

The Structure of Crime and Its Determinants in Delhi : A Socio-Spatial Analysis

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MARY JOS

**CENTRE FOR THE STUDY OF REGIONAL DEVELOPMENT
SCHOOL OF SOCIAL SCIENCES
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI - 110067, INDIA
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CERTIFICATE

This is to certify that the thesis entitled "The Structure of Crime and Its Determinants in Delhi : A Socio-Spatial Analysis" submitted by Mary Jos for the degree of Doctor of Philosophy (Ph.D.) is her original work to the best of our knowledge and may be placed before the examiners for consideration.

Gm chadha

G.K. Chadha

(CHAIRPERSON)

5/7/93

S Raju

S. Raju

(SUPERVISOR)

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MARY JOS

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Chapter I

INTRODUCTION

Every one has been aware of social problems and to identify each one in itself merit special attention from the wholly carefree nature of society but crime constitutes a major perceived problem to deal with specially for urban dwellers (Lee 1979). Criminology, a field of study with existence covering two centuries, has attracted a plurality of disciplines, however, the approach to the study of crime differs. A geography of crime involves interest in spatial structures, in environmental associations and in the special qualities of place (Herbert 1989).

In the present study the structure of crime and its spatial patterns in the Union Territory of Delhi are analysed. The study attempts to examine the determinants of spatial variations. The three levels in which the geography of crime is analysed are (i) where the offences occur; (ii) who the offenders are; and (iii) the role of police and media in their attempts at curbing and highlighting of the problem respectively.

In the following paragraphs some of the theories on crime are briefly mentioned to provide a backdrop for studying a geography of crime. This has been helpful in outlining a theoretical underpinning within which the present study is situated.

DEVELOPMENT OF CRIMINOLOGICAL THEORIES

Earliest criminological theories were related to determinism. Lombroso (1874) was a founding father of biological determinism in the latter part of the nineteenth century in a criminology now closely concerned with the causation of crime. He argued that criminal tendencies were hereditary and that 'born criminals' could be identified by their distinctive physical characteristics. In their simple mechanistic form, these theories were discounted at an early period, but versions of biological determinism have persisted. Sheldon (1949), Gluecks (1950) and Trasler (1963) explained delinquency as an outcome of certain physiological traits.

Some early work on the influences of physical environment on criminal behaviour can be noted. There were studies relating climatic variations and seasonality to crime with a frequent assertion that an increase in violent crimes took place during the summer and in property offences during the winter (Harries 1980). According to Herbert (1980), although statistical associations of this kind do exist, they rarely stand up to close examination and at best reflect variations in opportunities to commit crimes.

As environmental factors entered the criminological literature the measures adopted were social, economic and man-made rather than natural or physical. The ecology of the Chicago School stimulated many of these approaches (Shaw and McKay 1942).

The social disorganization theory predicts large number of offenders in areas and among groups which are typified by social disorganization (Herbert 1980). Mayhew (1862) and Shaw and McKay (1942) were associated with the theory of cultural transmission in which the delinquent tradition, 'nurtured' among some sections of society, could again be viewed in a territorial context.

The theory of social disorganization and cultural transmission provided the basis for a subcultural approach. A subculture suggests the existence of identifiable groups within which particular sets of knowledge, beliefs, values and normative codes of behaviour are typical. The various propagators of this theory are Cohen (1955), Miller (1958), Matza (1964) and Downes (1966).

Environmental criminology is one of the most important and latest theory developed on crime. This theory aims at crime prevention through environmental design. Some of the propounders of this theory are Jacob (1961), Jeffery (1971), Newman (1972), Davidson (1981) and Brantingham and Brantingham (1981). Microenvironment of crime, as a part of environmental criminology, focusses upon criminal events and the places where they occur. It also aims at crime prevention. Some of the scholars who dealt with the situational theme are Normandeau (1969), Lambert (1970), Clarke (1980) and Heal and Laycock (1986).

A FRAMEWORK FOR A GEOGRAPHY OF CRIME

Crime is basically an urban phenomenon not only as an outcome of combination of various factors but also a chain reaction of circumstances arising one after the other as a result of increasing urbanization. Poverty and various forms of social disparity in some form or the other can be perceived as common in both urban as well as rural areas. However, in rural context a relatively homogeneous set up with strong social bond in a close-knit society, where everybody knows everybody else, deters many people from committing various types of crimes. Another factor is the fear of social boycott and the shame that one feels when recognized by innumerable witnesses.

On the other hand the heterogeneous set up in urban areas leading to lack of social cohesion and increasing impersonality may tempt many people to commit various types of crimes. Secondly the public is less cooperative by way of witnesses due to the fear of getting entangled in the police web or fear of being killed by criminals. Thirdly, plenty of opportunities to commit various types of property crimes not only due to the above factors but also due to the open display of wealth by way of conspicuous consumption, shows very clearly the varying levels in disparity in the way of life among the rich and the poor within a locality and outside it. Thus, Davidson (1981) in his theory of 'environmental criminology' gave greater focus upon criminal events and the places where they occur. Since the major

assumption is that criminal events, especially those involving property, are reactions to opportunities in the environment.

After analysing the causes for urban crime the next step is to understand the causes of spatial variations within an urban area¹. Unlike the European and American cities, third world cities reveal a much greater complexity which reflects a greater admixture of land-uses and localised clusters of population groups (Herbert 1980). The peculiarities of various localities can be studied by analysing their physical set up, demographic composition of its residents and socio-economic set up of the people.

Within larger cities there exist identifiable districts which house disproportionate shares of known offenders. According to Herbert (1980) offenders respond to adverse residential circumstances. Geographers' major attempt is to understand these local circumstances which promote criminality and delinquency in some localities as against others. This can be done by an indepth study of both offender-prone and non-offender-prone localities. Some of the determinants taken to explain should be firstly the type of locality (which includes housing, land use and infrastructure); secondly the environmental problems as an

¹ According to Herbert (1980) it is necessary for geographers to study the peculiarities of a locality since the major objective of this type of work is to relate its findings to the practical needs of society and to the reform of both the local environments in which crime and criminals are found and the conditions which produce them.

outcome of the type of locality and thirdly the type of society as a consequence of its demographic structure, level of literacy and socio-economic set up.

A framework on the geography of crime would be incomplete without incorporating the role of police and media. According to Herbert (1987) geographers must be interested not only in social deviance and deviants themselves but also in those who seek to control, administer and serve the public. The role of police in the creation of official statistics is a key issue which must be confronted by a geographer who wishes to explain the spatial distribution of crime (Mawby 1989). Thus the variation in crime rates within an urban area can be in response to varying police facility. Secondly it is also probable that increasing crime over the years can partly be attributed to rise in police expenditure as some crimes are deliberately got committed in connivance with police so as to justify the need for the maintenance and continuance of the full police force without resorting to reduction or abolition or retrenchment.

LITERATURE REVIEW

It follows that a thorough explanation of the crime problem (offences and offenders) in any country, city or locality would incorporate not only the temporal and spatial aspect, but also the socio-economic aspect and micro-environments of crime including the role of police and media. At this juncture it is also important to note gender aspect in occurrence of crimes.

Although a large number of scholars, criminologists, geographers and sociologists have conducted studies on crime, specially in the Western context, crime against women have received much less attention both in western as well as in Indian literature on crime. Although there is a wide range of literature on crime, the review of literature attempted here is mainly to understand the crime problem with a geographical perspective and within the framework discussed above. The sub-sections are arranged accordingly. However, a certain degree of overlap is inevitable.

Temporal Trends

A temporal analysis of crime has been attempted by various scholars. Studies in United Kingdom and United States of America have brought forth similar conclusions. Firstly, crime rate is found to be increasing at a very fast pace in the 60's and 70's. And secondly greatest increases among more serious types of crime had been discovered. Mc Clintock and Avison (1968) analysed trends in the U.K. whereas Harries (1974) did the same for U.S.A. The former noted crime rate to be highest in the most affluent phase of development. Herbert (1980) after compiling the works of Mc Clintock and Avison and Criminal Statistics (1931 to 1978) found an accelerating rate of increase of crime in England and Wales. Property crime rates in 50's and 60's increased by more than 200 per cent in West Germany, Netherlands, Sweden and Finland and by over 100 per cent in France and Norway. Rates in Belgium, Denmark and Switzerland remained stable.

It is unfortunate that the youth of the world have taken up violence as a way of life rather than being engaged in some fruitful occupation. F.B.I. statistics revealed 90 per cent increase in serious crimes in U.S.A. during 1966-1971, whereas, in England and Wales it increased by 50 per cent (1972-76). Moynihan (1969) noted that although violent crime was not evenly distributed throughout U.S.A. but significant and disturbing increases in the true rates of homicide, assault and robbery have occurred in the sixties.

When compared to other countries the rise in crime rate in India is not at all alarming. The disparity perhaps reflects different definitions of what constitutes crime or perhaps differential capabilities in terms of police control and reporting. Most importantly, it may be a reflection of the general disparity in economic development between the Indian sub continent and other countries (Nayar 1975). According to Jos (1988) a regional pattern seemed to emerge on analysing the crime rate in the States and Union Territories of India. The rate of crime and growth rate of crime are highest in the central region followed by the southern region.

Factors Influencing A High Crime Rate in Cities

Crime is basically a social problem associated within large urban centres. Some of the ills of urbanization are congestion, pollution, unemployment, housing, transportation, crime, etc. Many scholars have agreed to the point that crime all

over the world is primarily a phenomenon of large cities (Moynihan 1969, Mc Lennan and Mc Lennan 1970, Wolfgang 1972 and Others). Smaller cities, suburbs and rural areas have lower levels of crime. Many writers have attempted to analyse the factors influencing high crime rate in cities.

Cities on the whole give a look of economic prosperity and technological advancement and high standard of living. This attracts people from rural areas and their unchecked in-migration to cities poses a number of problems of which one is an increasing rate of crime in large cities (1967 Report on World Social Situation, Wolfgang 1972 and Ficker and Graves 1973). For the unskilled illiterate and the poor, specially from rural areas, life in cities turns out to be a nightmare with increasing unemployment, poverty and destitution which ultimately forces many young people to commit property crimes (1967 Report on World Social Situation, Wolfgang 1972 and Denziger 1976).

Deviant behaviour and delinquency gets easily promoted in high densely populated areas of the city lacking specially in basic amenities and infrastructure (Winth 1928, Mc Lennan and Mc Lennan 1970, Wolfgang 1972, Taylor 1973, Leyhausen and Lorenz 1973, Denziger 1976 and Kulkarni 1981). Large scale migration from different parts of the country to the city leads to greater heterogeneity and impersonality (Wolfgang 1972 and Kulkarni 1981). This leads to lack of cohesiveness and stability of the local community in urban areas (Mc Lennan and Mc Lennan 1970 and

Wolfgang 1972). Parents are unable to provide children with a standard of morality due to lack of time and their own carelessness and thus gambling, prostitution, pickpocketing, snatching, etc., become a way of life for many urban youngsters. The sprawling metropolis of Delhi is found to have the second highest incidence of crime, crime rate and growth rate of crime among all the metro-cities of India (Jos 1988). Hallenback (1951) had blamed the cities for creating an environment which induced a higher crime rate.

