



RESEARCH ARTICLE

CRIME IN CHANDIGARH: GEOGRAPHICAL ANALYSIS.

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Manuscript Info

Manuscript History

Received: 12 August 2016

Final Accepted: 22 September 2016

Published: October 2016

Abstract

The present paper is to analyze the spatial pattern and hot spot of crime in Chandigarh from 2012-2014. Chandigarh is one of the metropolitan cities with higher crime rate in the region. As per the crime statistics of 2013, the crime rate of Chandigarh is 254 (Conclusively in India the crime rate is 215.5) which is the second highest among the U.T. The crime rate of Kidnapping/Abduction in Chandigarh is 16.3 (Conclusively in India the crime rate of Kidnapping/Abduction is 5.3). According to N.C.R.B. (National Crime Record Bureau) crime report (2012) crime rate of Chandigarh in 2012 is 235.4 (Conclusively in India the crime rate is 196.7). This is the third highest among the U.T after Delhi (283.3) and Pondicherry (291.0). This shows that the crime rate in Chandigarh is much higher than national average. The city growth has been a continuous process due to growth of trade and commerce and progressive urbanization. Undoubtedly, today city faces multifarious physio-socio-economic and infrastructural problems. Laborers immigration from various part of India has resulted in the emergence of several slum colonies inside the city and on the city fringe. The major locations which shows the highest crime incidence are Mani Majra, Burail, Maloya, Dadu Majra Colony, Parsola, Kajheri, Sector-56, Ram Darbar Colony, Industrial Area- Phase-I, Phase-II, Hallow Majra, Daria, Sector-26 and Sector-25 are the major hub of crime

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INTRODUCTION

The existing social locations are responsible for crime. Past studies show that crime closely connected with the social circumstances and location of place. Those who back this geographical theory of crime are of the solid opinion, that when a crime has to be committed it is only due to the social circumstances, they say that social location is a very important reason for crime.

History shows that crime affected by rationality, ethnicity, society, locality, gender. However, Crime cuts across boundaries of geography, race, class, religion and culture. It occurs in homes, schools and streets, in places of work and entertainment, and in care and detention centers. Perpetrators include parents, family members, law enforcement authorities and other people. Some people are particularly vulnerable because of gender, race, ethnic origin,

disability or social status. Moreover, no country is immune, whether rich or poor. Firstly, it is important to define and identify different types of crimes. There is general indifference and lacks of awareness for crimes against them. Study of crime in Chandigarh will give a definite idea of the spatial patterns of crime emerging in the city and will help to analyze the trends and profile of crime in Chandigarh. The study will provide a platform for policy framers to design strategies and policies against the increasing crime rate.

The present study intends to understand the spatial distribution of crime against body and highlight certain hot-spot of such crimes in Chandigarh.

STUDY AREA:-

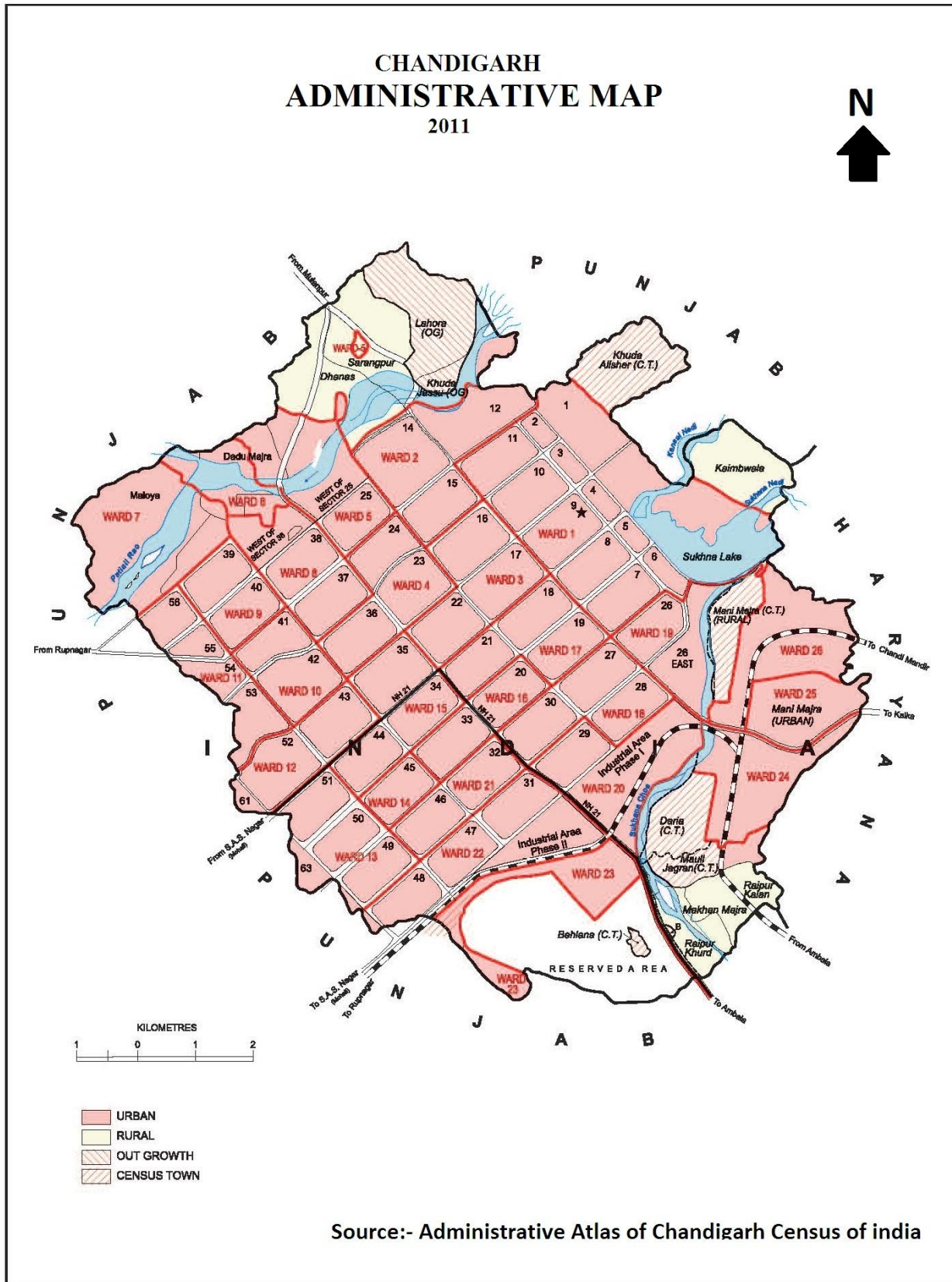
Chandigarh is a city and a union territory of India that serves as the capital of the Indian states of Punjab and Haryana. As a union territory, the city is governed directly by the Union Government and is not part of either state. Chandigarh was one of the early planned cities in the post-independence India and is internationally known for its architecture and urban design. The master plan of the city was prepared by Swiss-French architect Le Corbusier, which transformed from earlier plans created by the Polish architect Maciej Nowicki and the American planner Albert Mayer. Most of the government buildings and housing in the city were designed by the Chandigarh Capital Project Team headed by Le Corbusier, Jane Drew and Maxwell Fry. In 2015, an article published by BBC named Chandigarh as one of the perfect cities of the world in terms of architecture, cultural growth and modernization.

