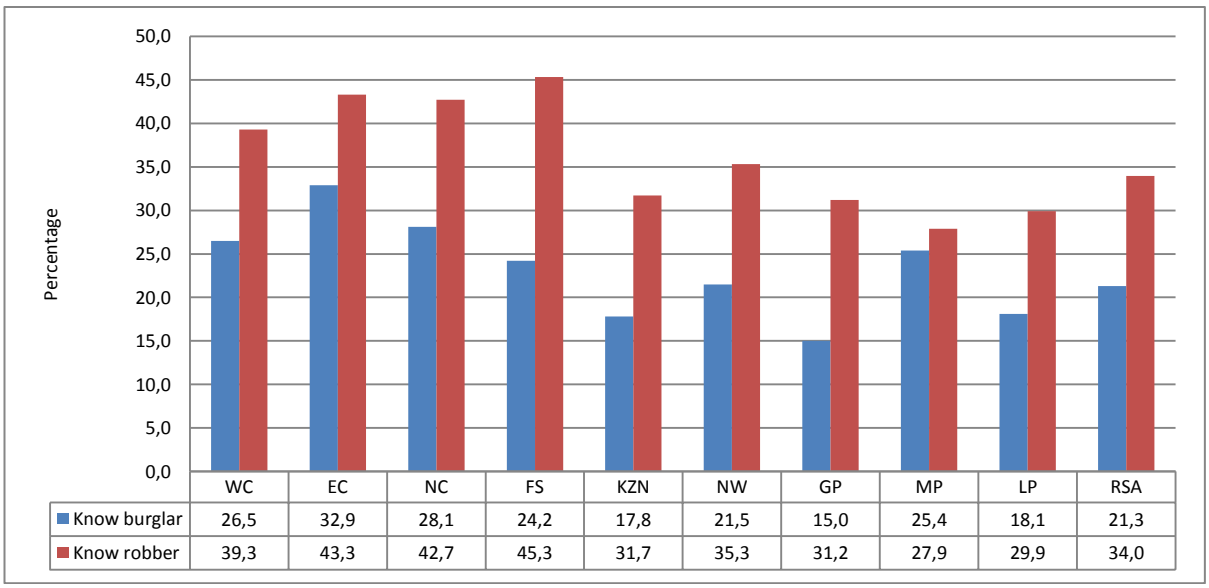
3.2.5 Identity of the perpetrators

Although there may be similarities between home robberies and housebreaking/burglary, the distinct characteristic that differentiates home robbery from housebreaking/burglary is that there is contact between the victim and the perpetrator during a home robbery, whereas there is no direct contact between the victim and perpetrator during housebreaking/burglary. Due to the nature of home robberies as compared to housebreaking/burglary, it is expected that a greater proportion of home robbery victims would have some knowledge about the perpetrator than victims of housebreaking/burglary. Such information or knowledge becomes instrumental for the police when gathering evidence.

The VOCS (2012) asked victims of these two crimes if they knew who could have committed these crimes against them. Figure 10 below shows the provincial distribution of victim households that were robbed or fell victim to housebreaking/burglary and knew something about the perpetrator or the suspect. Eastern Cape (32,9%) and Northern Cape (28,1%) had the highest percentage of households that suspected that they knew the perpetrators of residential burglaries. Households in Gauteng (15,0%) and KwaZulu-Natal (17,8%) were the least likely to know the perpetrator of housebreaking/burglary.

Free State had the highest proportion (45,3%) of households that reported that they knew who the perpetrator of the home robbery was, followed by Eastern Cape (43,3%) and Northern Cape (42,7%). Mpumalanga (27,9%) and Limpopo (29,9%) showed the lowest proportions of households that had knowledge about the perpetrators of home robberies.

Figure 10: Percentage distribution of those who knew the perpetrators of crime, by province in 2011, VOCS 2012

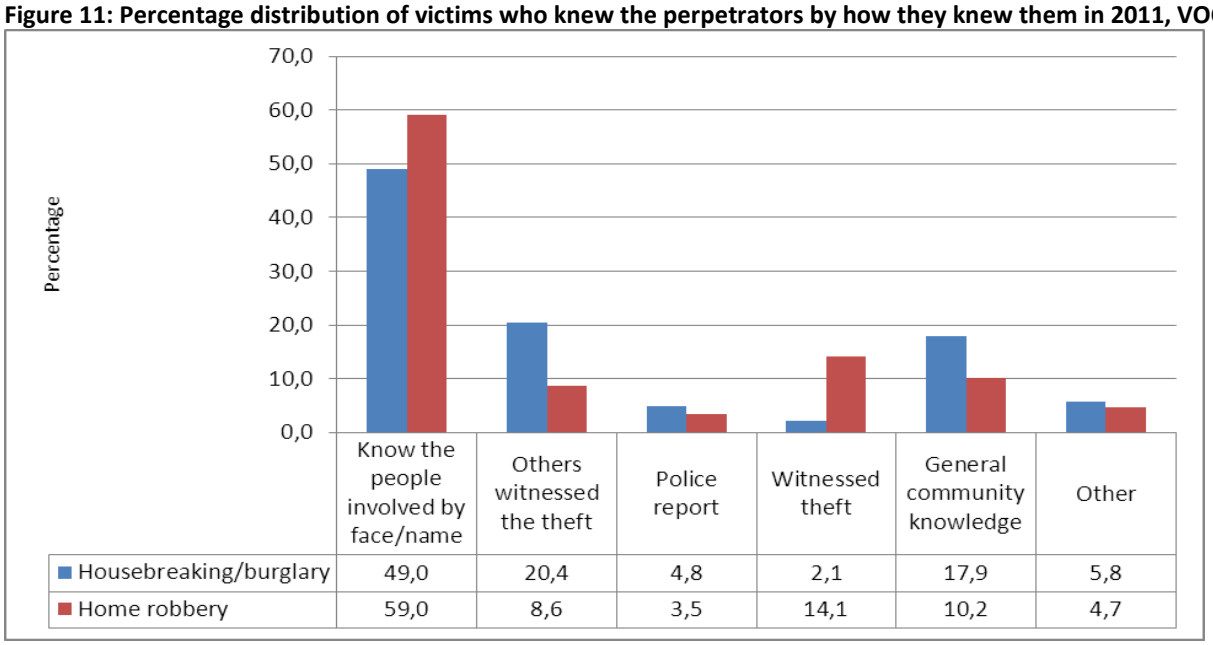


	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Know burglar	26,5	32,9	28,1	24,2	17,8	21,5	15,0	25,4	18,1	21,3
Know robber	39,3	43,3	42,7	45,3	31,7	35,3	31,2	27,9	29,9	34,0

Figure 11 illustrates the distribution of how the victims of home robberies and housebreaking/burglary think they knew the perpetrators. Among the households that knew the suspects that committed home robbery against them, about six in every ten (59,0%) knew the suspects by face or name. An estimated 14,1% of households knew the suspects, because they have witnessed the theft and about a tenth (10,2%) had general community knowledge of who commits robberies in their area. About half (49,0%) of housebreaking/burglary victims knew the perpetrators by name or face, while 20,4% indicated that other people had witnessed the theft and 17,9% had a general community knowledge of who commits burglaries in their area.

In instances where victims have identified or know their perpetrators it should be noted, that these victims might even require further protection to avoid perpetrators further threatening them should they intend to report matter to the police.

Figure 11: Percentage distribution of victims who knew the perpetrators by how they knew them in 2011, VOCS 2012



	Know the people involved by face/name	Others witnessed the theft	Police report	Witnessed theft	General community knowledge	Other
Housebreaking/burglary	49,0	20,4	4,8	2,1	17,9	5,8
Home robbery	59,0	8,6	3,5	14,1	10,2	4,7

3.3 The consequences of victimisation

3.3.1 Resistance to home robbery and the likelihood of injury

This section assesses the likelihood of serious victim injury in home robbery and the role of victim resistance in escalating the level of violence. Home robberies are usually dual in nature; having both the elements of property crime and being violent in nature. Violence associated with robberies, usually unprovoked and unexpected, makes residential robberies serious and induces fear in the victims. This interaction between perpetrator and victims is what commonly leads to violence in home robberies. Violence or contact crime is viewed as a serious social problem in most societies. Cook (1986) asserted that although losses during robbery may be negligible, it is the elements of violence that make this type of crime a serious crime. The use of violence in robberies often results in personal injury or emotional trauma which violates victims at home, a place where they are supposed to feel safe. Studies around housebreaking/burglary and home robbery have also found that despite offenders displaying violent and aggressive behaviour towards victims, they [generally] take little pleasure in intimidating and injuring them (Gill, 2000). Furthermore, perpetrators use violence or the threat of violence when entering a residence only to overcome resistance from the victims (Newham, 2008). These findings are confirmed by the VOCS data.

Table 5 shows the odds of victims who resisted robbery and were injured are 3,3 times higher than those of victims who did not resist robbery, with a 95% confidence interval of 3,0 to 3,6. Furthermore, the odds that there were injuries when a knife was used are 1,8 times higher than when a knife was not used with a 95% confidence interval of 1,7 to 2,0. Those households in the intermediate living standard measure and who experienced injuries were 2,9 times higher than those in other living standard measure categories. However the odds of victims who experienced home robbery and had a gun pointed at them or used were 0,6 times lower than those victims who did not have a gun with a confidence interval of 0,6 to 0,7.

A study conducted by New South Wales Bureau of Crime Statistics and Research in 1987 noted that robbery injuries were more likely to occur where the offender did not have a gun.

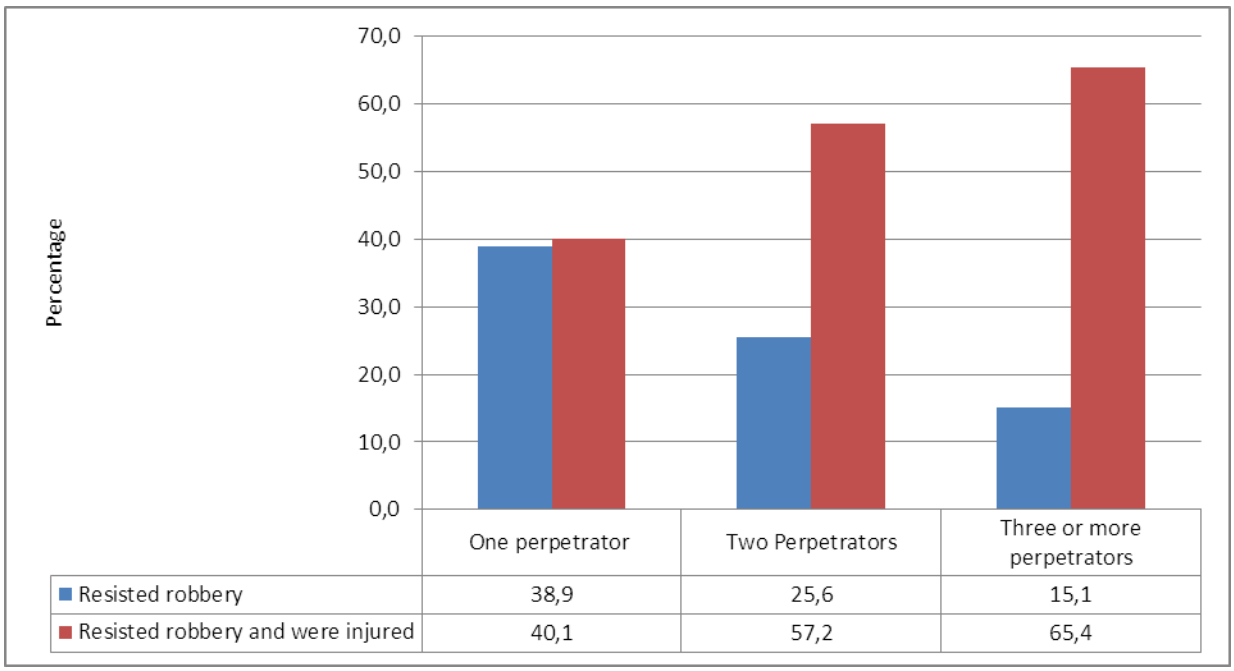
Table 5: Predictor model for injuries sustained in home robbery

Odds Ratio Estimates			
		95% Wald Confidence Limits	
Parameter	Point Estimate	Lower	Upper
Province	0,822	0,803	0,841
Household size	0,202	0,18	0,227
Main source of income	6,335	5,593	7,175
Gender	1,300	1,154	1,464
Population group	1,273	1,208	1,341
Age group	1,655	1,555	1,762
Marital status	0,355	0,34	0,371
Living standard measure	2,887	2,571	3,242
Resisted home robbery	3,248	2,96	3,564
Physical force used	0,007	0,006	0,007
Knife used	1,811	1,649	1,989
Gun used	0,641	0,577	0,712

Note: Refer to annexure 2 for a comprehensive logistic regression table

Kapardis (1988) found that a victim was four times more likely to be injured if a gang of three or more offenders was involved as opposed to a single offender. In a separate study, Morisson and O'Donnell (1994) argued that where victims had no physical barriers (such as screens) and there were multiple offenders, there was an increased risk of victims experiencing physical injuries. The results of VOCS 2011 confirm the views of Kapardis (1988) in that resistance coupled with multiple robbers has a higher probability of injury (Figure 12). About 38,9% of households resisted home robbery when being robbed by one perpetrator and 40,1% of those that resisted a single perpetrator were injured in the incident. A quarter (25,6%) of households resisted the robbery when attacked by two perpetrators, while 15,1% resisted when perpetrators where three or more. Approximately 57,2% were injured when they resisted the robbery against two perpetrators and 65,4% were injured when they resisted the attack from three or more perpetrators. There was evidently a tendency not to resist robbery when the number of perpetrators increased in a robbery incident, although more households were injured when they resisted robbery when the number of perpetrators increased. This indicates that resisting robbery when there were more perpetrators was associated with injury of the victims.

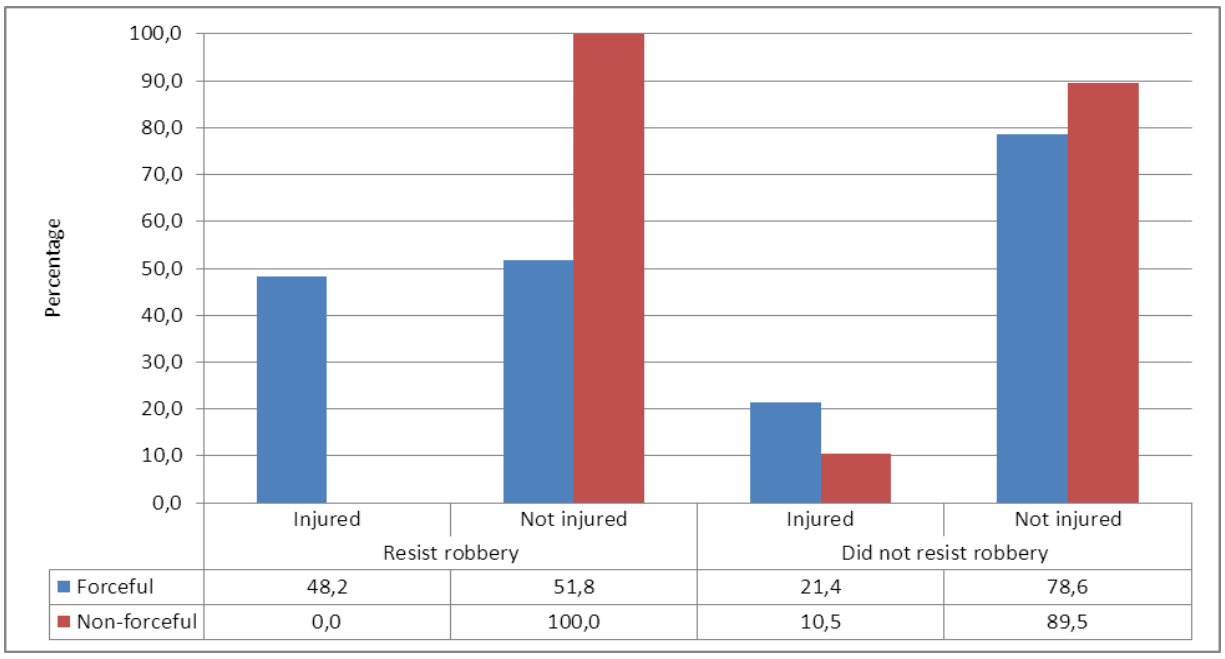
Figure 12: Household resistance to home robbery by number of perpetrator in 2011, VOCS 2012



	One perpetrator	Two Perpetrators	Three or more perpetrators
Resisted robbery	38,9	25,6	15,1
Resisted robbery and were injured	40,1	57,2	65,4

Figure 13 depicts the likelihood of victims being injured after resisting robbery. Results show that 48,2% of the victims of home robbery were injured when physical force was used during the robbery and they resisted, while only 21,4% of victims were injured when they did not resist robbery. Cook (1986) indicated that forceful resistance provokes a violent response from the perpetrator. However, one cannot conclude that not resisting is the best strategy as the circumstances are often unpredictable. The weapon that the perpetrator carries, for example, a gun, club or knife can present a very difficult situation to handle.

Figure 13: Relationship of victim resistance to use of physical force by robbers in 2011, VOCS 2012



	Resist robbery		Did not resist robbery	
	Injured	Not injured	Injured	Not injured
Forceful	48,2	51,8	21,4	78,6
Non-forceful	0,0	100,0	10,5	89,5

Table 6 presents resistance and injury of victims of home robbery by type of weapons used. A gun was a weapon commonly used among the victims of robberies who resisted and were injured in 2010. Guns were used in 3,3% of robberies where the victim resisted and injuries were sustained, whereas a knife was used in 1,8% of such cases. In 2011 a knife was the weapon used most frequently, with about 17,6% of cases, compared to guns which accounted for 13,1% of the cases where the victims resisted and were injured. The victims who were not injured after resisting knife wielding robbers accounted for 20,1% of cases in 2010 and about 12,7% in 2011. Surviving a home robbery with no injuries, after resisting the robbery and where the perpetrator had a gun, accounted for 11,5% of cases in 2010 and about 8% in 2011. Cases where victims did not resist, but were injured when threatened with a knife accounted for about 11,1% in 2010 and 25,5% in 2011, compared to cases where a gun was used in 2010 with 20,5% and 21,0% in 2011. There were also other cases where the victim did not resist and were not injured even though some type of weapon was used. This accounted for 67% of cases where a knife was used in 2010 as compared to 44,2% in 2011.About 64,7% cases of gun used in 2010 as compared to 57,8% in 2011.

Table 6: Resistance and injury of victims of home robbery by type of weapons used during, 2010-2011

	Statistics	2010		2011	
		Knife	Gun	Knife	Gun
Resisted and injured	N	1 106	2 190	7 973	5 398
	%	1,8	3,3	17,6	13,1
Resisted and not injured	N	12 219	7 628	5 771	3 298
	%	20,1	11,5	12,7	8,0
Did not resist but injured	N	6 738	13 614	11 556	8 652
	%	11,1	20,5	25,5	21,0
Did not resist and not injured	N	40 752	42 940	20 034	23 803
	%	67,0	64,7	44,2	57,8

Note: The percentages were taken within each category, therefore will not necessarily add to 100% across different categories

Among the victims who needed medical attention and were admitted to hospital after a home robbery, a knife was used in about 60% of the cases, compared to 41% for guns (Table 7). However when the victim did require medical attention, but was not admitted to hospital, a knife was used in 71,3% of the cases compared to 33,7% where perpetrators used a gun. In instances where a gun was used and victims neither required medical attention nor were admitted to hospital about 66% accounted for gun and 30% for knife use.

Table 7: Household members who needed medical attention and were admitted to hospital when a gun/knife was used, VOCS 2012

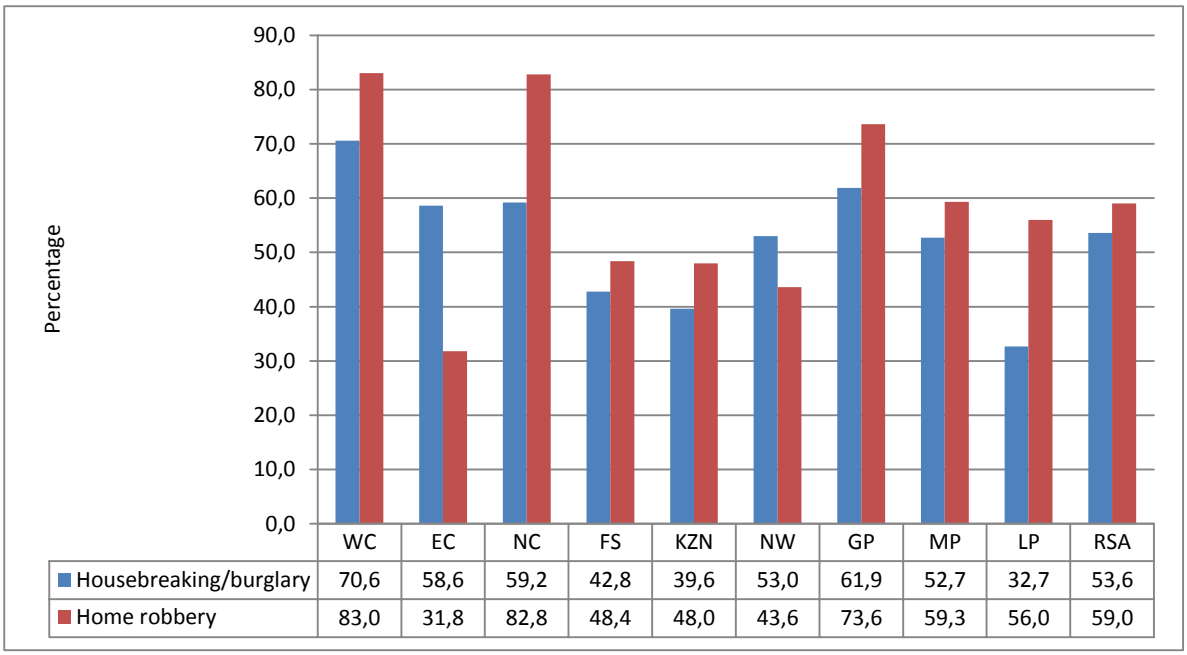
	Statistics	Knife	Gun
Medical attention and admitted to hospital	N	7 367	5 040
	%	59,6	40,8
Medical attention and not admitted to hospital	N	7 312	3 458
	%	71,3	33,7
Required no medical attention nor admitted to hospital	N	3 421	7 516
	%	30,0	65,9

3.3.2 Precautionary measures taken by victims to protect their homes after victimisation

People are affected by crime differently and the way that they react to it also differs. Protecting one's assets or family is a priority for many households. The results of VOCS do not exhaust all the measures that the households may have taken to protect themselves against these incidents, since the chances of households being targeted depended on their income, area and their vulnerability. Thus it is important to note that there may be other measures apart from the ones listed in this study that are relevant to households in ensuring their own safety.

The Victims of Crime Survey asked the respondents if they changed their behaviour as a result of falling victim to crime. Figure 14 depicts the provincial distribution of households who changed behaviour after falling victim to housebreaking/burglary or home robbery. Nationally an estimated 53,6% of housebreaking/burglary victims and 59% of home robbery victims indicated having changed their behaviour after being victimised. About 70,6% of Western Cape households changed their behaviour after being the victim of housebreaking/burglary, followed by Gauteng households at 61,9%. Residents of Western Cape (83,0%) and Northern Cape (82,8%) provinces who were victims of home robbery were the most likely to change their behaviour as a result of the incidents.

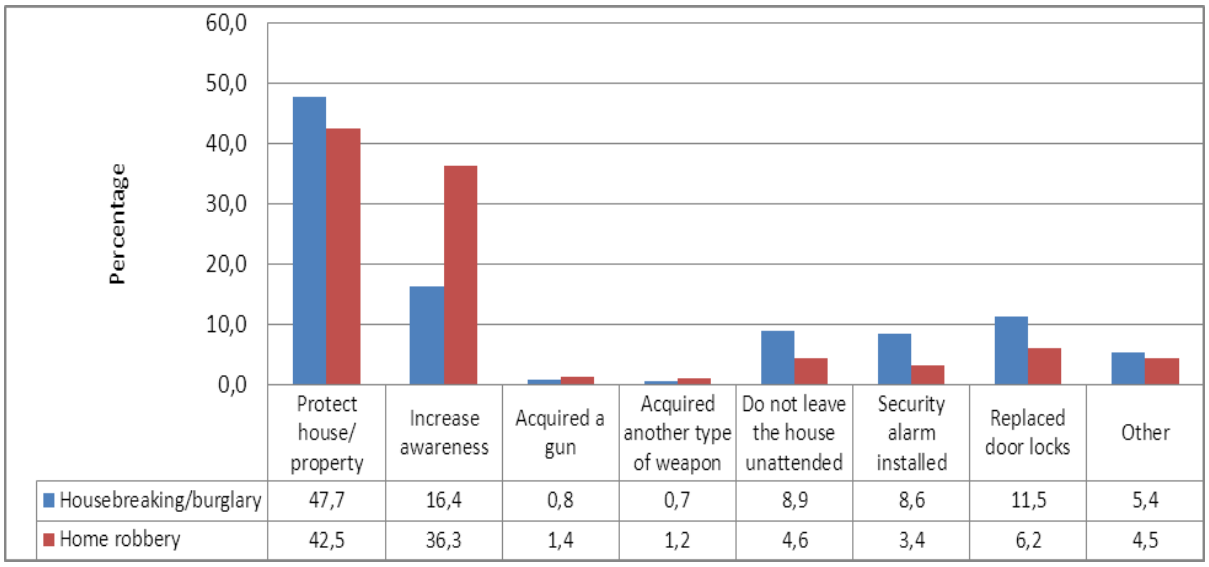
Figure 14: Percentage of households who changed behaviour after housebreaking/burglary and home robbery by province in 2011, VOCS 2012



	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Housebreaking/burglary	70,6	58,6	59,2	42,8	39,6	53,0	61,9	52,7	32,7	53,6
Home robbery	83,0	31,8	82,8	48,4	48,0	43,6	73,6	59,3	56,0	59,0

Figure 9 earlier highlighted that smashed doors and windows were common entry methods used when housebreaking/burglary was committed in 2011. It is therefore not surprising that the majority of housebreaking/burglary (47,7%) and home robbery (42,5%) victims in 2011 chose target-hardening measures in order to prevent being victimised again (Figure 15). In an attempt to reduce future housebreaking/burglary victimisation, about 16,4% of victimised households said they increased awareness in their area of residence and are now more alert, while 11,5% indicated that they replaced door locks of their premises. About 36,3% of home robbery victims indicated that they increased awareness. These measures are often referred to as target hardening and are aimed at making housebreaking/burglary or home robbery more difficult to execute and less appealing to perpetrators.

Figure 15: Percentage distribution of measures taken by citizens to protect themselves against housebreaking/burglary and home robbery in 2011, VOCS 2012

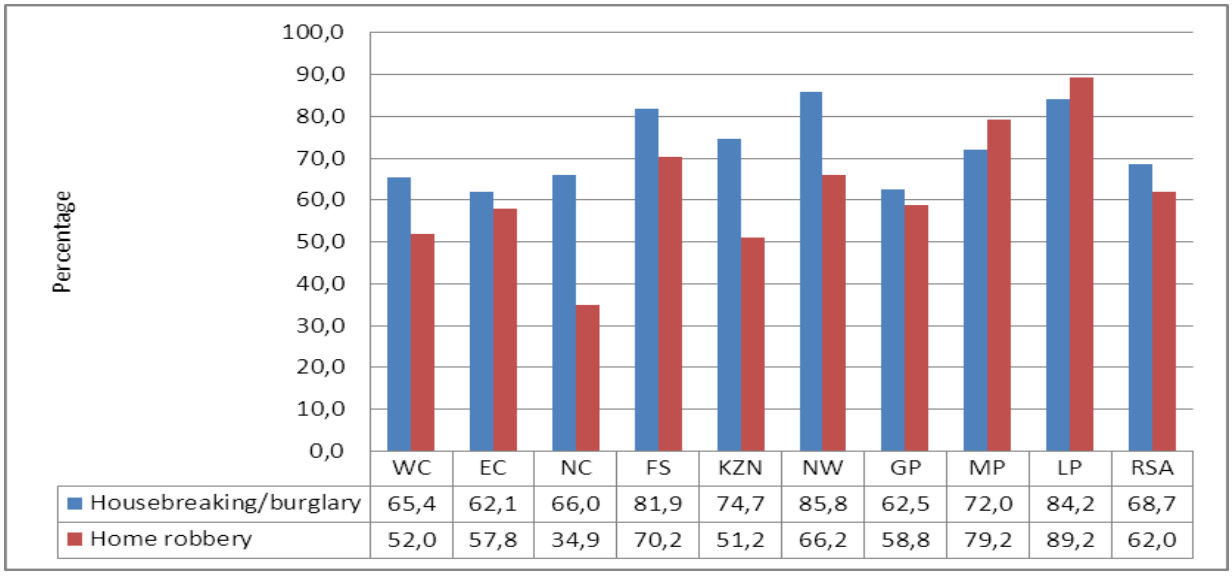


	Protect house/ property	Increase awareness	Acquired a gun	Acquired another type of weapon	Do not leave the house unattended	Security alarm installed	Replaced door locks	Other
Housebreaking/burglary	47,7	16,4	0,8	0,7	8,9	8,6	11,5	5,4
Home robbery	42,5	36,3	1,4	1,2	4,6	3,4	6,2	4,5

Although this study cannot establish whether these measures of protection were effective in curbing future victimisation, an estimated 68,7% of households who fell victim to housebreaking/burglary and about 62,0% of households who experienced home robbery indicated feeling safer after having taken protective measures against possible future victimisations.

Figure 16 presents the provincial distribution of households' feelings of safety after they have taken protective measures. The province with the highest proportion of housebreaking/burglary victims who felt safe after taking protective measures were in North West (85,8%), followed by Limpopo (84,2%). The majority (89,2%) of home robbery victims in Limpopo felt safe after taking measures, followed by Mpumalanga (79,2%).

Figure 16: Percentage of victimised households feeling safe after taking measures to protect themselves in 2011, VOCS 2012



	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Housebreaking/burglary	65,4	62,1	66,0	81,9	74,7	85,8	62,5	72,0	84,2	68,7
Home robbery	52,0	57,8	34,9	70,2	51,2	66,2	58,8	79,2	89,2	62,0

3.4 Reporting of housebreaking and home robbery to the Police

3.4.1 Reporting trends

One of the objectives of this report is to explore under-reporting of victimisation in relation to housebreaking/ burglary and home robbery. The characteristics of home robbery are typically dual in nature; having elements of a loss of property and a potential threat to human life. The extent of these characteristics seems to influence whether a home robbery incident will be reported to the police or not. Conversely victims of housebreaking/ burglary experience elements of loss of property, but their lives are not under threat as in the case of home robbery. Most countries depend on administrative data. The Case Administration System (CAS) is a police system that administers reported case dockets and crime investigations that need to form part of the annual crime statistics, such as SAPS. One of the advantages of a victimisation survey is that it also captures crimes that were not reported to the police.

An estimated 58,5% of housebreaking/burglary incidents in South Africa were reported to the police in 2011 (Figure 17). This means that about 41,5% of housebreaking/burglary incidents were not captured in the CAS. Incidents of housebreaking/burglary were mostly reported to the police in 2010 as compared to 2011, such that there was 1,5% point decrease in housebreaking/burglary incidents being reported. About 38,6% home robbery incidents were not reported to the police, a 3,7% point increase in home robbery incidents reported in 2011 as compared to 2010. It is worth noting that by not reporting crime to the police; the victims distort the true magnitude of crime as reported by SAPS annually and further magnify the crime 'dark figure' (crimes that are never reported). Unreported crimes also become unknown by those with an institutional obligation to combat crime, such as for example SAPS, and thus limit the strategies that may be put forward to deal with crime.