Thus due to the above multiple factors the trend in the city social environment is likely to continue to contribute to the rising urban crime rate unless concrete steps are taken (and can be easily taken) by the government to profitably and effectively develop agriculture sector (specially through prompt main water distribution so as to check floods and droughts) and small scale rural industries to provide unlimited employment opportunities to the younger generation in the rural areas.

Spatial Patterns Of Crime

Although the geographers' interest in criminology is quite recent, criminology itself contains ample awareness of the significance of spatial patterns and even before the spatial ecology of 1920s there were consistent attempts to relate crime rates to areas and specific forms of urban environments and to examine their distributional qualities. A large number of scholars had tried to analyse the variation in the occurrence of

crime over space. Some of these are Guerry (1833), Shaw and Mc Kay (1942), Schmid (1960), Harries (1974), Kulkarni (1981) and Evans and Herbert (1989).

To explain the spatial variations it was necessary for these scholars to take the help of cartography to depict the areal variations. Thus they were able to find out the crime prone areas as against the safe areas. This is very important since it is only after the identification of problem areas it is possible to analyse the factors for its degradation. Two of the earliest works using cartography to show areal variations are as given by Guerry (1833) who tried to analyse variations in France and Mayhew (1862) in England and Wales. Some of the researchers who worked in the same manner in U.S.A. are Shaw and Mc Kay (1942), Harries (1974), Pyle (1974), Corsi and Harvey (1975). Shaw and Mc Kay's work were based on Chicago city, Pyle worked on Akron and Corsi and Harvey worked on Cleveland. But Harries tried to find out the maximum and the minimum crimogenic states for the whole of U.S.A. Herbert (1980) and Rengert (1981) also tried to make use of cartography to the maximum in explaining areal variations.

After the mapping of crime prone and safe areas many of the researchers found a decreasing trend of crime rate from the city centre. They explained that the central part of a city was prone to higher crime rate as against the peripheral areas because of greater density of opportunity, greater population mobility, cinema houses, clubs, bars, shopping complexes, etc.

Thus the explanation of crime rate with increasing distance from the city centre was attempted by a large number of researchers. Jones from his work on Liverpool in 1934, Schmid's work on Minneapolis city in 1937 and Shaw and Mc Kay from their work on Chicago in 1942 all came to the general conclusion of decreasing crime rate with increasing distance from the city centre. Opposite to this theory was proved by Caplow in 1949 from his study on Guatemala city, i.e., an increasing crime with increasing distance from the city centre. Some of the more recent works along these lines were done by Lee and Egan (1972), Harries (1974) and Carter (1974).

The varying patterns of crime in space have to be provided with a set of explanations. Thus geographers and criminologists have tried to evolve a number of theories and explained the variations with the help of some factors. According to Herbert (1980) spatial processes in themselves are rarely explanatory processes and it is always necessary to probe deeply into social, political and economic forces at various levels of analysis. One of the most common factors taken to explain the variations was that of climate and season. According to Guerry (1833) and Dexter (1904) there is a positive correlation of crime with that of climate. In fact Guerry found that French crime rate against persons was more in summer whereas property crimes were more in winter. Harries in 1980 in attempting to analyse some of the early work on the influences of physical environments on criminal behaviour found that those studies frequently asserted

an increase in violent crimes in summer and property crimes in winter. According to Jos (1988) in the study of Delhi, the influence of climate or season does not play a very significant role in the occurrence of crime.

Generally it was found that urban areas with plenty of wealth attracted criminals to commit property crimes as well as other crimes (Guerry 1833, Mayhew 1862, Scott 1972, etc.). This is because the urban areas with its shopping centres attract criminals to those localities (Corsi and Harvey 1975). The heterogeneous nature of the localities in the cities also promote a higher crime rate (Winchester 1978 and Kulkarni 1981). Some of the crime variations within the city can be explained by the proportion of rural areas in various localities of the city. Wherever the proportion is high there the crime rate is less (Vold 1941, Caldwell 1959 and Mc Clintock and Avison 1968). According to Hussain (1991) the marked disparity in housing of the rich and the poor within an area promotes a higher crime rate. Thus, socio-economic status, demographic structure, overcrowding, literacy and quality of housing are all found to have a positive bearing on the crime rate as explained by Lander (1954), Chilton (1964), Gordon (1967) and Cox (1973). Besides these factors Clinnard (1962) tried to explain higher crime rate in neighbourhoods lacking in social cohesion and stability. On the other hand Lambert in 1970 in his study on Birmingham noted a higher rate of crime against persons arising from quarrels either with landlords or with other tenants or simply domestic quarrels.

Repetto in 1974 analysed the safe areas of a city from the point of view of better security.

Crime Against Women

A number of works had been done on crime against women but not many scholars had attempted to analyse the spatial analysis which is the ultimate aim of geographers. Different reasons and theories have been hypothesized by many researchers regarding this problem. According to Singh (1990), the patriarchal system of society giving greater powers to men over women is a major cause of various types of crime committed against women. It is true that women do not enjoy equality with men in social economic, political and cultural sectors. According to Nandy (1980) even men's cruelty towards women is no match for the cruelty of women towards women. According to Singh (1990) a serious crime like dowry death is on the rise in India however under reported the data may be. Carlson (1987) in a paper on wife battering wrote that it is only recently that domestic violence has come to the attention of scholars and researchers. Researchers like Dobash and Dobash (1978) viewed violence as an indicator of the deterioration of the social order. On the other hand Blat (1984) considered this type of deviant behaviour as an outcome of patriarchal family system prevalent in the world for centuries and thus wife beating till recently was not considered as deviant behaviour on the part of men (Pagelow 1981). Ahuja (1986) gave the reasons of poverty and unemployment as leading to

wife battering besides alcoholism. Many scholars have given importance to the sub-culture of violence theory which claims that the life circumstances of certain groups trigger violence as a relatively commonplace outcome of social interaction (Miller 1948, Cohen 1955, Cloward and Ohlin 1960 and Ahuja 1986). On the other hand Lewis (1983) explained violence in terms of the culture of poverty.

Among the types of crimes against women rape and dowry death are of much significance in the Indian context. According to Moynihan (1969) rape tends to become acts of passion among intimates and acquaintances. According to some studies by U.S. scholars like Radzinowicz (1957) and Amir (1971), majority of offenders and victims of rape come from the same age group and offenders are mostly from lower occupational and lower social status. On the other hand Ahuja (1986) found that in India the victims and the offenders are not from the same age group. Victims are much younger than the offenders and both come from mixed economic groups but poorer women run greater risk of being raped. Ahuja attempted to find out the place of occurrence of rape and found that 24 per cent of crimes occurred in the victim's house and 17 per cent in the offender's house and 12 per cent in the offender's relative's house and the remaining 47 per cent occurred in various distant places. On relating rape cases with seasons, months and time he found an insignificant relationship which is also proved by other Western scholars like Bonger (1916), Vonhentig (1948), Radzinowicz (1957) and Amir

(1971). On the issue of bride burning Ahuja found that it is a typical upper class problem but statistical analysis did not reveal a positive trend in terms of income. According to him not only the joint structure of the family but its composition is also important in bride burning cases.

Spatial Patterns Of Criminals

Many researchers have not only studied crime rates but have also tried to analyse the reasons for a large number of criminals coming from a particular area or rather why delinquency is more rampant in some parts of a city or a state as compared to others. According to Burt (1925) the highest rates occurred adjacent to central commercial districts with low rates in the suburbs. Whereas, according to some the physically deteriorated parts of a city attract large number of criminals and become the breeding ground of delinquency, ills and vice (Mayhew 1862, Schmid 1960, Tobias 1967 and Strange 1980). Some have given the reasons for low offender rates in owner-occupied areas as against high rates in rented areas (Rex and Moore 1967 and Baldwin and Bottoms 1976). Some scholars have given importance to poorer sets of values and attitudes being imparted to the young ones by parents and relatives. There were laxer attitudes towards misbehaviour and greater tendency to condone illegal acts (Herbert 1976). According to Jos (1988) school curriculum should include not only educational, cultural and physical activities but emphasis should also be on the proper development of

character of children. Some scholars have attributed to poverty, unemployment and unmarried males in urban areas as the cause for large number of crimes (Shaw and Mc Kay 1942, Schmid 1960 and Herbert 1977). Thus according to Willie (1967) and Pyle (1974), unstable family life and poor socio-economic conditions arising due to the above mentioned problems promote delinquency and criminality. Some other reasons for high offender rates are substandard housing, poor social environment, low family status, and cycle of poverty (Gittus and Stephens 1973 and Rutter and Madge 1976). Several theories have stressed the importance of education and actual attainment in schools (Cloward and Ohlin 1960 and Hargreaves 1967). According to Gill (1977) Town Planning and Housing Department policies are the main reasons for producing streets like for example Luke Street which later became breeding area of criminals and delinquents. According to Wilson (1963) people after prolonged stay in problem area become unconcerned about the level of crime and have no intention of moving out although they do feel neglected in terms of housing, sanitation, recreation, etc. According to Herbert (1980) poverty, poor social facilities, lack of open space and poor shopping have been recognised as conditions out of which delinquency emerges. According to Cloward and Ohlin (1960) delinquency and crime are a reaction by working class youth to their failure to achieve a better standard of living and to provide better facilities for the young ones. Lower class males when placed in a situation of stress or in a situation in which opportunities for advancement

through legitimate channels are blocked then they resort to crime.

Environmental Criminology

The school of environmental criminology came into being with the works of Davidson (1981) and Brantingham and Brantingham (1981). It is one of the most important and latest theories developed on crime. It offers an example of an approach to the study of social deviance which is less concerned with theories of causation and more focussed on measures for prevention and control and more concerned with what Davidson (1981) termed 'coping with crime'. Crime prevention through environmental design has been hailed by its practitioners as a product of the 20th century, its pedigree is usually traced back through Newman (1972) and Jeffery (1971) to Jane Jacobs (1961). Environmental criminology focusses upon criminal events and the places where they occur, the thrust is the offence rather than the offender. One assumption is that criminal events, especially those involving property, are reactions to opportunities in the environment. Environmental criminologists argue that all people are likely to commit some kind of offence and that there is no sharp distinction between criminal and non-criminal populations. Because of a particular assemblage of opportunities, access, low surveillance, weak control or poor security, some places are more vulnerable and become the loci of criminal events. These places are 'vulnerable areas' and although they may vary by type of

offence, there is a generally higher likelihood of being victimized in such areas (Herbert 1987). Thus the first step in environmental criminology is the identification of vulnerable areas.

One of the merits of environmental criminology is its close affinity to crime prevention policy as an aim of policing strategy. If some of the things which make for vulnerability can be identified, this is clearly an aid to policy prescription (Herbert 1987).

The study on micro-environment of crime is a part of environmental criminology but only at a micro level. The earliest work on micro-environment was done by Mc Clintock (1963) when he developed a situational theme to analyse the occurrence of violence mainly because the study of crimes cannot be separated from the settings in which they occur. Later Normandeau (1969) and Lambert (1970) further analysed the situational theme. Normandeau's study was on robberies whereas Lambert's minor disputes. Some scholars found that situational theme can play an important role in crime prevention as clear from the later works by Clarke (1980) and Heal and Laycock (1986). The action of the criminal and the reaction of the victim varies with the setting. It can either be the family environment or job environment as explained by Monahan and Klassen (1983). Poyner (1983) has given importance to the physical properties of settings in the form of space, crowding, design features, etc. According to Davidson

(1989) privacy plays an important role in the occurrence of crime. For victims privacy reduces opportunity for help whereas for the assailant privacy increases security and reduces fear of being caught. Thus the assailant in private is in a more powerful position.