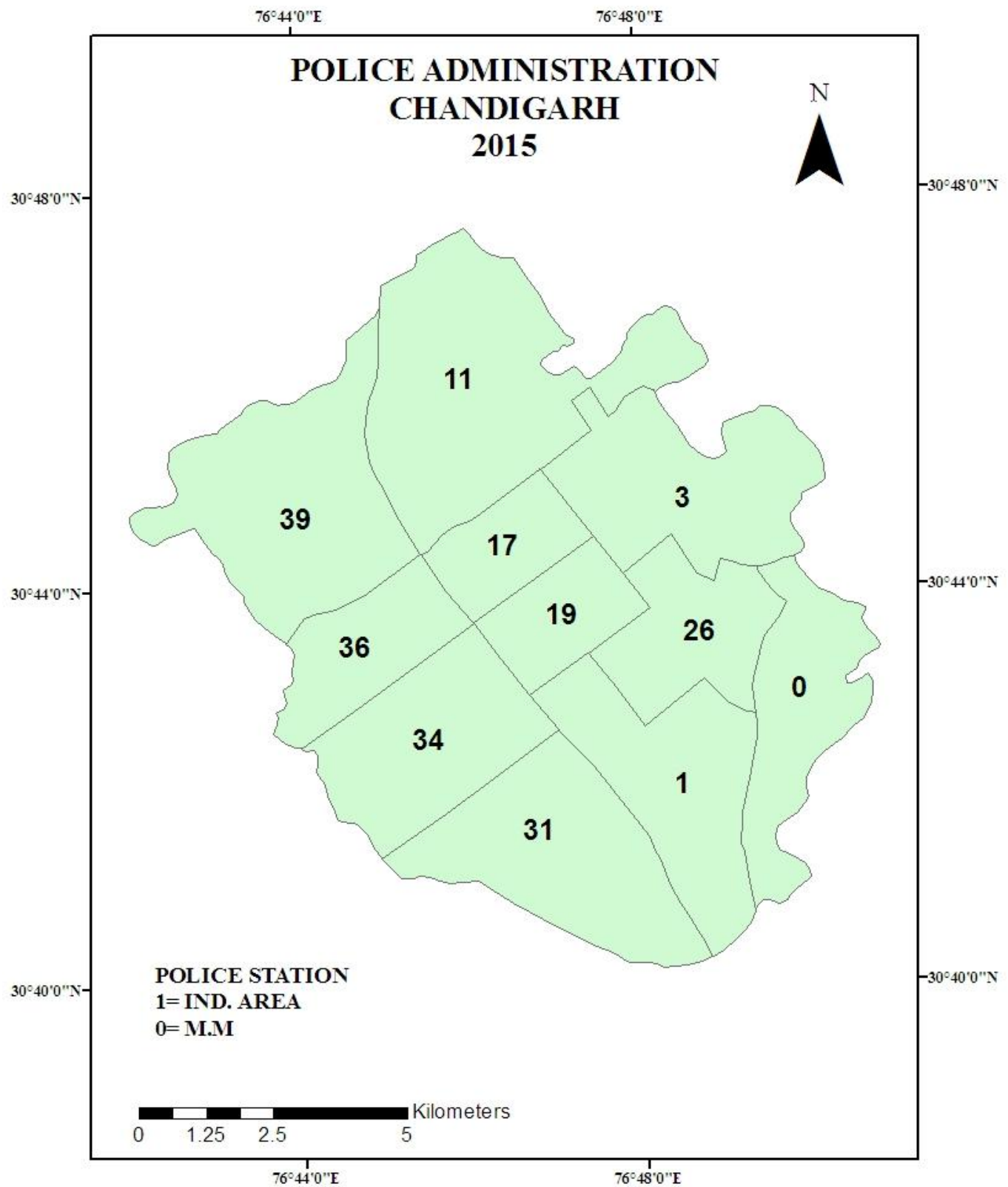
Chandigarh's Capitol Complex was in July 2016 declared by UNESCO as World Heritage at the 40th session of World Heritage Conference held in Istanbul. UNESCO inscription was under "The Architectural Work of Le Corbusier an outstanding contribution to the Modern Movement". The Capitol Complex buildings include the Punjab and Haryana High Court, Punjab and Haryana Secretariat and Punjab and Haryana Assembly along with monuments Open hand, Martyrs Memorial, Geometric Hill and Tower of Shadow.

The city tops the list of Indian States and Union Territories by per capita income followed by Haryana and Delhi respectively in the country. The city was reported to be the cleanest in India in 2010, based on a national government study. In 2016, Chandigarh was declared as the second cleanest city of India under Swachh Bharat Survekshan. The union territory also heads the list of Indian states and territories according to Human Development Index. In 2015, a survey by LG Electronics, ranked Chandigarh as the happiest city in India over the happiness index. The metropolitan of Chandigarh-Mohali-Panchkula collectively forms a Tri-city, with a combined population of over 2 million. Chandigarh is also known to be the first smoke-free city in India.

As of 2011 India census, Chandigarh had a population of 1,055,450, making for a density of about 9,252 (7,900 in 2001) persons per square kilometer. Males constitute 55% of the population and females 45%. The sex ratio is 818 females for every 1,000 males, which is the third lowest in the country, up from 773 in 2001. The child sex ratio is 880 females per thousand males, up from 819 in 2001. Chandigarh has an average literacy rate of 86.77%, higher than the national average; with male literacy of 90.81% and female literacy of 81.88%. 10.8% of the population is under 6 years of age.