Figure 17: Percentage of incidents of crime reported by households to the police, 2010–2011

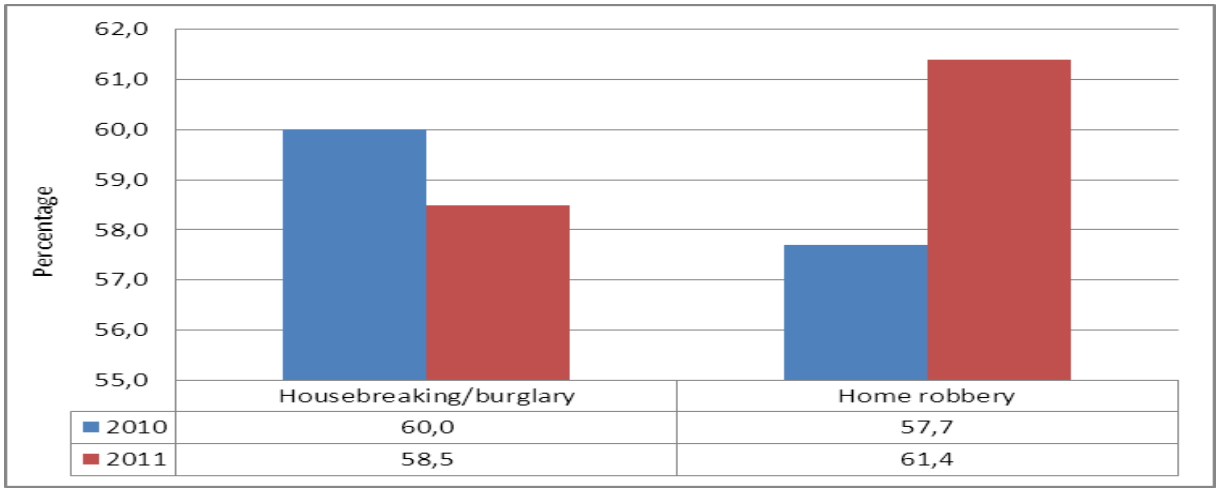


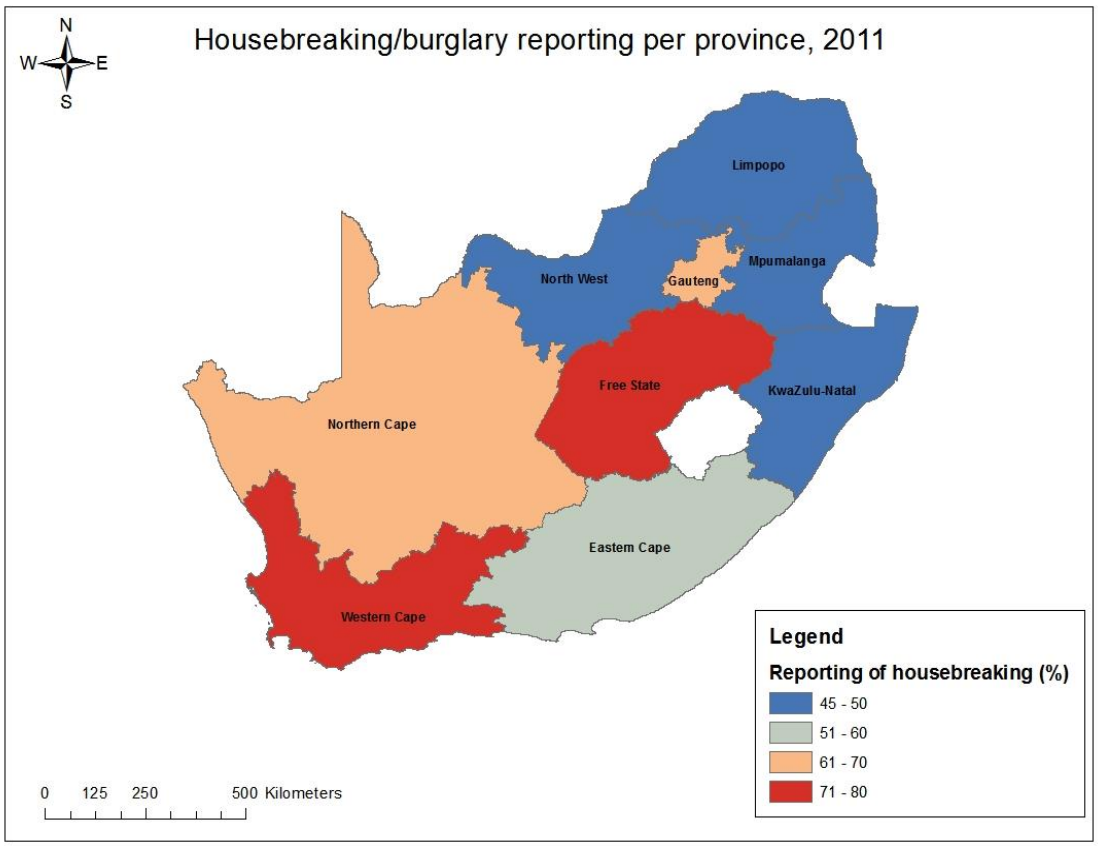
Table 8 below shows the extent and level of crimes as reported by the VOCS and SAPS over the period 2010 to 2012. The table also presents the confidence limits as obtained from the VOCS 2011 estimates. The adjusted figures show significant increases in the SAPS figures. This adjustment assumes that all cases in VOCS 2011 were reported to the police. The gap between adjusted SAPS figures and VOCS has been reduced, but differences are still significant. This is due to the seriousness of the crime. After adjustment of SAPS figures, home robbery and housebreaking/burglary still remained significantly lower than estimated by VOCS. This implies that there is still a lot of improvement to be made to ensure that the results of VOCS and police recorded data are coherent and are able to better reflect crime trends. The magnitude of unreported crime requires that the public be given regular information on estimated underreporting rates and that the public should be informed on the importance of reporting crime to the police.

Table 8: Comparable subset of crimes for VOCS 2011 and SAPS 2011/2012 estimates (numbers in thousands)

Types of crime	VOCS 2011	SAPS 2011/2012	VOCS 2011 Under-reporting rate	SAPS 2011/2012 adjusted	VOCS 2011 95% Confidence Limits[8]	
					LL	UL
Home robbery	200	17	38,6%	94	175	224
Housebreaking/burglary	730	246	41,5%	549	684	776

Map 3 is a presentation of the provincial distribution of housebreaking/burglary incidents that were reported to the police combined with the level of satisfaction with the police. About 76,9% of housebreaking/burglary incidents in the Free State were reported to the police, followed by three-quarters reported in the Western Cape and an estimated two-thirds in Northern Cape. Reporting of housebreaking/burglary to the police was least likely to occur in Limpopo (47,5%) and North West (49,5%).

Map 3: Percentage distribution of reported housebreaking incidents and satisfaction with the police in 2011, VOCS 2012



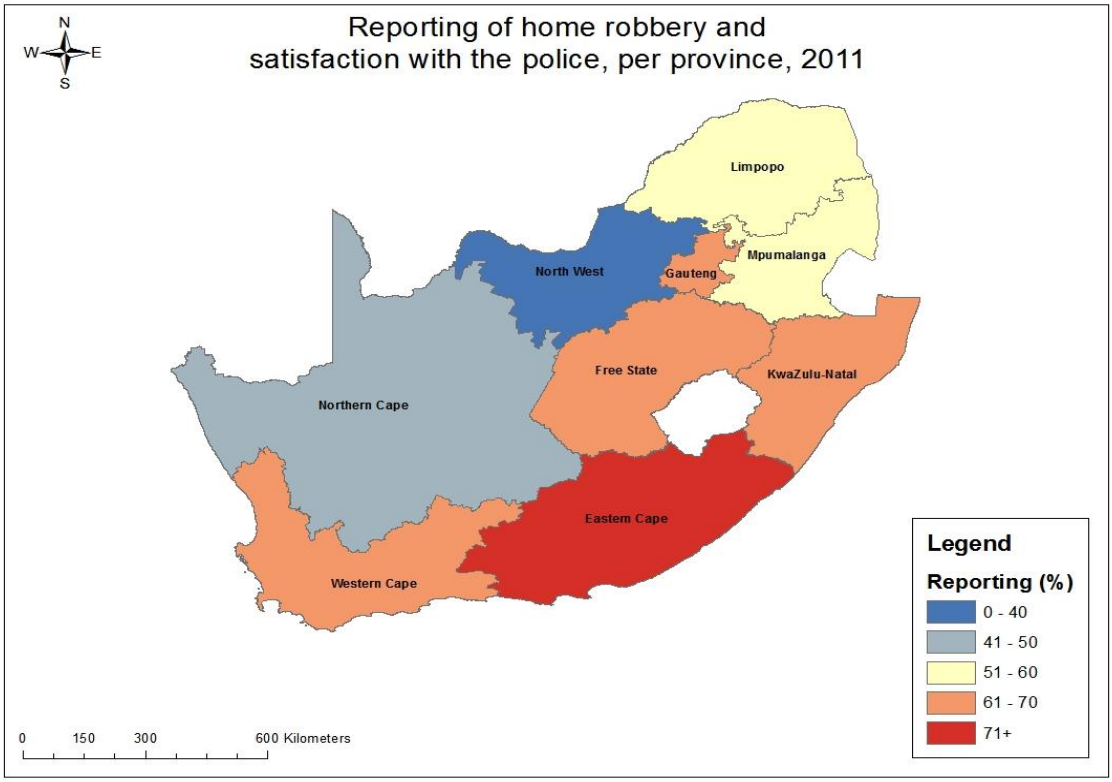
[8] The 95% confidence intervals of a population parameter are obtained as follows:

*Lower 95% confidence limit of a population parameter = estimate – 1.96*SE (estimate),*

*Upper 95% confidence limit of a population parameter = estimate + 1.96*SE (estimate).*

Map 4 below depicts a provincial distribution of home robbery reporting rates in South Africa for incidents that occurred in 2011. These were incidents where households or victims reported to the police. Approximately 200 000 of South African households fell victim to home robberies in 2011, but an estimated 61,4% reported this type of criminal activity to the police. Provinces that displayed high levels of reporting were Eastern Cape (74,6%), Free State (70,0%) and the Western Cape (67,3%), while North West (38,3%) and Northern Cape (44,8%) had the lowest reporting rates for home robbery.

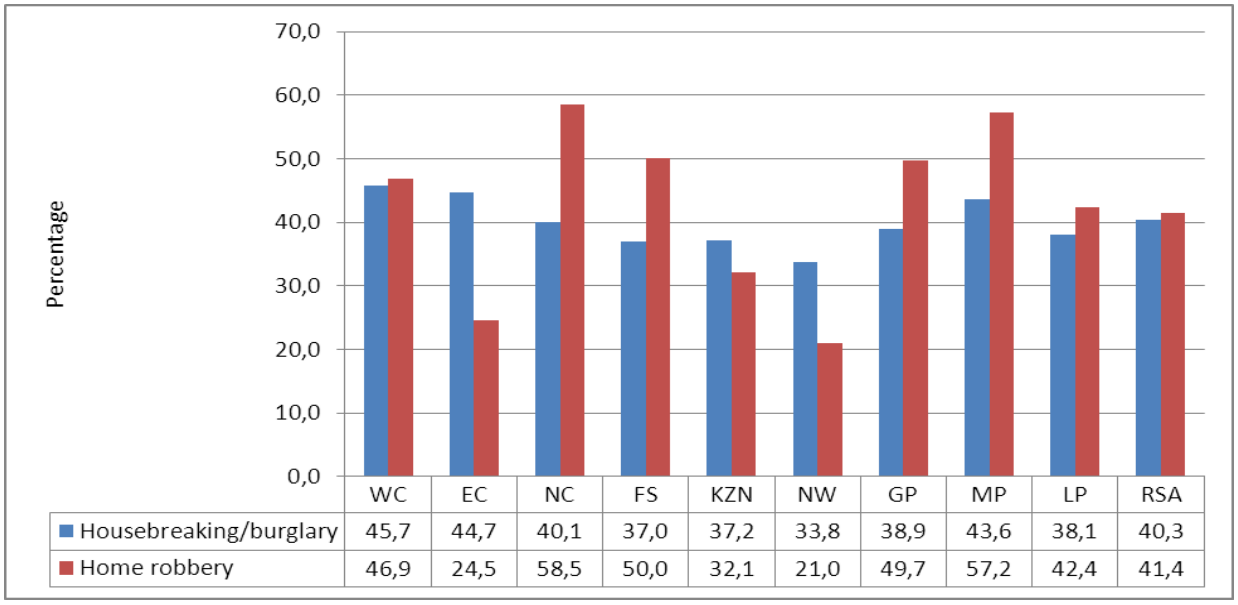
Map 4: Percentage distribution of reported home robbery incidents in 2011, VOCS 2012



The South African Police Service is institutionally obligated to fight crime and bring about safety and security to the citizens of the country. This is the reason why the police are among the first institutions where victims report crime that is perpetrated against them. Policing practices with regards to what the police do to actively combat crime and victims' personal contact with police, have an influence on the public's perception towards police services in general.

Figure 18 below represents the provincial distribution of households' satisfaction with the police response after reporting incidents of housebreaking/burglary or home robbery. The results reveal that an estimated 45,7% of households who reported housebreaking/burglary in the Western Cape were satisfied with the police response, followed by Eastern Cape (44,7%) and Mpumalanga (43,6%). Amongst households who had experienced home robbery, Northern Cape (58,5%) were mostly satisfied with the police response, followed by Mpumalanga (57,2%) and Free State (50,0%).

Figure 18: Percentage of victimised households who were satisfied with police in 2011, VOCS 2012



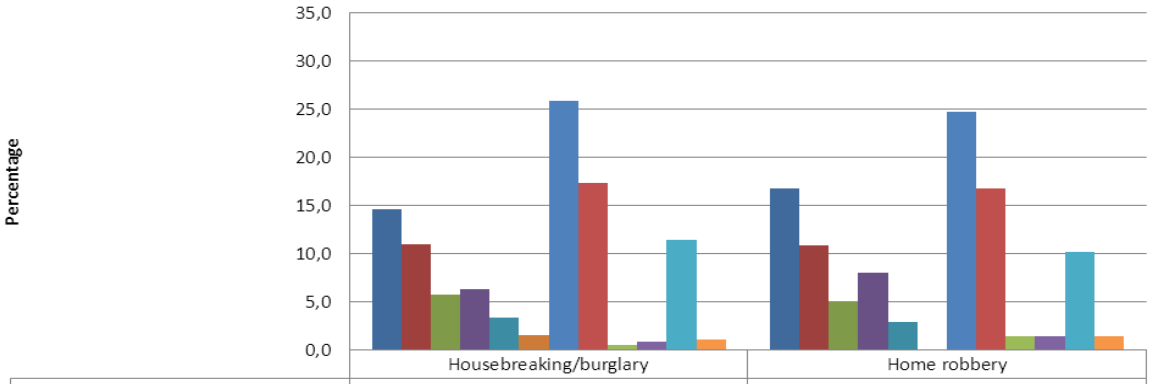
	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Housebreaking/burglary	45,7	44,7	40,1	37,0	37,2	33,8	38,9	43,6	38,1	40,3
Home robbery	46,9	24,5	58,5	50,0	32,1	21,0	49,7	57,2	42,4	41,4

3.4.2 The reasons why victims of housebreaking/burglary and home robbery choose to not report to the police.

Numerous incidents of crime are not reported to the police. Crime incidents that go unreported distort the true state of crime in a country, in the form of crime statistics, and could also mean that perpetrators that could have been convicted are left free to commit more crimes. Figure 19 presents the reasons why the victims of housebreaking and home robbery did not report these incidents to the police. In the case of housebreaking/burglary, households gave police-related issues as the reason for failure to report crime, such as police could do nothing (25,9%) and police won't do anything (17,4%). About 6,3% of victims chose to report the incident to other authorities instead and (14,6%) of victims cited that the incident was not serious enough.

For home robbery about a quarter (24,8%) of victims reported that police could do nothing and 16,8% indicated that police won't do anything. Less than 20% of households indicated that the incident was not serious enough to be reported to the police (16,8%) and about 10,9% of victims responded that they solved the issues related to incidents of home robbery themselves. Reasons for not reporting housebreaking/burglary incidents by victims indicate that they will rather report crime to other authorities than police. However, not all the reasons were because of lack of faith in the police, but also that the incidents were not serious, thus they decided to solve them themselves.

Figure 19: Percentage distribution of the reasons why victims of housebreaking and home robbery chose not to report to the Police in 2011, VOCS 2012



	Housebreaking/burglary	Home robbery
Not serious enough	14,6	16,8
Solved it myself	11,0	10,9
Inappropriate for police	5,8	5,1
Reported to other authorities instead	6,3	8,0
My family resolved it	3,4	2,9
No insurance	1,6	0,0
Police could do nothing	25,9	24,8
Police wont do anything	17,4	16,8
Fear/dislike of the police	0,5	1,5
Didnt dare (for fear oof repraisal)	0,9	1,5
Other reasons	11,4	10,2
Do not know	1,1	1,5

Some households also indicated that police could do or would do nothing as their main reasons for not reporting. In order to improve this situation it is important that the police pay more attention to the victims, give them explanations on what they can do and what they cannot. While there is a large proportion of households who are satisfied, the few cases of dissatisfaction are what the police should also look into. Dissatisfaction does not necessarily mean failure by the police, since the police can arrest the perpetrator of housebreaking/burglary, but fail to recover stolen items which might lead to the owner feeling dissatisfied. Proper feedback by the police to the victims of housebreaking/burglary or home robbery may increase the level of satisfaction of the victimsand improve the reporting of crime.

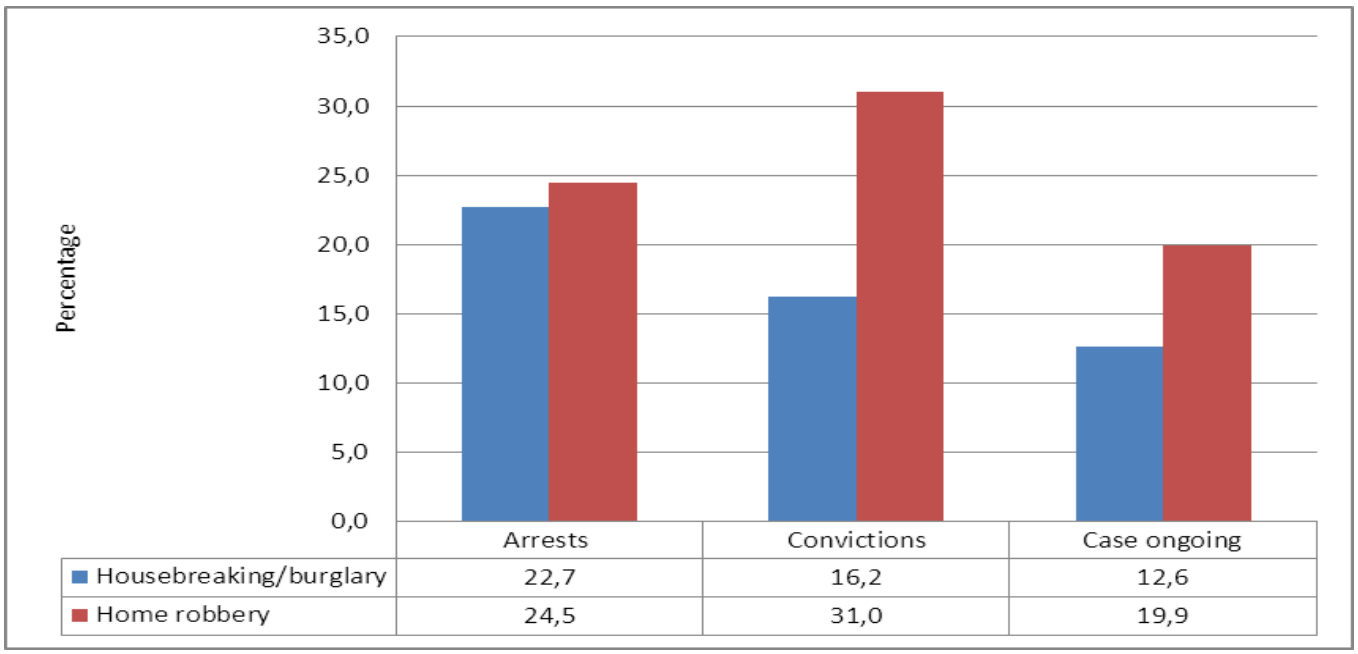
3.4.3 Arrests and convictions related to reporting housebreaking and home robbery

Figure 20 depicts the distribution of arrests and convictions related to reporting of housebreaking/burglary and home robbery in 2011. An estimated 22,7% of housebreaking/burglary incidents in South Africa resulted in a suspect being arrested. About 16,2% of the reported incidents of housebreaking/burglary led to convictions of criminals in 2011. Approximately 12,6% of cases were still on-going and not yet concluded. This low rate of convictions could be partly because only 59% of housebreaking incidents in South Africa were reported to the police; therefore the remainder was unknown to the authorities and could not be prosecuted.

Home robberies on the other hand had an average of 24,5% of arrests. Of these arrests, thirty-one per cent resulted in the conviction of perpetrators, while about twenty per cent of cases were still on-going. Successful prosecution does not only depend on the reporting of cases by victims to the police or by police detection, but also other factors such as the availability of credible evidence.

People's perceptions or expectation of the law enforcement agencies play an important role in deciding when to report the incidents to the police.

Figure 20: Percentage of arrests and convictions related to reporting housebreaking and home robbery in 2011, VOCS 2012



	Arrests	Convictions	Case ongoing
Housebreaking/burglary	22,7	16,2	12,6
Home robbery	24,5	31,0	19,9

Note: Percentage of arrests and convictions were measured from separate questions, therefore will not sum to 100%

3.5 Characteristics of household heads of households that were victims of housebreaking/burglary or home robbery and repeat victimisation

This section considers the effects of demographic, economic activity and some household characteristics upon the probability of the household being either a victim of housebreaking/burglary or home robbery. The dependent variables were whether the household had been a victim of housebreaking/burglary or home robbery in the 12 months prior to the survey collection period. In order for us to profile whether households were at risk of being victims of housebreaking/burglary or home robbery, predictor or explanatory variables were included in the analysis (see Annexure). These variables were measures of demographic characteristics, economic status and province.

The risk of households being victimised differ markedly according to their living standards, demographic characteristics, economic status and condition of their dwelling units. Table 9 shows that households headed by black Africans (5,1%) were less likely to have their houses burgled than households headed by individuals of other population groups. Population groups that were prone to be victims of housebreaking/burglary in 2011 were headed by whites (6,6%) and coloureds (6,5%).

With regards to home robbery, victimisation prevailed mostly among households headed by Indian/Asian (2,4%) and white (1,9%) individuals, while it was the least among black Africans (1,4%).

While 6,6% of households headed by individuals aged 25-34 years experienced housebreaking/burglary in 2011, this was the case with only 4,1% of household heads aged fifty-five years and older. It is interesting to note that although housebreaking/burglary was least likely to affect those households fifty-five years and older, this age category had a higher likelihood to be affected by home robberies instead.

Households headed by a divorcee were more likely to be victims of either housebreaking/burglary or home robbery than any other marital status group, while home robbery was least likely to affect those who were either single or separated.

A comparison of household sizes showed that households with fewer members were more likely to be victims of housebreaking/burglary than households that were bigger in size. Households of one or two members (6,0%) were more likely to be victims of housebreaking/burglary than households of five or more members (4,4%). With home robberies, households of five or more members (1,9%) were more likely to be victims of home robbery than households of one or two members (1,2%). Thus it appears as if housebreaking/burglary mostly affected households with fewer members, while home robbery tended to be more likely to affect larger households.

Housebreaking/burglary appeared to be more prevalent in households whose main source of income was from business ownership (6,9%) and salaries (6,1%).The same trend was present amongst victims of home robbery.

Table 9: Characteristics of the heads of households that were victims of housebreaking and home robbery, 2011

Variable	Descriptor	Housebreaking/burglary		Home robbery	
		Incidence	Prevalence	Incidence	Prevalence
Population group	Black African	531 796	5,1	140 383	1,4
	Coloured	70 024	6,5	19 334	1,8
	Indian/Asian	18 890	5,5	8 323	2,4
	White	109 368	6,6	31 535	1,9
Age group	<25	42 529	5,6	10 703	1,4
	25-34	181 704	6,6	34 430	1,3
	35-44	179 310	5,5	42 890	1,3
	45-54	161 439	6,1	49 524	1,9
	>55	164 752	4,1	62 028	1,6
Marital status	Married/living together like husband and wife	368 800	5,4	111 431	1,6
	Divorced	35 232	8,3	9 588	2,3
	Separated	11 363	6,1	2 229	1,2
	Widowed	70 118	3,7	27 237	1,4
	Single	239 486	6,0	48 495	1,2
Household size	1-2	294 096	6,0	60 469	1,2
	3-4	246 812	5,9	57 060	1,4
	5 or more	188 826	4,4	82 046	1,9
Main source of income	Salaries	523 772	6,1	137 257	1,6
	Grants	183 311	4,2	57 278	1,3
	Other income	14 144	4,8	3 508	1,2
Business ownership	Run business	92 899	6,9	34 666	2,6
	Do not run business	633 065	5,3	162 985	1,4

Considering the dichotomous character of the dependent variables, multinomial regression analysis was the most appropriate technique for estimating the effects of the household characteristics on the probability of being burgled or home robbed. All variables that are significant in the model will help to predict the likelihood of experiencing either housebreaking/burglary or home robbery.

Chi-squared Automatic Detection (CHAID), a classification tree method developed by Kass (1980) was used prior to the regression model to determine the relationship between the response and predictor variables. This technique repeatedly splits a sample into unique sub-groups or segments, predictive of the categorical response variable. At the initial stage of analysis, CHAID splits the tree on the predictor variable having the lowest probability value (p-value), which represents the probability that the observed sample relationship between the predictor and the response variable would occur if the two variables were statistically independent (Lukhwareni , 2011). CHAID gives the most statistically significant predictor the highest ranking.

The data was partitioned into four different subcategories as per categories of age group. Age group is a categorical variable such that those household headed by senior citizens were at most risk of being victims housebreaking/burglary than any other groups. The risk of being victims of housebreaking/burglary can be further explained in terms of marital status and household size. The results in Figure 21 indicate that age group is the most important predictor of housebreaking/burglary. Marital status was the predictor mostly involved in the first order interactions. Other predictor variables in the first order interactions were population group and household size.

Figure 21: Classification tree diagram for VOCS 2011 – housebreaking/burglary

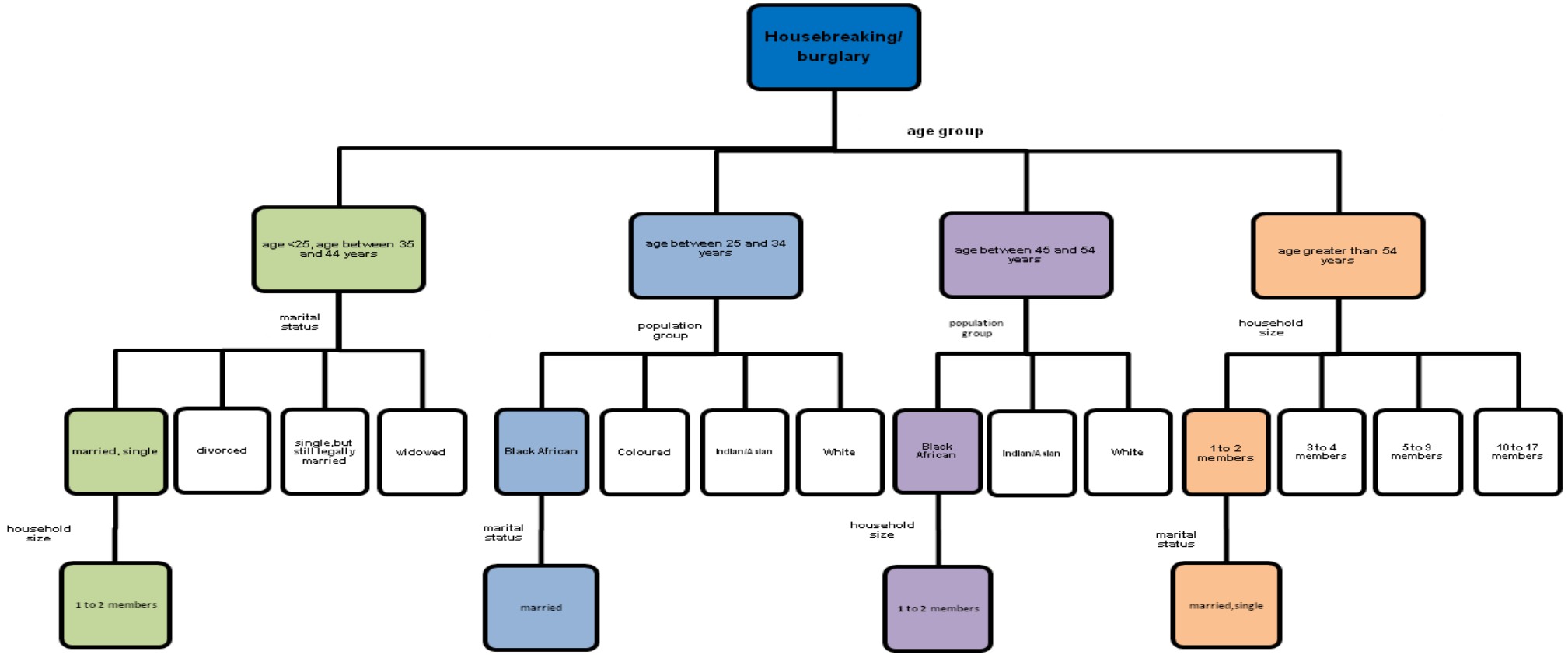


Table 10, provides the parameter estimates for the individual variables and for interactions between variables and their interactions. The results show several significant interactions of up to four factors. In our table, a positive sign of the coefficient gives us an indication of the positive contribution of the predictor variables in the model. The change over different age groups differs over the interactions of other three variables. In our model our reference category is successful cases of housebreaking and age group. The odds of a household running a business and being a victim of housebreaking are 1,03 higher than those not running the business among those aged less than 25 years and are married.

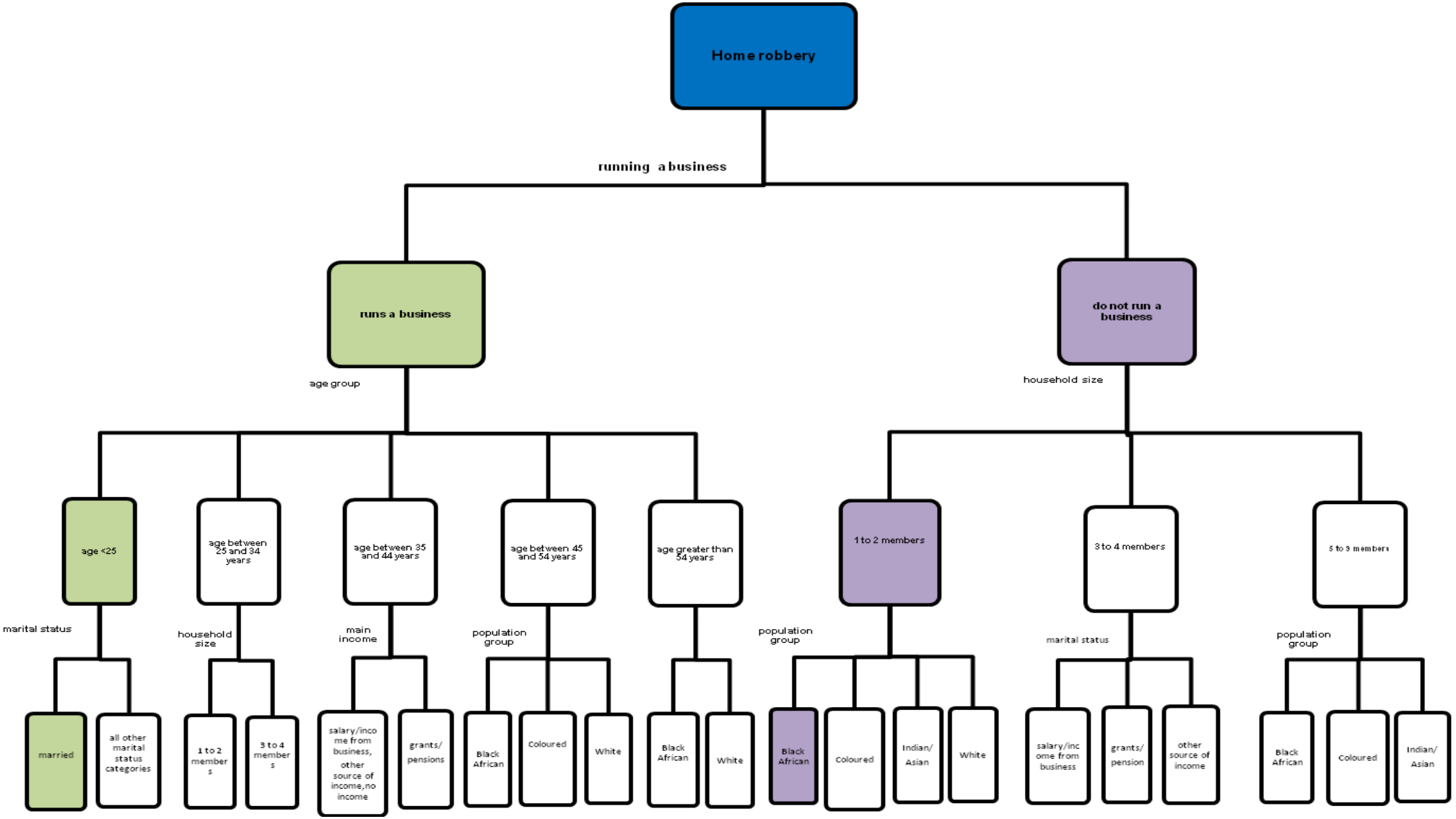
Table 10: Parameter estimates from the logistic regression model to predict housebreaking/burglary

Odds Ratio Estimates			
		95% Wald Confidence Limits	
Parameter	Point Estimate	Lower	Upper
Intercept	0,128	-2,093	-2,015
Age group*household size	0,877	-0,136	-0,127
Age group*marital status	0,983	-0,021	-0,013
Age group*population	1,025	0,021	0,027
Age group*household size*marital status	0,993	-0,007	-0,006
Age group*marital status*run business	1,034	0,032	0,035
Age group*marital status*Gender	0,981	-0,02	-0,019
Age group*marital status*population group	0,993	-0,008	-0,007
Age group*population*LSM category	0,994	-0,007	-0,006
Age group*household size *population	1,037	0,035	0,037
Age group	1,055	0,044	0,064
Household size	1,336	0,278	0,301
Population	0,876	-0,141	-0,124
Province	0,993	-0,008	-0,006
Marital status	1,037	0,032	0,04
Run business	0,638	-0,462	-0,437

Note: Refer to annexure 3 for a comprehensive logistic regression table

Figure 22 show the output of CHAID on home robbery data. Running a business was the most significant predictor among other predictors of home robbery. Age group was the predictor mostly involved in the first order interactions. Household size and marital status were other variables in the first order interactions, while population group and main income were involved in the third order interactions.