Role Of Police

The role of the police in the creation of official statistics is a key issue which must be confronted by any geographer who wishes to explain the spatial distribution of crime (Mawby 1988). According to Fyfe (1991) since policing is an inherently territorial activity which both affects and is affected by the social and political environment, it is a subject which is particularly suited to study from a geographical perspective².

It is very important to study the police expenditure of a city while studying its crime rate. For it may be possible that the increasing crime rate may be very often attributed to the inadequacy of the police force or due to paucity of funds.

Harries (1980) notes that the relationship between law enforcement and levels of crime has attracted a fairly substantial literature. According to some scholars like Ficker and Graves (1971), high crime rate can be attributed to lack of

² The detailed analysis of various works by scholars on this topic has been given in the Limitations of the Data towards the end of this chapter.

police strength. Whereas Welford in 1974 stated that police personnel do not account for much variation in crime rate and that crime rates are largely a function of demographic and social characteristics. Mawby (1979) too came to a striking conclusion that there is no evidence to suggest that police involvement in any way creates difference in crime rates between different residential areas.

According to a study by United Nations (1990) one of the greatest limitations of police data is that in areas where there are more of police officers it has been found to be prone to more arrests, i.e., the larger police force creates the impression of a larger crime problem by arresting more suspects. It is thus extremely difficult to determine how much of the increase is genuine and how much is the result of policies adopted in the different criminal justice agencies.

Out of the total police strength a large number of them are involved in police patrolling. Patrol strategies have been based on two unproven, widely accepted hypotheses according to the police foundation study (1977). First, that visible police presence prevents crime by deterring potential offenders and second, that the public's fear of crime is diminished by such police presence.

In 1954 in New York an experiment was conducted called as 'operation 25'. It had among its various goals the purely experimental purpose of determining what would constitute

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adequate policing in a busy New York precinct (Ficklin 1970). With an increase in various categories of police officials during the 4 month experiment period it was found that felonies decreased by 55.6 per cent. But the number of misdemeanours actually rose and juvenile referrals doubled and summonses for traffic offences also showed an overall increase (Ficklin 1970).

In noting the impact of operation 25 in reducing certain crime levels Ficklin (1970) concludes that 'operation 25' was, in essence, a practical test of police theory, the theory being that an adequate police force properly supervised, can effectively reduce crime and maintain law and order, peace and security in an area of any kind. The experiment was an unqualified success.

On the other hand Greenberg, Kessler and Loflin (1983) found no evidence in their data that police patrolling reduces violence or some types of property crimes. This is because many crimes like homicide and burglary occur indoors, where police, who patrol in public, can not see.

A large number of crimes are committed in the streets and the criminals are sure to see that the police officer is out of sight to avoid being caught. But general knowledge that a police force exist may well discourage many people from breaking the law. Therefore, abolition of the police could be met by sharp increases in crime (Herbert 1980).

Direct and indirect costs of crime in terms of human, social and economic losses seriously distort development priorities and goals. Expenditures on the maintenance of law and order divert funds urgently needed in other sectors and are a heavy burden on national budgets (U.N. - 1990).

According to Hallenback (1951) the detection of crime and apprehension of criminals are complicated, technical and expensive in modern cities. They involve such things as a large and well organized police, a staff of detectives, pickpocket squad, homicide squad, training schools, technical research laboratories, etc.

Welford (1974) from his study on 21 large urban centers in U.S.A. concluded that the current range of police budgets and personnel does not account for much variation in crime rate and that crime rates are largely a function of demographic and social characteristics.

Jones (1974) has written a paper entitled, "The impact of crime rate changes on police protection expenditures in American cities". According to him, how much more or less cities spend on police protection this year has nothing to do with how many more or less crimes occurred in the last one, two or three years. He reasoned that may be the decision makers consider the crime data invalid or they do not consider the causal relationship between shifts in police protection expenditures and

later changes in crime incidence. American cities are not relying on past crime incidence experience in making present decisions on police protection expenditures.

ANALYTICAL FRAMEWORK AND SIGNIFICANCE OF THE STUDY

Herbert has argued that as geography of crime develops, it can have no separate existence either from criminology or from human geography. While various developments in criminological theories help in evolving theoretical bases and conceptual positions, human geography including that of crime continues to focus upon pattern, process and response in local environment as the spatial outcomes of social, political and economic processes at various levels. The three levels in which a geography of crime has been analysed by Herbert are the patterns of offences in the vulnerable environment, the problem areas where the offenders live and the agents of control (Herbert 1980 and 1987).

In sum, crime is an outcome of complex interplay of various environmental, demographic, social, economic and political processes and has to be viewed in that light. The present study can be placed within this analytical framework as provided by Herbert.

On the basis of areal analysis of offences, vulnerable areas can be identified. Some hypothesis can then be formulated to explain spatial interaction. An analysis of those who commit crime, i.e., offenders, also form a significant part of a

geographical study on crime. From the study of the residences of the criminals one can see what kind of socio-economic conditions prevail there and what triggers the criminal atmosphere. The availability of infrastructural facilities and public services in these localities would also explain the high offender rates. The available literature on crime in the Indian context essentially deals with the first aspect. The present study assumes significance because it not only deals with socio-economic aspect of crime, but also the individual offenders. A virtually absent component in the extant literature is that of the role of media in reporting of crimes which this study attempts to define. Additionally, the role of police which has an important bearing on crime due to varying police strength and police expenditure has been analysed in the present study.

OBJECTIVES OF THE STUDY

- (1) To identify a macro-level pattern of crime over the years in the major metropolitan cities of India and to situate Delhi in a proper perspective.
- (2) To look at the spatio-temporal variation in crime within Delhi Union Territory.
- (3) To identify a set of socio-economic parameters so that the existing scenario of crime can be explained in Delhi Union Territory.

- (4) To identify the localities where there is a predominance of criminals and to see what kinds of socio-economic conditions and infrastructural facilities prevail there which might trigger the residents' propensity to crime.
- (5) To assess whether the perception of crime by the mass media is biased towards high income areas.
- (6) To look at the interface between police strength and expenditures on the one hand and crime pattern of Delhi on the other.
- (7) To identify the micro-environment promoting or inhibiting the occurrence of crime.

HYPOTHESES

Since crime is an outcome of multifarious relationship with demographic, social, economic, environmental and infrastructural processes, there may be a large number of hypotheses to be tested. However, from the theoretical understanding gained from the discussion of the analytical framework of a geography of crime and from the review of literature there emerges the following six major hypotheses. (In order to expand each hypothesis it is further broken into components as below).

- 1 Demographic characteristics is related with the occurrence of crime and the emergence of crime-prone areas :

- (i) A disproportionate sex ratio has a bearing on the occurrence of crime; and
 - (ii) Concentration of offenders is greater in heterogeneous low class areas where the dependency ratio and average family size are also large.
2. The spatial variation in offences and offenders is an outcome of varying social conditions :
- (i) Crowding has a positive relationship with crime since high and low densely populated localities are prone to different types of crime;
 - (ii) Level of literacy has a bearing on crime;
 - (iii) Percentage of scheduled caste population has a bearing on crime. Further, a highly segregated distribution of scheduled caste and non-scheduled caste population tends to increase the crime rate; and
 - (iv) Breakdown of the traditional family setup (joint family) and declining importance of religion lead to higher proportion of criminals.
3. The spatial variation in offences and offenders is an outcome of varying economic conditions :
- (i) Nature of labour force participation affects the rate of crime and criminals; and
 - (ii) The rate of delinquency is high in areas dominated by substandard housing.
4. Substandard environmental conditions encourage criminal

behaviour. Further, micro-environment of crime in terms of its functional properties also has a bearing on crime :

- (i) Lower the level of perception of environmental problems (due to lack of basic amenities and infrastructure) higher the offender rate; and
 - (ii) Micro-locational setting of crime plays a significant role in attracting criminals from different age groups as well as promoting occurrence of certain types of crimes.
5. Infrastructural facilities in terms of police have an important role in the creation of official statistics of both offences and offenders :
- (i) Rate of crime has a positive relation with the police facility and the relationship works both ways;
 - (ii) The rise in police expenditures over the years has a positive relationship with that of crime; and
 - (iii) Repeated criminals form a higher share among the total traced criminals.
6. The portrayal of crime by mass media is biased towards some areas of the city as well as towards certain categories of crime.

DATA BASE

The present study is based on primary as well as secondary sources. There are three types of data in the secondary

sources. One set gives detailed information regarding population and various socio-economic variables that have bearing upon crime pattern. Second set pertains to details regarding various aspects of crime. And the third pertains to maps.

A. For the first set, data have been drawn from the following sources :-

- (1) Data regarding population and socio-economic variables for Delhi have been taken from District Census Handbook, (DCH), Delhi, Census of India, 1981.
- (2) Data regarding population and socio-economic variables for the metropolitan cities have been taken from METROPOLITAN CITIES IN FIGURES (39th Annual Town and Country Planning Seminar, Calcutta, 1991).
- (3) Data regarding population of metro cities including Delhi has been taken from PROVISIONAL POPULATION TOTAL, India, Census of India 1991.

B. From the following sources it was possible to get data pertaining to crime :-

- (1) All the following data on crime has been taken from Police Headquarters, I.T.O., New Delhi :-
 - (i) Total crime of Delhi, excluding crime against women, 1980-1988 (with different categories).
 - (ii) Districtwise crime of Delhi 1980 to 1988.

- (iii) Total crime against women for Delhi, 1985-1989 (with different categories).
 - (iv) Computer print outs of traced crimes and the bio-data of the criminals for various categories of crime (1990).
- (2) All the following data on crime has been collected from the 9 District Headquarters :-
- (i) Monthwise crime for 1989 collected at police station level.
 - (ii) Crime against women 1979-1989.
 - (iii) Police Expenditure Districtwise 1980-1989.
 - (iv) Police strength at district level (1980-89) and at police station level 1979-1990.
- (3) Police stationwise crime for different categories collected from 100 police stations of Delhi (1979-1989).
- (4) For newspaper reporting The Times of India newspaper for the year 1989 was consulted.
- (5) Data on crime in metropolitan cities was taken from Crime in India, (1960, 1970, 1980, and 1989), a Govt. of India Publication. From the same publication Crime in India (States and UTs) was taken for the year 1989 and also data on crime against women in metropolitan cities (1985 - 1990).

C. Maps were collected from the following sources :-

- (1) The map showing 365 villages, charges and census towns of Delhi was taken from the dissertation. A Socio-Spatial Analysis of Crimes in India - A Case Study of Delhi by Jos, 1988.
- (2) A map showing 100 police stations of Delhi was collected from P.H.Q., I.T.O., New Delhi.
- (3) A Road Map of Delhi published by Survey of India.
- (4) Delhi City Map published by India Tourism Development Corporation, Government of India.
- (5) A Map of India showing metropolitan cities was taken from Census of India, 1991.

For the primary data 24 localities of Delhi were selected and surveyed for the purpose.