There has been a substantial decline in the population growth rate in Chandigarh, with just 17.10% growth 2001-2011. Since, 1951-1961 the rate has decreased from 394.13% to 17.10%. This is probably because of rapid urbanization and development in neighboring cities. The urban population constitutes of as high as 97.25% of the total and the rural population makes up 2.75% as there are only few villages within Chandigarh on its Western and South-Eastern border and majority of people live in the heart of Chandigarh. Hinduism and Sikhism are the prominent religions of Chandigarh followed by 80.77% and 13.10% people respectively. Minorities are Muslims 4.87%, Christians 0.82%, Buddhists 0.15% and Jains 0.18%, while others are 0.11%. Many institutions serve the minorities in the city. One such being the Roman Catholic Diocese of Simla and Chandigarh, serving the Catholics, which even has a co-cathedral in the city, Christ the King Co-Cathedral, although it never was a separate bishopric. Most of the convent schools of Chandigarh are governed by this institution. Chandigarh hosts many religious places, including the temple on which it was named - Chandimandir. The ISKCON temple in Sector 36 is one among the worship places for Hindus. Nada Sahib Gurudwara, a famous place for Sikh worship lies in its vicinity. Apart from this, there are a couple of historical mosques in Manimajra and Burail.





OBJECTIVES AND RESEARCH QUESTIONS:-**Objectives:-**

The study intends to find out hotspot of Crime against Body in the city.

METHODOLOGY AND DATA COLLECTION:-

Biased on the objective and questions of present study, the tentative methodology of collecting data and information and processing of data is detailed below.

Data Sources:-**Police headquarter:-**

1. Locations of Crime against Body in Chandigarh.
2. Type of crimes of Crime against Body in Chandigarh.

Crime dairy:-

1. Locations of Crime against Body in Chandigarh.
2. Type of crimes of Crime against Body in Chandigarh.

Data Processing and Data Analysis:-

Crime against person is basic to the whole exercise. Data was collected from secondary sources. Since information of Crime against person is recorded in crime dairy and police files maintained at the different police stations, the requisite data for on location and type of crime was gathered from these files. At this stage data on all major case of crime related to crime against person will be taken into consideration from the records available at police stations. Since crime has location, the place where crime had taken place was marked on map. The spatial distribution, thus, obtained through this process lead to identification of hotspots in the city.

The data analysis has been done on computers, In order to get spatial patterns of crime, the processed information has been represented through

1. Statistical diagrams
 2. Tables
 3. Graphs
 4. Charts and
 5. Maps using suit table cartographic techniques.
- Data Source NCRB Report 2012-2013 and Crime Dairy

HOT SPOT OF CRIME AGAINST BODY IN CHANDIGARH:-

A crime hot spot is generally defined as an area containing dense clusters of criminal incidents. Identifications of hotspots helps public safety institutions allocate resources for crime prevention activities. This geographical analysis is usually made based on crime pin maps of reported crime events over a certain period. The main issue in the traditional method of hot spot analysis is the lack of time dimension to be explicitly considered. A hot spot is determined only by the geometry of previous events. This simple approach may be good enough to analyze data over a short time period, but to analyze data over a year or longer period, crime hot spots should be determined not only by the geometrical aspect of the events but also by their time characteristics. To explain spatial pattern and their distribution we use maps which are the basic tool of Geography. On the basis of collected data from crime diary which are the type of crime, their location and their date of incidence. One common method used to define crime hot spots is to draw circles from each event and then find the ellipse representing the highest density of crime. Defining a *crime hot spot* is an intuitive process, however, a definition only based on the number of events is insufficient.

Method: Crime Event Counts:-

In this method, a crime *hot spot* is defined as the area where the number of nearby incidents is high. The first question in dealing with this definition is how to choose "near" events from each incident. One extreme is when "near" is only for the location of each event itself, therefore every event will be a hot spot. The other extreme is when we take all events, with the result that no hot spot area can be defined.

HOT-SPOTS OF MURDER IN CHANDIGARH U.T.:-

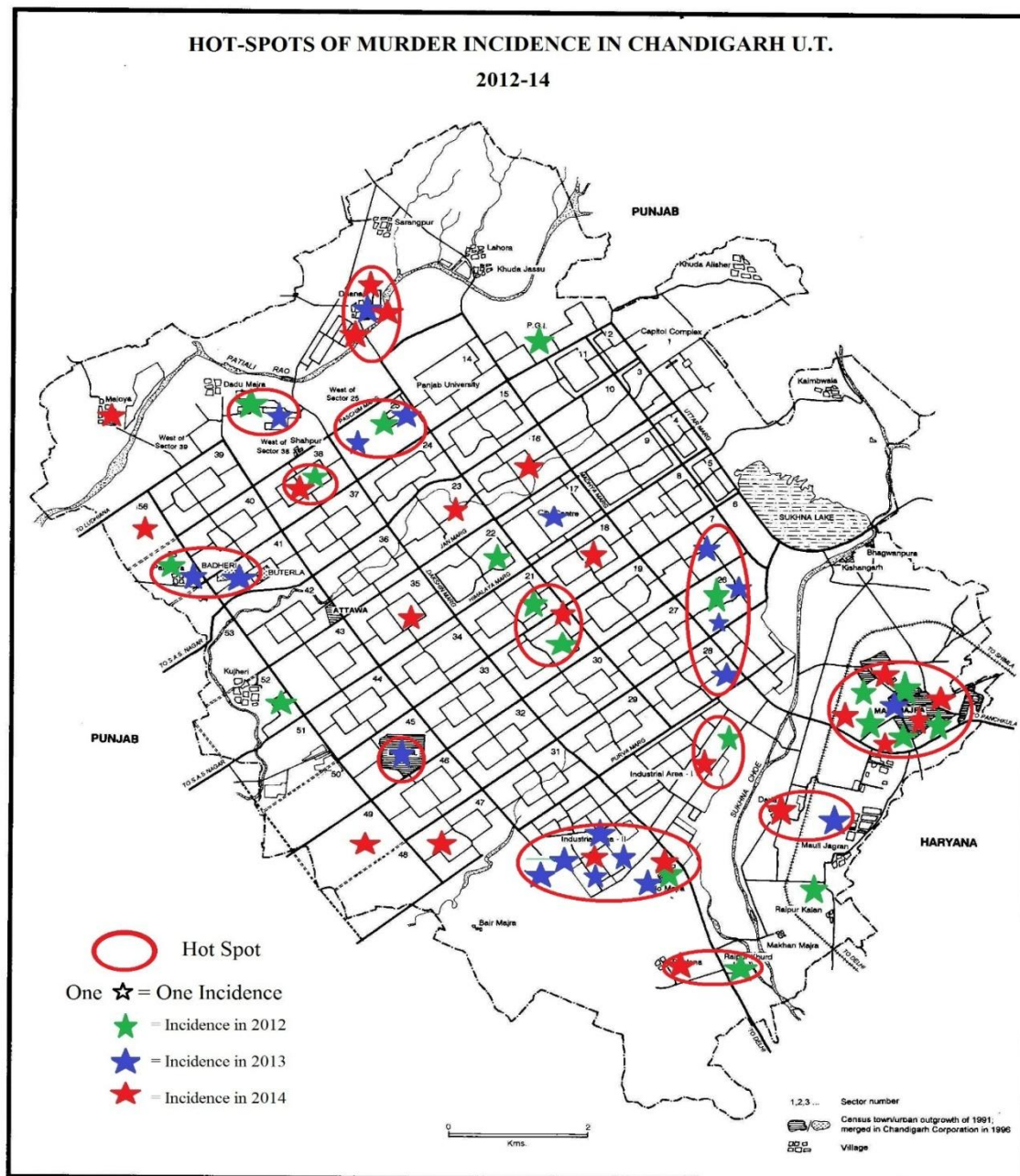
To locate the hot spot a map of hot-spot of murder incidence in Chandigarh during 2012-14. The map no. 7 is clearly shows that the major hot spot of murder incident are Mani Majra, Ram Darbar Colony, Industrial Area Phase-II, Hallow Majra, and Industrial Area Phase-I, Dhanas, Dadu Majra Colony, Burail, Parsola, Badheri, Behlana, Raipur Khurd, Daria, Mail Jagran, Sector-25, 26, 21, 22, 38 and Maloya.