Figure 22: Classification tree diagram for VOCS 2011-home robbery



The results of Table 11 indicate that a head of a household who runs a business, is within the age group less than 25 years and is married, is more likely to be a victim of home robbery than those who are not running a business. Combinations of running a business, household size and main income was the least likely to cause households to be victims of home robbery. On their own, running a business or marital status or household size, are not significant predictors of households robbed.

Table 11: Parameter estimates from the logistic regression model to predict home robbery

Odds Ratio Estimates			
		95% Wald Confidence Limits	
Parameter	Point Estimate	Lower	Upper
Runs a business *age group	0,856	-0,171	-0,140
Runs a business *household size	1,420	0,326	0,376
Runs a business *marital status	1,071	0,058	0,079
Runs a business *age group*marital status	1,024	0,022	0,025
Runs a business *age group*household size	1,024	0,021	0,027
Runs a business *age group *population	1,030	0,028	0,031
Runs a business *household size*population	0,962	-0,042	-0,036
Runs a business *household size*main income	0,823	-0,202	-0,187
Runs a business *household size*marital status	1,029	0,026	0,031
Runs a business	0,419	-0,940	-0,798
Age group	1,024	0,001	0,047
Household size	0,806	-0,252	-0,178
Marital status	0,680	-0,403	-0,368
Main source of income	1,606	0,450	0,498

Note: Refer to annexure 4 for a comprehensive logistic regression table

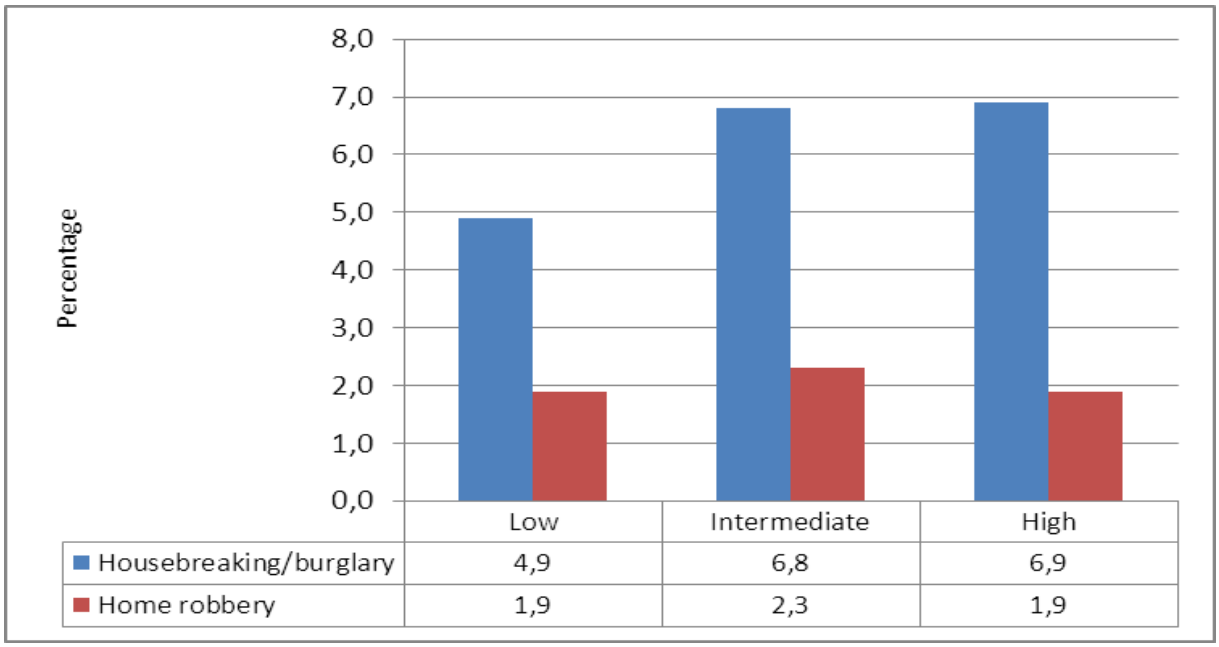
3.6 Neighbourhood characteristics

The Victims of Crime survey did not include questions on income, household's tenure status and other variables in order to measure living standards. However, other household surveys (e.g. the General Household Survey (GHS), Domestic Tourism Survey (DTS)) conducted within Stats SA do measure such indicators. The GHS, DTS and VOCS were designed from the same Master Sample as discussed under methodology section. Each of the above three surveys has independent samples which in some instances match at the Primary Sample Units (PSU) level. More than ninety per cent of the PSUs of the VOCS 2012 and DTS 2012 overlapped out of a total 3017 surveyed PSUs.

Nearest neighbourhood characteristics methodologies were used for the spatial matching process. This implies that the nearest PSUs included in the VOCS sample were given the Living Standard Measure (LSM) characteristic as measured by the DTS. The LSM was used as a proxy for living standards. Although the DTS did not measure income, this variable was derived from the LSM. The LSM is segmented into 10 groups with a LSM of 10 (highest) and 1 (lowest). These are quite often grouped together into subgroups that roughly represent the low income group (LSM 1-4), middle income group (LSM 5-7) and high income group (8-10). PSUs which are in close proximity to each other and were included in both surveys were linked together. The LSM classifications of the DTS were then were associated with the VOCS PSUs. About 15% of the PSUs from the GHS and VOCS 2012 did match, but only the DTS records were used when calculating the LSM categories.

The level of urbanisation, ownership of vehicles or major electrical appliances as reflected in the LSMs reflected differences in the levels of victimisation. Figure 23 shows that the incidents of housebreaking/burglary were most common amongst households with high (6,9%) and intermediate (6,8%) standards of living. Home robbery affected mostly those households with an intermediate standard of living (2,3%).

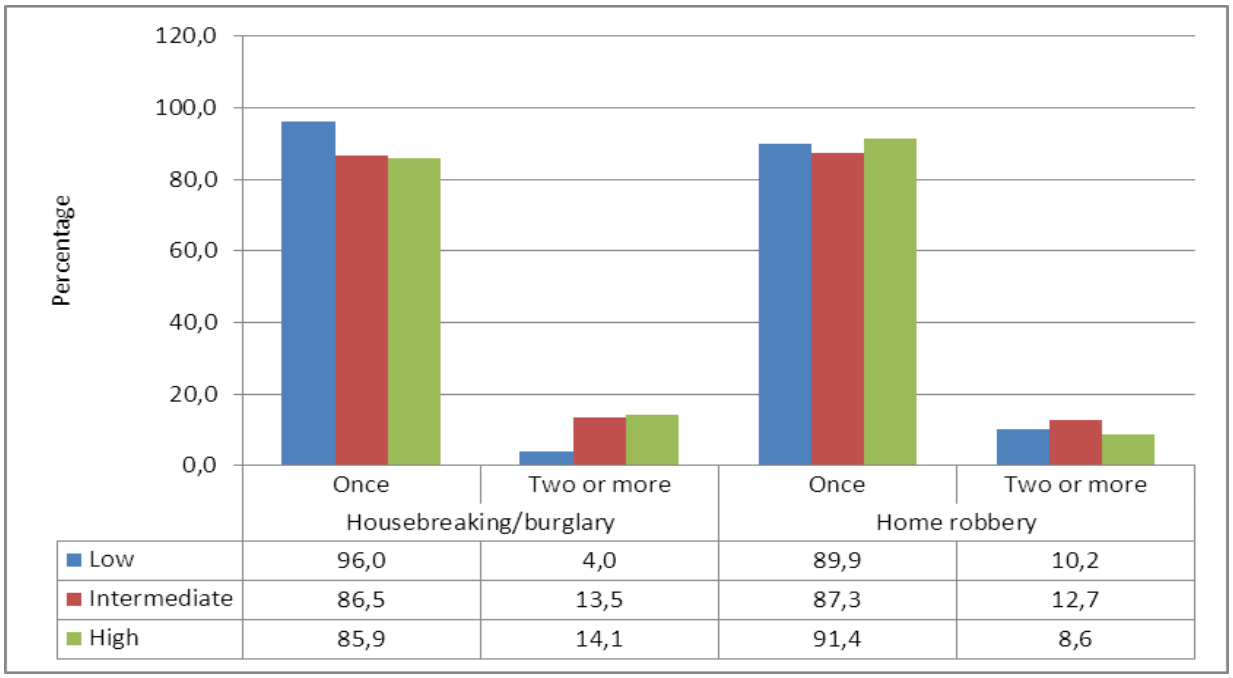
Figure 23: Percentage distribution of neighbourhood Living Standard Measures amongst household that were victims of housebreaking and home robbery in 2011, VOCS 2012



	Low	Intermediate	High
Housebreaking/burglary	4,9	6,8	6,9
Home robbery	1,9	2,3	1,9

Figure 24, depicts the distribution of households who had experienced repeat victimisation according to LSM category. The results show that the incidents of housebreaking/burglary were most common amongst households with the high (14,1%) and intermediate (13,5%)standards of living. Home robbery mostly affected those households with an intermediate standard of living (12,7%).

Figure 24: Percentage distribution of neighbourhood Living Standard Measures amongst households who had been victimised once and more than once in 2011, VOCS 2012



	Housebreaking/burglary		Home robbery	
	Once	Two or more	Once	Two or more
Low	96,0	4,0	89,9	10,2
Intermediate	86,5	13,5	87,3	12,7
High	85,9	14,1	91,4	8,6

3.7 Geographical location characteristics

In addition to knowing more about the incidence and nature of crime the actual geographic location of crime also provides important information that can be used for planning and crime prevention activities. For the purpose of analysing crime trends based on geographic location, a new settlement typology based on the Census 2001 typology was developed. According to this typology, settlements are grouped into four categories: Urban formal, urban informal, rural formal and tribal areas. For the purpose of this report the tribal area and rural formal classes were grouped together to form a new class, namely 'rural', while those that were in metropolitan areas and living in urban formal or urban informal areas were grouped together under 'Urban metro'. Non-metropolitan areas and urban formal or urban informal were grouped under 'Urban non-metro'.

Table 12 summarises the percentage distribution of households that were victims of housebreaking/burglary and home robbery by settlement type. Households who resided in rural areas where least likely to experience housebreaking/burglary (95,8%) compared to those that resided in urban areas (94,0%).In the case of home robberies there were no differences in victimisation across settlement types.

Table 12: Percentage distribution of households that were victims of housebreaking/burglary and home robbery by settlement type, 2011

	Housebreaking/burglary			Home robbery		
Settlement type	None	At least once	Two or more	None	At least once	Two or more
Urban metro	94,0	5,4	0,6	98,5	1,3	0,2
Urban non-metro	93,9	5,2	0,9	98,5	1,4	0,1
Rural	95,8	3,8	0,4	98,5	1,3	0,2

Table 13 shows housebreaking/burglary and home robbery victimisation by the metropolitan municipalities. eThekwini municipality had the highest prevalence (11,8%) of housebreaking/burglary in 2011, followed by City of Tshwane (6,8%). Home robbery was highest in Ekurhuleni (4,2%), followed by eThekwini (2,4%).

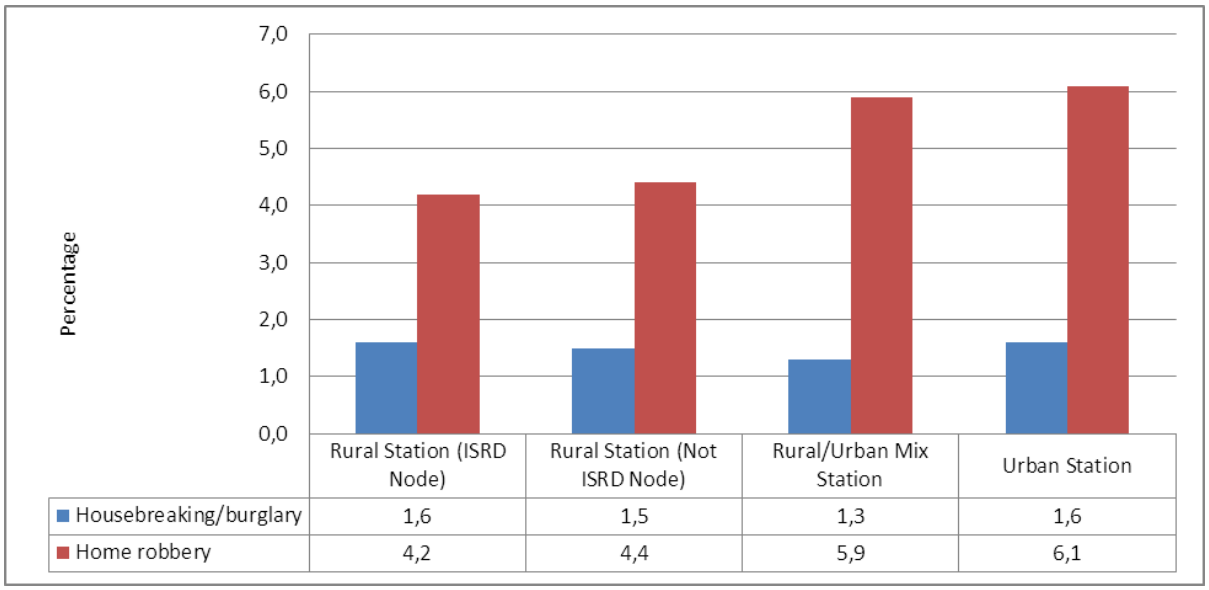
Table 13: Percentage distribution of households that were victims of housebreaking/burglary and home robbery by metropolitan municipalities, 2011

	Housebreaking/burglary		Home robbery	
Metropolitan municipality	None	At least once	None	At least once
City of Cape Town	94,5	5,5	98,8	1,2
Nelson Mandela Bay	93,9	6,1	*	*
eThekwini	88,2	11,8	97,6	2,4
Ekurhuleni	94,2	5,8	95,8	4,2
City of Johannesburg	96,9	3,1	98,3	1,7
City of Tshwane	93,2	6,8	98,7	1,3

*The sub-sample was too small to provide reliable estimates

There are many factors that may affect the likelihood of a household to be victims of a crime, including where people live. According to Hoyle and Zedner (2007), the risk of victimisation is usually closely associated to geographical area. The findings from Figure 25 provide an indication of where housebreaking/burglary and home robbery are more likely to occur within the police station settlement type. Nationally, housebreaking/burglary was more likely to occur in areas with rural station (ISRD Node) and urban stations (1,6%) whereas home robbery was more likely to occur near urban stations (6,1%) followed by rural/urban mixed stations (5,9%).

Figure 25: Percentage distribution of housebreaking/burglary and home robbery prevalence by type of police station, VOCS 2011



	Rural Station (ISRD Node)	Rural Station (Not ISRD Node)	Rural/Urban Mix Station	Urban Station
Housebreaking/burglary	1,6	1,5	1,3	1,6
Home robbery	4,2	4,4	5,9	6,1

3.8 Cluster and outlier analysis for housebreaking and home robbery

3.8.1 Introduction

Crime is seldom evenly distributed across space. In South Africa there are significant differences in the distribution of crime across the nine provinces, as well as between Local Municipalities (LM). The findings related to the incidence of housebreaking and burglary from both sets of data in Section 3.1.2 indicate that Gauteng, Western Cape and KwaZulu-Natal were the provinces that recorded the highest number of incidents in 2011. When we look at the percentage of the population affected by housebreaking/burglary, residents of Western Cape, Mpumalanga and KwaZulu-Natal were more likely to be affected than those living in the other provinces.

Gauteng and KwaZulu-Natal also contributed more than other provinces to the total number of home robbery incidents in 2011. When looking within each province, residents of Mpumalanga and Limpopo had the highest percentages of households who were home robbery victims.

For the purposes of the analysis of the spatial distribution of crime, the South African Police Service (SAPS) policing areas and crime statistics were merged with Census 2011 boundaries to get an integrated view of crimes and crime patterns in South Africa in 2010/2011 financial year (also see section 2.2). This was done to complement the findings obtained from the VOCS data, which is based on a sample and only provides statistics at provincial level.

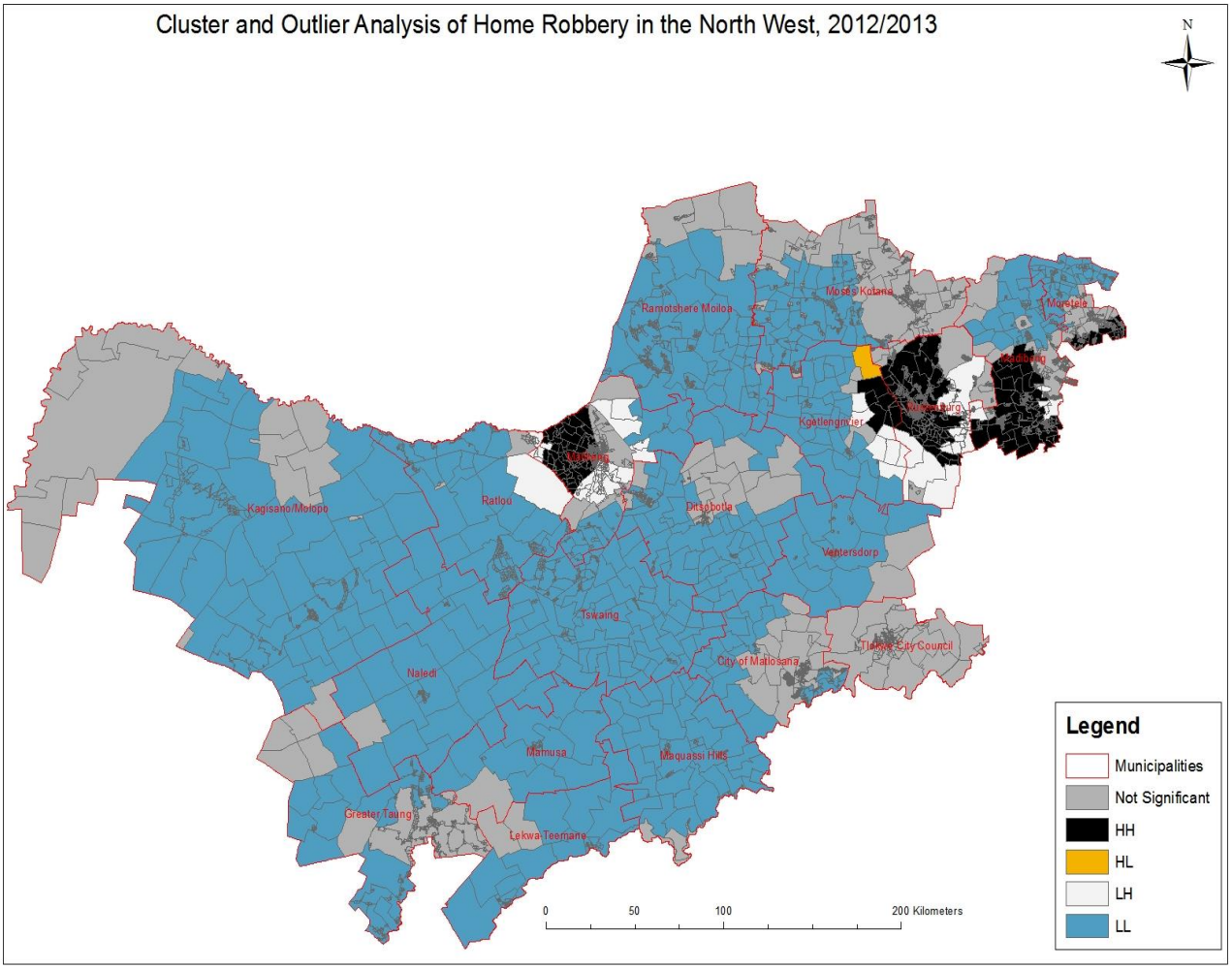
GIS software was used to analyse housebreaking/burglary and home robbery that occurred in 2011/2012 financial year. Moran's I (spatial indicator) which was used to assess the significance of neighbourhood spatial patterns, classifies them into four types of association, high–high, low–low, high–low or low–high (Mitchell, 2005). A high crime area which is surrounded by a high crime zone is referred to as a high-high cluster area, while a low crime zone surrounded by a low crime area is referred to as a low-low cluster area. An outlier can be observed when a high crime zone is surrounded by a low crime area or when a low crime zone is surrounded by a high crime area. Hot Spot analysis was performed in each of the nine provinces and six metropolitan municipalities to determine if features with either high or low values are clustered spatially (see results in Annexure).

This section provides a summary of the findings based on the cluster and hot spot analysis.

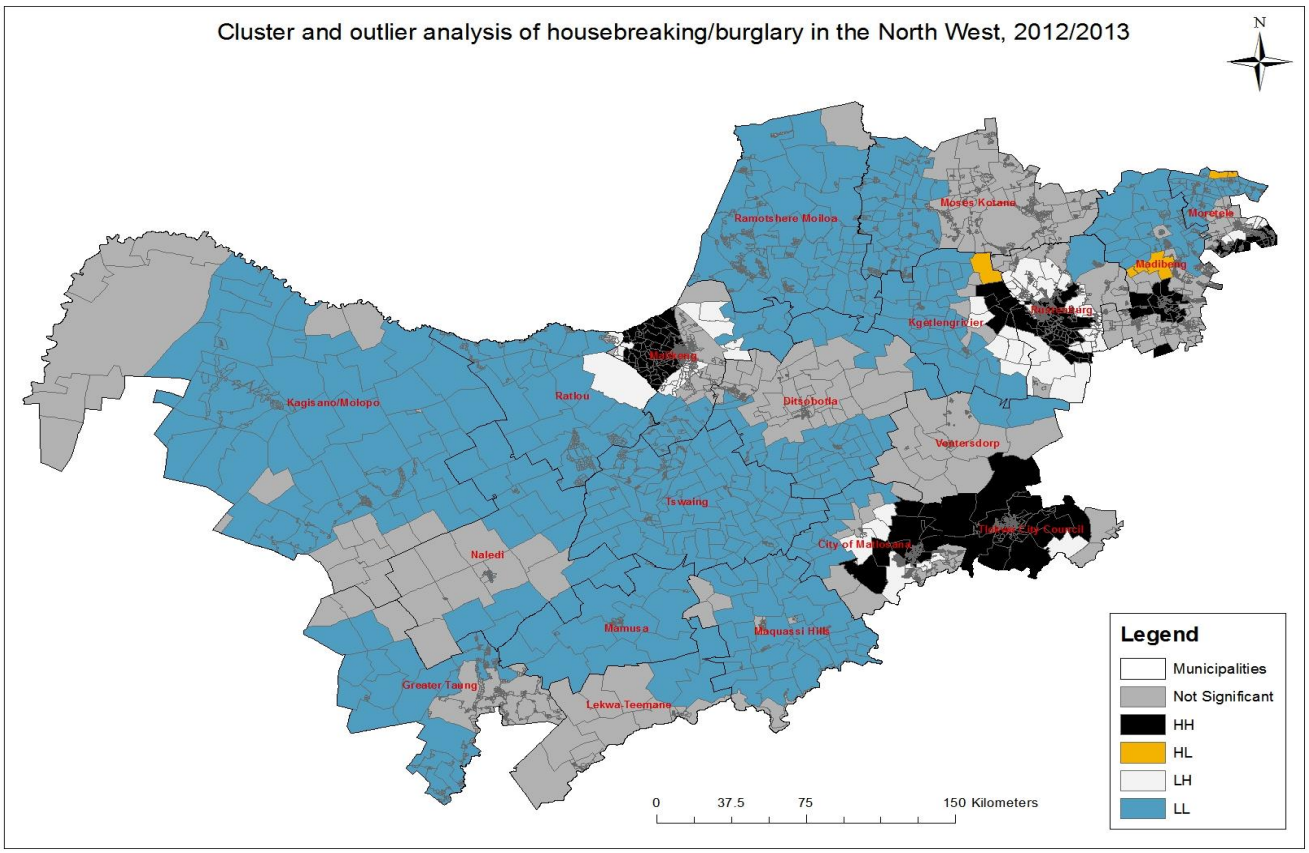
3.8.2 North West

Map 5 shows the spatial distribution of home robbery in North West province. High crime zones surrounded by high crime areas (clustering) were observed in Mafikeng, Madibeng and Rustenburg, although there are areas within the borders of Mafikeng with high incidents of home robbery which are surrounded by areas with low crime. Rustenburg was identified as a hot spot area for home robberies, followed by Moretele. Incidents of housebreaking/burglary (Map 6) were more common in Tlokwe City Council, Rustenburg, Mafikeng and Madibeng. These municipalities had areas of high incidents of housebreaking/burglary and surrounded by areas with high incidents of housebreaking/burglary. Rustenburg and Mafikeng had areas with high incidents of housebreaking but surrounded by areas with low incidents of housebreaking/burglary. The Rustenburg municipality is the housebreaking/burglary hotspot in the province.

Map 5: Cluster and outlier analysis of home robbery in North West, SAPS 2012/2013



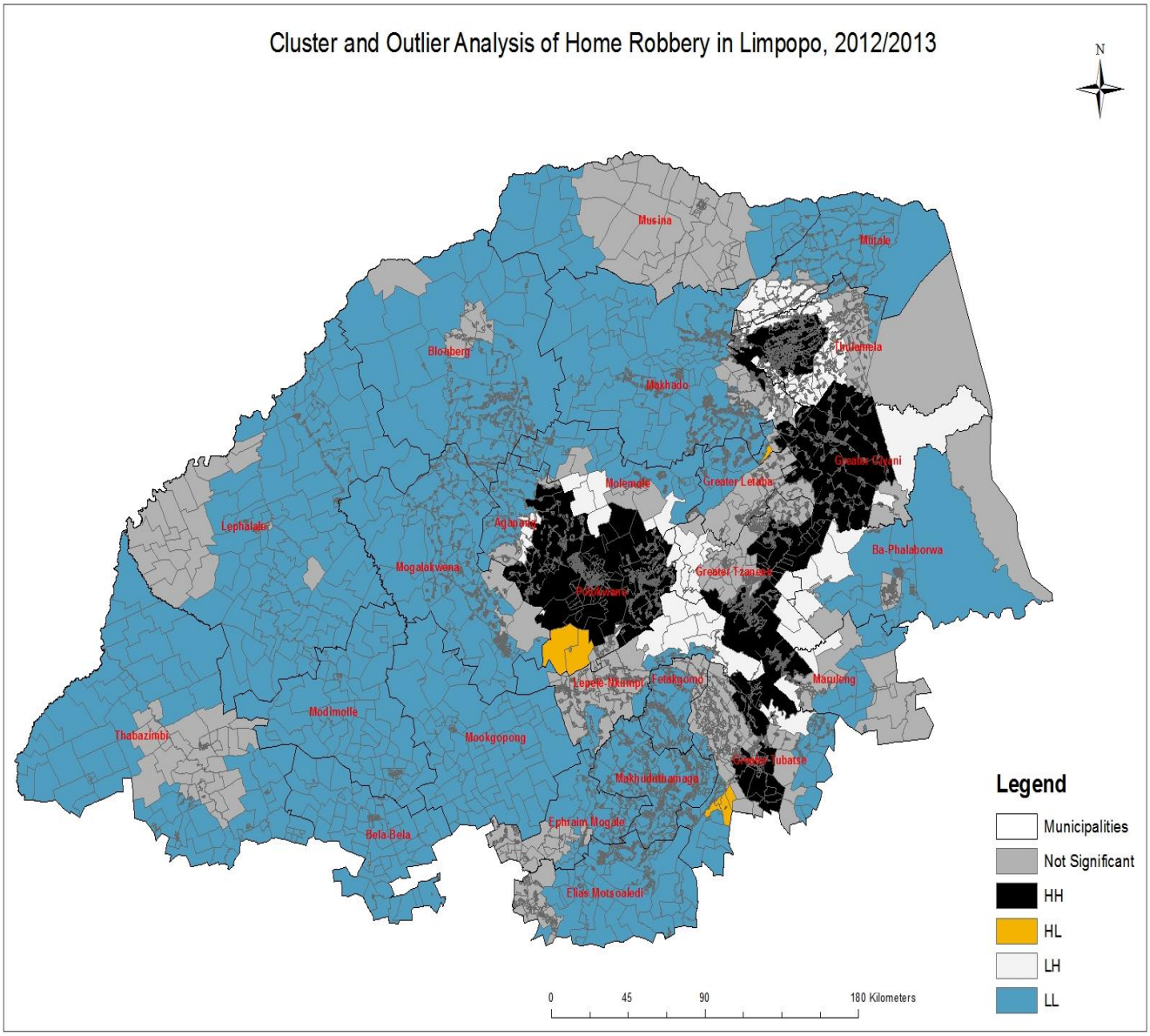
Map 6: Cluster and outlier analysis of housebreaking in North West, SAPS 2012/2013



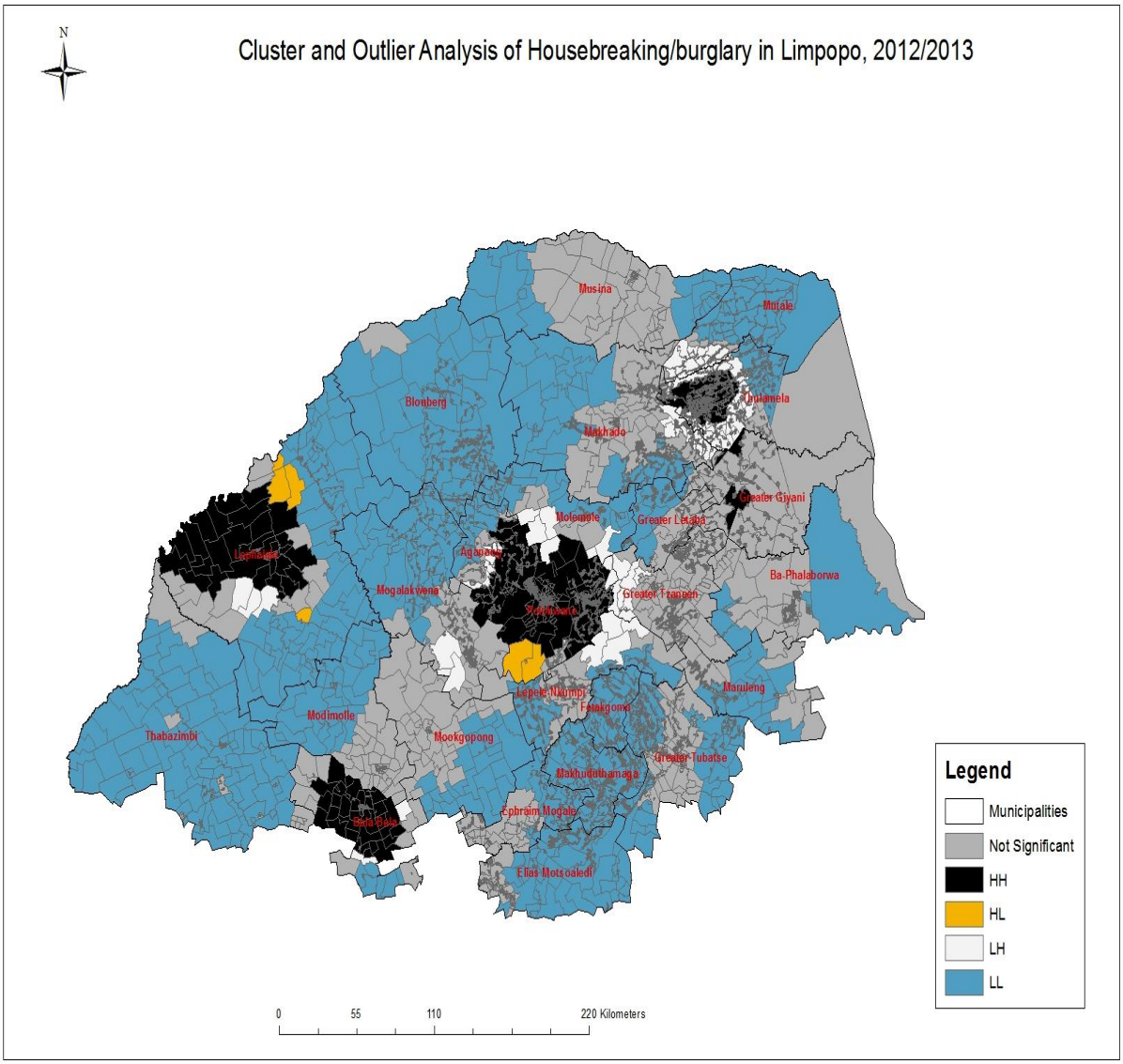
3.8.3 Limpopo

In Limpopo, home robbery clustering (high home robbery zones surrounded by high zones) was found in Polokwane, Thulamela, Greater Giyani, Greater Tzaneen and Greater Tubutse municipalities. The results in Map 7 also show that there were areas within these municipalities which had low incidents of home robbery but surrounded by areas with high incidents of home robbery. Areas in Thulamela municipalities were a hot spot area for home robbery in Limpopo, followed by certain parts of the Polokwane LM. Areas with high incidents of housebreaking/burglary (Map 8) observed in Limpopo include Thulamela, Polokwane, Bela-Bela and Lephalale municipalities. Some of the areas within these municipalities had low incidents of with housebreaking/burglary while surrounded by areas with high crime. Hot spot areas included areas with Thulamela and Polokwane municipalities in 2011/2012 financial year.