LIMITATIONS OF DATA

Official statistics on crime deals basically with two types of data : one that deals with offences and the other with offenders. The question raised by scholars and scientists who deal with crime is whether this official data represent the true picture of the given area or does it only represent a fraction of the problem.

Many scholars working on crime have analysed various limitations of the crime data. Some of these limitations were found to be true in the present study. Limitations arise firstly because many offences are neither reported nor entered in official records due to various reasons. This type of under representation may be due to geographical and communication factors as reported by Nayar (1975) or due to the discretionary decisions used by the police at the first point of contact in individual cases. According to Dev (1987) the police refuse to register about 65 per cent of crime cases in the national capital but on interviewing some Police Officers of Delhi Police it was found that according to them there is 100 per cent reporting and that the policemen on duty has to enter each case in official records³. Secondly in a large metropolitan city like Delhi where the literacy rate is quite high it is very rare that crimes are not reported except in the case of social crimes⁴. Even Singh (1990) stated that although rape is a serious social crime it is the least reported criminal offence in India mainly because of the reluctance of the parents to publicise the event.

Among other crimes limitations of the data arise due to various reasons such as murders are treated as suicides or

³ However, some Police Officers contradicted this statement by stating that some pruning is done in the cases of reporting as otherwise rising crime can invite too many questions in the Parliament to face with.

⁴ Personal Communication.

accidental deaths and kidnapping cases are treated as cases of missing persons. This can be called as mis-representation of the data. White collar criminals escape from the clutches of the police and such crimes are not even recorded.

According to the Police Officers their work is towards crime prevention and crime detection. Patrolling is the method with which many of the crimes are prevented due to greater visibility; and crime detection is done by investigating officers who try to verify the crime and its seriousness and also try to catch the criminals. But there is such a shortage of staff that they find it extremely difficult to do their work as thoroughly as they would have liked to. Secondly due to financial problems there is not enough money for the proper use of vehicles and therefore the efficiency is also less.

Police know more about offences and less about offenders since only about 50-60 per cent of offences are traced within a span of one year. Thus the recorded information on these offenders does not show a clear picture since many a time 20-30 per cent of the cases are solved in the later years. This is one of the major limitations of this study since data on traced crime have been taken only for one year due to lack of availability of data. Another limitation regarding traced crime according to police officers is that there should be greater specialization and officers should be trained according to the type of offence that they have to trace. The policemen are also biased towards

repeated criminals (Russel 1973). This biasness may inadvertently lead to imbalances in the representativeness of the official data (Herbert 1980).

However, this study is confined to only one city and the factors behind the biases are not unique to any particular area within the city. Therefore it may be contended that official statistics may be under reporting crime (in terms of numbers) as a whole but it would not affect the relative level that much.

METHODOLOGY

In this study both the qualitative and quantitative methods have been used. This section of the chapter is dealing with the various adjustments that have to be done prior to computation of analysis. Secondly, not only crime incidence but rate of crime has also been calculated. The explanation for this is also given in this. Thirdly, it is dealing with the categorisation of the various types of crimes that have been used in this study. Fourthly, although census 1991 had been published, the information on Delhi was available only for the Union Territory as a whole and not for the various villages and charges. Thus population projections for 1991 had to be done at district and police station level. At the time of completion of the thesis, the data had become available even at charge and village level. Fifthly, correlation analysis had to be used at various stages. Thus the explanation for this is given in the last but one part. Last part is dealing with the collection and

compilation of information on traced criminals and the method of sampling used for the same and collection and compilation of various types of crime from the newspaper to be used in the analysis of newspaper reporting.

In 1989 with increasing population pressure the police department re-organized this and were functioning from one Police Headquarters located at I.T.O., New Delhi under which there were 9 police districts and these 9 police districts were further subdivided into 100 police stations. Since this is a geographical analysis it was absolutely necessary to obtain a map identifying the jurisdictions of the 100 police stations. With the cooperation of Mr. M.C. Gupta, Crime Branch, PHQ, New Delhi, it was possible to obtain the map showing the demarcations of the various police stations (Fig. 1.1 and Appendix 2).

Although this map is of much importance it is not of much use to geographers if the dependent variables can not be related to the demographic and socio-economic variables. In the explanation of the variation of crimes it was therefore necessary to analyse the demographic features like population, literacy and economic features like unemployment, under-employment and others. This information is available in DCH of Delhi for both urban as well as rural areas. Urban areas are divided into charges and census towns; and charges are subdivided into blocks and the rural areas are divided into tehsils and further divided into villages. Although the socio-economic and demographic data were

DELHI

ORIGINAL POLICE STATION BOUNDARIES¹

1989

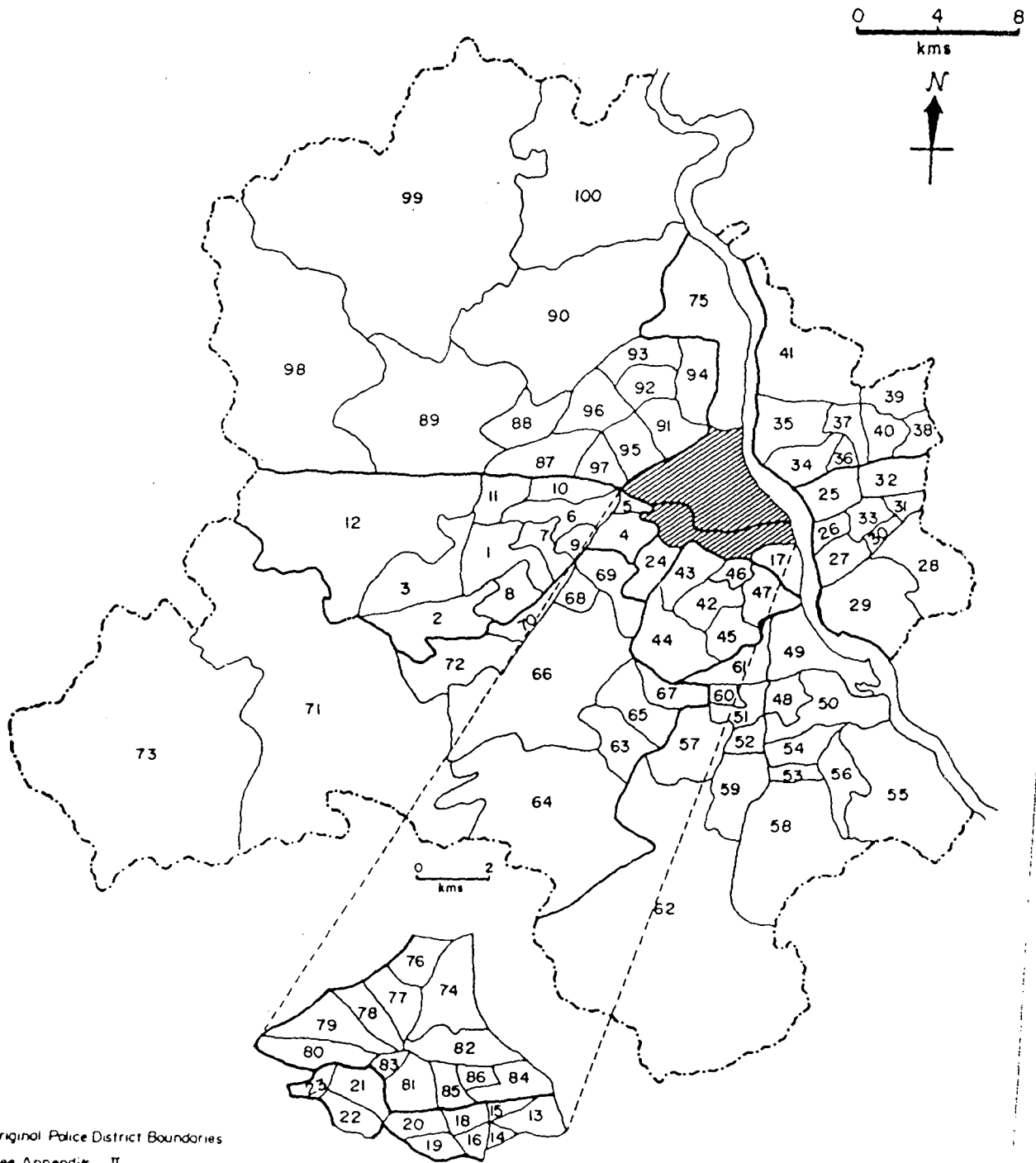


Fig 1.1

available at charge and village levels which are about 365 in all, to compile this information at police station level it was necessary to take the help of the map showing charges, villages and census towns of Delhi. This map had been taken from the dissertation entitled "A Socio-Spatial Analysis of Crimes in India - A Case Study of Delhi", by Jos, 1988. (Fig. 1.2 and Appendix 1). Secondly the DCH of Delhi 1981 was also used since at the back of it information was given regarding the list of localities included in each charge. Thus on super-imposing the charge and the village map by the police station map of Delhi and with the information given in DCH 1981 it was possible to identify the charges, villages and census towns that constituted the area of each police station (Appendix 2) and thus a new map was created for the 100 police stations of Delhi after a little bit of adjustments (Fig. 1.3 and Appendix 2). Thus it was possible to obtain data at police station level on workers, literacy and others by adding data for individual charges and villages according to their location in respective police stations. This made it possible to undertake an exercise on correlation between various census data with that of crime.

In order to do a temporal study of crime from 1979 to 1989 it was necessary that some data adjustments had to be undertaken. This was because in 1979 Delhi consisted of 60 police stations under 6 police districts and by 1989 the number rose to 100 police stations under 9 police districts. To make the data

DELHI CHARGES, VILLAGES AND CENSUS TOWNS¹ (1981)