The Manimajra village recorded 11 incident of murder.

The map no. 7 shows that most murder hot spot are located in the villages of Chandigarh and its urban fringe. Incidence of murder in all sectors all less than half of all over crime incident. It explains that murder incident occurs in that area in which people have low socio-economic condition.

After analysis the two broad and most important hot spot of murder incident came out they are Mani Majra and Industrial Area Phase-II.

Map No. 7:-



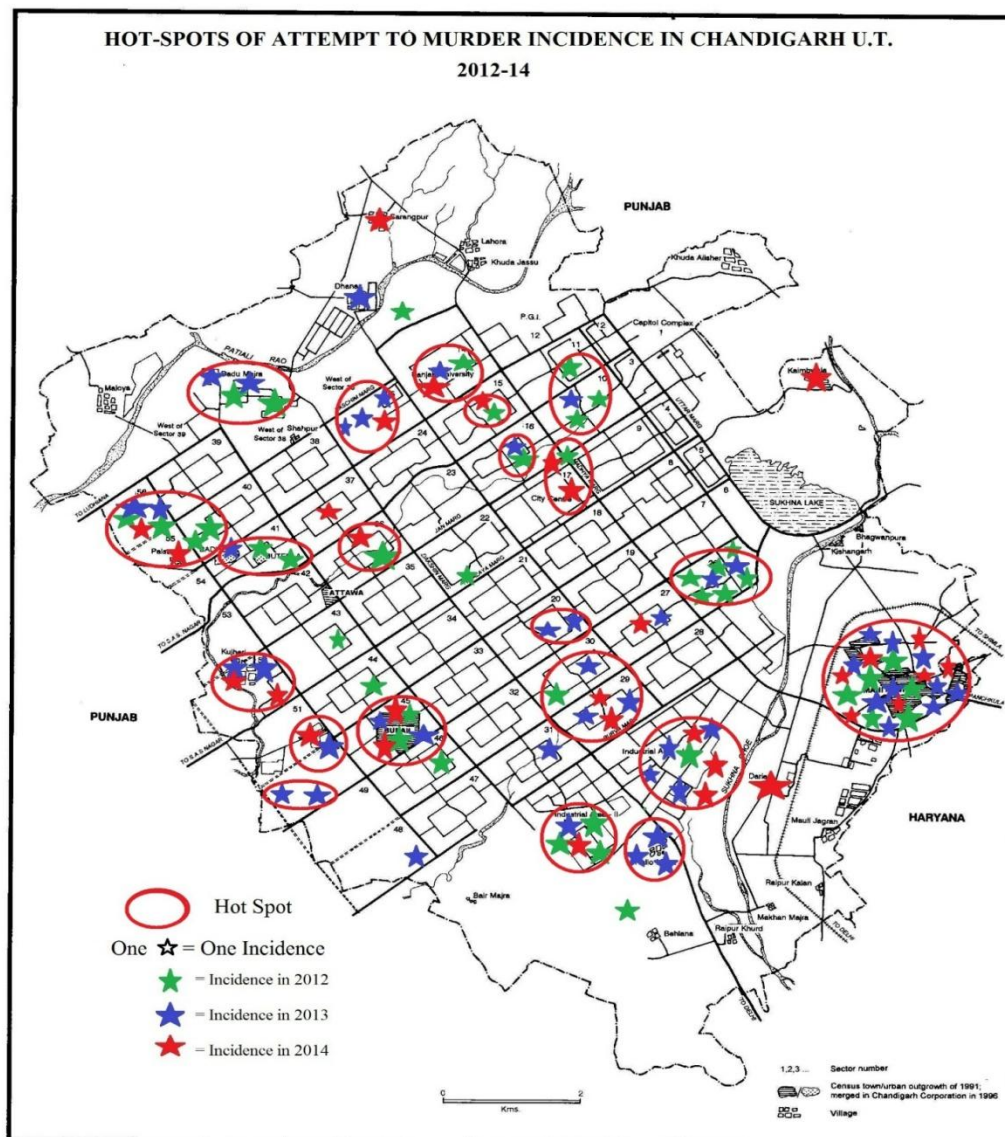
HOT-SPOTS OF ATTEMPT TO COMMIT MURDER IN CHANDIGARH U.T.:-

The map no.8 shows the hot-spots of attempt to commit murder incident Manimajra, Sector-26 and Industrial Area Phase-II are the hub in Chandigarh U.T in Manimajra has five, Sector-26 has six and Industrial Area Phase-II has three incidents. The Central part of Chandigarh shows the low number of crime hot spot as compared to urban fringe and Villages of Chandigarh like Manimajra, Burail and Dadu Majra etc.

In 2013, again Manimajra, Industrial Area Phase-I, Hallow Majra and Sector-25 D are hub of attempt to commit murder incident in Chandigarh U.T in Manimajra the ten incidents occurs. Again the South-Eastern Chandigarh and South-East part of Chandigarh shows the highest crime incident as compared to Northern sectorial parts of Chandigarh.