Map 7: Cluster and outlier analysis of home robbery in Limpopo, SAPS 2012/2013



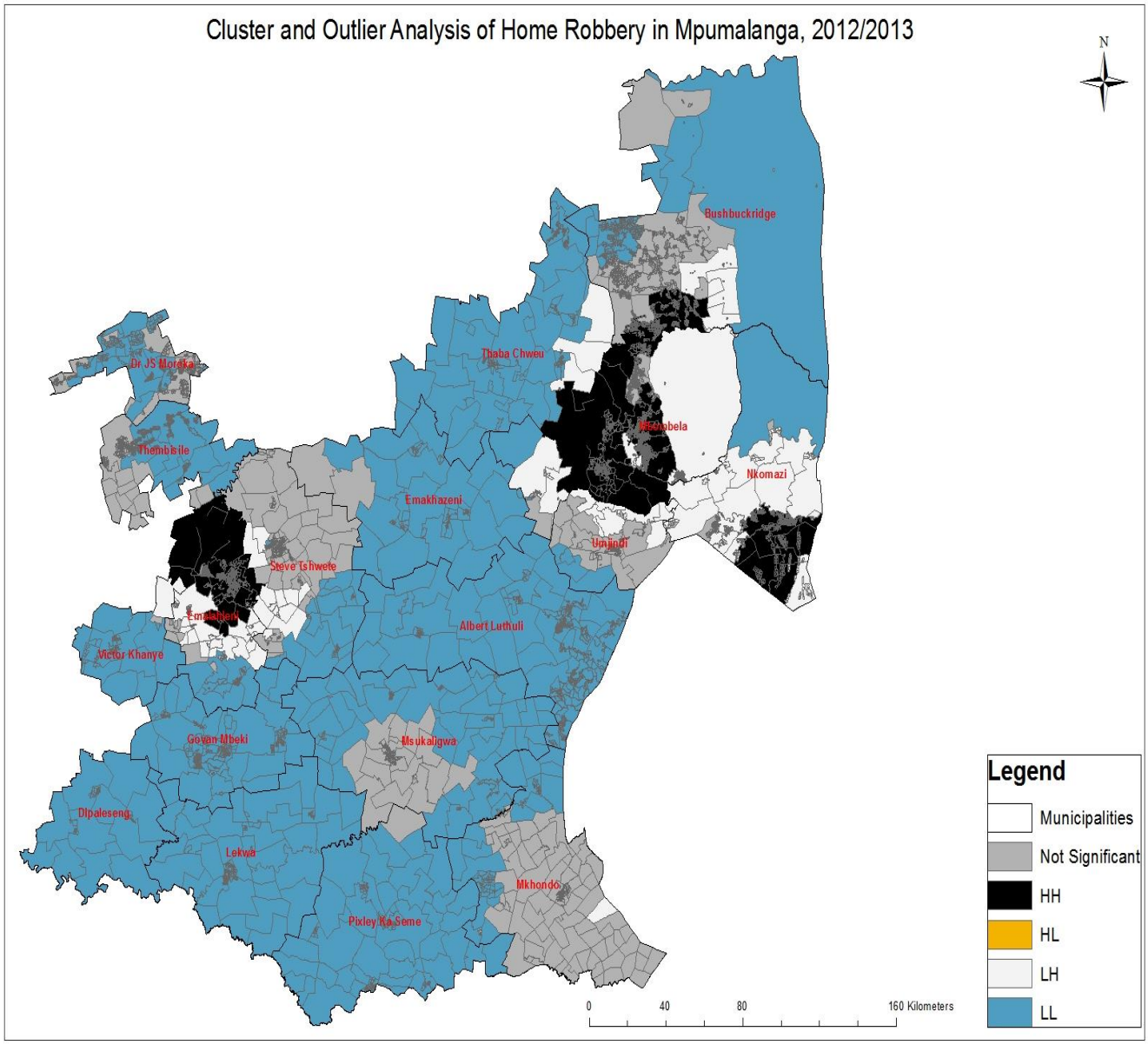
Map 8: Cluster and outlier analysis of housebreaking in Limpopo, SAPS 2012/2013



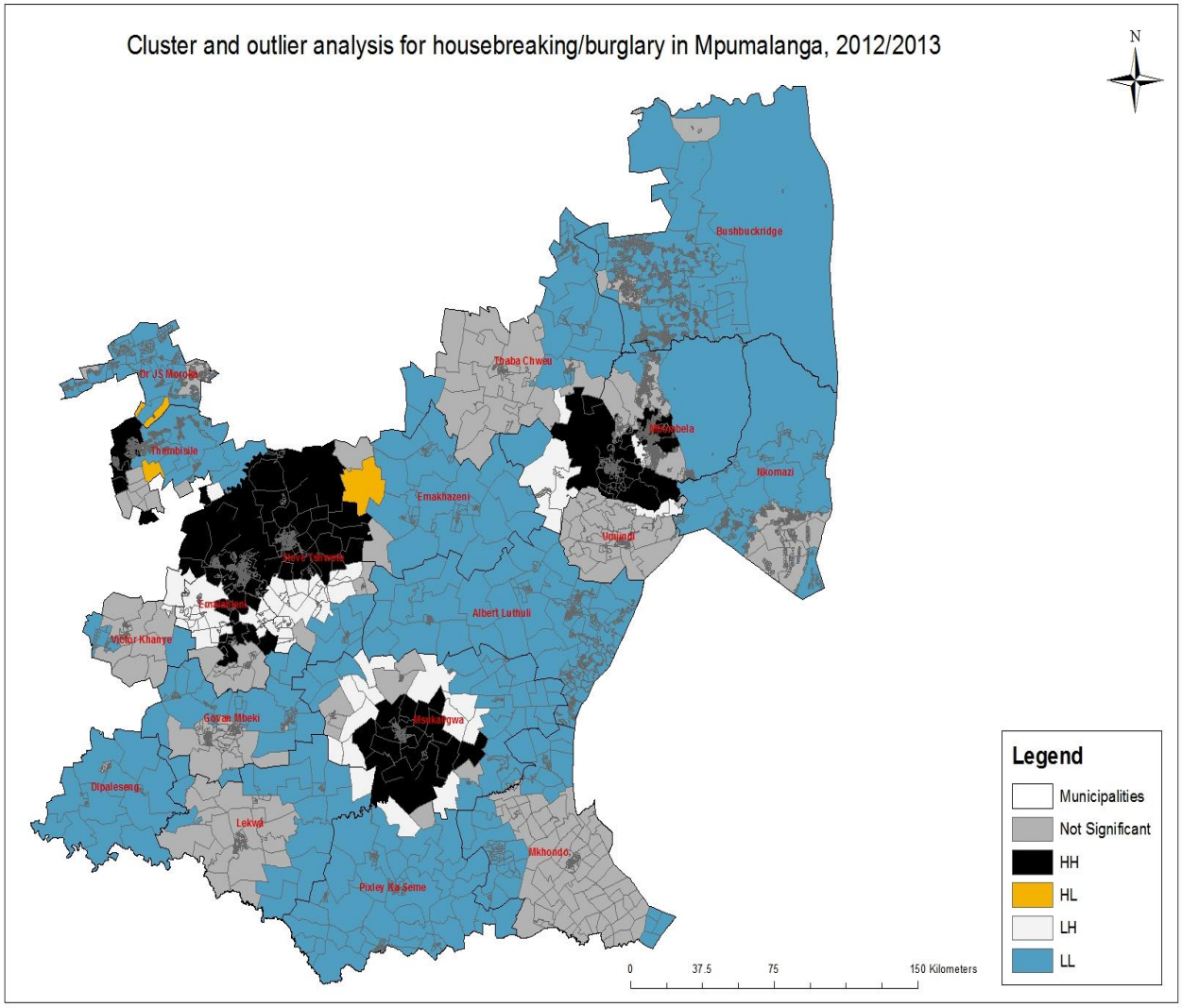
3.8.4 Mpumalanga

The results in Map 9 indicate that areas with high incidents of home robbery in Mpumalanga were found in Mbombela, Nkomazi and Emalahleni municipalities in the 2011/2012 financial year. Parts of Nkomazi were identified as home robbery hot spots, followed by Emalahleni and Mbombela municipalities. Mbombela, Steve Tshwete and Msukalgwa were municipalities with areas of high incidents of housebreaking/burglary in 2011/2012 (Map 10) surrounded by areas of high incidents (clustering) of housebreaking/burglary. Hot spot areas were observed in Steve Tshwete and Mbombela municipalities.

Map 9: Cluster and outlier analysis of home robbery in Mpumalanga, SAPS 2012/2013



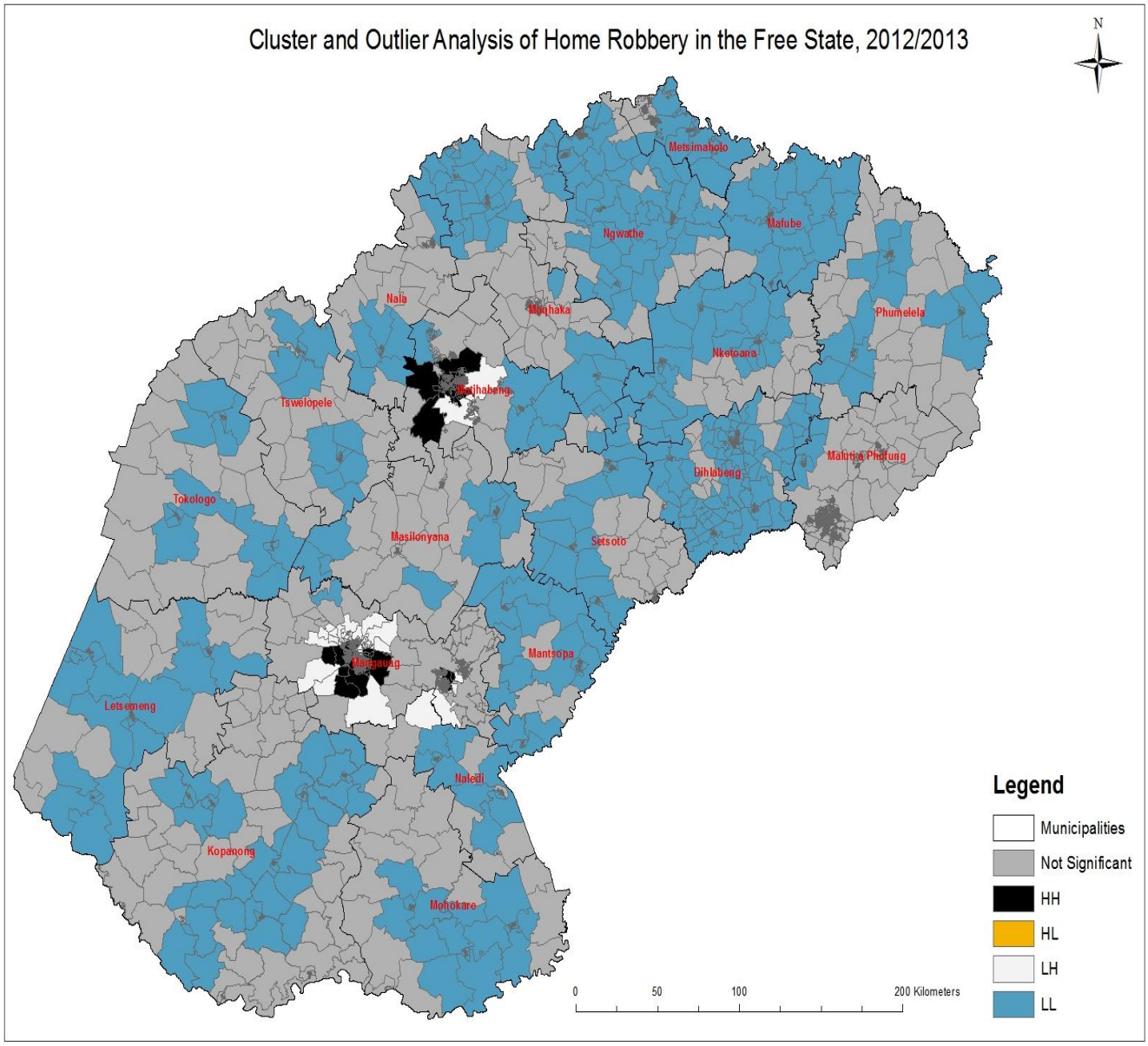
Map 10: Cluster and outlier analysis of housebreaking in Mpumalanga, SAPS 2012/2013



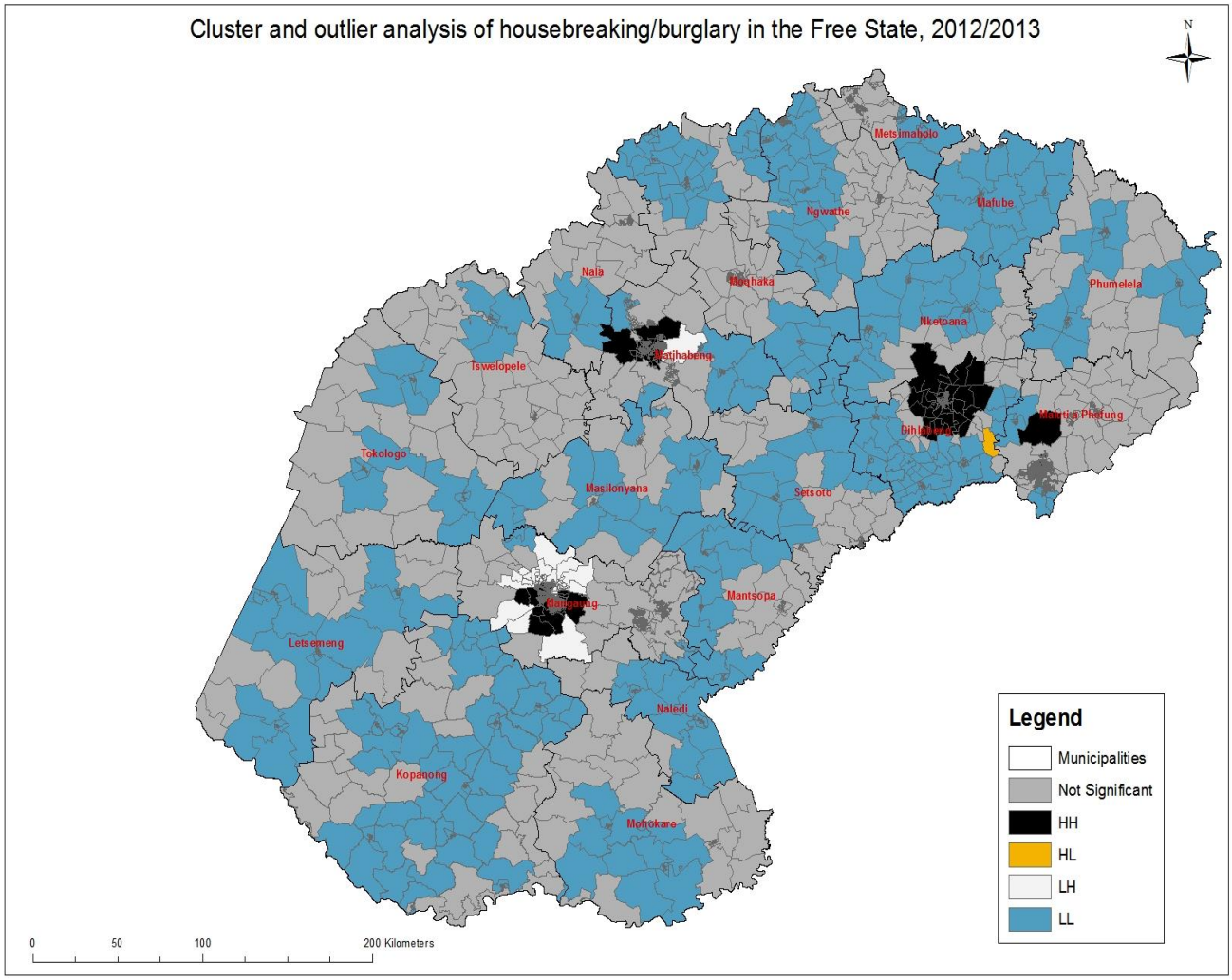
3.8.5 Free State

Mangaung and Matjhabeng municipalities had high incidents of home robberies in the 2011/2012 financial year, while Mangaung is a hot spot (Map 11). Areas that have been identified as high housebreaking/burglary zones surrounded by a high crime areas (as indicated in Map 12) were in Dihlabeng, Mangaung, Maktjia phefeng and Matjhabeng municipalities. Hot spot areas for housebreaking/burglary were concentrated in Mangaung in 2011/2012.

Map 11: Cluster and outlier analysis of home robbery in Free State, SAPS 2012/2013



Map 12: Cluster and outlier analysis of housebreaking in Free State, SAPS 2012/2013



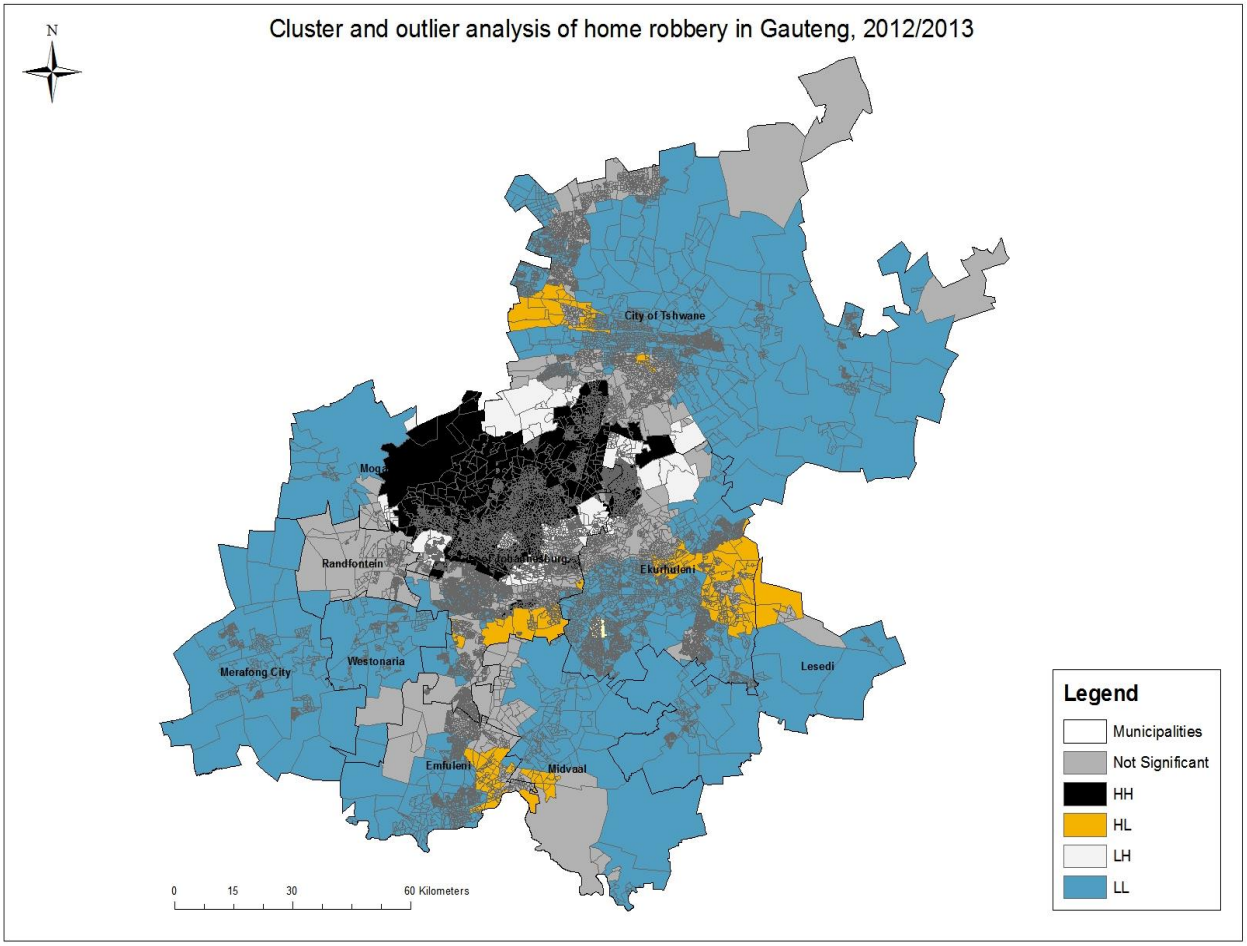
3.8.6 Gauteng

Gauteng has two housebreaking/burglary hot spots namely, City of Johannesburg and City of Tshwane. Specific crime problematic areas affected by housebreaking/burglary within City of Johannesburg were Rietfontein and Roodepoort. Residents in Krugersdorp, Kagiso, Tshepisong and Munsieville have also experienced a higher volume of housebreaking/burglary in 2011/2012 financial year. Soshanguve and Akasia were hotspots within City of Tshwane.

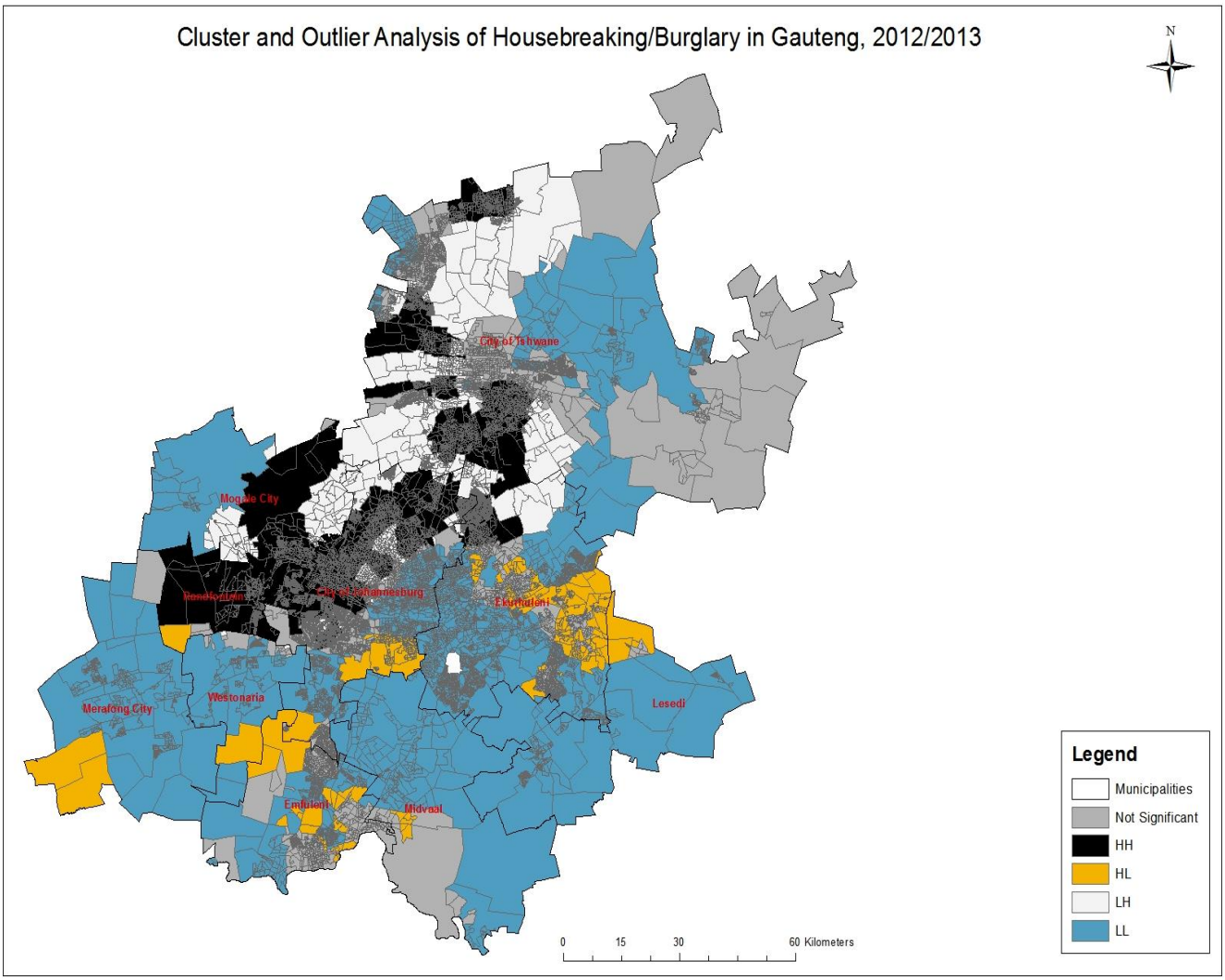
Areas in Ekurhuleni, Westonaria, Emfuleni, Midvaal and Merafong City experienced high housebreaking/burglary, but these areas are surrounded by areas with low incidence of housebreaking/burglary.

City of Johannesburg was the only hotspot area for home robberies in Gauteng. These were mainly in Johannesburg and Mogale City. Other areas within City of Johannesburg experiencing high incidents of home robbery and surrounded by areas with high incidents of home robbery include: Randburg, Roodepoort, Rietfontein, Sandton, Itsoseng, Dainfern, Midrand, Kaalfontein and Ebony.

Map 13: Cluster and outlier analysis of home robbery in Gauteng, SAPS 2012/2013



Map 14: Cluster and outlier analysis of housebreaking in Gauteng, SAPS 2012/2013

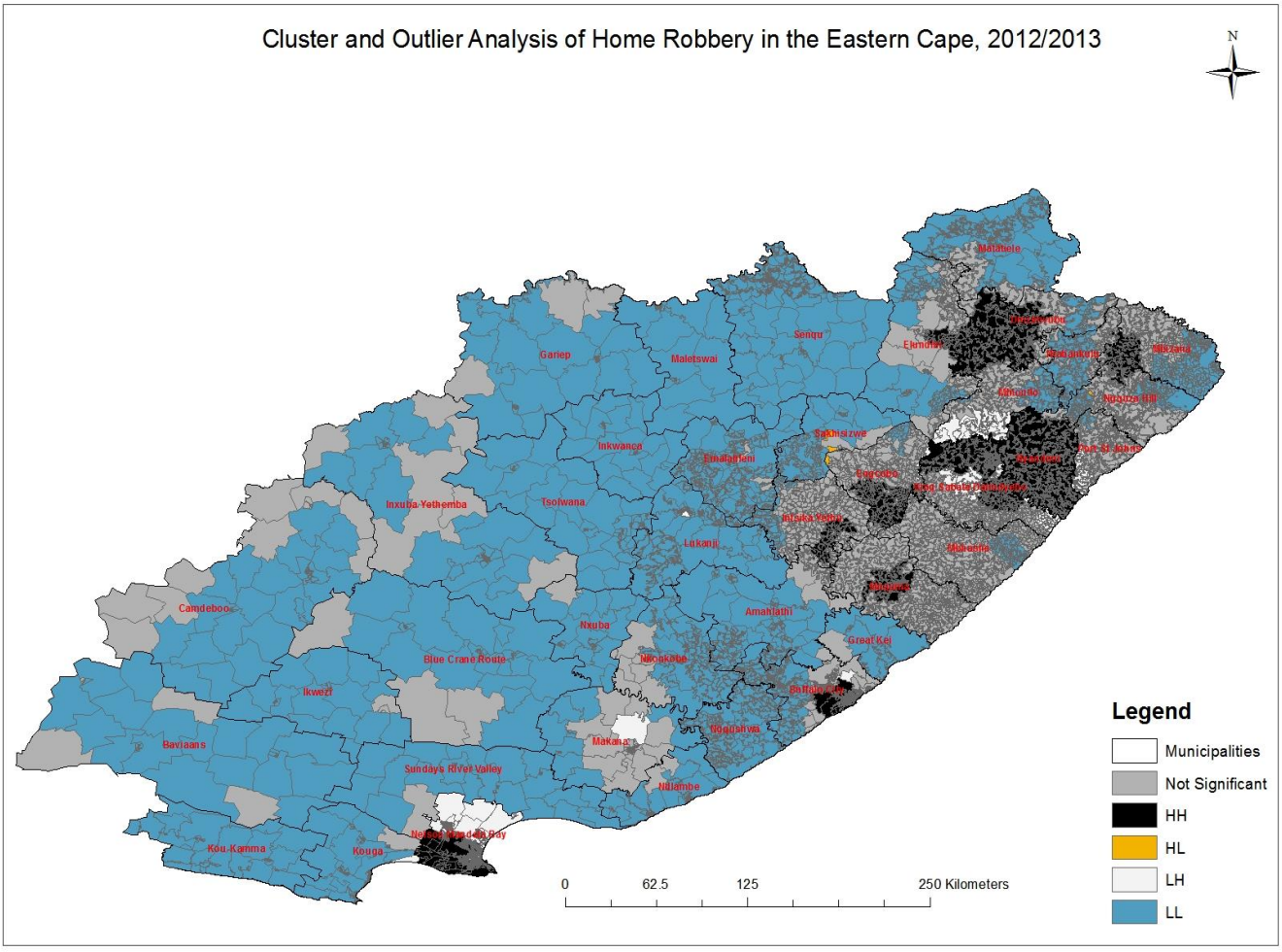


3.8.7 Eastern Cape

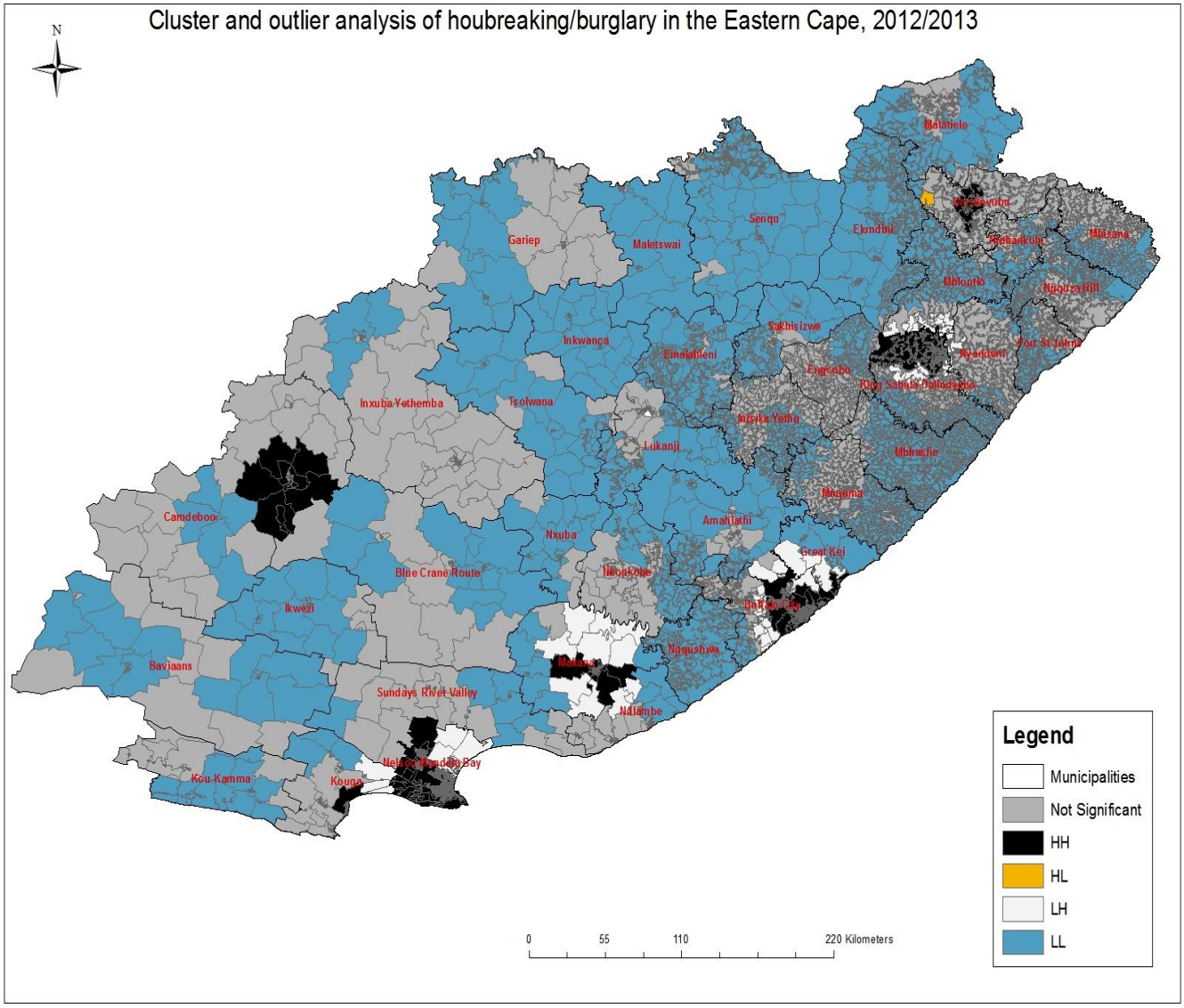
Map 15 presents cluster and outlier analysis of home robbery in Eastern Cape. Home robbery incidents in the Eastern Cape (Map 15) did not have hot spots in the two metropolitan areas, but in two more rural municipalities namely in the Northern parts of King Sabata Dalinyebo and southern parts of Nyandeni. However, clustering (high incidence areas surrounding by high incidence areas) were found in both metros as well as most urban centres in the North Eastern parts of the province.