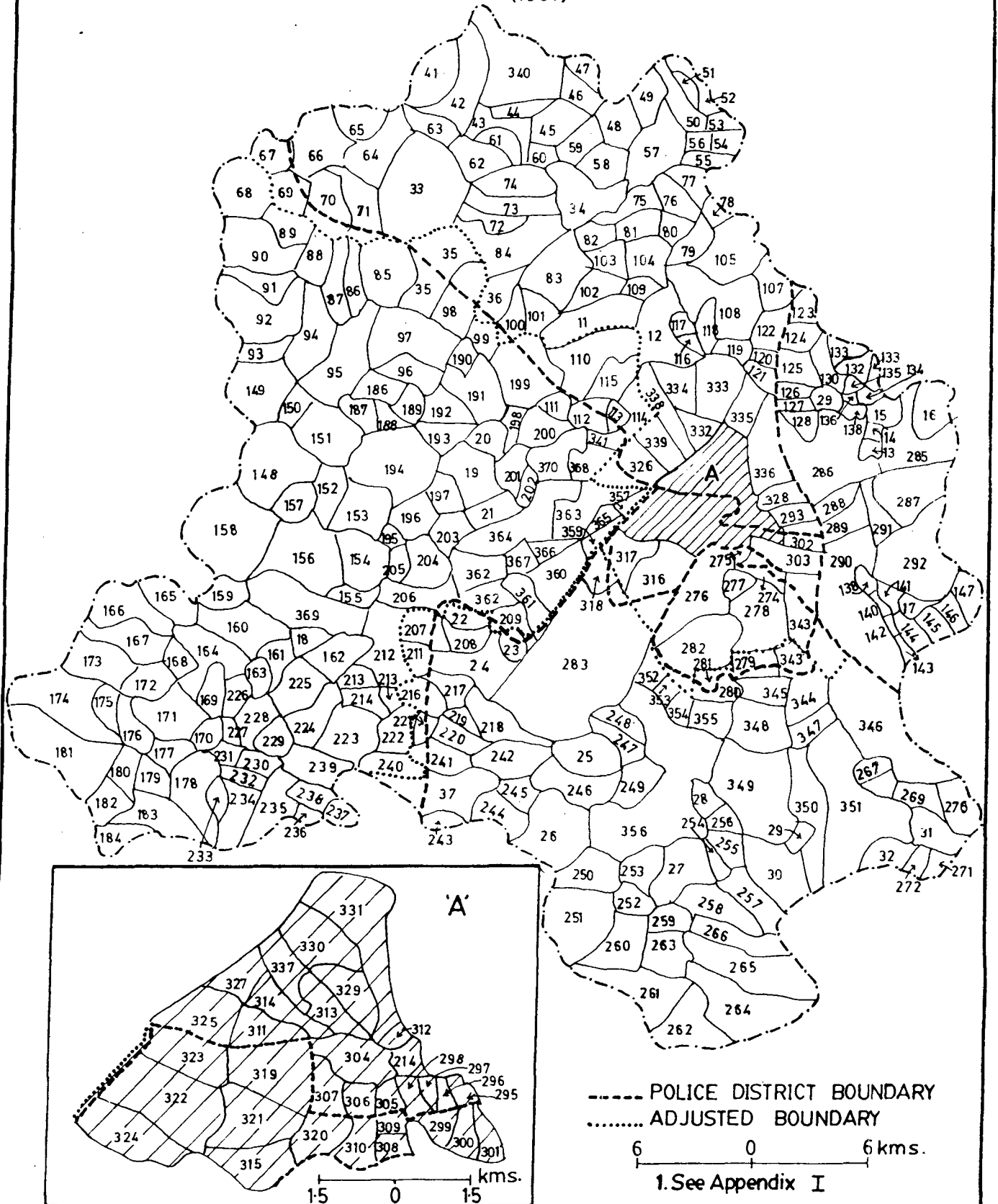


Fig. I-2

DELHI ADJUSTED POLICE STATION BOUNDARIES 1989

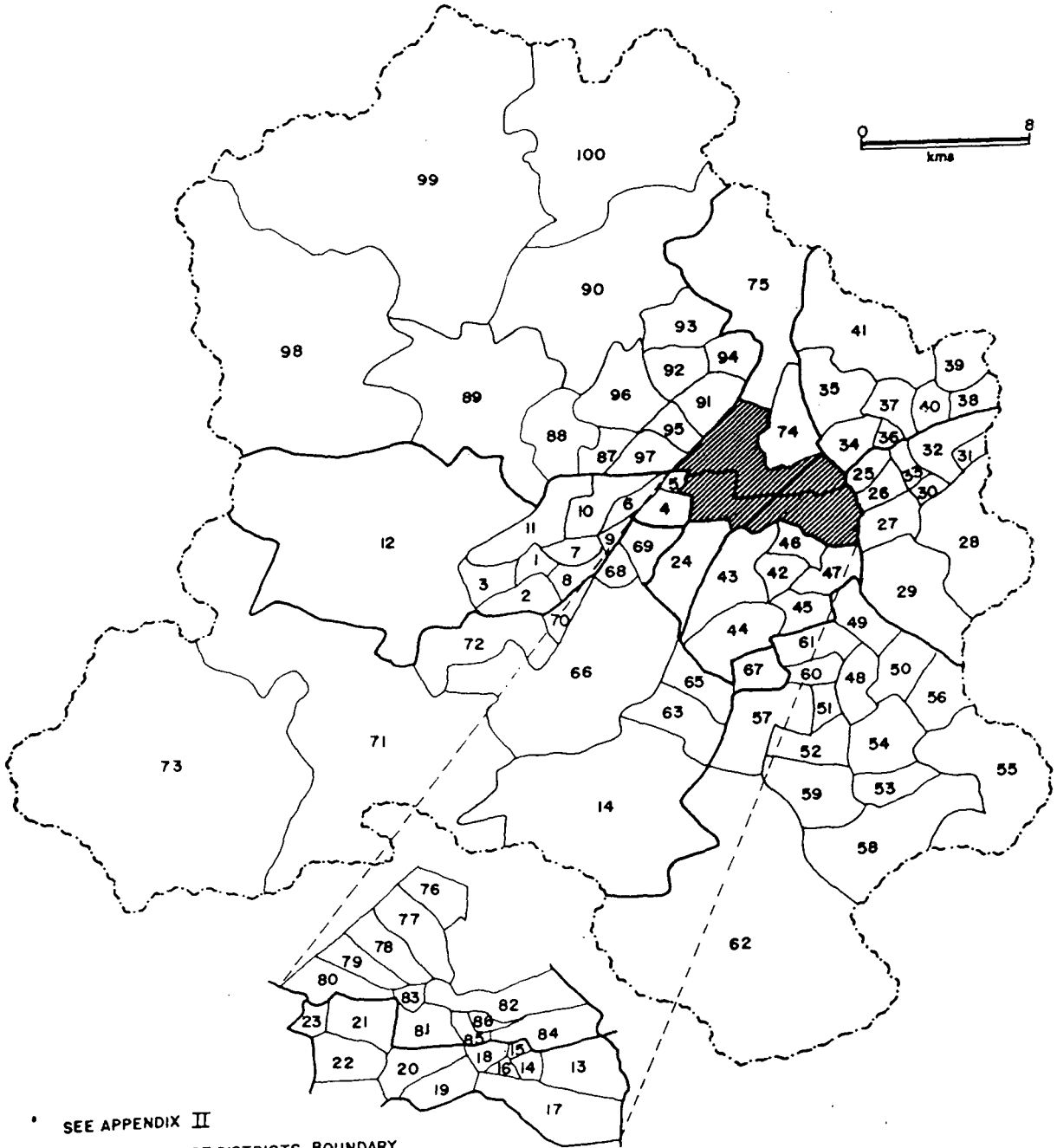


Fig. 13

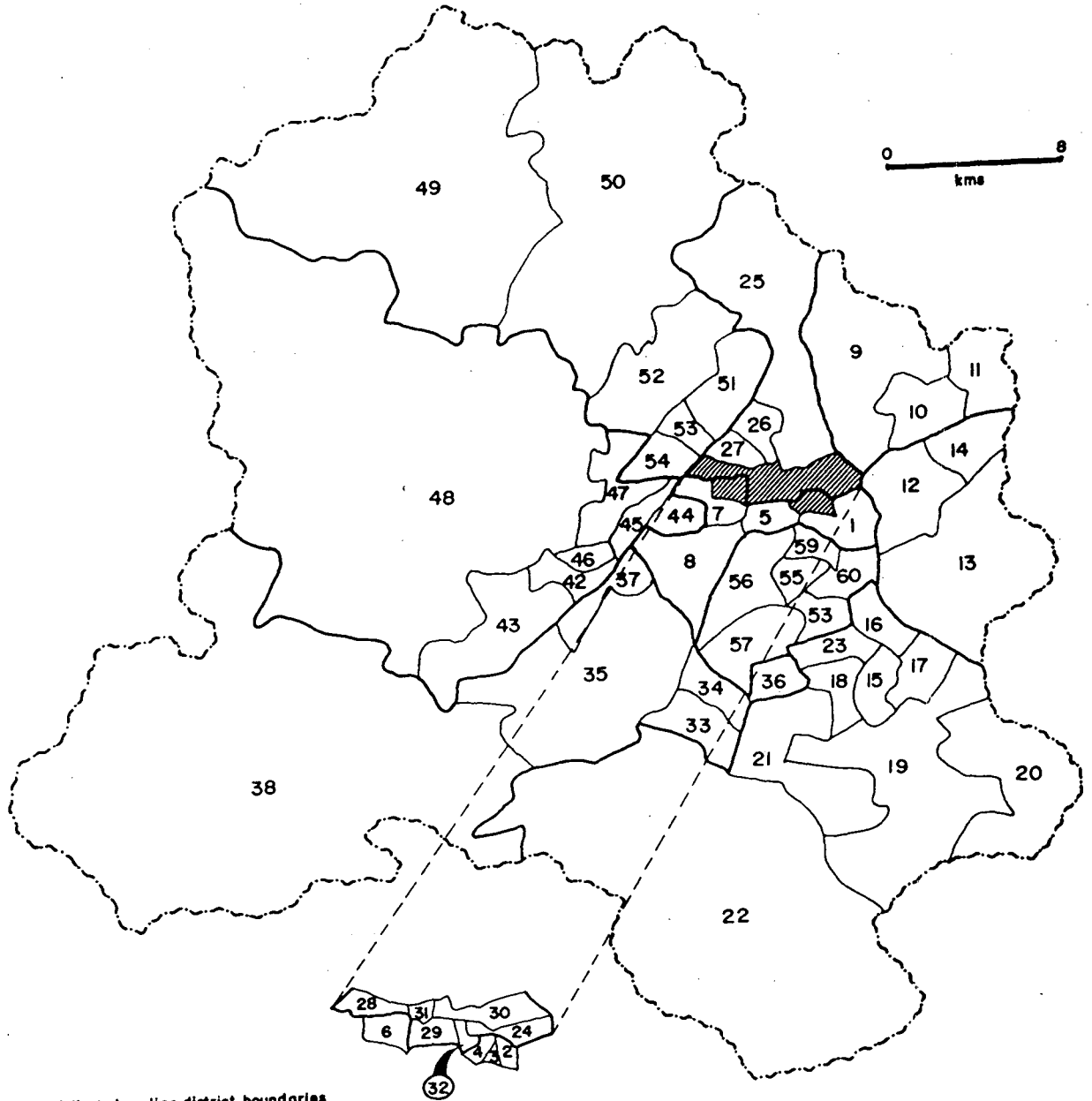
comparable it was necessary to convert 100 police stations back into 60. For doing this firstly a list was made of the police stations formed during the various years (i.e., 1979, 1980, 1986, 1987 and 1988) (Appendix 3) It was found that 6 police stations were added in 1980 and another 14 were added in 1986, 3 were added in 1987 and 22 were added in 1988. On enquiring from each district headquarters regarding the formation of various police stations it was found that some of the police stations of 1979 had bifurcated into 2 or 3 police stations. Data was adjusted by adding together the figures for 2 or more police stations. Thus it was possible to reduce the total number of police stations from 100 to 60. These 60 police stations were then grouped under 9 police districts (Fig. 1.4 and Appendix 4).

This study would be dealing with not only the incidence of crime but also the rate of crime. The rate has been calculated either in relation to total population or in relation to female population. The latter had to be undertaken in order to analyse crime against women. The total population and female population figures of police stations had been obtained after the data adjustments as enumerated above. Thus the crime rate has been calculated either per thousand of population or per lakh of population.

Since there are a large number of categories of crime it was necessary to club some of the types. These are major offences

DELHI ADJUSTED POLICE STATION BOUNDARIES*

1979



— Adjusted police district boundaries.
* See Appendix IV

Fig. 14

against the person which deals with murder and attempt to murder, property offences with violence which deals with dacoity and robbery, property offences without violence which deals with theft and burglary, offences against public tranquility like riots and other IPC and grand total IPC including Acts. In some of the cases the various types of crime have also been dealt with individually. Different types of crime against women have also been dealt with individually.