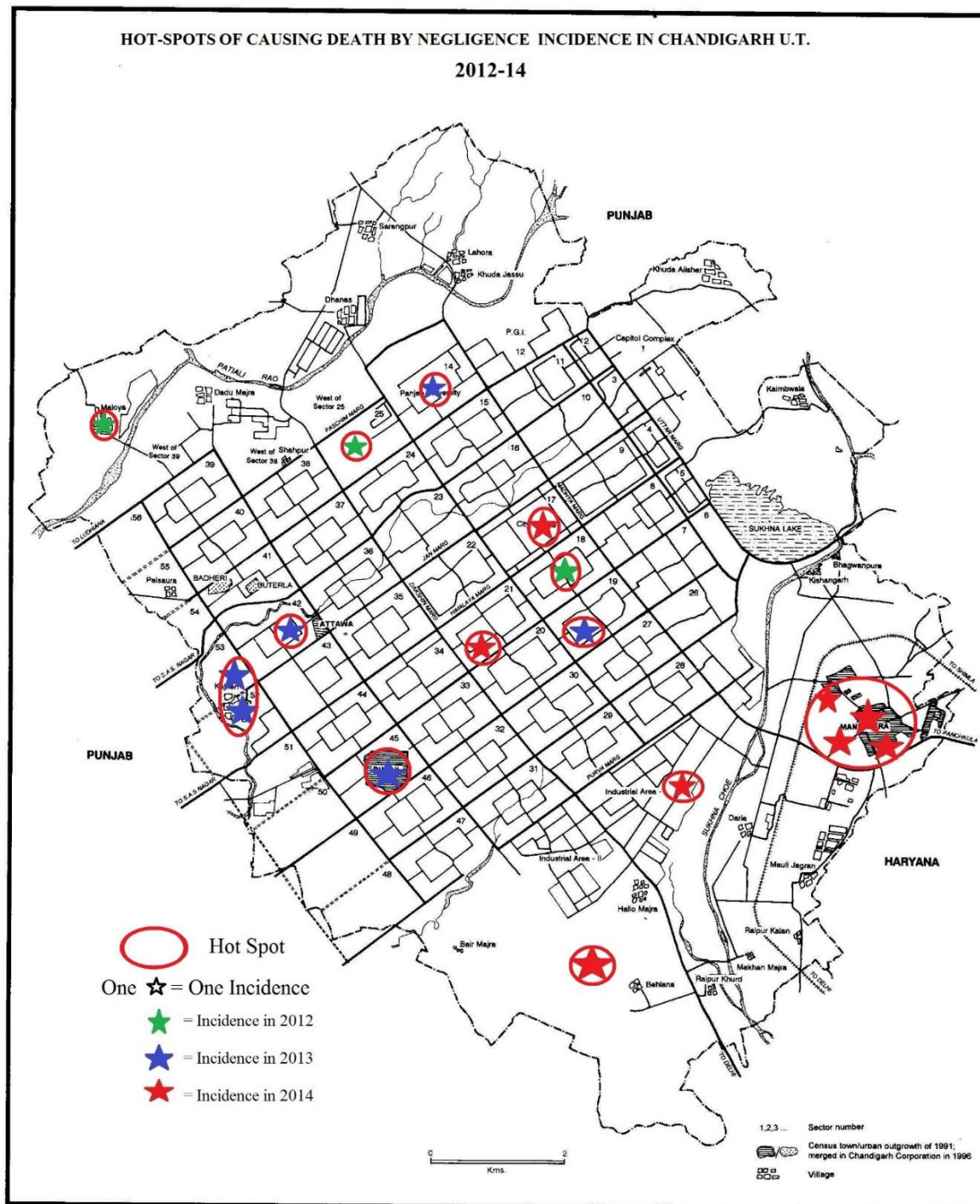
In 2014, again Manimajra and Industrial Area Phase-I are hub of attempt to commit murder incident in Chandigarh U.T in Manimajra the seven incidents occurs. The middle sectorial part of Chandigarh shows the lowest crime incident as compared to Outer sectorial parts of Chandigarh and Villages of Chandigarh. The major hot spots of attempt to commit murder in Chandigarh U.T. are Mani Majra (23), Sector-26 (8), Industrial Area Phase-I (8) and II(5), Burail(6), Dadu Majra Colony, Kajheri (4), Parsola, Sector-56(5), 25, 14, 15, 16, 17, 50, 51, 10, 11, 36, 47, 29, 30, 20 and 27.