Eastern Cape had four housebreaking/burglary hot spots namely: Nelson Mandela Bay, Makana, Buffalo City and King Sabata Dalinyebo. Within Nelson Mandela Bay specific crime prone areas include: Port Elizabeth, Bethelsdorp, Marine and Claredon amongst others. In Makana troubled areas are focussed around Grahamstown, while East London, Ententeni, Nompumelo, Ducats and Chris Hani are problematic in Buffalo City. In the predominantly rural municipality of King Sabata Dalinyebo, a lesser hot spot compared to the preceding three, crime hot spots were spread evenly throughout the Northern parts of the municipality. Housebreaking/burglary clustering was found in all four these hotspots as well as around the major centres in the Inxube-Yethemba and Umzimvubu municipalities (Map 16).

Map 15: Cluster and outlier analysis of home robbery in Eastern Cape, SAPS 2012/2013



Map 16: Cluster and outlier analysis of housebreaking in Eastern Cape, SAPS 2012/2013

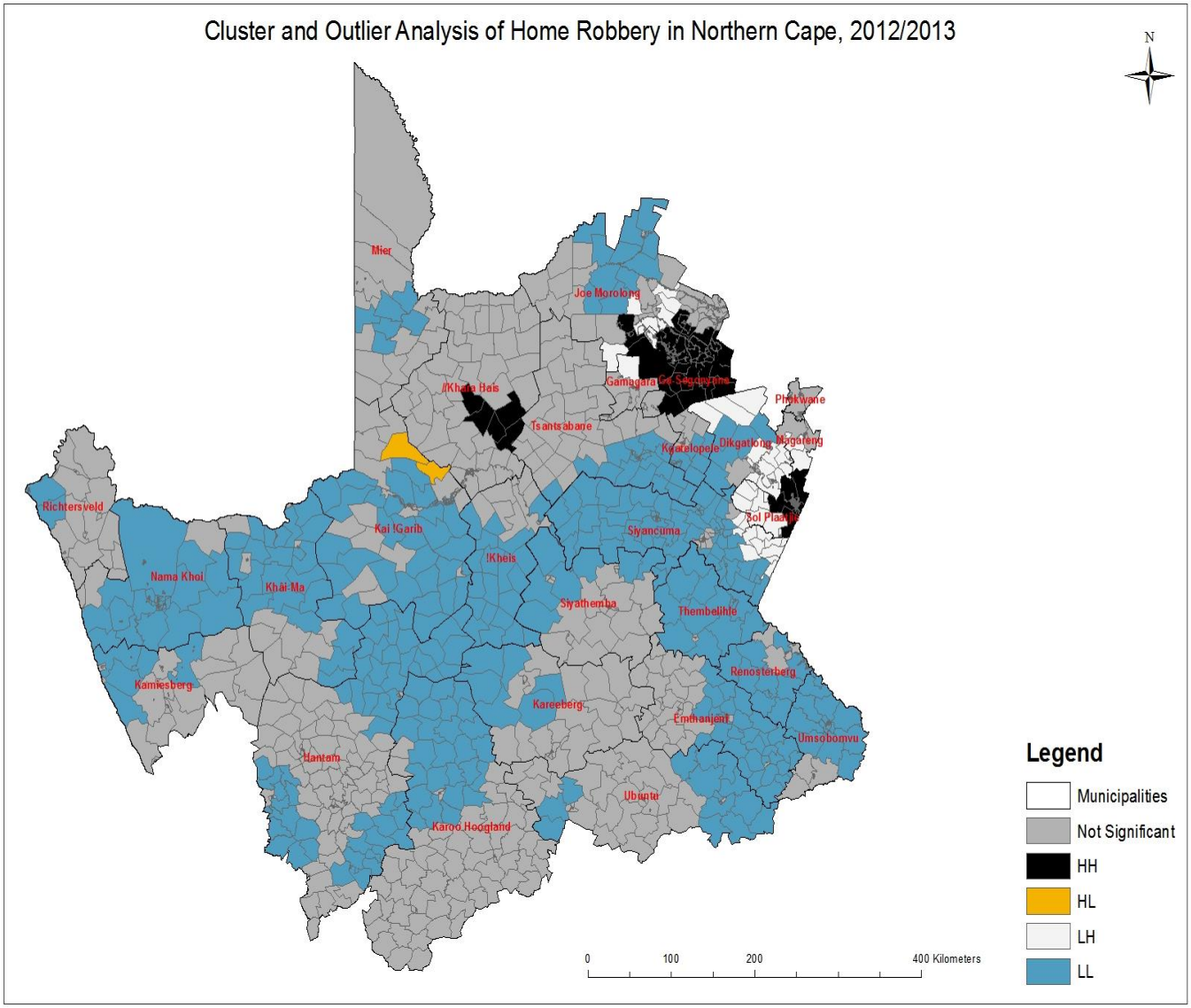


3.8.8 Northern Cape

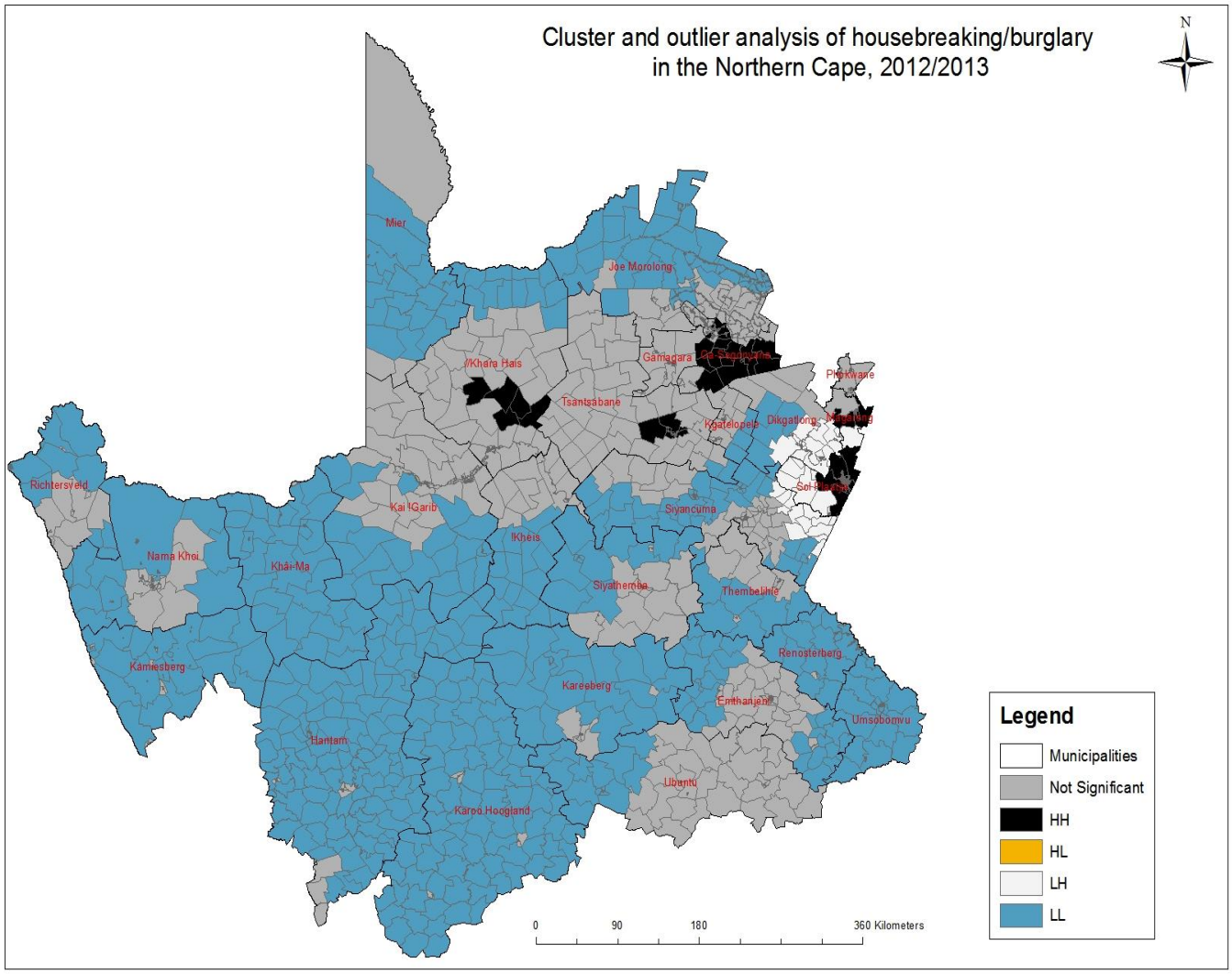
Map 17 demonstrates that home robbery hot spots in Northern Cape included Sol Plaatjie, as well as the Ga-Segonyana LM. In Sol Plaatjie the neighbourhoods in and around Kimberley and Galeshewe were the most affected. This specific crime tended to exhibit clustering behaviour in both these areas as well as in //Khara Hais where the areas around Upington tended to have areas of high incidence, surrounded by areas of high incidence.

As indicated by Map 18, the only housebreaking/burglary hotspot in Northern Cape was Sol Plaatjie Municipality and more specifically in and around Kimberley and Galeshewe. In this province housebreaking/burglary also tended to cluster in the major towns of the //Khara Hais, Tsantsabane, Ga-Segonyana municipalities in addition to Sol Plaatjie hot spot area .

Map 17: Cluster and outlier analysis of home robbery in Northern Cape, SAPS 2012/2013



Map 18: Cluster and outlier analysis of housebreaking in Northern Cape, SAPS 2012/2013

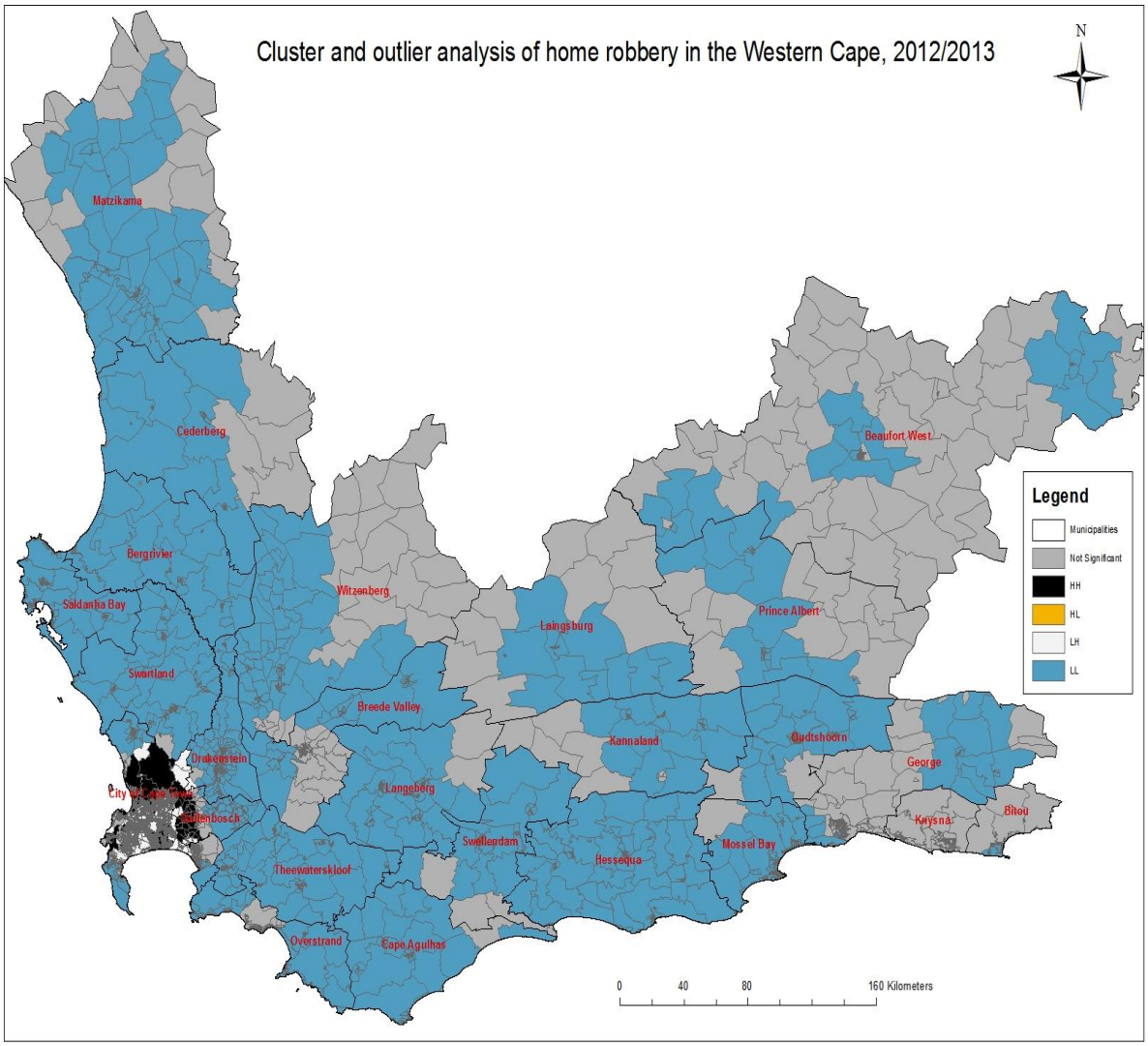


3.8.9 Western Cape

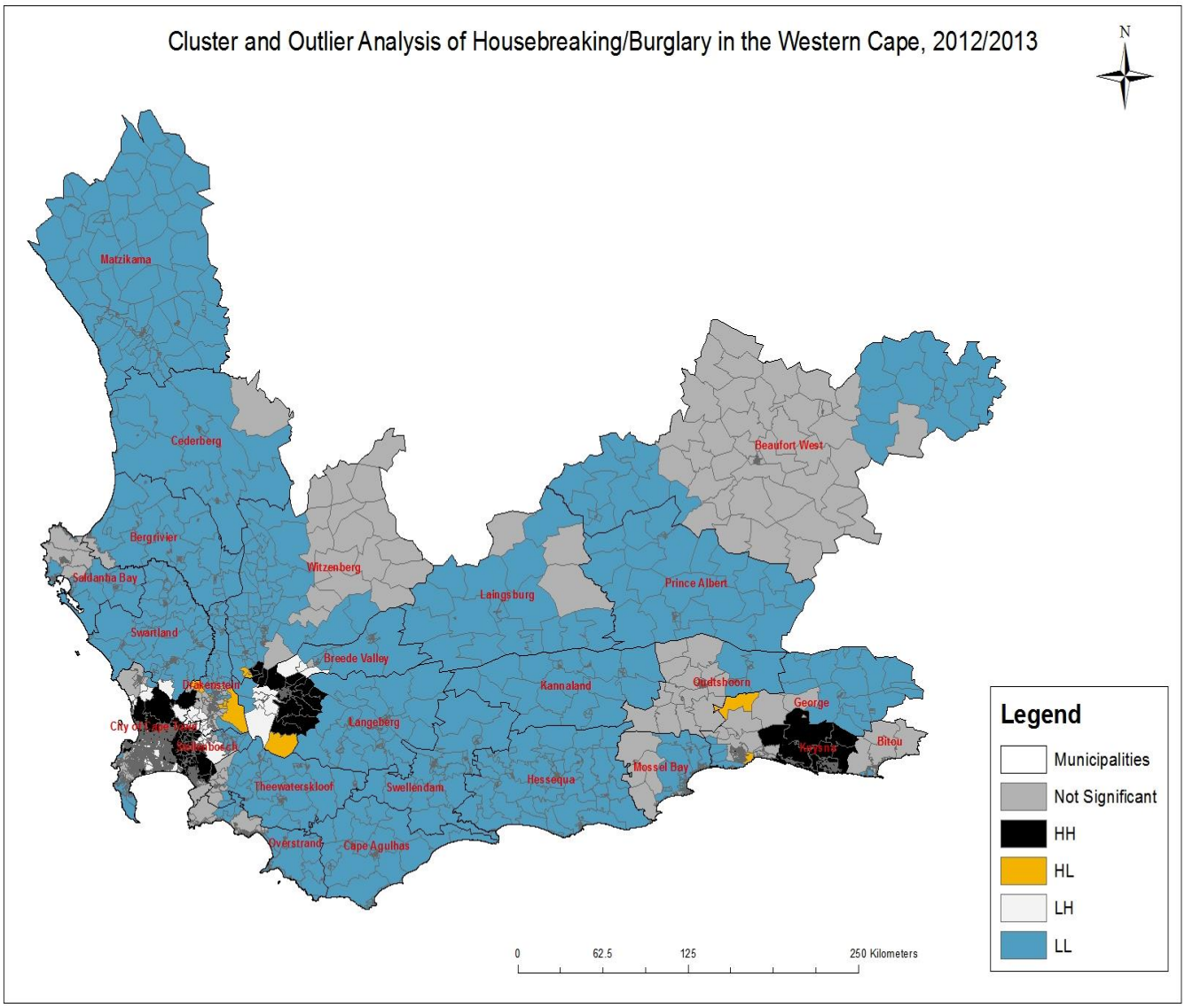
In the Western Cape, home robbery hot spots were focussed around the metropolitan area and more specifically Khayelitsha, Nyanga, Mitchellsplain, Crossroads and Gugulethu (Map 19). Durbanville was also affected, but to a lesser extent. As in the case of housebreaking and burglary described below, home robbery in the province primarily clusters in the North Western parts of the Metropolitan area, around Stellenbosch and the Southern parts of Drakenstein.

Three housebreaking/burglary hot spots were identified in Western Cape: The City of Cape Town Metropolitan area, Stellenbosch and the Southern Parts of the Breede Valley. In the metropolitan area the areas around Khayelitsha, Mitchellsplain, the City centre, Durbanville and Klipheuwel seem to be more affected. Whilst Worcester and to a lesser extent the farmlands and settlements in its surroundings are the most troubled in the Breede Valley Municipality. The study also found high housebreaking/burglary clustering behaviour in all three these LMs. However, even not identified as a crime hotspot, significant clustering was also found in the Knysna LM (Map 20).

Map 19: Cluster and outlier analysis of home robbery in Western Cape, SAPS 2012/2013



Map 20: Cluster and outlier analysis of housebreaking in Western Cape, SAPS 2012/2013

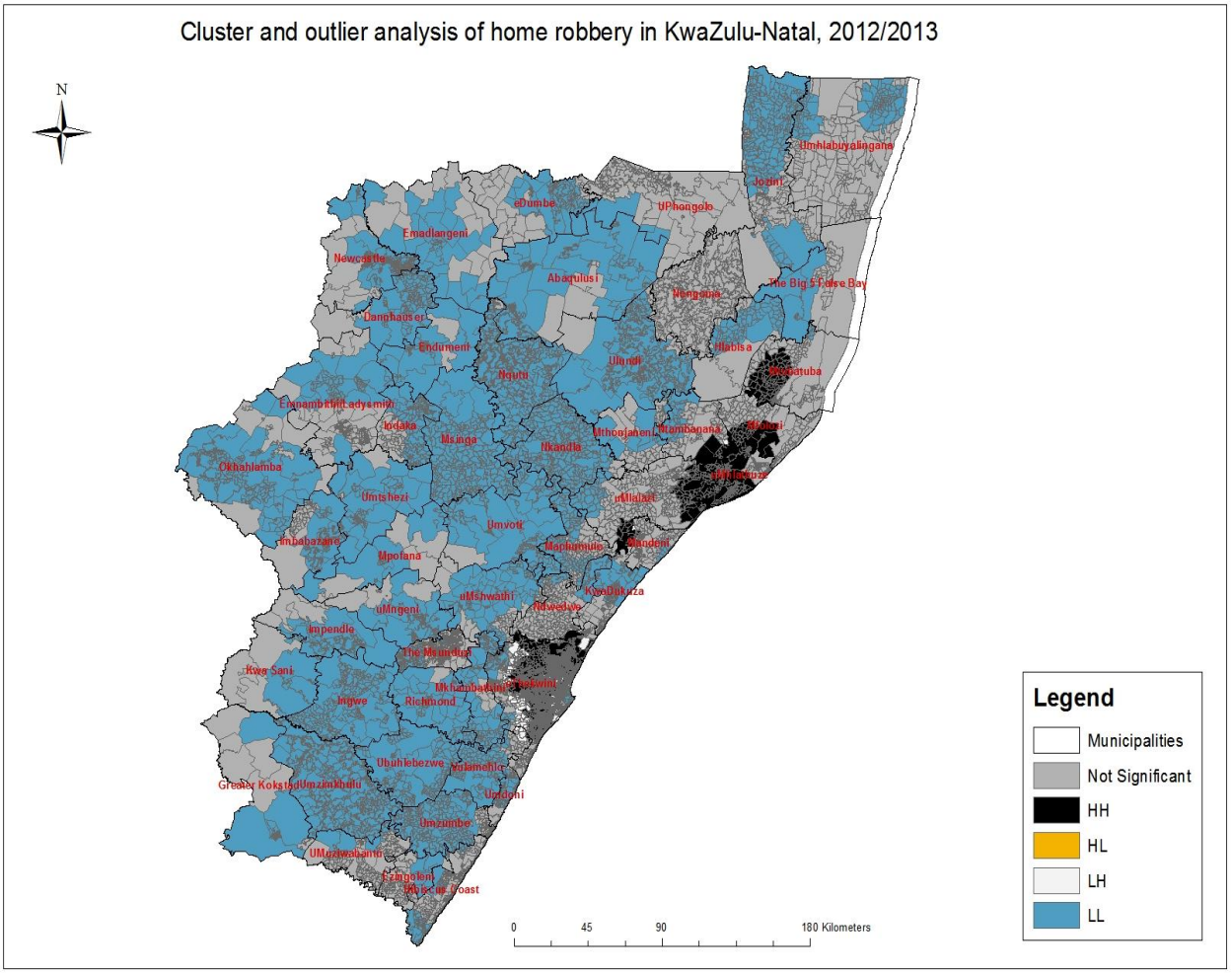


3.8.10 KwaZulu-Natal

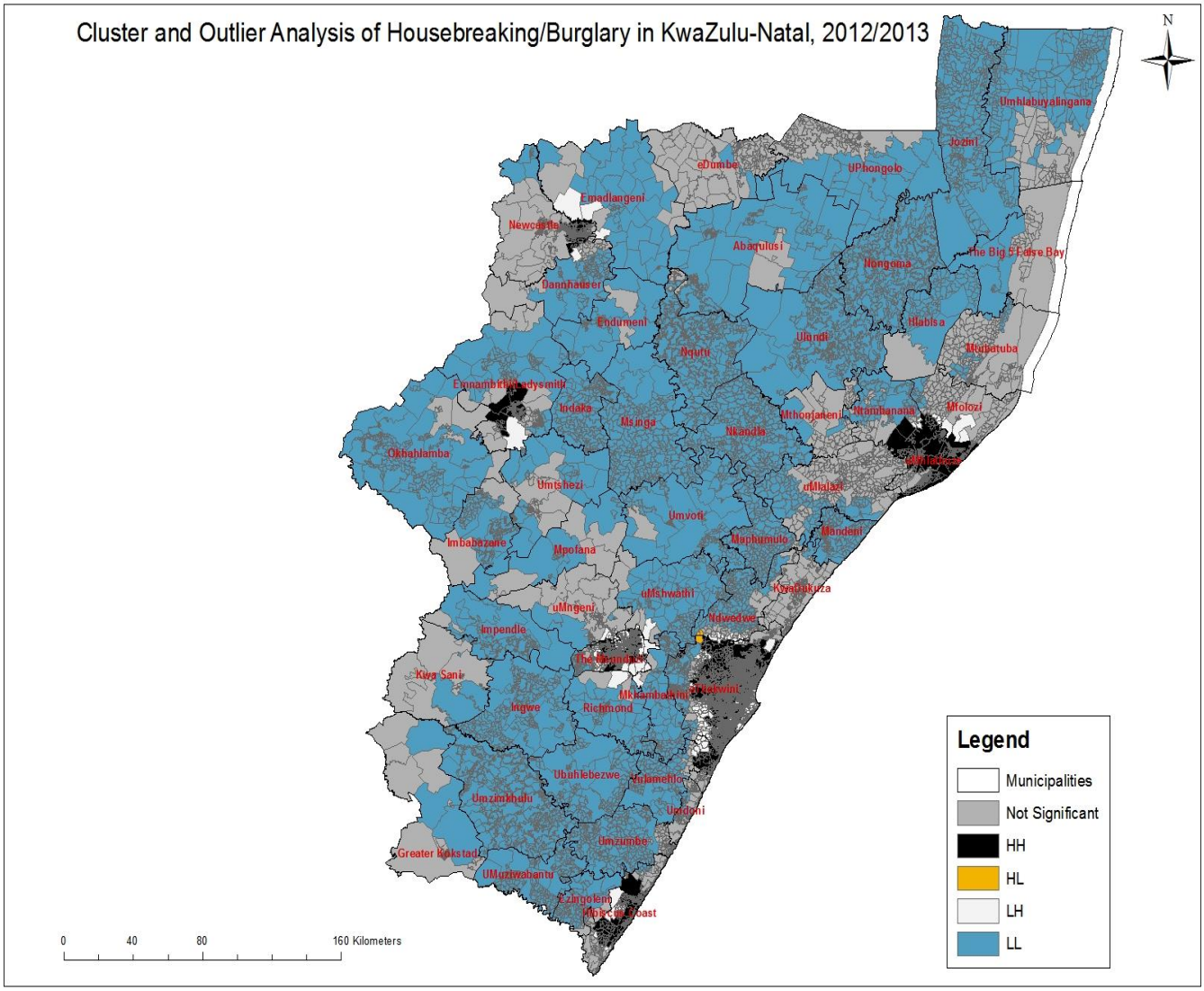
Map 21 indicates that home robbery hot spots in this province were primarily in the eThekwini Metro and uMhlathuze LM. In the case of eThekwini, the northern parts of the metro including areas such as Pinetown, Kloof, Emachobeni, Waterfall, Molweni, Inanda, Mgangeni, Mgandeni, Senzukule, Amatata and Inhozamo are more affected. In the uMhlathuze municipality- Empenbeni, Mtunzini, Madlanghala, Richards Bay, Stezi, uMhlathuze, Mhlana and Nqutshini were most affected. Significant clustering of home robberies were found in the northern parts of the Metropolitan area, parts of Mtubatuba, Mbonambi and uMhlathuze.

As in the case of the Western Cape, three housebreaking/burglary hot spots were identified in KwaZulu-Natal, namely the eThekwini Metro, Hibiscus Coast and uMhlathuze LM's. These are all situated along the coast. In the case of the Hibiscus Coast municipality the northern half, around Margate, was most affected, whilst most of the hot spot activity in the Metropolitan area was centred around areas such as Newlands West, Pine town, Hillcrest, Kloof, KwaNdengezi, Ngangeni and Senzokuhle. Significant housebreaking/burglary clustering was also observed in these three crime hot spots. However, some clustering was also found in three of the interior LM's namely Emnambithi in and around Ladysmith, Newcastle and to a lesser extent Msunduzi LM around Pietermaritzburg (Map 22).

Map 21: Cluster and outlier analysis of home robbery in KwaZulu-Natal, SAPS 2012/2013



Map 22: Cluster and outlier analysis of housebreaking in KwaZulu-Natal, SAPS 2012/2013



4. Conclusions and recommendations

4.1 Conclusion

This study showed that despite the Constitution of the Republic of South Africa prioritising safety and security for its inhabitants, crime still remains a problem. A decrease in the number of crimes is an essential pre-requisite when ensuring a safer living environment for citizens of South Africa. However, the level of housebreaking/ burglary in South Africa increased from 592 000 in 2010 to 730 000 in 2011, while home robberies decreased from 336 000 in 2010 to 200 000 in 2011. An increase in the level of housebreaking/burglary was associated with an increasing level of fear for this type of crime amongst households, although the drop in the number of home robberies between 2010 and 2011 showed fewer households fearing this type of crime.

Other aspects of victimisation analysed in this report are repeat victimisation and multiple victimisation. Understanding the nature of repeat and multiple victimisation will allow for a more efficient allocation of crime prevention efforts and resources.

Furthermore, findings indicate that some households experienced housebreaking/burglary as well as other crimes within the twelve month period. Victims of housebreaking/burglary who also experienced other types of crime were particularly affected by vehicle related crimes (10,0%), theft of livestock (2,3%) and crops (2,2%).

It cannot be ruled out that the period of the day has an influence on crime. The analysis showed that households were more vulnerable to housebreaking/burglary at certain times of the day, the highest incidents of housebreaking/burglaries occurring at night time (27,5%) and afternoon (19,8%). Burglars were more likely to force themselves into a residence than to open with duplicate keys. In about 44% of the burglaries, doors were smashed in order to gain access to the residence, stealing mostly electronic equipment (58,6%). Items that were mostly stolen in home robberies were electronic equipment (43,2%), followed by cell phones (38,8%).

In many cases perpetrators of crime are often known to the community. Due to the nature of home robberies, where there is usually contact between the perpetrator and the victim, the percentage of households who knew the suspects by face or name was higher (59,0%) than in housebreakings/burglaries (49,0%).

Households tended not to resist home robbery as the number of perpetrators who attacked the household increased. Where the household resisted when attacked by more than one perpetrator, they were more likely to be injured. Amongst the cases where the victims were injured a knife was the weapon most frequently used (54,7%), compared to guns (37,0%). As a general concern for their security, almost half of households in South Africa took physical protection measures to protect their homes. Slightly less than half of those who fell victim to housebreaking in 2011 chose target-hardening measures to prevent falling victim again (47,7%), while 42,5% of home robbery victims in the country took these measures to protect their homes. About 15% of housebreaking/burglary victim households increased awareness in their area of residence and are now more alert, almost 12% indicated that they replaced the door locks of their premises.

An estimated 59% of housebreaking/burglary incidents in South Africa were reported to the police in 2011, while an estimated 61,4% of home robberies were reported to the police. Almost six out of ten households that reported home robbery were satisfied with the police response. Reporting of home robbery incidents were more likely to lead to an arrest (24,5%) as opposed to housebreaking/burglary incidents (22,7%). About 25,9% of housebreaking/burglary victims who did not report to the police said that they felt that the police could do nothing, while about a quarter of home robbery victims cited this reason for not reporting.