In order to calculate growth rate of crime between 1981 and 1989 the projected data on population for 1989 had to be used. According to census 1991 there had been 52.85 per cent growth in the female population of Delhi between 1981 and 1991. And there was 50.64 per cent growth in the total population of Delhi for the same period. Thus the annual growth rate of female population was 5.29 per cent and that of total population was 5.06 per cent. With this information it was possible to project population data for 1989 for each of the 100 police stations and also for the police districts.

Property crimes like burglary, robbery, etc., account for a very high proportion of total crime in comparison to crime against person such as murder, attempt to murder, rape and so on. As such, an increase in the growth rate of crime in the former would be evident whereas a slight increase in the growth rate of the latter would be of much concern. Therefore the growth rate of crime rate have been calculated for various types of crimes in

order to analyse the reasons for the changes that have been observed.

Various statistical techniques were used in the analysis of the data and one of the most important methods used was Karl Pearson's coefficient of correlation. In Chapters 4 and 5 this technique was used in the analysis of variation of offence and offenders respectively at police station level of Delhi with the help of socio-economic correlates. In the 6th Chapter this method was employed in analysing crime rate vis-a-vis police strength and also in finding out the degree of correlation between newspaper reporting of crime with that of official statistics on crime. A stepwise regression has also been attempted in the section on micro-environment of criminals in Chapter 5.

The segregation index has also been calculated in order to see whether high segregation of scheduled caste or non-scheduled caste population leads to more crime. For this, block level data was taken for the year 1981. Segregation index has only been calculated for urban areas, because block level data on scheduled caste population was available only for urban areas of Delhi.

The following formula has been used :-

$$\text{Index of segregation} = \frac{\sum_{i=1}^N \frac{x_i}{X} - \frac{t_i}{T} \text{ (when } \frac{x}{X} = \frac{t}{T} \text{)}}{1 - \frac{x}{X}}$$

T = Total population of urban area

t_i = total population of the i th spatial unit

X = Population of the Scheduled Castes of the urban area

x_i = Population of Scheduled Castes in the i th spatial unit

N = Total number of spatial units

Urban area stands for each charge.

i th spatial unit stands for block. (There are large number of blocks in each charge).

For the Chapter on Traceable Crime and Micro-Environment it was essential to obtain the case history of individual criminals. The aim was to analyse the spatio-temporal analysis of residences of the criminals and locational settings of various types of crimes. But unfortunately compiled data on traced criminals was available for only one year because computer recording of traced criminals had begun quite recently. Thus the data on traced criminals was taken for the year 1990. Since it was not possible to undertake an exercise on all the traced crimes of Delhi for one year it was imperative to select a few localities where crime had been committed on a large scale. Thus this selection was done on the basis of localities having the largest number of snatching, burglary and total theft cases for the year 1990. The attempt was to select at least one or two localities from each police district. Secondly the police stations selected were those which had been formed either in 1979 or prior to that. This was done because the major attempt was to

do a spatio-temporal analysis of offenders but later the temporal part had to be deleted due to non-availability of data. The list of police stations selected has been given in Appendix 5. The Police Headquarters was then requested to give information on all the traced crimes that had occurred in the above mentioned police stations in the year 1990 for snatching, burglary, theft, murder and attempt to murder.

On compiling the information from the individual case histories it was found that the criminals' residences were not only in Delhi but also in other states of India. In Delhi 12 localities were found to have a high rate of offenders per lakh of its population. Thus the primary survey was undertaken for these 12 localities and for the control group another 12 localities of Delhi was selected having the least number of offenders per lakh of its population. The pre-testing of the questionnaire was done in Raghbir Nagar after which the questionnaire had to be changed considerably. (The questionnaire used in the study is given in Appendix VI). Among the 12 offender-prone localities the rate of criminals per lakh of population varied from one locality to another. Five localities were found to have more than 20 criminals per lakh of population and 7 localities were found to have less than 20 criminals. These 5 localities are Jehangirpuri, Raghbir Nagar, Kirti Nagar, Trilokpuri and Wazirpur. From each of these localities 25 households were surveyed out of which 50 per cent were the addresses of the criminals itself. The 7 localities which were

also surveyed were Madangir, Nand Nagari, Seelampur, Kalyanpuri, Krishna Nagar, Govindpuri and Mangolpuri. In each of these localities 15 households each were surveyed. In all 230 questionnaires were filled.

The 12 least offender prone localities identified are as follows:- Srinivaspuri, Sarojini Nagar, Kotla Mubarakpur, Lodi Colony, Jama Masjid, Nai Sadak, Subash Nagar, Rajouri Garden, Mayur Vihar, Geeta Colony, Munirka and Sadar Bazar. Since there was not much of variation in terms of rate of offenders, 20 households from each locality were surveyed. In all 240 questionnaires were thus filled from non-offender-prone localities. Thus in all 470 questionnaires were filled by interviewing households in 24 localities.

The information generated from this primary data deals with demographic, housing, education, socio-economic status and environment. Some general observations were also made of each locality by the investigator herself. These were dealing with historical background, occupational structure, religion and caste, community facilities, basic amenities, etc. The data generated from the primary sources was then used in the analysis of factors promoting criminality in some areas and factors inhibiting criminality in other areas.

Each case history provides information on not only the addresses of the criminals but also regarding age, place of occurrence of crime; are they repeated criminals or not; and age

group of the repeated criminals. This data has been used in the first part of Chapter 5 (Micro-Environment of Crime) and also in Chapter 6.

For newspaper reporting The Times of India newspaper for the year 1989 was gone through thoroughly. Data from the newspapers were collected on the basis of area or locality of crime occurrence. Not only the number and type of crime committed in various districts were noted from the newspaper, but also whether the item has come in the 1st, 3rd, 4th or 5th page and the total coverage given per case in cms in either of these pages. The data from the newspapers had to be correlated with crime data as provided by the police and thus crime data on various categories at district level was collected from Police Headquarters, I.T.O., New Delhi for 1989. With the help of a detailed map of Delhi and a list of police stations in each district it was possible to identify the localities which fell in various districts and thus the total crime reported could be calculated at district level.

SCHEME OF CHAPTERS

This study would be organized into seven chapters. The first chapter would deal with the introduction, conceptual and analytical framework, literature review as well as objectives and hypotheses. The second chapter deals with temporal perspective on crimes in metropolitan cities of India (1960-1989). This chapter attempts to identify a macro-level pattern of crimes over the

years in the major metropolitan cities of India and thereby situate Delhi in a proper perspective.

The third chapter outlines a profile of crime in Delhi Union Territory. In this chapter the spatio-temporal variations in crime occurrence from one part of Delhi to the other is examined over the decade between 1979 and 1989. The fourth chapter tries to explain the existing patterns of crime with a set of socio-economic parameters. In this chapter crime in 100 police stations of Delhi for the year 1989 is studied in greater detail to clearly identify the correlates of crime in an Indian situation.

The fifth chapter deals with a case study of a few localities where there is a predominance of criminals and further explains the same by means of socio-economic conditions and infrastructural facilities available within them. This chapter also deals with micro-environment of crime. The sixth chapter deals with crime, police and mass media. An attempt has been made to analyse the role of police strength and police expenditure in a study of geography of crime (1980-1989).

The seventh chapter deals with summary and conclusions of the study.

Chapter II

TEMPORAL PERSPECTIVE ON CRIMES IN METROPOLITAN CITIES OF INDIA

It has been postulated that larger the city higher is the crime rate. For eg. Wolfgang (1972) in his study on urban crime stated that the total crime rate in large metropolitan areas is nearly two times higher than the rates in other cities and about three times higher than in rural areas. In the Indian context, there are very few works on a geography of crime to establish such a link between city size and crime. One of the objectives in this chapter, therefore, is to identify a macro-level pattern of crime over the years in the major metropolitan cities of India and thereby situate Delhi in a proper perspective (Fig. 2.1).

The conclusions arrived at by the various scholars regarding crime in Indian metro cities seems to be very contradictory in nature. This may be because of the unique characteristics of individual Indian cities regarding historical development, morphology, urban growth, etc. As such, some background information pertaining to the metro-cities is in order.

AN OUTLINE ON THE METROPOLITAN CITIES OF INDIA

Metropolisation occurs partly because of a natural increase in population in urban areas and partly as a result of

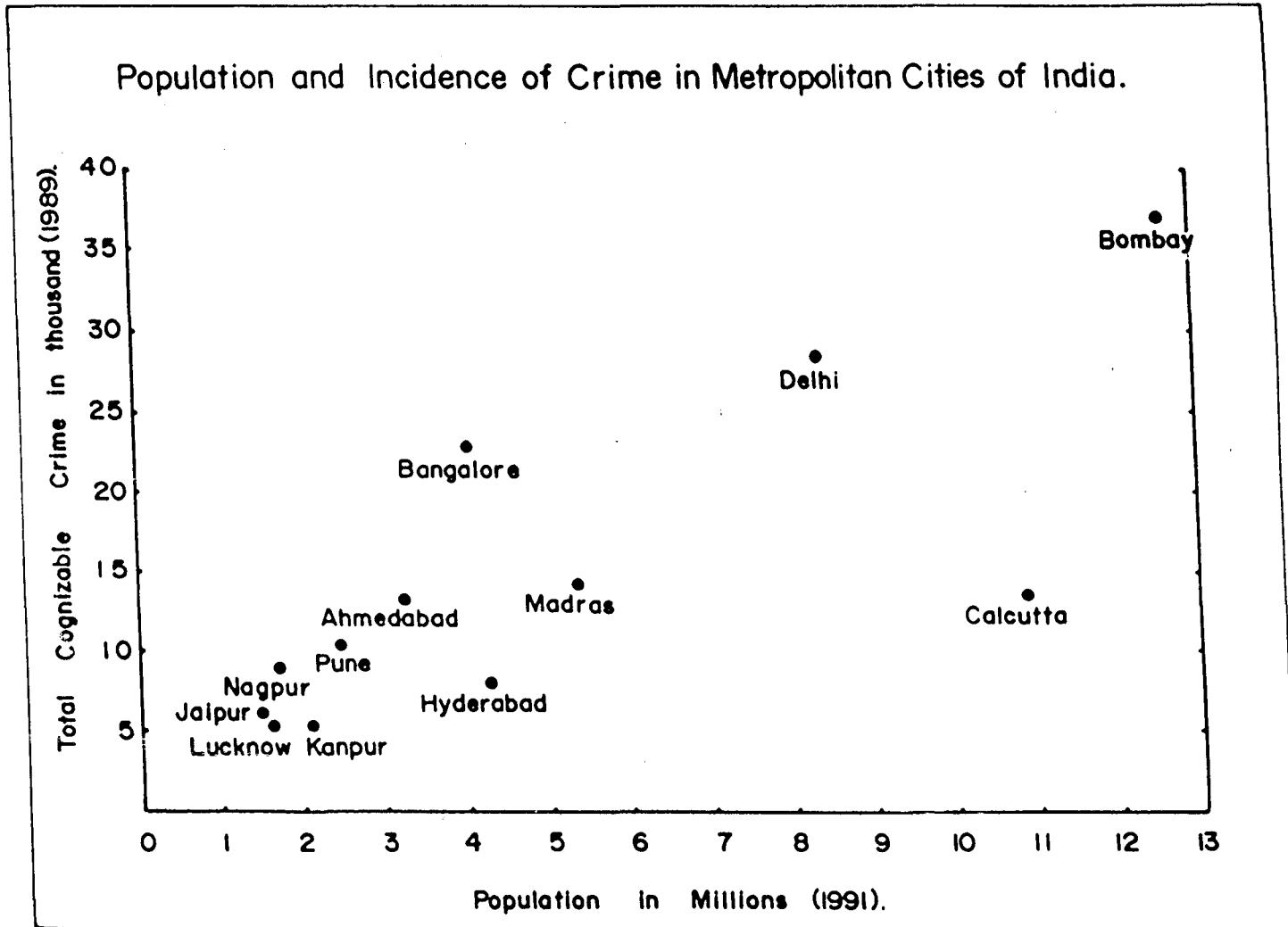


Fig. 2-1

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migration. Migration can be either from smaller towns and cities to larger cities and capitals or because of direct migration of rural people to metropolitan cities. Centralization of administrative, political and economic forces in the country at the national and state capitals are some of the pill factors leading to metropolisation. Secondly, some of these cities have witnessed remarkable industrial growth and thus migration is inevitable (Ramachandran 1981). Thirdly, the combination of higher order market, industrial, transport and service functions has helped the growth of big cities with more than one million population (Alam and Reddy 1987).