MAP NO.8



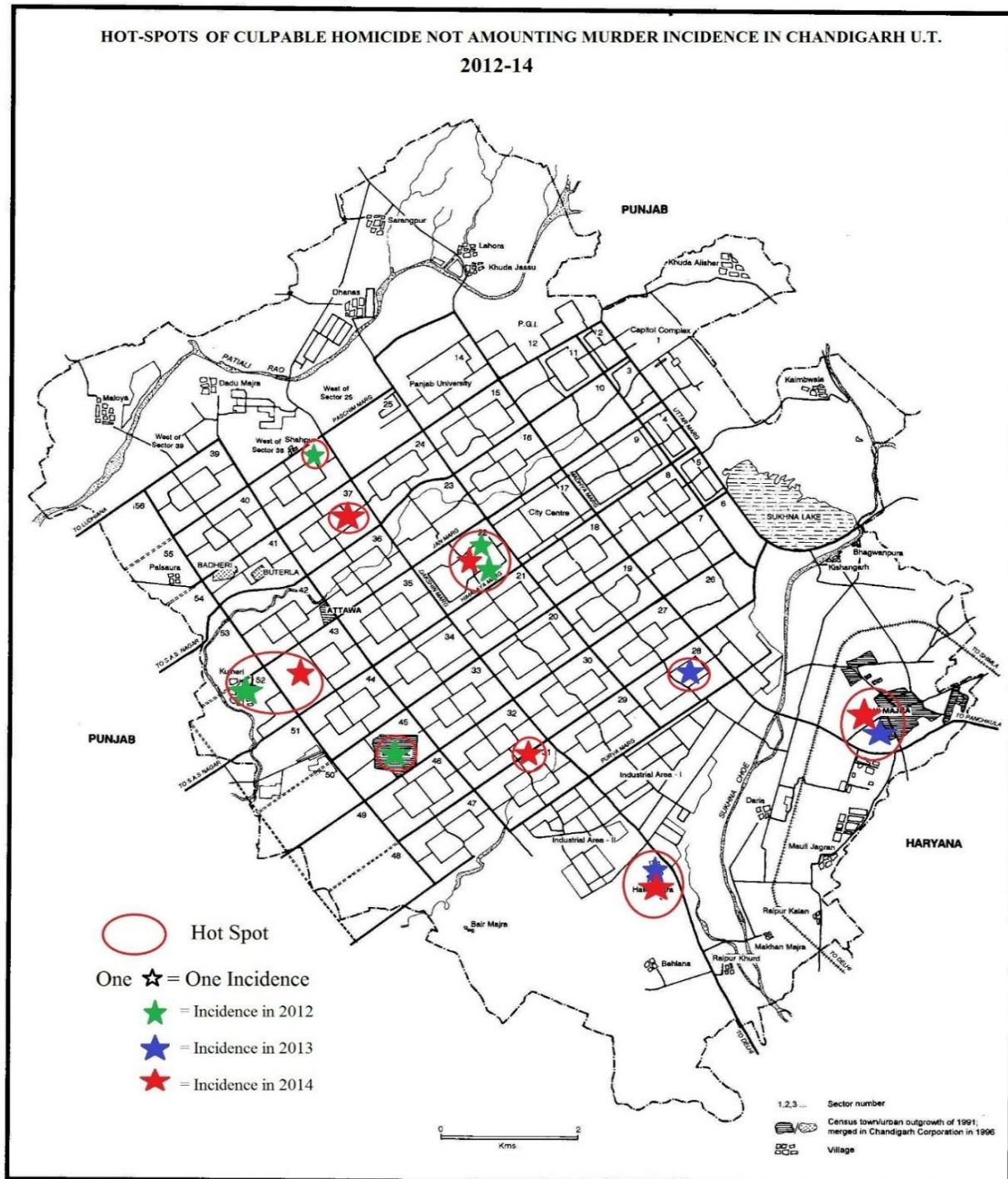
HOT-SPOTS OF CAUSING DEATH BY NEGLIGENCE IN CHANDIGARH U.T.:-

The map no.9 shows the hot-spots of causing death by negligence incidence are Manimajra (4), Airport, Sector-17, 18, 19, 21, 22, 14, 25, 53, Kajheri, Burail, Maloya and Industrial Area Phase-I.

Map no. 9:-

HOT-SPOTS OF CULPABLE HOMICIDE NOT AMOUNTING MURDER:-

The map no. 10 shows the hot-spots of culpable homicide not amounting murder incidence are Manimajra, Hallow Majra, Kajheri, Burail, Industrial Area Phase-I, Sector- 22, 26, 31, 37, 38, and 43. Sector-22 has three, Mani Majra and Hallow Majra two, Burail and Kajheri has one incidence of culpable homicide not amounting murder in Chandigarh U.T. during 2012-14.

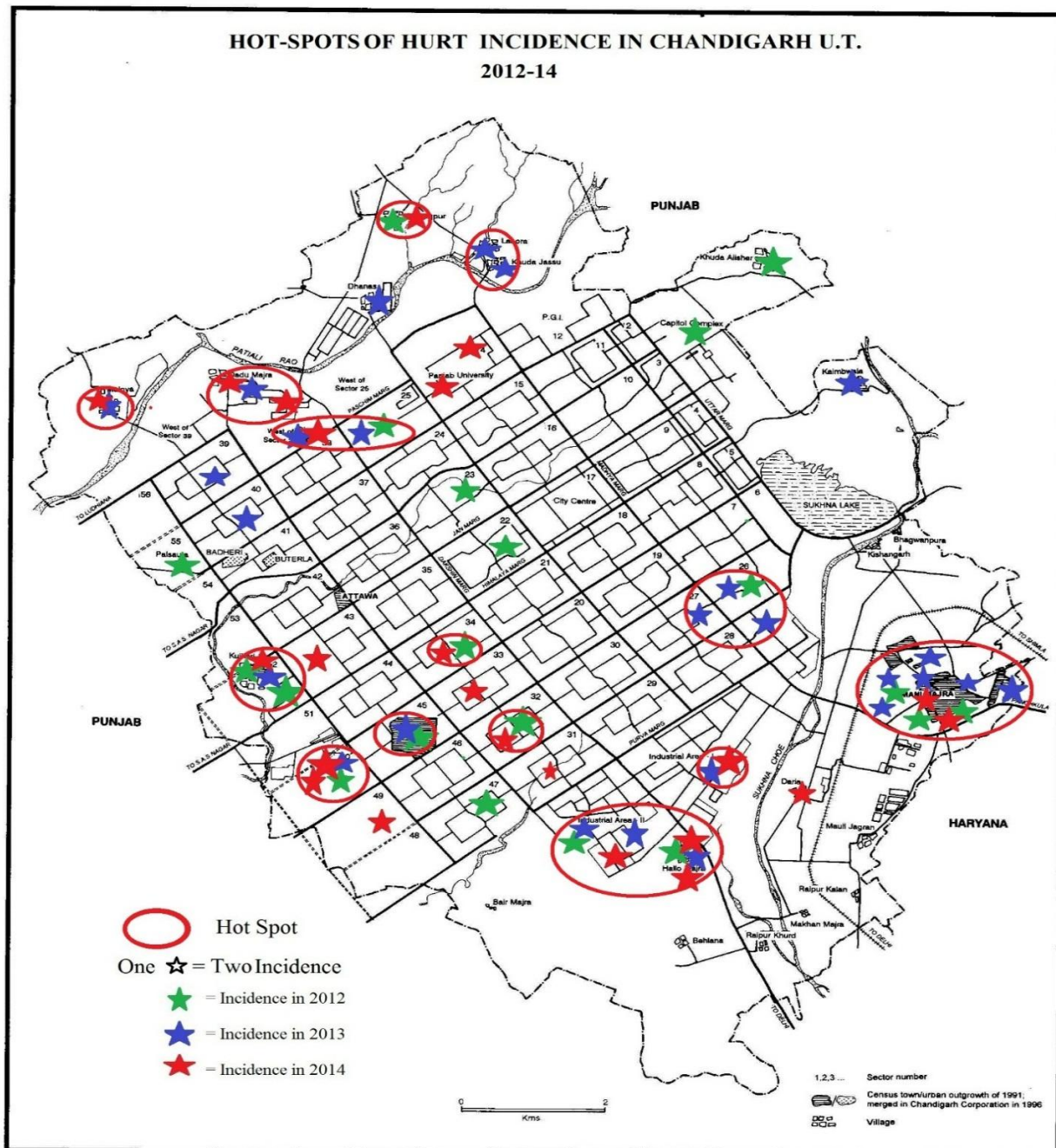
Map no.10:-

HOT-SPOTS OF HURT IN CHANDIGARH U.T:-

Map no.11 shows that during 2012, the hot-spot of hurt incidence are in Manimajra and on the fringes of Chandigarh. The Manimajra has five incidents. According to data the South-Eastern Chandigarh and South-West Chandigarh shows the highest crime incident as compared to other parts of Chandigarh. During 2013, the hot-spot of hurt incidence are Manimajra and on the urban fringes of Chandigarh. The Manimajra has six incidents. The incident of hurt shift from Manimajra to Sector-31, 32, 33, 34 belt and the urban fringes of Chandigarh as remain same in 2014. The South Chandigarh shows the highest crime incident as compared to other parts of Chandigarh.