The results of this study also show an increase in the level of housebreaking/burglary in the country, households headed by males were likely to be victims of housebreaking/burglary (5,9%) than households headed by females (4,8%). Household heads who are married or living together like husband and wife; those having a low living standard measure and those in the age category 45-54 were more likely to experience housebreaking/burglary at least once.

The study shows that households with the lowest Living Standards Measures were the least affected by housebreaking/burglary as compared to households with high and intermediate living standards.

Geographical location can influence the incidence of certain types of crime such as housebreaking/burglary or home robbery. Metropolitan municipalities often have high incidence of crime, due to economic activities and high income levels in those municipalities. Households living in rural areas are significantly less likely than households living in urban metropolitan and urban non-metropolitan areas to be victims of housebreaking/ burglary/robbery.

Metropolitan municipalities (6,1%) were more likely to become victims of housebreaking/burglary than those in non-metropolitan municipalities (5,0%). Among the metropolitan municipalities, City of Tshwane (7,4%) was mostly affected by housebreaking/burglary, followed by eThekwini metropolitan municipality (6,9%). Home robbery was more common in non-metropolitan urban municipalities than metropolitan urban municipalities in 2011, affecting mostly City of Cape Town and Ekurhuleni metropolitan municipalities, 1,6% respectively.

Home robbery hot spots in Western Cape were focussed around the metropolitan areas and more specifically Khayelitsha, Nyanga, Mitchellsplain, Crossroads and Gugulethu. The Three housebreaking/burglary hot spots that were identified in Western Cape were the City of Cape Town Metropolitan area, Stellenbosch and the Southern Parts of the Breede Valley. Similarly, in KwaZulu-Natal home robbery hot spots were primarily in the eThekwini Metro and uMhlathuze LM. Housebreaking/burglary host spots were in the same areas in addition to Hibiscus Coast. Gauteng had two housebreaking/burglary hot spots namely, City of Johannesburg and City of Tshwane, while City of Johannesburg was the only hot spot area for home robberies in that province. A different trend was observed in Eastern Cape as two rural municipalities in the Northern parts of King Sabata Dalinyebo and southern parts of Nyandeni were hot spots for home robbery. Whereas housebreaking/burglary hot spots were mainly in Nelson Mandela Bay, Makana, Buffalo City and King Sabata Dalinyebo. In Northern Cape, home robbery hot spots included Sol Plaatjie, and Ga-Segonyana LM, while housebreaking/burglary hot spots were only in Sol Plaatjie Municipality. In North West province, Rustenburg was identified as a hot spot area for both home robberies and housebreaking/burglary. A similar trend was observed in Limpopo and Free State as Thulamela municipality was a hot spot for both home robbery and housebreaking/burglary in Limpopo, while Mangaung, in Free State, was a hot spot for both housebreaking/burglary and home robbery. In Mpumalanga, parts of Nkomazi were identified as home robbery hot spots, followed by Emalahleni and Mbombela municipalities, while hot spot areas for housebreaking/burglary were observed in Steve Tshwete and Mbombela municipalities.

4.2 Recommendations

Crime is a threat to the ideal we all hope for – a better life for all and a safe environment where people, young and old, will be and feel safe. There is a need for information that forms the basis of crime prevention measures. Such interventions should operate at political, environmental and individual levels (Davies and MacPherson, 2011). Crime should be addressed at its root causes. The Rapid Evidence Assessment (Davies and MacPherson, 2011) identifies evidence-based interventions that are geared towards reducing poverty, poor attendance at educational institutions and educational attainment, unemployment and programmes to change social behaviour.

This report has identified household characteristics (e.g. sex, marital status, and age), neighbourhood characteristics and geographical locations that increase the likelihood of being victimised. Reasons provided by respondents for crime included aspects such as real need, money and drugs which all indicate that from the victims' perspective, poverty plays an important role in crime (VOCS 2012). In the case of the Western Cape the strong link in perceptions between reasons for crime and drug use may indicate that some perpetrators might be using the proceeds of crime to maintain their habits.

Crime under-reporting is an ever increasing problem especially when it comes to property-related crime as they have the potential to not being taken seriously; households do not necessarily report incidents of housebreaking/burglary to the authorities. The results of this report identified a lack of trust towards the police as an issue to be addressed urgently, especially in relation to the under-reporting of crime. Without an adequate understanding of the extent of crime it is very difficult to adequately plan and manage crime prevention strategies.

There are a number of policy options that may have a greater effect on home robbery related violence. One option is by educating or advising potential victims about how they should respond if confronted or assaulted by the robber. It is plausible that some of the injuries or murder during home robbery could have been avoided if the victim(s) behaved differently during the course of the commission of the crime. Failure by government and other role players to manage the issue of crime may perpetuate the cycle of crime and violence. A noticeable proportion of households indicated that they will handle the situation by themselves, which may strategically suggest that they intend to undermine the rule of law by taking the law into their own hands. There is a need for integrated systems to be put in place to combat crime. Such measures should comprise the community, law enforcement agencies and various other leaders. Even though the study does measure the criminal justice system's response to crime, it does not provide sufficient details on the status of crime at the police station or court stages. The intention is also not to measure the police performance in relation to the crime level in the country and how many of the perpetrators were sentenced to prison and how many years they were serving for the particular crimes they committed. Furthermore it is important that the public be informed how the criminal justice system functions with regard to the various roles played by law enforcement agencies in ensuring that perpetrators are brought to justice.

It continues to be fundamental that the response to crime becomes everyone's problem, if the citizens do not report the crimes to the authorities; and we do not all work towards building stronger value systems and community cohesion; perpetrators will continue to instil fear in our communities.

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Annexure

Annexure 1: Variables used for logistic regression

Variable	Code	Descriptors
Province	1	Western Cape
	2	Eastern Cape
	3	Northern Cape
	4	Free State
	5	KwaZulu-Natal
	6	North West
	7	Gauteng
	8	Mpumalanga
	9	Limpopo
Population group	1	Black African
	2	Coloured
	3	Indian/Asian
	4	White
Household size	1	Household with 1 to 2 members
	2	Household with 3 to 4 members
	3	Household with 5 to 9 members
	4	Household with 10 to 17 members
Main source of income	1	Salary/income from business
	2	Grants/pensions
	3	Other source of income
	4	No income
Settlement type	1	Traditional area
	2	Non-traditional area
Police visibility	1	At least once a day
	2	At least once a week
	3	At least once a month
	4	Less than once a month
	5	Never
Municipality type	1	Metropolitan municipality
	2	Non-metropolitan municipality
Gender	1	Male
	2	Female
Age group	1	Age less than 25 years
	2	Age between 25 and 34 years
		Age between 35 and 44 years
	3	Age between 45 and 54 years
	4	Age greater than 54
Marital status	1	Married
	2	Divorced
	3	Single, but still legally married
	4	Widowed
	5	Single
Living standard measure	1	Low
	2	Intermediate
	3	High
Resistance	1	Yes
	2	No
Physical injury	1	Yes
	2	No
Knife	1	Yes
	2	No
Gun	1	Yes
	2	No

Annexure 2: Predictor model for injuries sustained in home robbery

Analysis of Maximum Likelihood Estimates							Odds Ratio Estimates		
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)	Point Estimate	95% Wald Confidence Limits	
								Lower	Upper
Intercept	1	1,2265	0,1543	63,1528	<,0001	3,409			
Province	1	-0,196	0,0117	280,8079	<,0001	0,822	0,822	0,803	0,841
Household size	1	-1,598	0,0588	738,4599	<,0001	0,202	0,202	0,18	0,227
Main source of income	1	1,846	0,0635	844,0546	<,0001	6,335	6,335	5,593	7,175
Gender	1	0,2623	0,0606	18,7073	<,0001	1,300	1,300	1,154	1,464
Population group	1	0,2413	0,0266	82,0709	<,0001	1,273	1,273	1,208	1,341
Age group	1	0,5039	0,0319	249,853	<,0001	1,655	1,655	1,555	1,762
Marital status	1	-1,0356	0,0227	2082,476	<,0001	0,355	0,355	0,34	0,371
Living standard measure	1	1,0603	0,0591	321,8658	<,0001	2,887	2,887	2,571	3,242
Resisted home robbery	1	1,1781	0,0473	620,0735	<,0001	3,248	3,248	2,96	3,564
Physical force used	1	-5,0126	0,051	9659,532	<,0001	0,007	0,007	0,006	0,007
Knife used	1	0,5938	0,0479	153,6909	<,0001	1,811	1,811	1,649	1,989
Gun used	1	-0,4453	0,0536	69,0297	<,0001	0,641	0,641	0,577	0,712

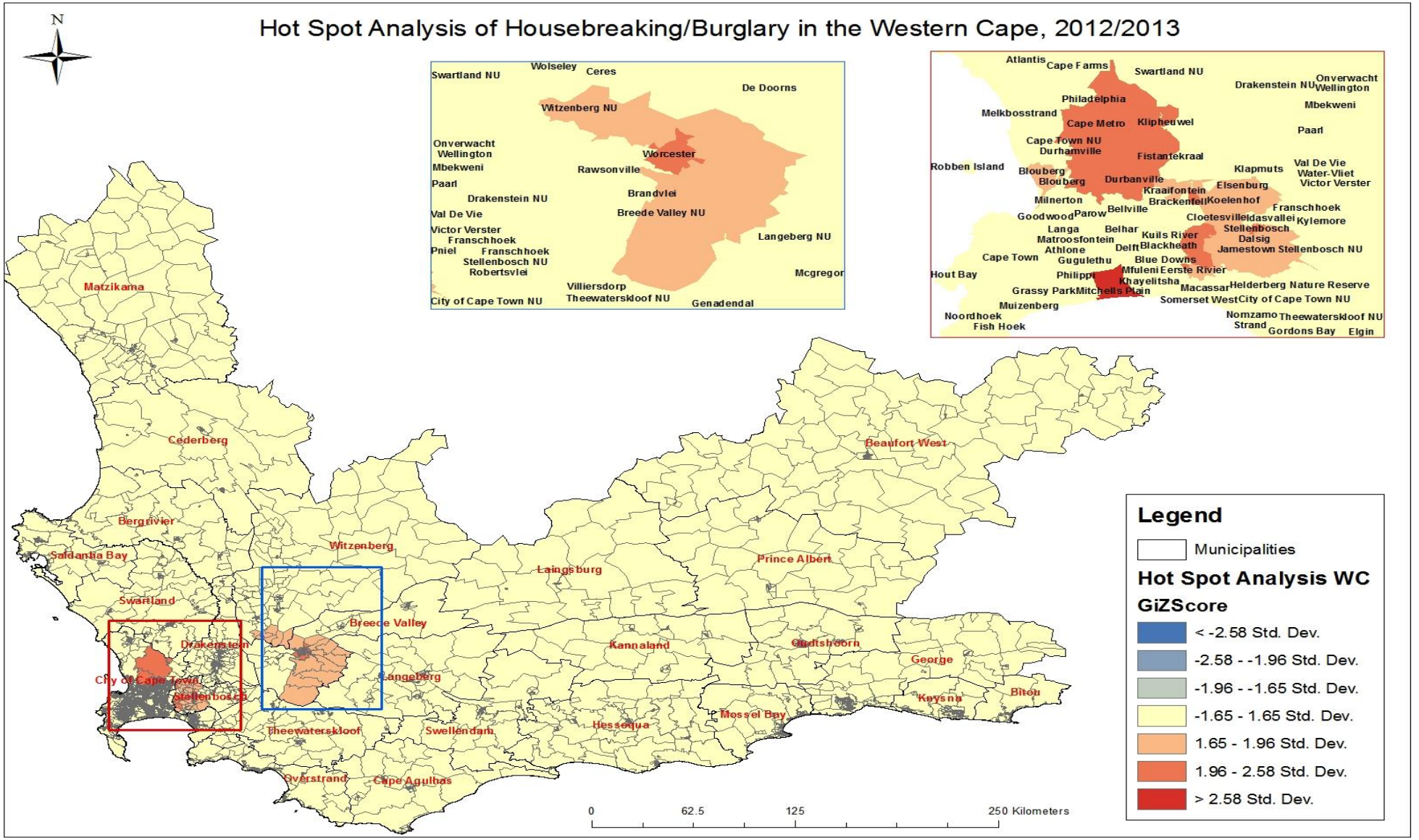
Annexure 3: Parameter estimates for logistic regression on Housebreaking/burglary

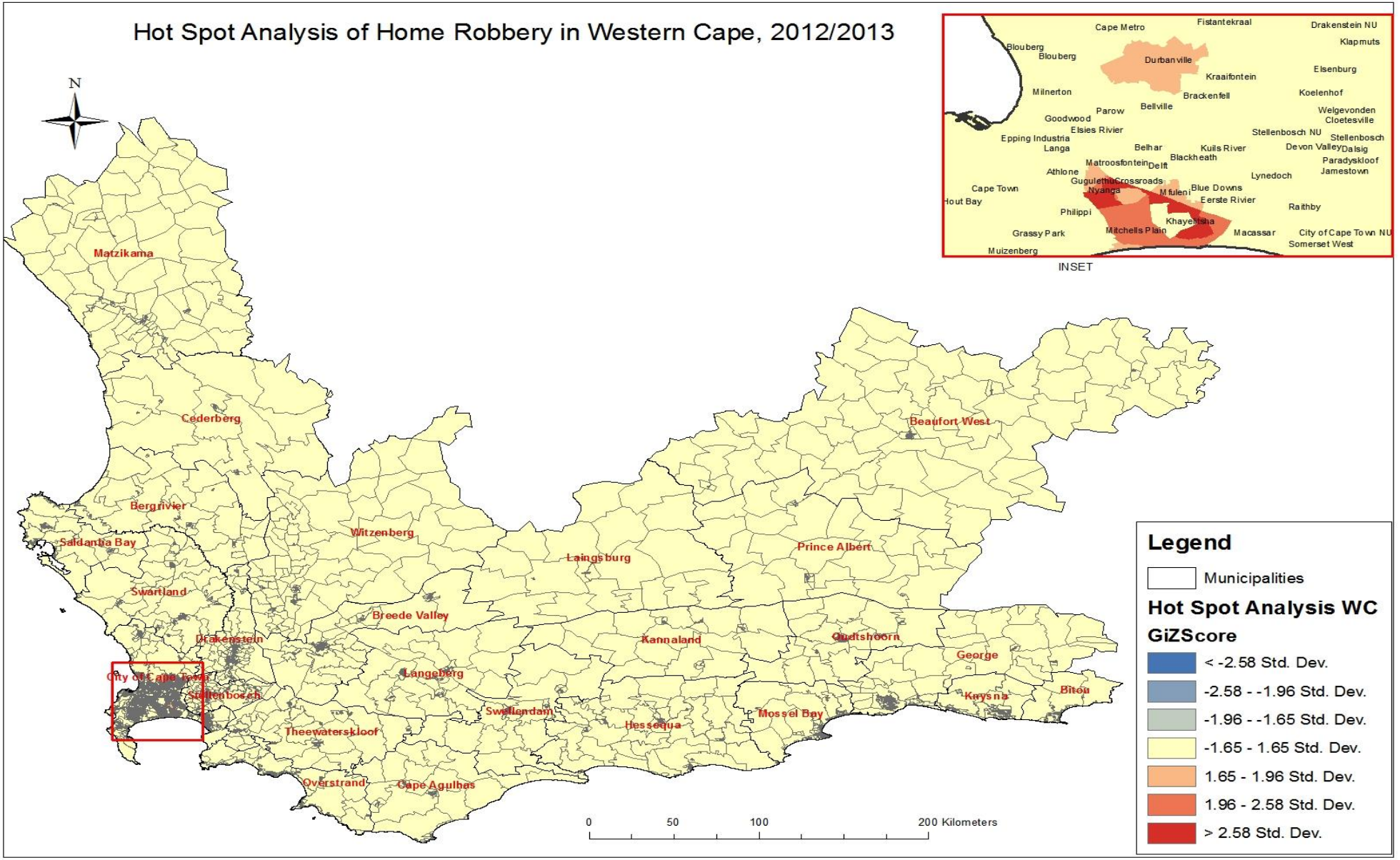
Parameter	Analysis of Maximum Likelihood Estimates					Wald Confidence Interval for Parameters		
	DF	Estimate	Standard Error	WaldChi-Square	Pr > ChiSq	Exp(Est)	95% Confidence Limits	
							Lower	Upper
Intercept	1	-2,054	0,02	10539,586	<,0001	0,128	-2,093	-2,015
Age group*household size	1	-0,132	0,002	3871,922	<,0001	0,877	-0,136	-0,127
Age group*marital status	1	-0,017	0,002	85,436	<,0001	0,983	-0,021	-0,013
Age group*population	1	0,024	0,002	226,965	<,0001	1,025	0,021	0,027
Age group*household size*marital status	1	-0,007	0	378,198	<,0001	0,993	-0,007	-0,006
Age group*marital status*run business	1	0,033	0,001	1940,015	<,0001	1,034	0,032	0,035
Age group*marital status*Gender	1	-0,02	0	5161,438	<,0001	0,981	-0,02	-0,019
Age group*marital status*population group	1	-0,007	0	916,758	<,0001	0,993	-0,008	-0,007
Age group*population*LSM category	1	-0,006	0	567,2	<,0001	0,994	-0,007	-0,006
Age group*household size *population	1	0,036	0	5733,414	<,0001	1,037	0,035	0,037
Age group	1	0,054	0,005	105,038	<,0001	1,055	0,044	0,064
Household size	1	0,289	0,006	2586,899	<,0001	1,336	0,278	0,301
Population	1	-0,133	0,004	996,262	<,0001	0,876	-0,141	-0,124
Province	1	-0,007	0,001	169,615	<,0001	0,993	-0,008	-0,006
Marital status	1	0,036	0,002	272,258	<,0001	1,037	0,032	0,04
Run business	1	-0,45	0,006	4866,923	<,0001	0,638	-0,462	-0,437

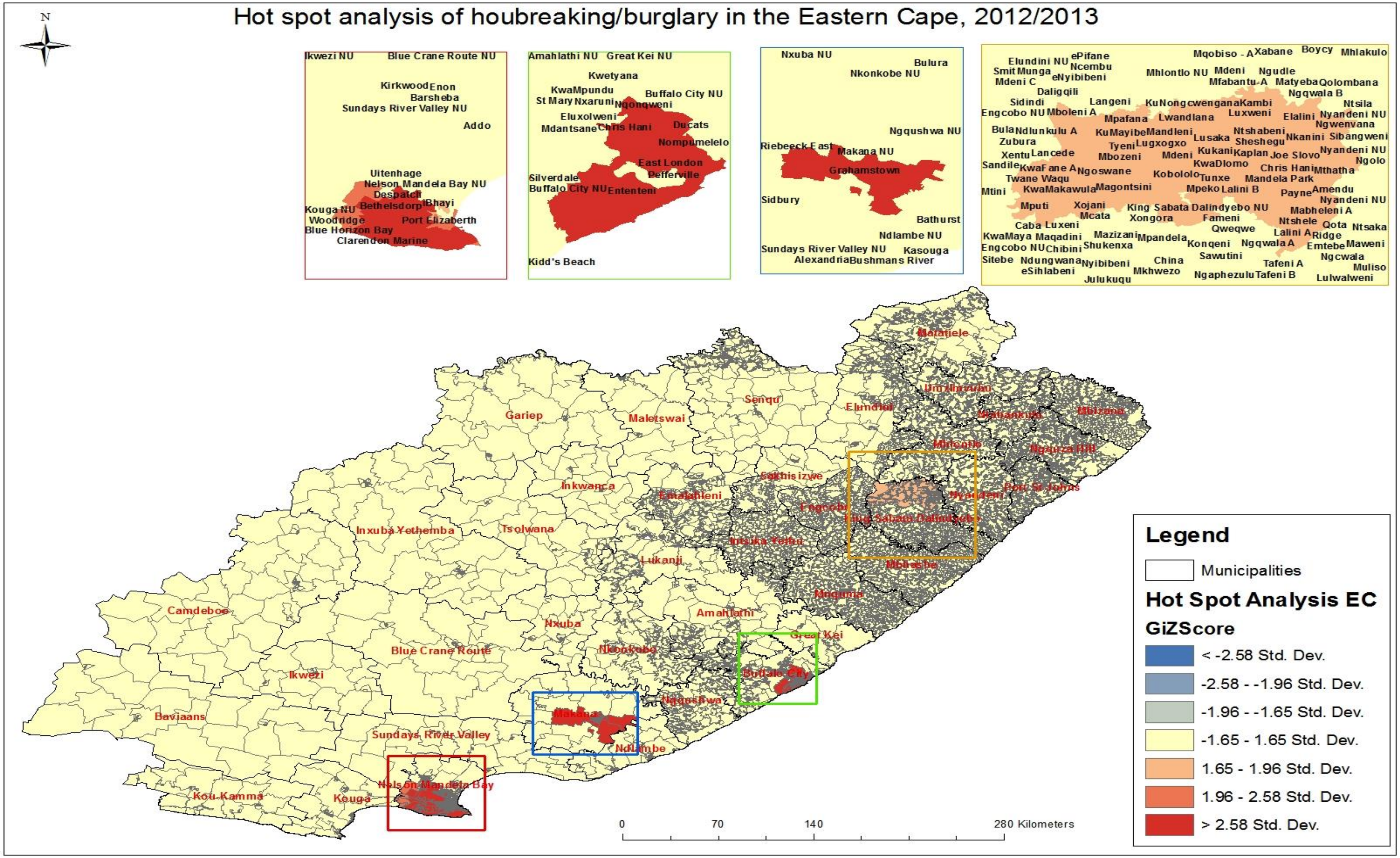
Annexure 4: Parameter estimates for logistic regression on home robbery

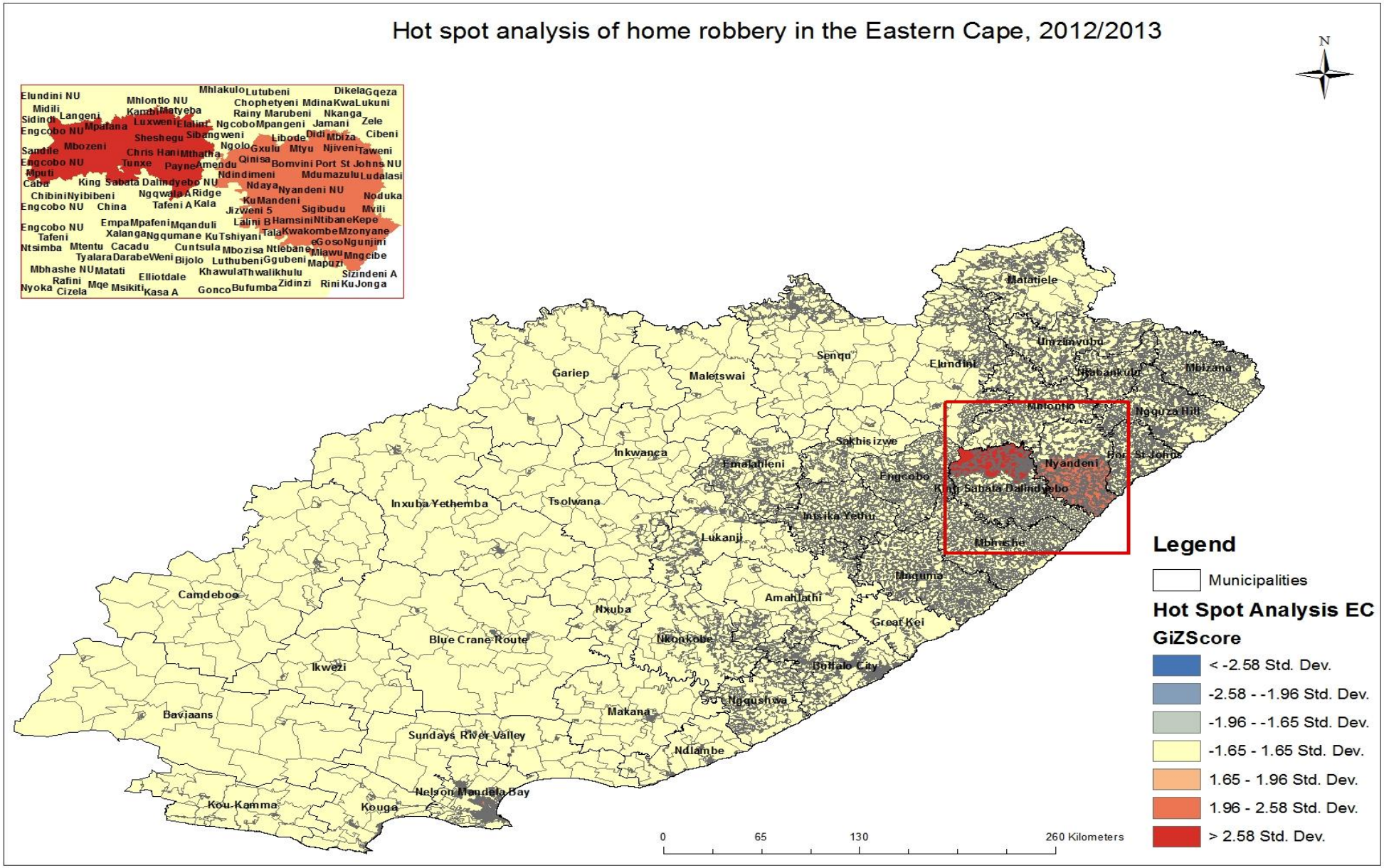
Parameter	Analysis of Maximum Likelihood Estimates						Wald Confidence Interval for Parameters	
			Standard	Wald			95% Confidence Limits	
	DF	Estimate	Error	Chi-Square	Pr > ChiSq	Exp(Est)	Lower	Upper
Intercept	1	-2,663	0,062	1866,247	<,0001	0,070	-2,783	-2,542
Runs a business*age group	1	-0,155	0,008	390,113	<,0001	0,856	-0,171	-0,140
Runs a business *household size	1	0,351	0,013	735,174	<,0001	1,420	0,326	0,376
Runs a business *marital status	1	0,069	0,006	153,625	<,0001	1,071	0,058	0,079
Runs a business *age group*marital status	1	0,024	0,001	1212,809	<,0001	1,024	0,022	0,025
Runs a business *age group*household size	1	0,024	0,002	196,040	<,0001	1,024	0,021	0,027
Runs a business *age group *population	1	0,030	0,001	1914,626	<,0001	1,030	0,028	0,031
Runs a business *household size*population	1	-0,039	0,002	683,204	<,0001	0,962	-0,042	-0,036
Runs a business *household size*main income	1	-0,194	0,004	2815,251	<,0001	0,823	-0,202	-0,187
Runs a business *household size*marital status	1	0,028	0,001	618,515	<,0001	1,029	0,026	0,031
Runs a business	1	-0,869	0,036	581,619	<,0001	0,419	-0,940	-0,798
Age group	1	0,024	0,012	4,031	0,045	1,024	0,001	0,047
Household size	1	-0,215	0,019	132,165	<,0001	0,806	-0,252	-0,178
Marital status	1	-0,385	0,009	1807,145	<,0001	0,680	-0,403	-0,368
Main source of income	1	0,474	0,012	1496,176	<,0001	1,606	0,450	0,498