According to the latest 1991 census, there are 23 metropolitan urban agglomerations/cities in the country with a population of more than one million each. In 1901 there was only one such city, namely, Calcutta Urban agglomeration. The number of million plus cities in the country remained at two from 1911 till 1941. In 1951 their number increased to five, in 1961 to eight, in 1971 to nine and in 1981 their number stood at 12. The number almost doubled during 1981-91. These cities in 1991 accounted for roughly one-third of the country's urban population and one-twelfth of country's total population. The metro cities included in the study have been ranked accordingly and given in Table 2.1.

Historical Development

Bombay, Calcutta and Madras are basically port cities

Table 2.1

Metropolitan Cities in India, their population and growth rate

Sl. No.	Name of Metro-city	1991 population (in million)	Annual exp. growth rate % 1981-91
1	Bombay	12.6	3.15
2	Calcutta	10.9	1.67
3	Delhi	8.4	3.80
4	Madras	5.4	2.23
5	Hyderabad	4.3	5.18
6	Bangalore	4.1	3.41
7	Ahmedabad	3.3	2.52
8	Pune	2.5	3.71
9	Kanpur	2.1	2.49
10	Nagpur	1.7	3.07
11	Lucknow	1.6	5.05
12	Jaipur	1.5	4.00

Source : Census of India 1991, Series 1 - India, Paper 2. Provisional Population Totals, Rural-Urban Distribution : New Delhi : Registrar General and Census Commissioner of India.

and the first two account for about a third of the states total income¹. The increase in Bombay's population has been mainly due

¹ There are 12 large urban agglomerations of the world with a population of 10 million and above as per estimates and projections prepared by the United Nations in 1990. Greater Bombay and Calcutta urban agglomerations occupy 6th and 10th positions among these largest mega cities in the world (Census of India 1991).

to the influx of refugees following the partition of the country, due to the merger of a number of towns with Greater Bombay and also due to increase in trade and spurt of industry in a big way. Among the world cities Calcutta is comparatively a late-comer. As an English factory settlement it commenced its career just about two hundred and ninety years ago. Calcutta, Bombay and Madras came up entirely during the British period, mainly as an outlet of our country's wealth (Sivarama-krishnan 1978). Delhi has grown as an administrative town through the ages and, therefore, is distinctly different from other metropolises in the country like Calcutta or Madras which are both industrial as well as port towns. Delhi is the most rapidly growing metropolitan area in the country (Census of India 1991). Ahmedabad and Kanpur have long been centres of manufacture, Pune and Hyderabad have transformed from administrative or cantonment centres into major manufacturing and trading cities only in recent years. Growth of industries in public and private sectors have been the major cause for the growth of Bangalore.

Morphology

Irrespective of their distinctive historical development, the morphology of Indian metro-cities can be easily divided into two parts : the densely crowded city proper and the widespread area with bungalows and cottages, each with a fairly extensive compound or garden. The latter is inhabited by the middle and the upper class professionals, officials and

businessmen. The income of the municipality from the city proper is greater than that for the Civil Lines, but the expenditure on the latter far exceeds the city proper expenditure. For the far wider area covered by the Civil Lines requires more road and they have to be repaired, cleaned up, watered and lighted, and the drainage, the water supply and the sanitation system have to be more widespread. The city part is always grossly neglected and of course, the poorer parts of the city are almost ignored, it has few good roads and most of the narrow lanes are ill-lit and have no proper drainage or sanitation system (Nehru 1962). Thus, it can be seen that although these cities attract a significantly high proportion of investments in infrastructure, industries, educational and medical services, banking and commerce, but the disparities in the level of services provided from one part of the city to another is distinctly marked.

Urban Growth

The disparity as evident from the morphological structure gets greatly accentuated due to high growth of metropolitan population. The most notable characteristics of the growth of metropolitan population is their overwhelming concentration in the higher order million-cities which are only 23 in number. From the following Table (2.2) it is clear that the number of UAs and cities have greatly increased with every passing decade, but the million-cities together claimed 51 per cent of the population of Class I cities in 1991 and 44.6 in

Table 2.2

**Number of Cities and Urban Agglomerations with
Population 100,000 and above 1901-1991**

Year	No. of UAs and Cities	Percentage of total population
1901	24	2.83
1911	23	2.83
1921	28	3.33
1931	37	3.73
1941	47	5.35
1951	74	7.81
1961	102	9.27
1971	145	11.37
1981	216	14.33
1991	296	16.41

Source : Premi, M.K. (1991) India's Population, B.R., Delhi.

1981. In 1961 and 1971 the corresponding percentages were 38.85 and 45 respectively. According to Alam and Reddy (1987) this is reflective of unhealthy parasitical growth tendencies in the urban development process of India.

Table 2.3 shows an increasing share of metropolitan in the total urban population of their respective states 1961-1991. It may be inferred that Calcutta's share in West Bengal is gradually declining, but that of Bombay in Maharashtra gradually increasing. Such a difference between the two agglomerations apparently means that the growth of Calcutta has nearly reached

Table 2.3

**Share of Metropolitan in the total urban population
of their respective States : 1961-1991**

Name of City	1961	1971	1981	1991
Hyderabad	19.91	21.38	20.39	24.03
Ahmedabad	22.68	23.38	24.03	23.28
Bangalore	22.92	23.37	27.23	29.50
Bombay	37.20	38.00	37.48	41.22
Nagpur	6.18	5.92	5.92	5.48
Pune	7.08	7.22	7.67	8.15
Jaipur	12.51	14.01	14.08	15.08
Madras	21.63	25.43	26.89	28.18
Kanpur	10.24	10.29	8.24	7.63
Lucknow	6.92	6.57	5.06	5.94
Calcutta	70.06	67.67	63.64	58.62
Delhi	100.00	100.00	100.00	100.00

Source: Same as Table 2.1 and compared by the writer.

the upper limit, while Bombay is yet to arrive there (Chakraborti 1987). This stagnation in the growth of Calcutta seems to have a bearing on crime and would be dealt with latter on in this chapter.

From an outline of the historical development, morphological structure and increasing growth rate of population, it is evident why life in the Indian cities present a picture of gross inadequacies, and this is specially true of large cities.

Congestion, overcrowding and increasing crime rate are only some of the ills of Indian city life. According to Jagmohan (1984) all of them share poor levels of services, grossly inadequate circulation systems, administrative fragmentations and archaic municipal and other governing systems. Although they contribute sizeably to the state and national incomes, they receive less for their upkeep. This is very much clear from the table showing per capita expenditure in real terms for the period 1961 to 1991 on Public Health and Education (Table 2.4). In addition to the overall negligible increase in per capita expenditure, within the cities certain areas are well maintained even though it calls for a drastic cut in the maintenance of others. Thus the disparities in the level of services provided from one part of the city to another are usually distinctly marked. Physical deterioration due to high densities and severe lack of amenities and the disparities in income distribution enhances the continuance of the criminal problem².

INCREASING CRIME IN METRO CITIES - A REVIEW

At this juncture it would be useful to have a brief overview of crimes in cities and related parameters as emerging from the literature.

² Such disparities may get further accentuated due to formation of exclusive pockets of non-scheduled caste and scheduled caste population which in turn leads to no spatial inter-mixing and crime rates are high. From an earlier study by the writer on Delhi it was observed that higher the segregation index higher is the crime rate.

Table 2.4

Per Capita Expenditure in Real Terms (Rs.)

City	Public Health				Education			
	1961	1971	1981	1991	1961	1971	1981	1991
Hyderabad	2.4	0.06	0.02	1.8	0.001	0.006	0.006	0.008
Ahmedabad	9.8	12.1	14.6	12.8	5.1	6.9	7.1	15.0
Bangalore	3.6	5.5	3.8	6.3	0.04	0.07	0.07	1.1
Bombay	12.9	16.5	16.2	16.5	3.6	9.0	9.9	12.7
Nagpur	16.8	11.4	14.0	17.3	6.0	3.7	3.9	6.1
Pune	6.4	5.8	5.7	8.2	4.1	5.8	5.8	8.5
Madras	5.1	3.8	7.3	8.9	3.0	3.9	5.9	4.6
Kanpur	7.0	7.1	7.9	10.6	3.1	3.5	0.08	1.3
Lucknow	0.06	0.03	6.9	8.0	2.6	2.4	0.03	0.03
Calcutta	2.6	3.8	2.5	1.4	0.05	0.06	0.05	0.08
Delhi	7.2	9.2	10.0	12.8	7.3	9.7	9.1	11.7
Jaipur	NA	NA	NA	NA	NA	NA	NA	NA

Source : Statistical Abstract 1990 India, Provisional Population Totals 1991, India, Census of India and computed by the writer.

It has been suggested that increasing urban crime is because of a heterogeneous social set up which in turn leads to impersonal relations (Rao 1981 and Kulkarni 1981). As cities grow there is a continuous expansion of territorial limits encompassing a large number of suburban residential areas which become at once the centres of criminal attraction due to low level of policing in the initial stages and opportunity proximation. This has been substantiated later on in the thesis

while analysing crime rate and rate of police strength in the peripheral areas of Delhi. The affluence and increasing activity and congestion in the Indian business and commercial districts transform them into areas of attraction of crime by virtue of the immense opportunities they provide (Rao 1981).

Since crime is an interplay of various demographic, social and economic factors, the variables which explain the crime rate in one area may not hold true in another area. For eg. unemployment and poverty may be positive variables which explain the increasing crime in urban areas as is evident from the study done by Goyal (1971). The solution to the problem lies in speedy development of suburbs and creation of employment facilities together with building of new tenements for bustee dwellers. On the other hand, Chakraborti (1971) from his study on Calcutta found that people who are participating in violence do not belong only to the unemployed sections. Many of them come from the upper middle class families. The north-west district police of Delhi have launched a scheme to increase public participation in policing. The project has started with the establishment of a police post named 'Dost' (friend), in Mangolpuri police station area. The Dost scheme is inspired by the Koban system of policing in Japan, where the policemen reside in the areas and interact closely with the residents. In the Dost scheme, the policemen take care of even the non-police needs of the residents, who in turn, are to dictate the kind of policing they want in the area. (The Times of India, 29 May 1993).