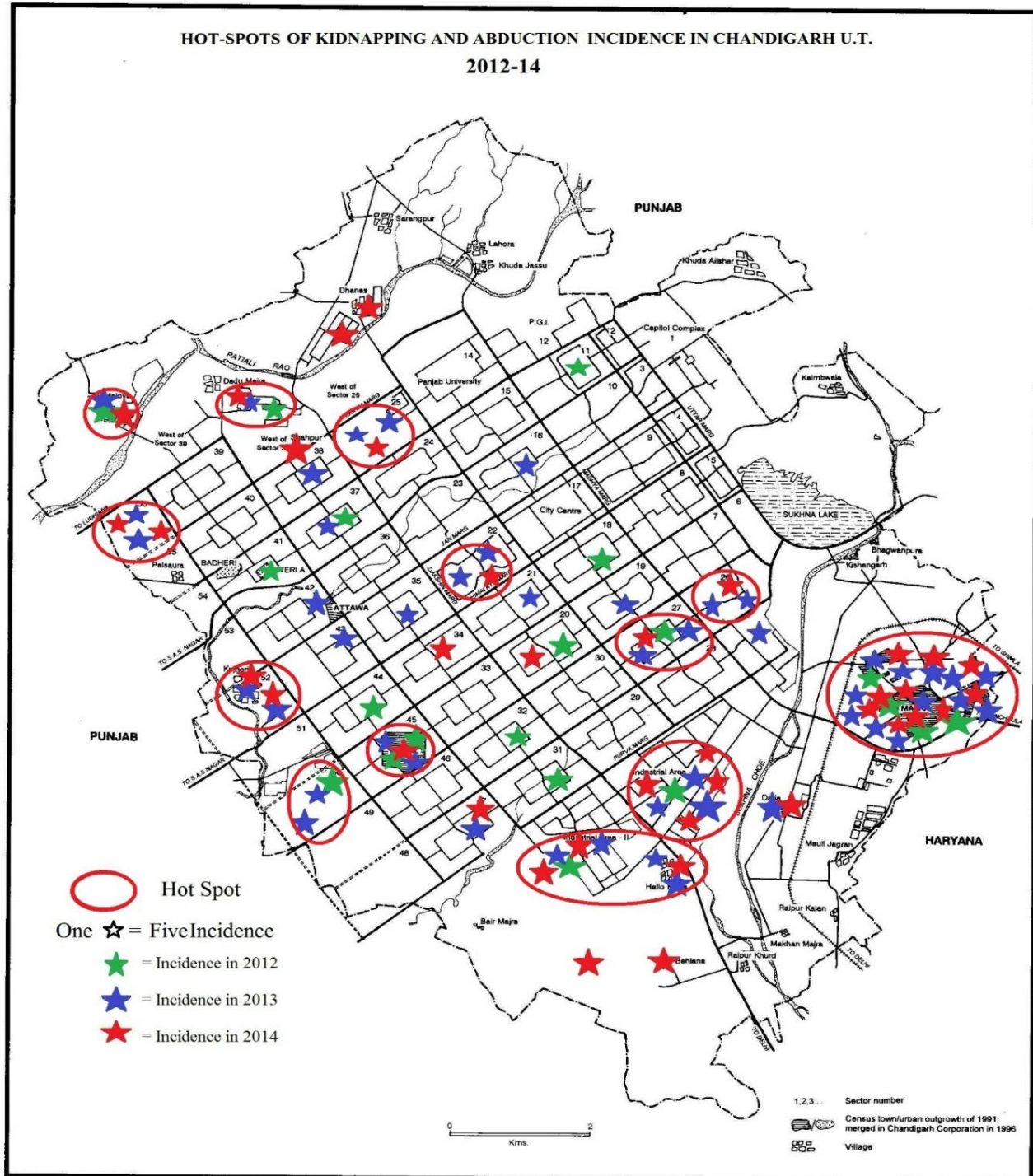
After the map no.11 analysis Mani Majra (22), Sector-50 (8), Industrial Area Phase-I (8), Hallow Majra (8), Kajheri (8), Dadu Majra Colony (6) and Sector-26 (6) are the major hot-spot of hurt in incidence in Chandigarh U.T. during 2012-14.

Map no.11:-



HOT-SPOTS OF KIDNAPPING AND ABDUCTION IN CHANDIGARH U.T:-

If we talking about the hot-spot of kidnapping and abduction in Chandigarh there is total 87 incidence in 2012 out of which 20 occurs in Manimajra and 5 in village Burail. Which means that the kidnapping hub during 2012 are Manimajra, Burail and Maloya. As far as Dadu Majra Colony, Parsola and Ram Darbar Colony are also major center of Kidnapping and Abduction. The Southern part of Chandigarh shows the highest incidence of Kidnapping and Abduction.

Map no.12:-

In 2013, there is total 261 incidence occurs out of which 63 occurs in Manimajra, 15 in Sector-26, 12 in Industrial Area Phase-I and 10 in both Burail and Hallow Majra. Which means that the kidnapping hub during 2013 are Manimajra, Sector-26, 12 in Industrial Area Phase-I and 10 in both Burail and Hallow Majra.

In 2014 there is total 188 incidence happened out of which 44 occurs in Manimajra, 19 in Industrial Area Phase-I, 10 in Sector-52, and 7 in Sector-56. Which means that the kidnapping hub during 2014 are Manimajra, Industrial Area Phase-I and Sector-52. Again the Southern part of Chandigarh shows the highest incidence of Kidnapping and Abduction.

After overall analysis of map no 12 which shows the hot-spot of kidnapping and abduction, Mani Majra is the biggest hot-spot with total 126 incidence, Industrial Area Phase-I (33), Burail (22), Sector-26 (19), Sector-56 (16), Hallow Majra, Maloya and Industrial Area Phase-I both are (14), Daria (12) and Sector-22, 25, 27 and 50. These are the major hot-spot areas in Chandigarh.