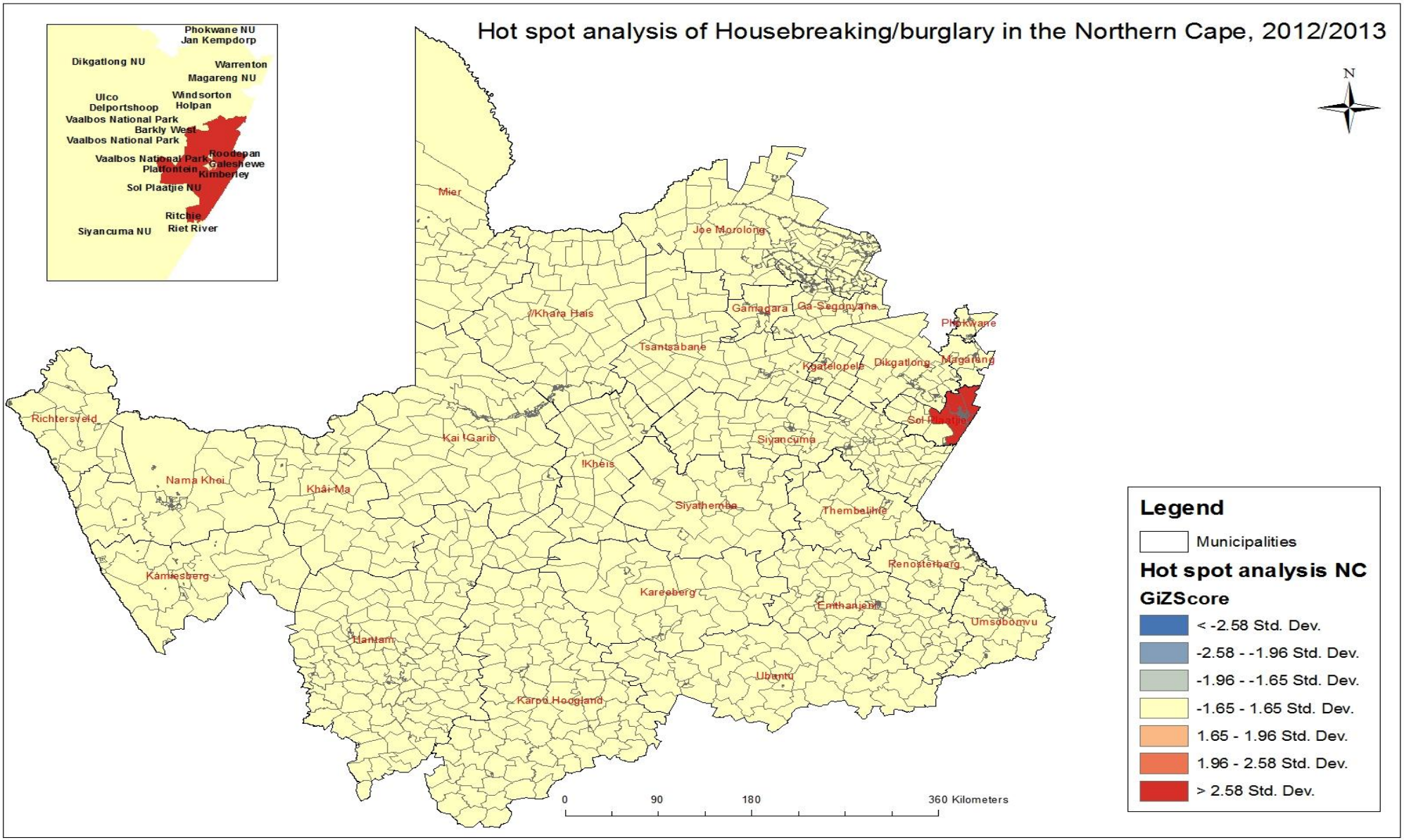
Annexure 5: Provincial hotspot maps

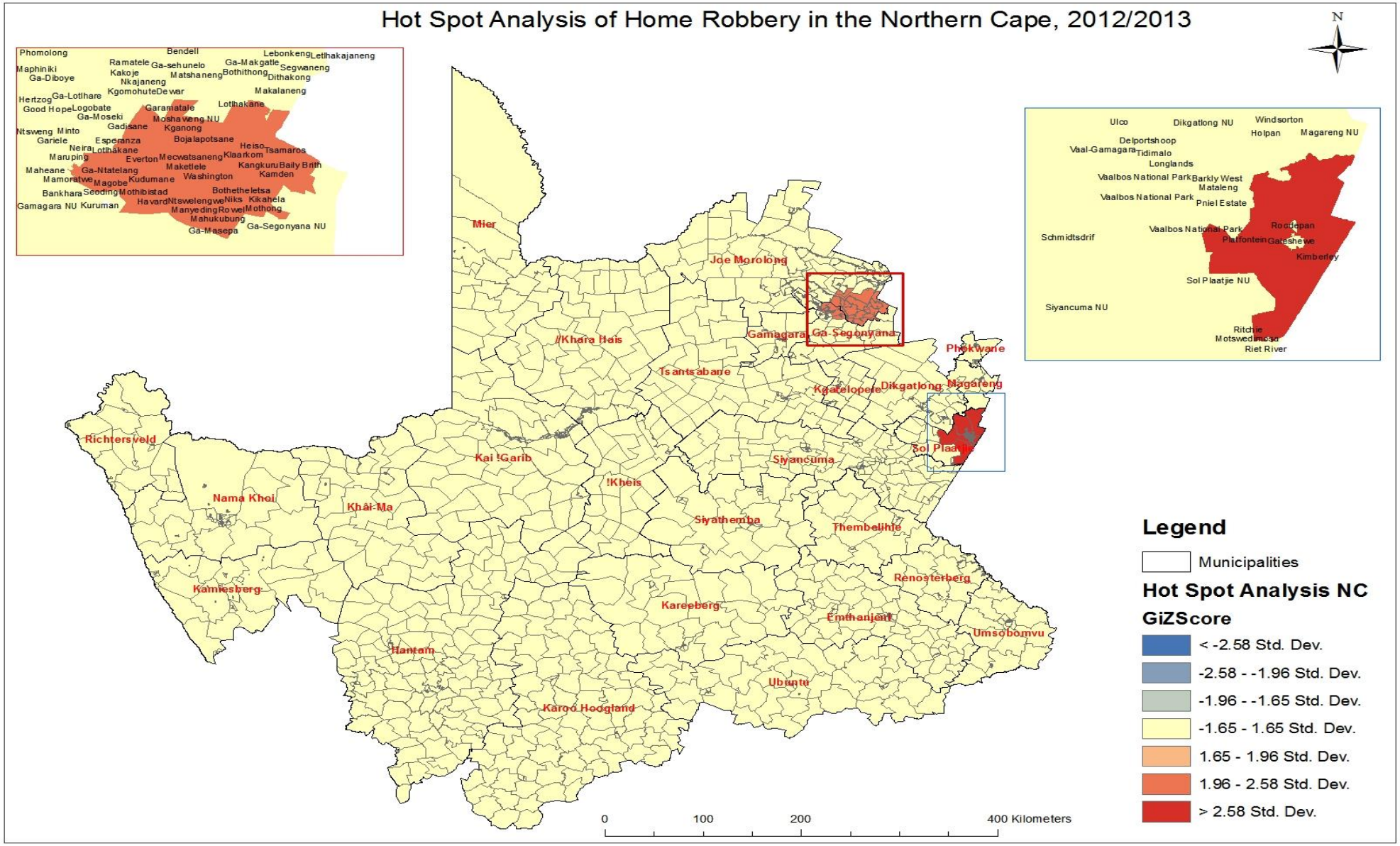


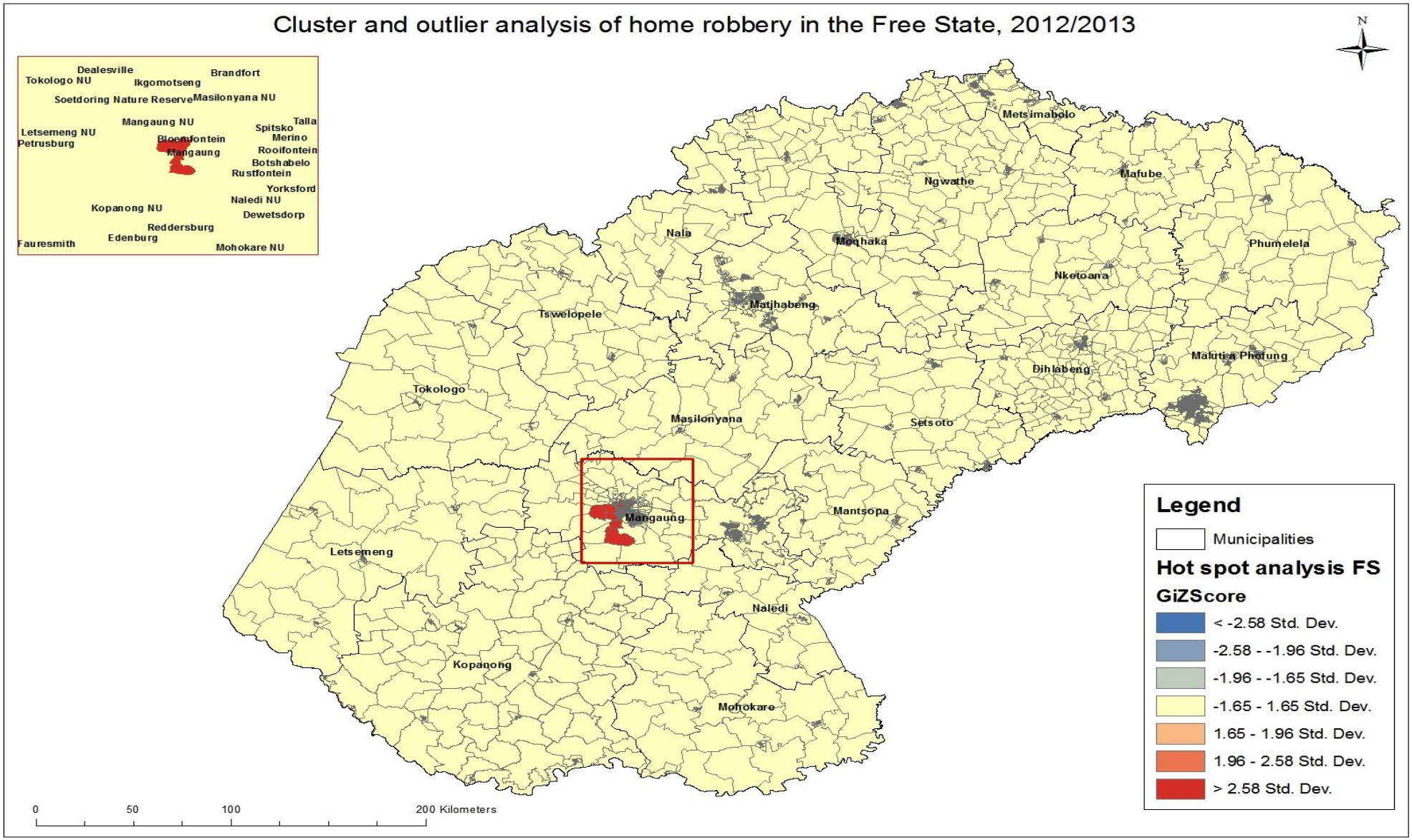

Hot Spot Analysis of Home Robbery in Western Cape, 2012/2013
N
Matzikama
Cederberg
Bergrivier
Saldanha Bay
Swartland
Witzenberg
Breede Valley
Drakenstein
City of Cape Town
Stellenbosch
Langeberg
Theewaterskloof
Overstrand
Cape Agulhas
Swellendam
Laingsburg
Prince Albert
Beaufort West
Kannaland
Oudtshoorn
George
Mossel Bay
Hessequa
Knysna
Bitou
0 50 100 200 Kilometers
INSET
Cape Metro
Fistantekraal
Drakenstein NU
Klapmuts
Blouberg
Durbanville
Elsenburg
Kraaifontein
Milnerton
Brackenfell
Koelenhof
Bellville
Welgevonden
Goodwood
Parow
Cloetesville
Elsies Rivier
Stellenbosch NU
Epping Industria
Stellenbosch
Langa
Belhar
Kuils River
Devon Valley
Dalsig
Matroosfontein
Delft
Blackheath
Paradyskloof
Athlone
Jamestown
Guguletu
Crossroads
Lynedoch
Cape Town
Nyanga
Blue Downs
Mfuleni
Hout Bay
Eerste Rivier
Raithby
Philippi
Khayelitsha
Grassy Park
Mitchells Plain
Macassar
City of Cape Town NU
Somerset West
Muizenberg
Legend
Municipalities
Hot Spot Analysis WC
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

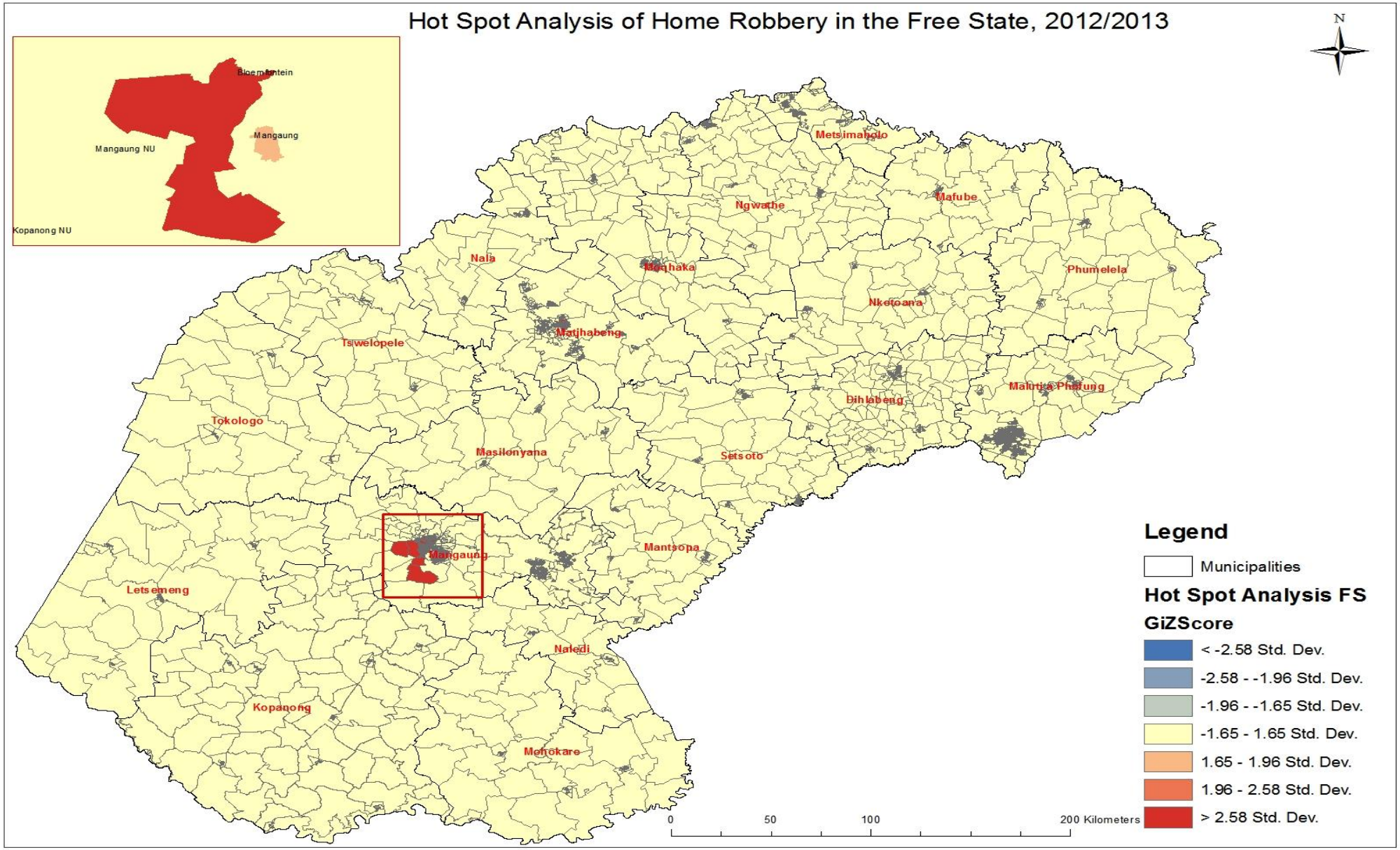

Hot spot analysis of houbreaking/burglary in the Eastern Cape, 2012/2013
Legend
Municipalities
Hot Spot Analysis EC
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
0 70 140 280 Kilometers

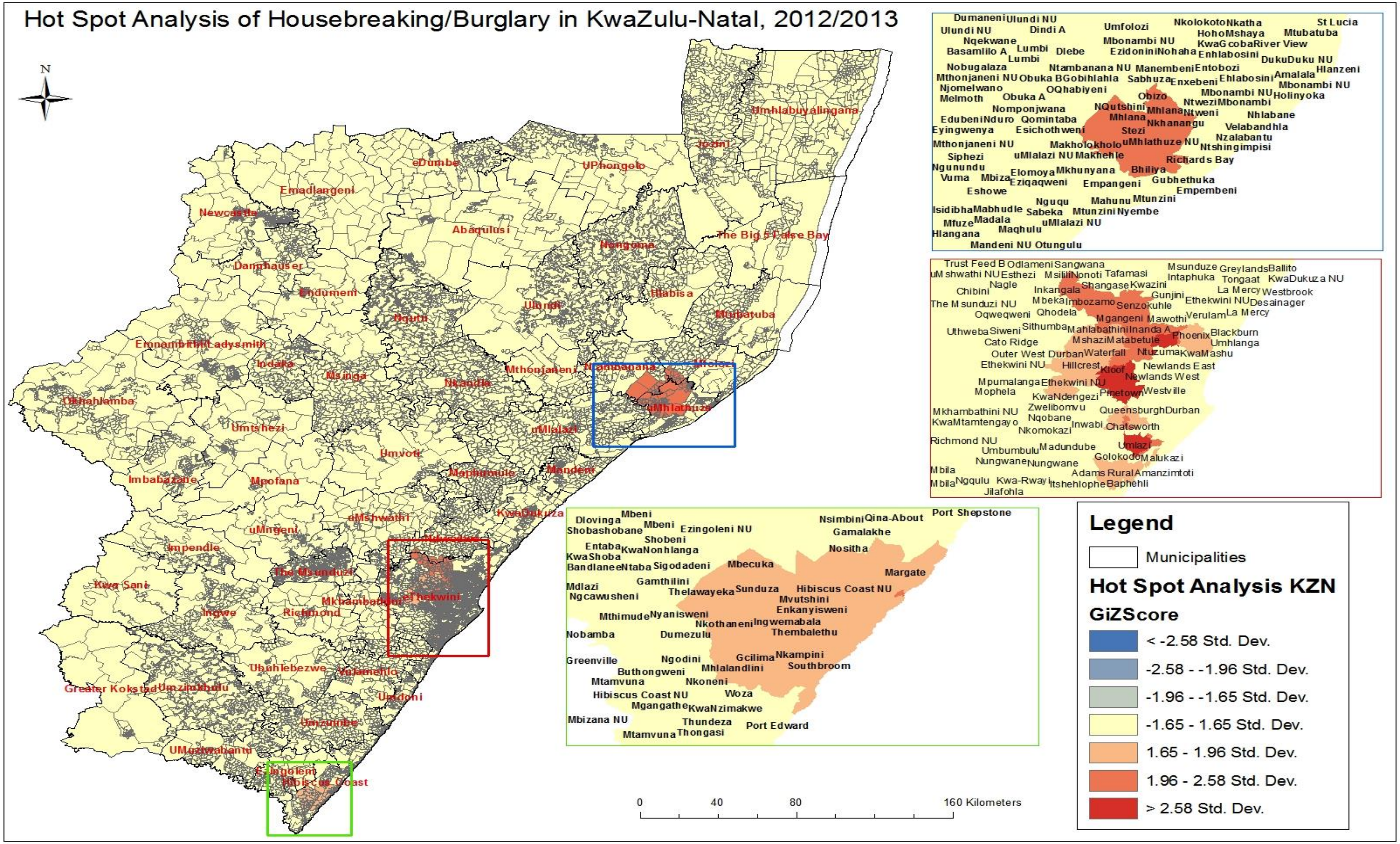

Hot spot analysis of home robbery in the Eastern Cape, 2012/2013
N
Legend
Municipalities
Hot Spot Analysis EC
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
0
65
130
260 Kilometers
Gariep
Maletswai
Senqu
Elundini
Malatiele
Umzimvubu
Mbizana
Ntabankulu
Mhlontlo
Ngquza Hill
Sakhisizwe
Inkwanca
Emalahleni
Engcobo
Nyandeni
Port St Johns
King Sabata Dalindyebo
Inxuba Yethemba
Tsolwana
Intsika Yethu
Lukanji
Mbhashe
Mnquma
Camdeboo
Amahlathi
Nxuba
Great Kei
Blue Crane Route
Nkonkobe
Buffalo City
Ikwezi
Ngqushwa
Baviaans
Makana
Sundays River Valley
Ndlambe
Nelson Mandela Bay
Kou-Kamma
Kouga

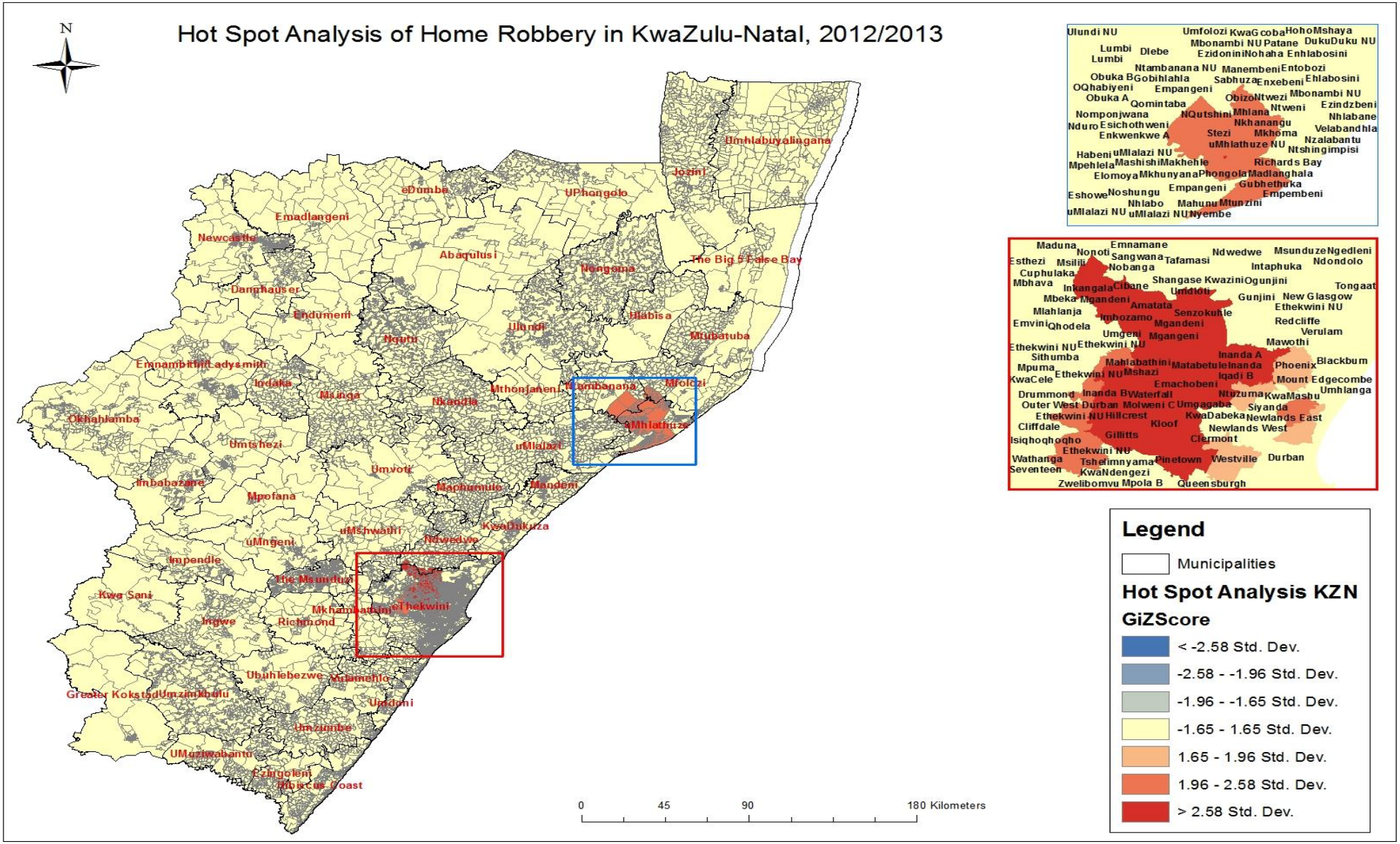

Hot spot analysis of Housebreaking/burglary in the Northern Cape, 2012/2013
N
Phokwane NU
Jan Kempdorp
Dikgatlong NU
Warrenton
Magareng NU
Ulco
Delportshoop
Windsorton
Holpan
Vaalbos National Park
Barkly West
Vaalbos National Park
Vaalbos National Park
Platfontein
Roodepan
Galeshewe
Kimberley
Sol Plaatjie NU
Ritchie
Siyancuma NU
Riet River
Mier
Joe Morolong
/Khara Hais
Gamagara
Ga-Segonyana
Phokwane
Tsantsabane
Kgatelopele
Dikgatlong
Magareng
Richtersveld
Sol Plaatjie
Kai !Garib
Siyancuma
!Kheis
Nama Khoi
Khâi-Ma
Siyathemba
Thembelihle
Renosterberg
Kamiesberg
Kareeberg
Emthanjeni
Umsobomvu
Hantam
Ubuntu
Karoo Hoogland
0
90
180
360 Kilometers
Legend
Municipalities
Hot spot analysis NC
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

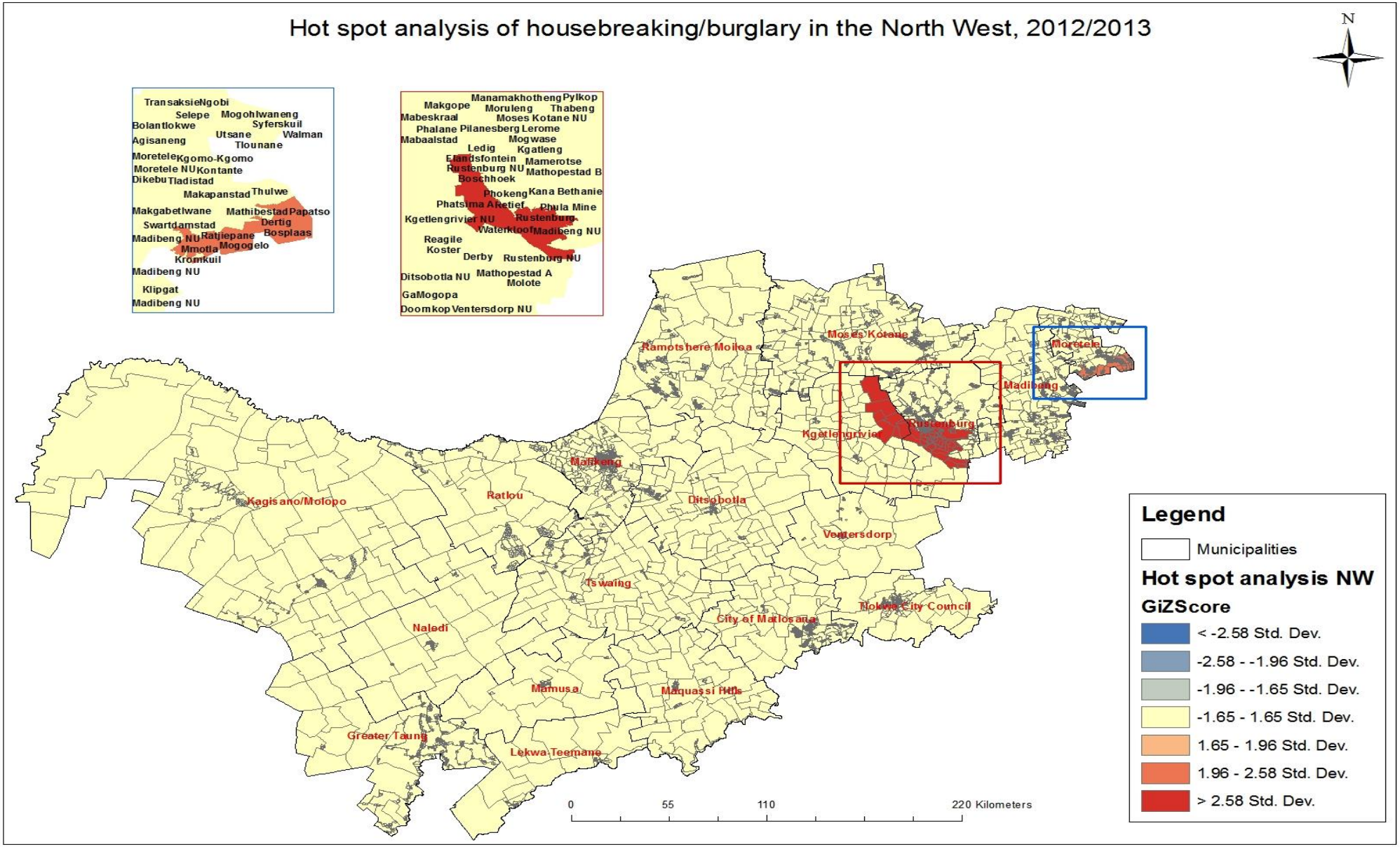

Hot Spot Analysis of Home Robbery in the Northern Cape, 2012/2013
N
Phomolong
Bendell
Lebonkeng
Letlhakajaneng
Maphiniki
Ramatele
Ga-sehunelo
Ga-Makgatle
Segwaneng
Ga-Diboye
Kakoje
Matshaneng
Bothithong
Dithakong
Nkajaneng
KgomohuteDewar
Makalaneng
Heritzog
Ga-Lotlhare
Good Hope
Logobate
Garamatale
Lotlhakane
Ga-Moseki
Moshaweng NU
Ntsweng
Minto
Gadisane
Kganong
Gariele
Esperanza
Bojalapotsane
Neira
Lothlakane
Heiso
Klaarkom
Tsamaros
Maruping
Everton
Mecwatsaneng
Makettele
Kangkuru
Baily
Brith
Maheane
Ga-Ntatelang
Washington
Kamden
Mamoratwe
Magobe
Kudumane
Bankhara
Seoding
Mothibistad
Bothetheletsa
Gamagara NU
Kuruman
Havard
Ntswelengwe
Niks
Kikahela
Manyeding
Rowel
Mothong
Mahukubung
Ga-Masepa
Ga-Segonyana NU
Ulco
Dikgatlong NU
Windsorton
Holpan
Magareng NU
Delportshoop
Vaal-Gamagara
Tidimalo
Longlands
Vaalbos National Park
Barkly West
Mataleng
Pniel Estate
Schmidtsdrif
Platfontein
Gateshewe
Kimberley
Sol Plaatjie NU
Siyancuma NU
Ritchie
Motswedimosa
Riet River
Mier
Joe Morolong
//Khara Hais
Gamagara
Ga-Segonyana
Phokwane
Tsantsabane
Kgatelopele
Dikgatlong
Magareng
Richtersveld
Kai !Garib
Siyancuma
!Kheis
Nama Khoi
Khâi-Ma
Siyathemba
Thembelihle
Renosterberg
Kamiesberg
Kareeberg
Emthanjeni
Umsobomvu
Hantam
Ubuntu
Karoo Hoogland
0
100
200
400 Kilometers
Legend
Municipalities
Hot Spot Analysis NC
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

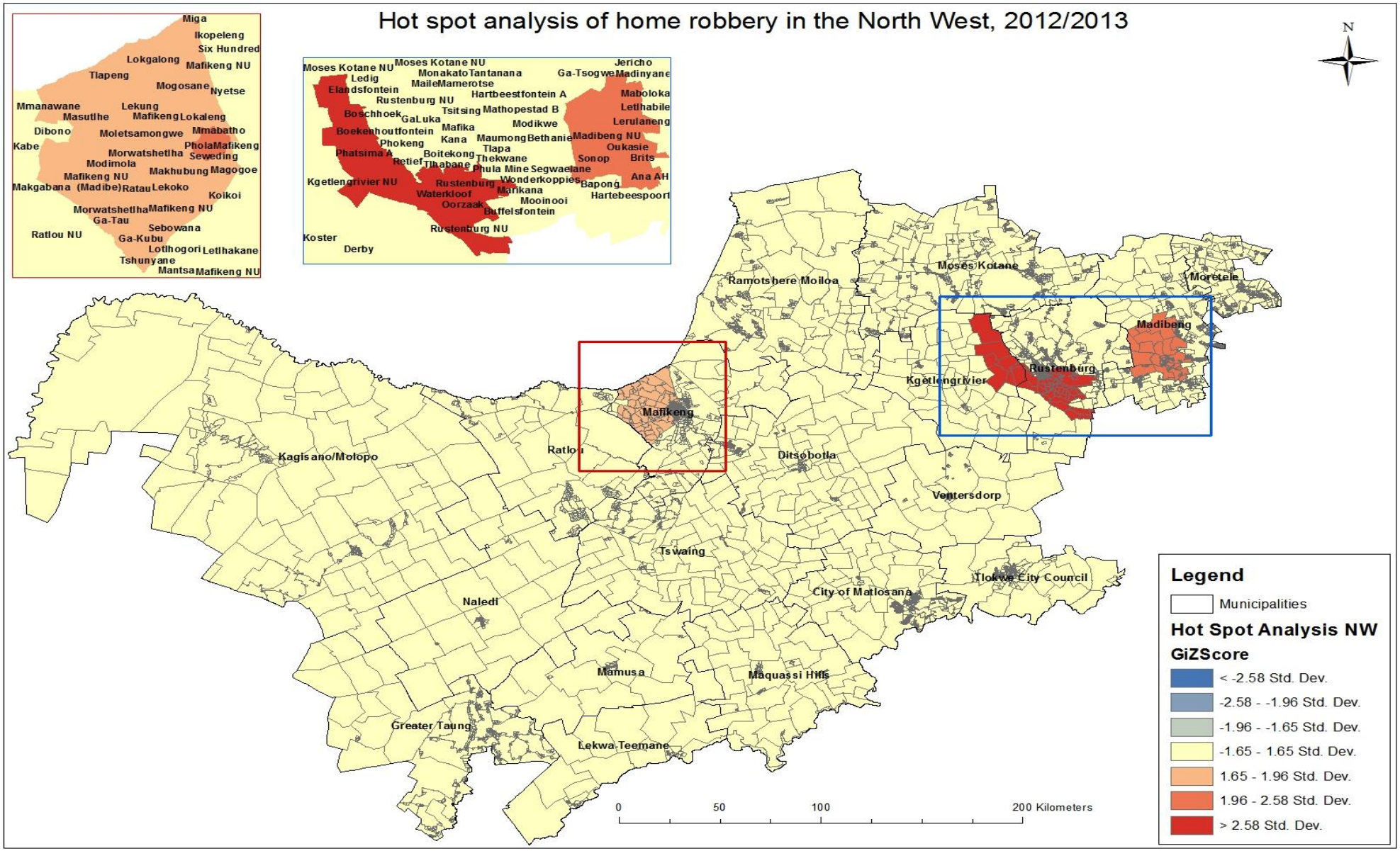

Cluster and outlier analysis of home robbery in the Free State, 2012/2013
N
Dealesville
Tokologo NU
Brandfort
Ikgomotseng
Soetdoring Nature Reserve
Masilonyana NU
Mangaung NU
Talla
Spitsko
Merino
Letsemeng NU
Petrusburg
Bloemfontein
Mangaung
Rooifontein
Botshabelo
Rustfontein
Yorksford
Naledi NU
Kopanong NU
Dewetsdorp
Reddersburg
Edenburg
Fauresmith
Mohokare NU
Metsimaholo
Mafube
Ngwathe
Nala
Moqhaka
Phumelela
Nketoana
Matjhabeng
Tswelopele
Maluti a Phofung
Dihlabeng
Tokologo
Masilonyana
Setsoto
Mangaung
Mantsopa
Letsemeng
Naledi
Kopanong
Mohokare
Legend
Municipalities
Hot spot analysis FS
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
0
50
100
200 Kilometers