SUMMARY AND CONCLUSION:-

The major finding of the study and present some conclusions drawn from the analysis of data. Also an attempt was made to relate the findings with socio-economic and demographic factors that may be the reasons of crimes in Chandigarh

It is not a random event but tends to be unevenly distributed and has a spatial-temporal pattern. In my field work report the analysis of distribution of crime against body events over the physical space of Chandigarh.

THE MAJOR FINDING OF THE STUDY:-

High Crime Prone Areas: Mani Majra, Ram Darbar Colony, Colony no-5 and 4, Burail, Parsola, Dadu Majra Colony, Hallow Majra, Industrial Area Phase-I and II, Sector-26, 56, 52, 27, 50 and 38 West, Maloya, Kajheri and Dhanas.

Moderate Crime Prone Area: Khuda Jassu and Lahora, Khuda Ali Sher, Sector-10, 11, 12, 14, 15, 16, 17, 22, 29, 30, 31, 32, 33, 34, 43, 44 and 55.

Less Crime Prone Areas: Sector-1 to 9 are the less prone are of crime against body in Chandigarh.

Head wise Analysis:-

Murder Prone Areas: Mani Majra and Industrial Area Phase-II.

Attempt to Commit Murder Prone Areas: Mani Majra and Industrial Area Phase-I

Causing Death by Negligence Prone Areas: Mani Majra and Industrial Area Phase-I

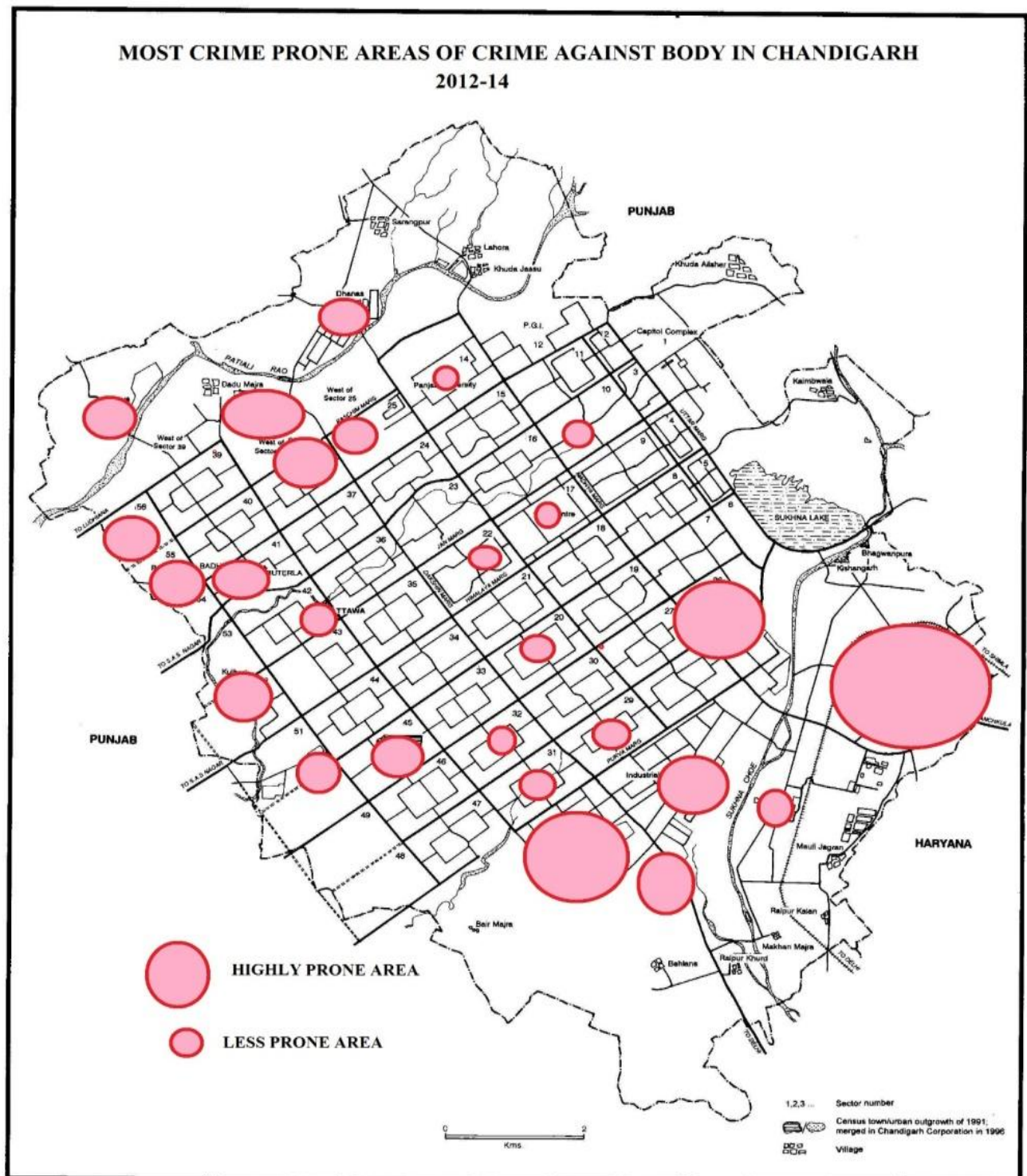
Culpable Homicide Not Amounting Murder Prone Areas: Mani Majra, Hallow Majra, Kajheri, Burail, Industrial Area Phase-I and Sector- 22.

Hurt Prone Areas: Mani Majra, Sector-50, Industrial Area Phase-I, Hallow Majra, Kajheri, Dadu Majra Colony and Sector-26.

Kidnapping and Abduction Prone Areas: Mani Majra, Industrial Area Phase-I, Burail, Sector-26, Sector-56, Hallow Majra, Maloya, Industrial Area Phase-I, Daria, Sector-22, 25, 27 and 50.

Conclusively, the Eastern, Western and Southern Part shows high, the Northern part shows low rate and the middle part shows the moderate rate of crime against body. The urban-rural distribution, the rural areas are more prone then the urban areas. The major locations which shows the highest crime incidence are Mani Majra, Burail, Maloya, Dadu Majra Colony, Parsola, Kajheri, Sector-56 , Ram Darbar Colony, Industrial Area- Phase-I, Phase-II, Hallow Majra, Daria, Sector-26 and Sector-25 are the major hub of crime. The spatial distribution of crime incidence they are not uniformly distributed. The South-Eastern Chandigarh and South-West Chandigarh show the highest crime incident as compared to other parts of Chandigarh. The Sectorial Part of Chandigarh have less number of crime incident but in the urban fringe and villages of Chandigarh more than 60% crime incident occurs.

Map No.13:-



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