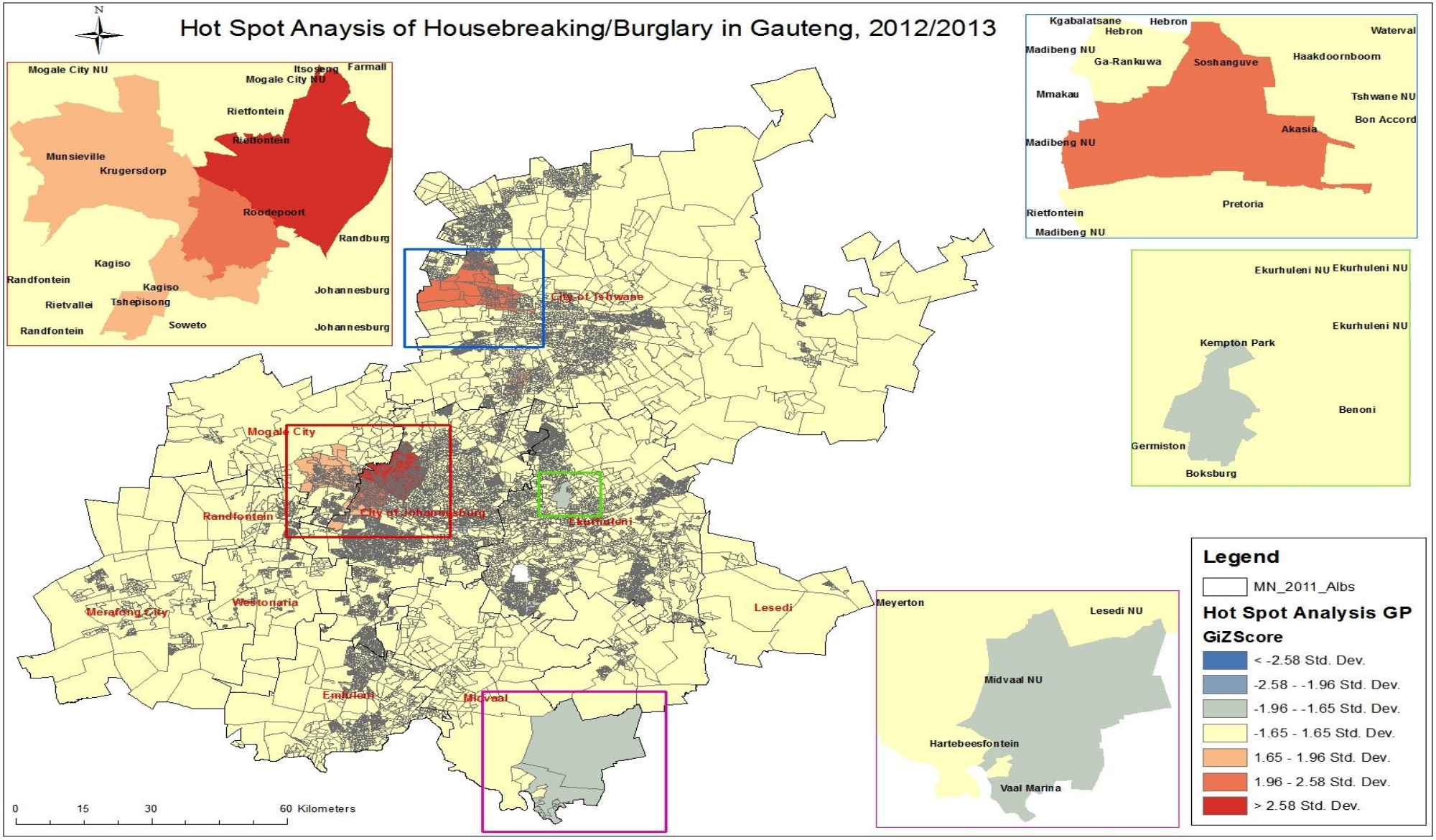

Hot Spot Analysis of Home Robbery in the Free State, 2012/2013
N
Bloemfontein
Mangaung
Mangaung NU
Kopanong NU
Metsimaholo
Mafube
Ngwathe
Nala
Moqhaka
Phumelela
Nketoana
Matjhabeng
Tswelopele
Maluti a Phofung
Dihlabeng
Tokologo
Masilonyana
Setsoto
Mangaung
Mantsopa
Letsemeng
Naledi
Kopanong
Mohokare
Legend
Municipalities
Hot Spot Analysis FS
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
0
50
100
200 Kilometers

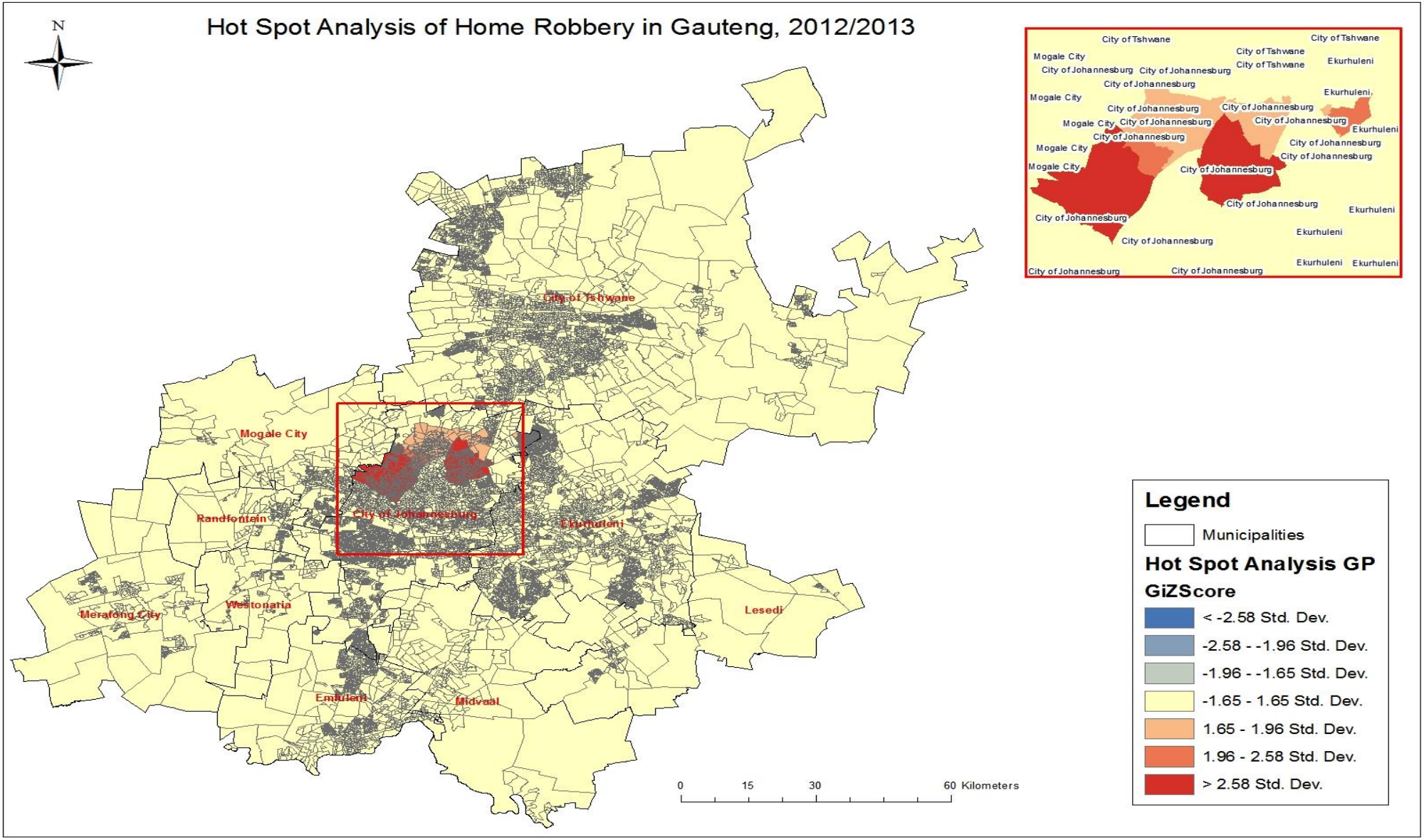

Hot Spot Analysis of Housebreaking/Burglary in KwaZulu-Natal, 2012/2013
N
Legend
Municipalities
Hot Spot Analysis KZN
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
0 40 80 160 Kilometers
Umhlabuyalingana
Jozini
eDumbe
UPhongolo
Emadlangeni
Newcastle
Abaqulusi
The Big 5 False Bay
Dannhauser
Endumeni
Ulundi
Hlabisa
Nquthu
Mtubatuba
Msinga
Nkandla
Mthonjaneni
Okhahlamba
Umtshezi
uMhlathuze
uMlalazi
Umvoti
Imbabazane
Mpofana
Maphumulo
Mandeni
KwaDukuza
uMshwathi
uMngeni
Impendle
The Msunduzi
Kwa Sani
Ingwe
Richmond
Mkhambathini
eThekwini
Ubuhlebezwe
Vulamehlo
Greater Kokstad
Umzimkhulu
Umdoni
Umzumbe
UMuziwabantu
Ezingoleni
Hibiscus Coast
Durban
Port Shepstone
Margate
Port Edward
Richards Bay

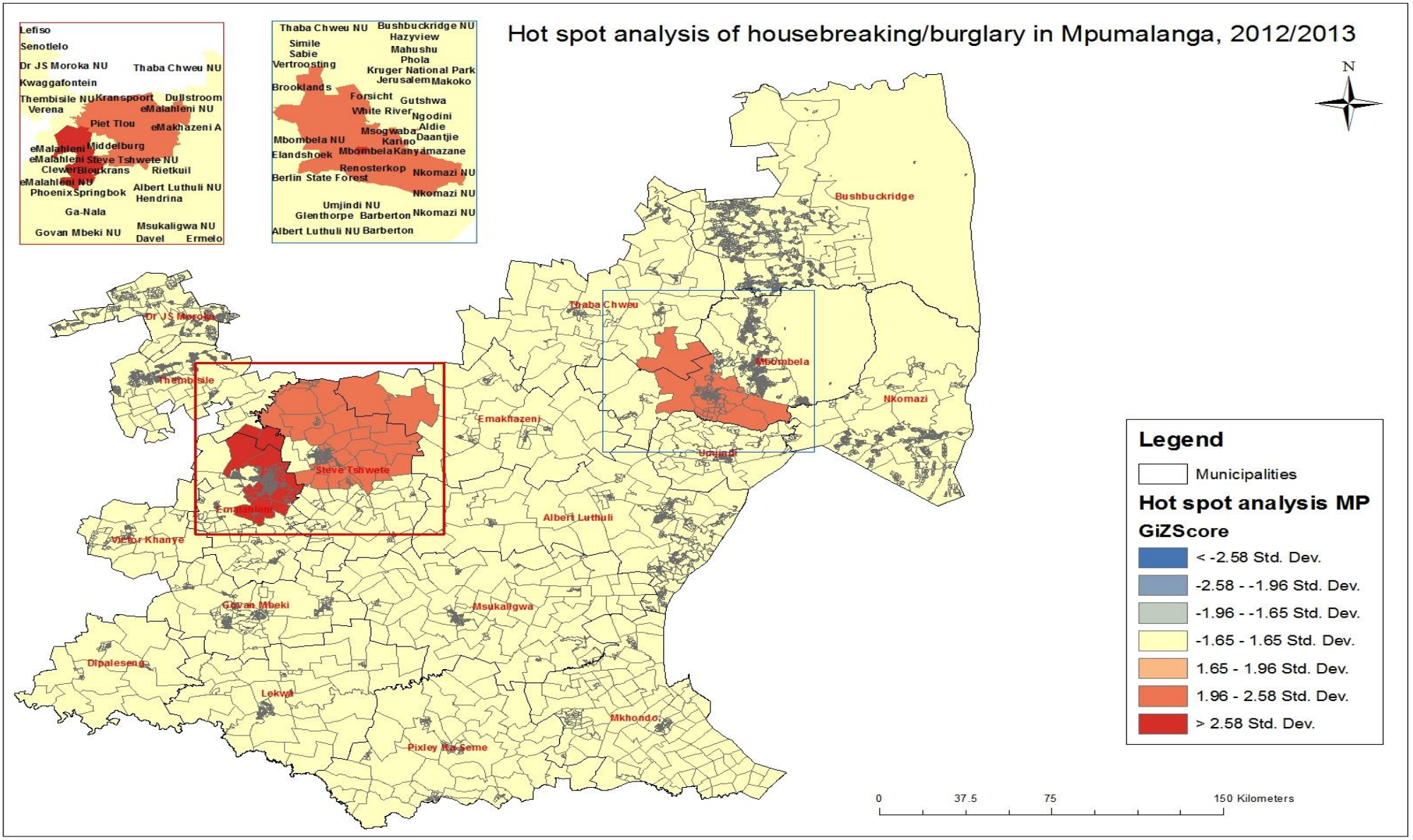

Hot Spot Analysis of Home Robbery in KwaZulu-Natal, 2012/2013
N
Umhlabuyalingana
Jozini
eDumbe
UPhongolo
Emadlangeni
Newcastle
Abaqulusi
Nongoma
The Big 5 False Bay
Dannhauser
Endumeni
Ulundi
Hlabisa
Nquthu
Mtubatuba
Emnambithi/Ladysmith
Indaka
Msinga
Umthonjaneni
Nkandla
Mfolozi
Mhlathuze
Okhahlamba
Umtshezi
uMlalazi
Umvoti
Mandeni
Maphumulo
Mpofana
KwaDukuza
uMshwathi
uMngeni
Ndwedwe
Impendle
The Msunduzi
Kwa Sani
eThekwini
Mkhambathini
Ingwe
Richmond
Ubuhlebezwe
Ximanehlo
Greater Kokstad
Umzimkhulu
Umdoni
Umzumbe
UMuziwabantu
Ezinqoleni
Hibiscus Coast
0
45
90
180 Kilometers
Legend
Municipalities
Hot Spot Analysis KZN
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

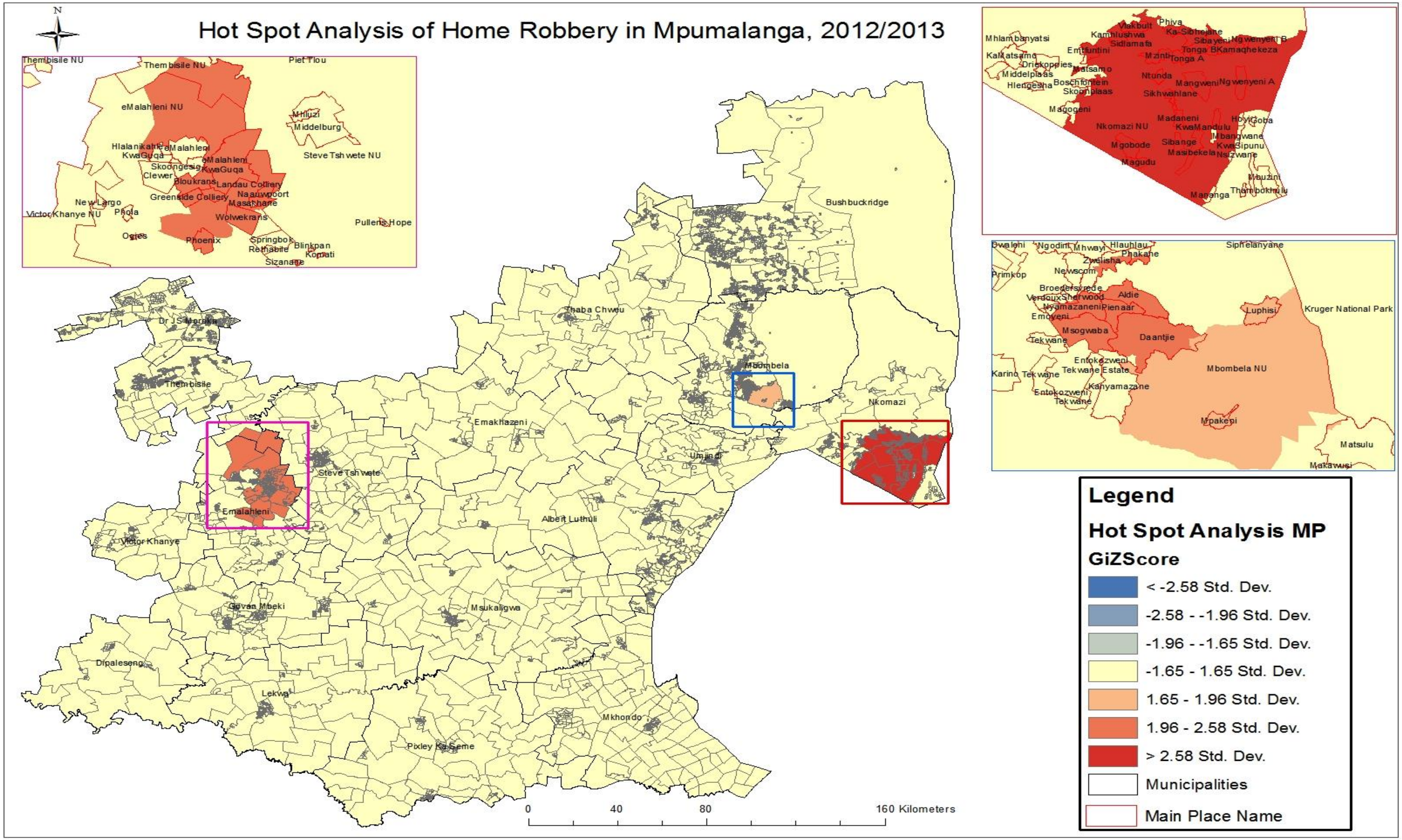

Hot spot analysis of housebreaking/burglary in the North West, 2012/2013
N
TransaksieNgobi
Selepe
Mogohlwaneng
Bolantlokwe
Syferskuil
Utsane
Walman
Agisaneng
Tlounane
Moretele
Kgomo-Kgomo
Moretele NU
Kontante
Dikebu
Tladistad
Makapanstad
Thulwe
Makgabetlwane
Mathibestad
Papatso
Swartdamstad
Dertig
Madibeng NU
Ratlhepane
Bosplaas
Mmotla
Mogogelo
Kromkuil
Madibeng NU
Klipgat
Madibeng NU
Manamakhotheng
Pylkop
Makgope
Moruleng
Thabeng
Mabeskraal
Moses Kotane NU
Phalane
Pilanesberg
Lerome
Mabaalstad
Mogwase
Ledig
Kgatleng
Elandsfontein
Mamerotse
Rustenburg NU
Mathopestad B
Boschhoek
Phokeng
Kana Bethanie
Phatsima A
Retief
Phula Mine
Kgetlengrivier NU
Rustenburg
Waterkloof
Madibeng NU
Reagile
Koster
Derby
Rustenburg NU
Ditsobotla NU
Mathopestad A
Molote
GaMogopa
Doornkop
Ventersdorp NU
Ramotshere Moiloa
Moses Kotane
Moretele
Madibeng
Kgetlengrivier
Rustenburg
Mafikeng
Kagisano/Molopo
Ratlou
Ditsobotla
Ventersdorp
Tswaing
Naledi
Mahikeng City Council
City of Matlosana
Mamusa
Maquassi Hills
Greater Taung
Lekwa-Teemane
0
55
110
220 Kilometers
Legend
Municipalities
Hot spot analysis NW
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

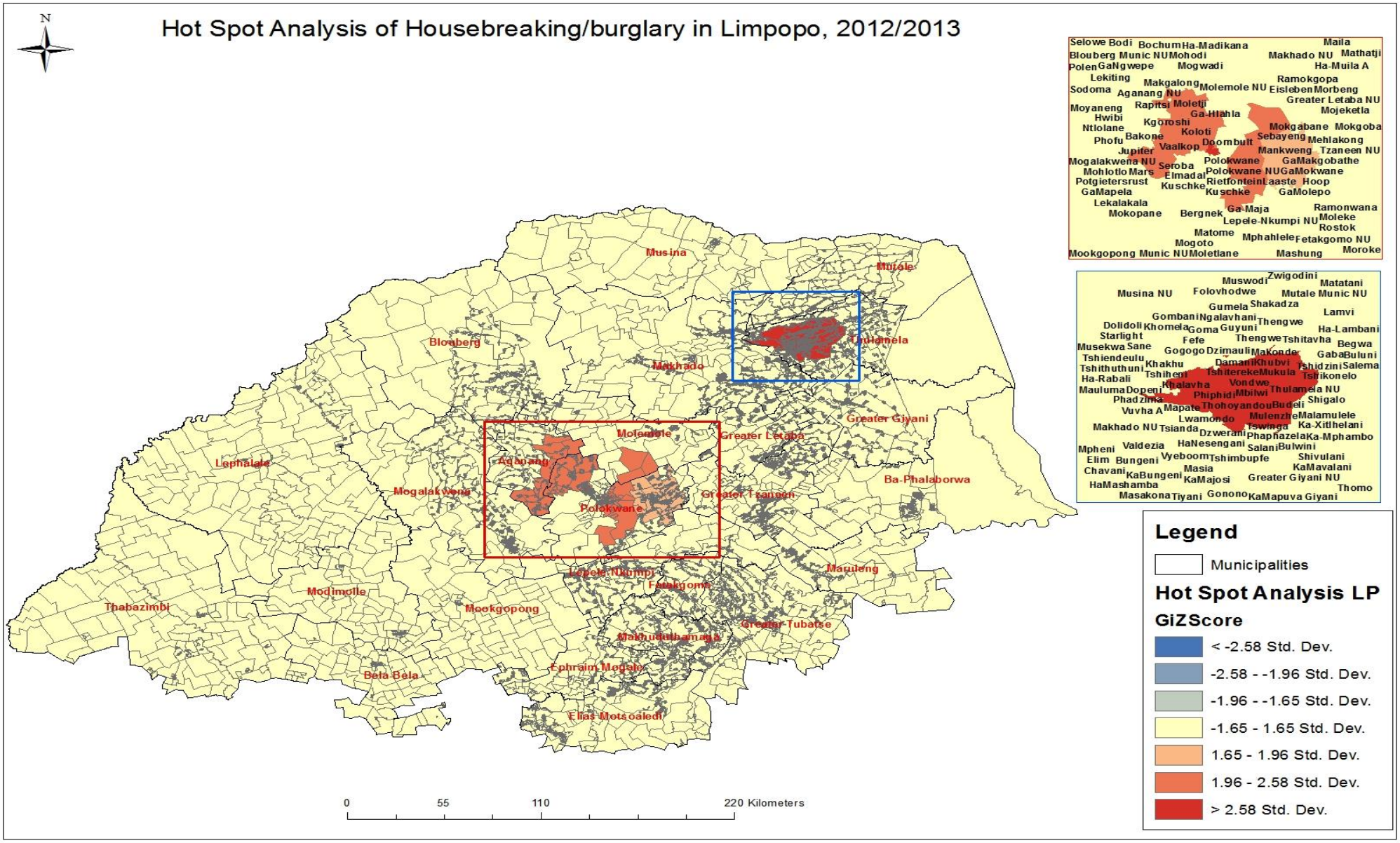

Hot spot analysis of home robbery in the North West, 2012/2013
N
Miga
Ikopeleng
Six Hundred
Lokgalong
Mafikeng NU
Tlapeng
Mogosane
Nyetse
Mmanawane
Lekung
Masutlhe
Mafikeng
Lokaleng
Dibono
Moletsamongwe
Mmabatho
Kabe
Phola
Mafikeng
Morwatshetlha
Seweding
Modimola
Makhubung
Magogoe
Mafikeng NU
Makgabana (Madibe)
Ratau
Lekoko
Koikoi
Morwatshetlha
Mafikeng NU
Ga-Tau
Sebowana
Ratlou NU
Ga-Kubu
Lotlhogori
Letlhakane
Tshunyane
Mantsa
Mafikeng NU
Moses Kotane NU
Moses Kotane NU
Monakato
Tantanana
Ga-Tsogwe
Jericho
Madinyane
Ledig
Maile
Mamerotse
Elandsfontein
Hartbeestfontein A
Maboloka
Rustenburg NU
Letlhabile
Tsitsing
Mathopestad B
Boschhoek
GaLuka
Lerulaneng
Modikwe
Mafika
Boekenhoutfontein
Kana
Maumong
Bethanie
Madibeng NU
Phokeng
Tlapa
Oukasie
Phatsima A
Boitekong
Sonop
Brits
Retief
Tlhabane
Thekwane
Phula Mine
Segwaelane
Kgetlengrivier NU
Rustenburg
Wonderkoppies
Ana AH
Waterkloof
Marikana
Bapong
Hartebeespoort
Mooinooi
Oorzaak
Buffelsfontein
Rustenburg NU
Koster
Derby
Ramotshere Moiloa
Moses Kotane
Moretele
Madibeng
Rustenburg
Kgetlengrivier
Mafikeng
Kagisano/Molopo
Ratlou
Ditsobotla
Ventersdorp
Tswaing
Tlokwe City Council
City of Matlosana
Naledi
Mamusa
Maquassi Hills
Greater Taung
Lekwa-Teemane
0
50
100
200 Kilometers
Legend
Municipalities
Hot Spot Analysis NW
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.

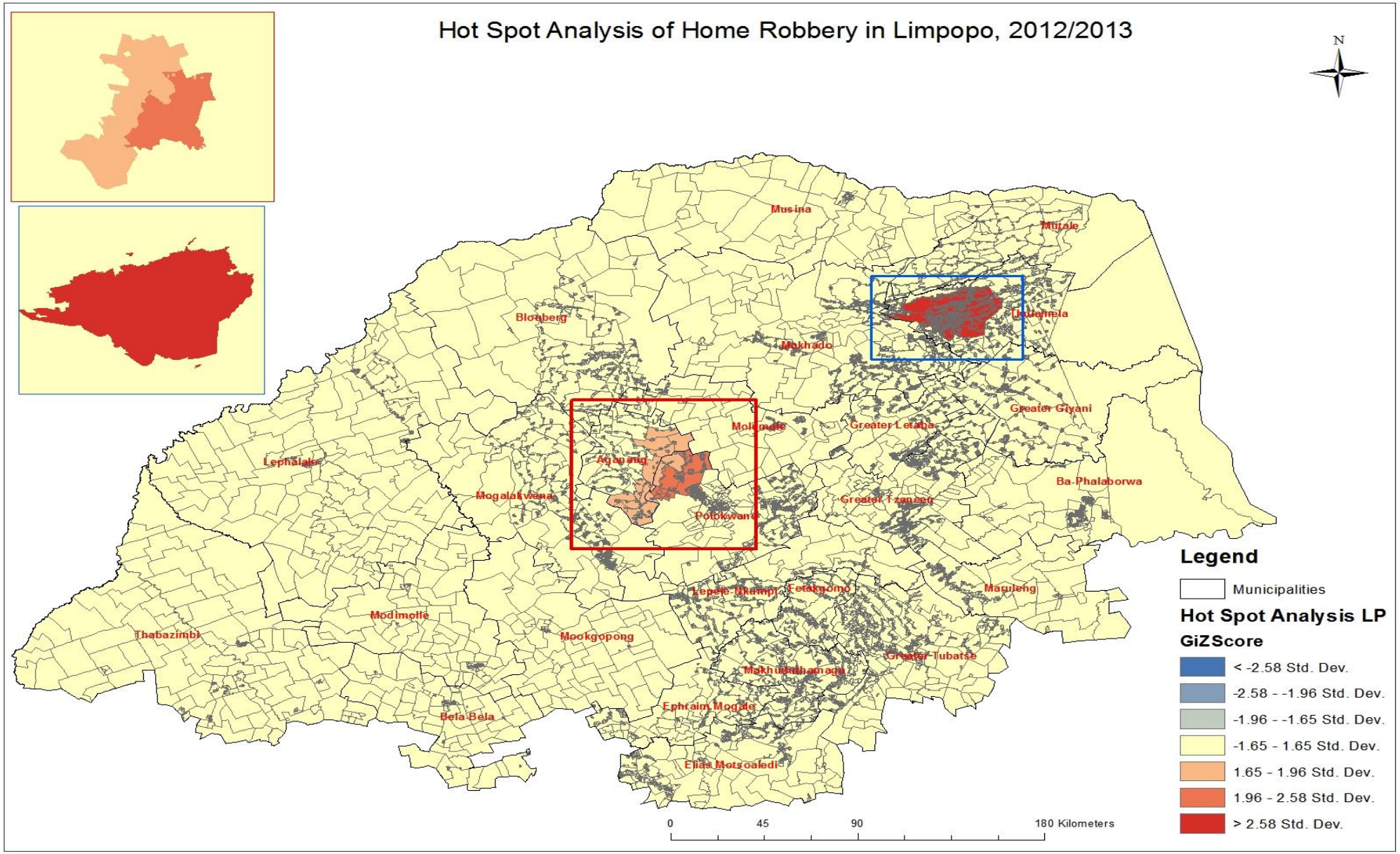

Hot Spot Anaysis of Housebreaking/Burglary in Gauteng, 2012/2013
N
Mogale City NU
Itsoseng
Farmall
Mogale City NU
Rietfontein
Rietfontein
Munsieville
Krugersdorp
Roodepoort
Randburg
Kagiso
Randfontein
Kagiso
Rietvallei
Tshepisong
Johannesburg
Randfontein
Soweto
Johannesburg
City of Tshwane
Mogale City
Randfontein
City of Johannesburg
Ekurhuleni
Merafong City
Westonaria
Lesedi
Emfuleni
Midvaal
0 15 30 60 Kilometers
Kgabalatsane
Hebron
Hebron
Waterval
Madibeng NU
Ga-Rankuwa
Soshanguve
Haakdoornboom
Mmakau
Tshwane NU
Bon Accord
Akasia
Madibeng NU
Pretoria
Rietfontein
Madibeng NU
Ekurhuleni NU
Ekurhuleni NU
Ekurhuleni NU
Kempton Park
Benoni
Germiston
Boksburg
Meyerton
Lesedi NU
Midvaal NU
Hartebeesfontein
Vaal Marina
Legend
MN_2011_Albs
Hot Spot Analysis GP
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.


Hot Spot Analysis of Home Robbery in Gauteng, 2012/2013
N
City of Tshwane
Mogale City
City of Johannesburg
Randfontein
Ekurhuleni
Merafong City
Westonaria
Lesedi
Emfuleni
Midvaal
0 15 30 60 Kilometers
Legend
Municipalities
Hot Spot Analysis GP
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.


Hot spot analysis of housebreaking/burglary in Mpumalanga, 2012/2013
N
Lefiso
Senotlelo
Dr JS Moroka NU
Thaba Chweu NU
Kwaggafontein
Thembisile NU
Kranspoort
Dullstroom
Verena
eMalahleni NU
Piet Tlou
eMakhazeni A
Middelburg
eMalahleni
eMalahleni Steve Tshwete NU
Clewer
Blouberg
Rietkuil
eMalahleni NU
Phoenix
Springbok
Albert Luthuli NU
Hendrina
Ga-Nala
Govan Mbeki NU
Msukaligwa NU
Davel
Ermelo
Thaba Chweu NU
Bushbuckridge NU
Simile
Sabie
Hazyview
Mahushu
Phola
Vertroosting
Kruger National Park
Jerusalem
Makoko
Brooklands
Forsicht
Gutshwa
White River
Ngodini
Msogwaba
Aldie
Daantjie
Mbombela NU
Karino
Elandshoek
Mbombela
Kanyamazane
Renosterkop
Nkomazi NU
Berlin
State Forest
Nkomazi NU
Umjindi NU
Glenthorpe
Barberton
Nkomazi NU
Albert Luthuli NU
Barberton
Bushbuckridge
Thaba Chweu
Dr JS Moroka
Mbombela
Thembisile
Nkomazi
Emakhazeni
Umjindi
Steve Tshwete
Emalahleni
Albert Luthuli
Victor Khanye
Govan Mbeki
Msukaligwa
Dipaleseng
Lekwa
Mkhondo
Pixley ka Seme
Legend
Municipalities
Hot spot analysis MP
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
0
37.5
75
150 Kilometers


Hot Spot Analysis of Home Robbery in Mpumalanga, 2012/2013
N
Legend
Hot Spot Analysis MP
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.
Municipalities
Main Place Name
0 40 80 160 Kilometers
Bushbuckridge
Thaba Chweu
Mbombela
Nkomazi
Emakhazeni
Umjindi
Steve Tshwete
Emalahleni
Thembisile
Dr J S Moroka
Victor Khanye
Albert Luthuli
Govan Mbeki
Msukaligwa
Dipaleseng
Lekwa
Mkhondo
Pixley Ka Seme
Thembisile NU
eMalahleni NU
Piet Tlou
Middelburg
Steve Tshwete NU
Pullens Hope
Phola
Ogies
Phoenix
Wolwekrans
Kruger National Park
Mbombela NU
Daantjie
Msogwaba
Kanyamazane
Mpakeni
Matsulu
Nkomazi NU
Magudu
Mgobode
Sibange
Masibekela
Tonga A
Ntunda
Sikhwahlane


Hot Spot Analysis of Housebreaking/burglary in Limpopo, 2012/2013
N
Musina
Mutale
Thulamela
Blouberg
Makhado
Greater Giyani
Molemole
Greater Letaba
Lephalale
Aganang
Ba-Phalaborwa
Mogalakwena
Greater Tzaneen
Polokwane
Maruleng
Lepele-Nkumpi
Fetakgomo
Modimolle
Thabazimbi
Mookgopong
Greater Tubatse
Makhuduthamaga
Ephraim Mogale
Bela-Bela
Elias Motsoaledi
0
55
110
220 Kilometers
Legend
Municipalities
Hot Spot Analysis LP
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.


Hot Spot Analysis of Home Robbery in Limpopo, 2012/2013
N
Musina
Mutale
Blouberg
Thulamela
Makhado
Greater Giyani
Molemole
Greater Letaba
Lephalale
Aganang
Ba-Phalaborwa
Mogalakwena
Greater Tzaneen
Polokwane
Lepele-Nkumpi
Fetakgomo
Maruleng
Modimolle
Thabazimbi
Mookgopong
Greater Tubatse
Makhuduthamaga
Ephraim Mogale
Bela-Bela
Elias Motsoaledi
0
45
90
180 Kilometers
Legend
Municipalities
Hot Spot Analysis LP
GiZScore
< -2.58 Std. Dev.
-2.58 - -1.96 Std. Dev.
-1.96 - -1.65 Std. Dev.
-1.65 - 1.65 Std. Dev.
1.65 - 1.96 Std. Dev.
1.96 - 2.58 Std. Dev.
> 2.58 Std. Dev.