Increasing migration to large urban centres is the root cause of increasing social tension. In order to reduce the migration rate many scholars and planners suggested a growth of centres in the hinterland of metro cities. But the study done by Chakraborti revealed that development of Durgapur has in no way contributed to the lessening of migration to Calcutta.

Increasing migration together with unemployment and poverty has promoted the increase of innumerable slums in all the large urban centres of India. The appalling living conditions in these slums as a result of congestion, absence of civic amenities, lack of civic sense together with increasing frustration and shattered, unfulfilled aspirations tempt many young people to take to a criminal way of life (Devi 1971, Jagmohan 1984 and Hussain 1992). Thus, it has been rightly stated that slums have become the breeding ground of criminals. An attempt has been made in the thesis, to locate criminal-prone areas of Delhi and it was found that the slum areas contributed to a very high share of total criminals.

It is not only the unemployed and the poor who create social tensions as a result of increasing violence, but even the legislator together with the vigilantes procreate social tensions. This is apparent from the study done by Racine (1990) on Calcutta. She has explained the above by way of two concrete examples. Firstly, a demonstration against the increase in the

tramway fare and bus fare on 24th January 1981 degenerated into public violence because of the joint action of the youth wing of parties opposed to the present government whether from the right or from the left.

The other example shows how on 29th January 1981 urban gangs lay down their law on the unprotected population of a bustee making most of their political support, here again either from the right or from the left. The big city creates particular type of violence and tensions which according to Racine should be analysed in terms of the socio-economic realities of Calcutta.

ANALYSIS OF CRIME IN METROPOLITAN CITIES OF INDIA

In this section firstly, a temporal study has been attempted for 8 metropolitan cities from 1960 to 1989, which is followed by a study of the growth rate of crime for the same³. Secondly, an attempt has also been made to analyse the reasons for varying crime rates at city level for the year 1989. By 1989 there were 12 metropolitan cities. As such, the study on crime rate pertains to these 12 cities. This study also includes a section on various crimes committed against women in the metro

³ According to the Census of India (1961) only 8 cities were metropolitan in nature by the year 1960. Although by 1989 their number rose to 12, only 8 have been taken into consideration due to non-availability of crime data pertaining to the rest of them.

cities⁴.

Incidence Of Crime (1960-89)

All the metro cities have experienced a tremendous growth in the incidence of crime (Table 2.5). Normally crime rates are determined on the basis of volume, i.e., the number of offences reported in proportion to the population of a specific

Table 2.5

Crime in Major Metropolitan Cities of India

City	Total no. of Cognizable Crime				Percentage share of each city			
	1960	1970	1980	1989	1960	1970	1980	1989
Bombay	18524	25763	35695	37309	30.36	25.97	24.89	25.96
Delhi	10072	28890	35648	28467	16.50	29.12	24.86	19.80
Bangalore	4066	7778	18307	23107	6.67	7.84	12.76	16.08
Madras	6013	10794	17279	14168	9.86	10.88	12.05	9.86
Calcutta	13071	10588	13981	13738	21.43	10.67	9.75	9.50
Ahmedabad	3157	3269	8678	13364	5.17	3.30	6.11	9.30
Hyderabad	3236	3470	7412	8063	5.79	3.50	5.17	5.61
Kanpur	2567	8656	6300	5526	4.20	8.73	4.39	3.84

Source : Crime in India (1960, 1970, 1980 and 1989) A Government of India Publication and computation by the writer.

⁴ This part of the analysis is for the period 1985 to 1990, because the data were not available for the earlier period. Secondly, at the time of the study, 1990 data were available and, therefore, the data were updated on crime against women.

geographical area. There is a possibility of distortion of crime rates in cities because the population of any city at a given point of time may not truly represent the number of potential offenders or their victims. Every city has an indeterminate floating population drawn from its suburbs and peripheral areas. In calculating the crime rates in relation to actual census data, the contribution of the surrounding territorial subsidiaries is not taken into account which enhances the element of unreliability in measurement of crime. (Gibbs and Erickson 1976 and Rao 1981). Thus, this section deals with absolute figures on crime.

Between 1980 and 1989 all the metro-cities experienced a growth in the total incidence of crime. Incidence of crime doubled in five cities (namely that of Bombay, Delhi, Madras, Hyderabad and Kanpur) during the period 1960-1989. Crime incidence increased by four times in two metro-cities (Bangalore and Ahmedabad) whereas Calcutta is the only city which has recorded very insignificant increase in crime incidence for the period. This may be because Calcutta recorded the lowest annual exponential growth rate of population between 1981 and 1991. Secondly, Calcutta's share in the total urban population of its state, i.e., West Bengal, is also declining for e.g., it was 70.06 per cent in 1961 and in 1991 it came down to 58.62 per cent.

In the year 1960 the highest number of cases among the cities were registered in Bombay (18524) which accounted for

around 31 per cent of crime (Table 2.5). In comparison the number of crimes in Delhi was low, i.e., 16.5 per cent, but by 1970 the crime cases in Delhi rose drastically and it stood first among the 8 cities. It thus accounted for 30 per cent of all crimes committed in metropolitan centres, i.e., within a gap of 10 years the incidence of crime in Delhi nearly tripled.

By 1980 the incidence of crime had increased in all the cities except for Kanpur. In 1980 Delhi and Bombay occupied the top positions in that they accounted for more than 35000 cases of cognizable crime each. It is very interesting to know that Bangalore whose incidence of crime was even less than that of Madras and Calcutta in 1970 had by 1980 surpassed both of them. Growth of industries in public and private sectors has been the major cause for the growth of Bangalore. More and more people on retirement are moving into Bangalore. As such, there has been an accumulation in the wealth of the people creating greater pockets of affluence within the city, thereby attracting criminals to commit various types of property crimes. In the same year one city from the north, i.e., Kanpur, one from west, i.e., Ahmedabad and one from south, i.e., Hyderabad had the least incidence of crime.

Bombay had the highest incidence of crime (37309) in 1989, followed by Delhi (28467). This decline of crime in Delhi specially after 1980 may be partly attributed to increased partolling with the help of Police Control Room (PCRs) and

greater division of work with a larger work force and increasing number of police stations⁵.

Among the eight cities, Delhi has a second position in terms of total incidence of crime (Fig. 2.2). Calcutta is the only city whose incidence of crime has been stable throughout the study period.

Growth Rate Of Crime 1960 - 1989

With an increase in population an increase in crime would be expected, but does an increase in population increase the crime rate too? Growth rate of population and crime in 8 metropolitan cities of India has been calculated and given in Fig. 2.3. It becomes clear that an increasing population increases the crime incidence too. In fact in the case of Bangalore and Ahmedabad an increasing population has brought forth an even greater increase in the incidence of crime thereby indicating that in these two cities other factors, besides urban growth has been responsible for the noted increase in crime. These factors are a spurt in the industrial activity in both the cities together with increasing affluence as observed specially in Bangalore which is selected as a residing place by the retired officers. Ahmedabad's story is of the survival and transformation of an important traditional centre of trade and

⁵ Personnel communication.

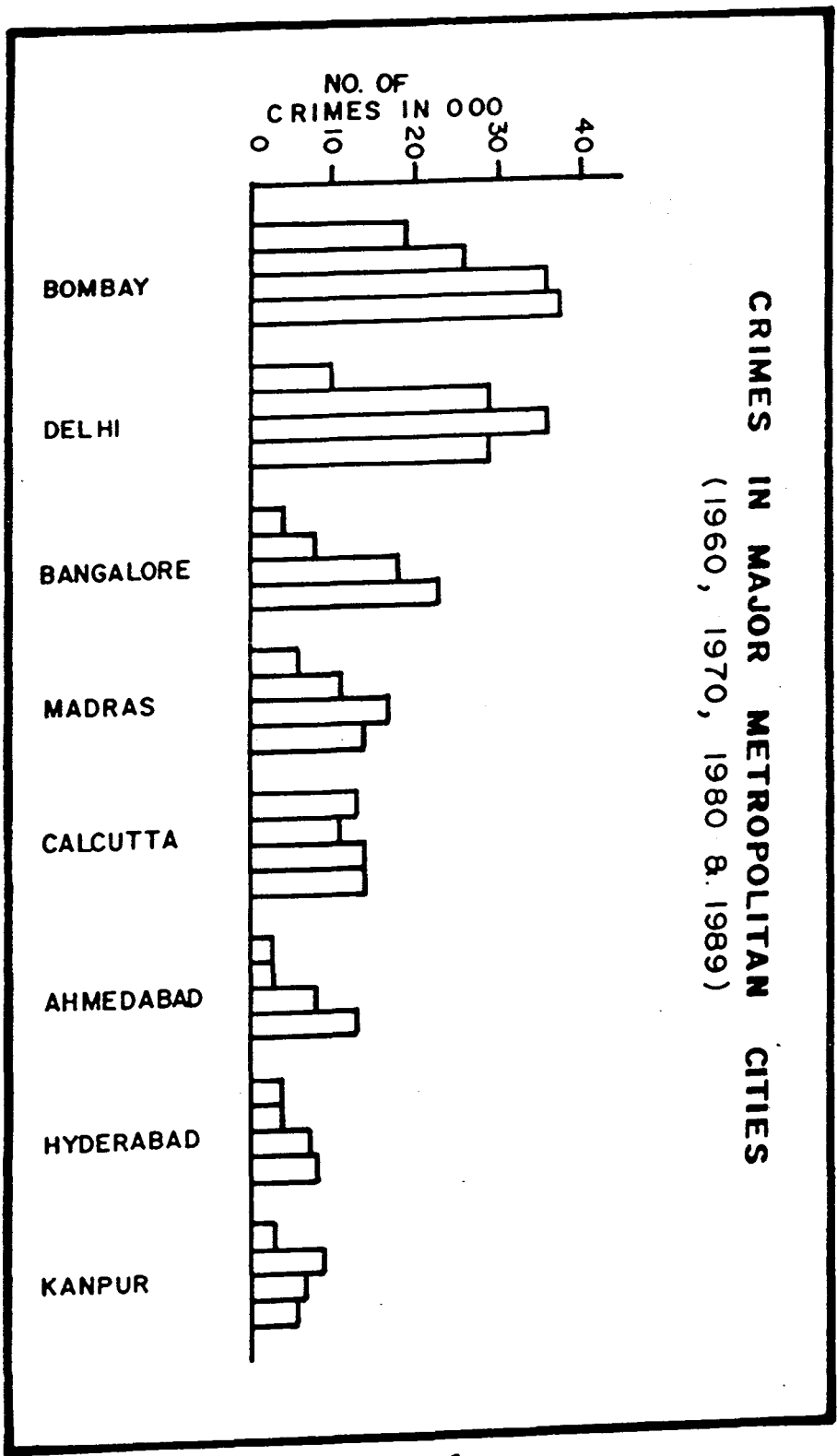


Fig. 2.2

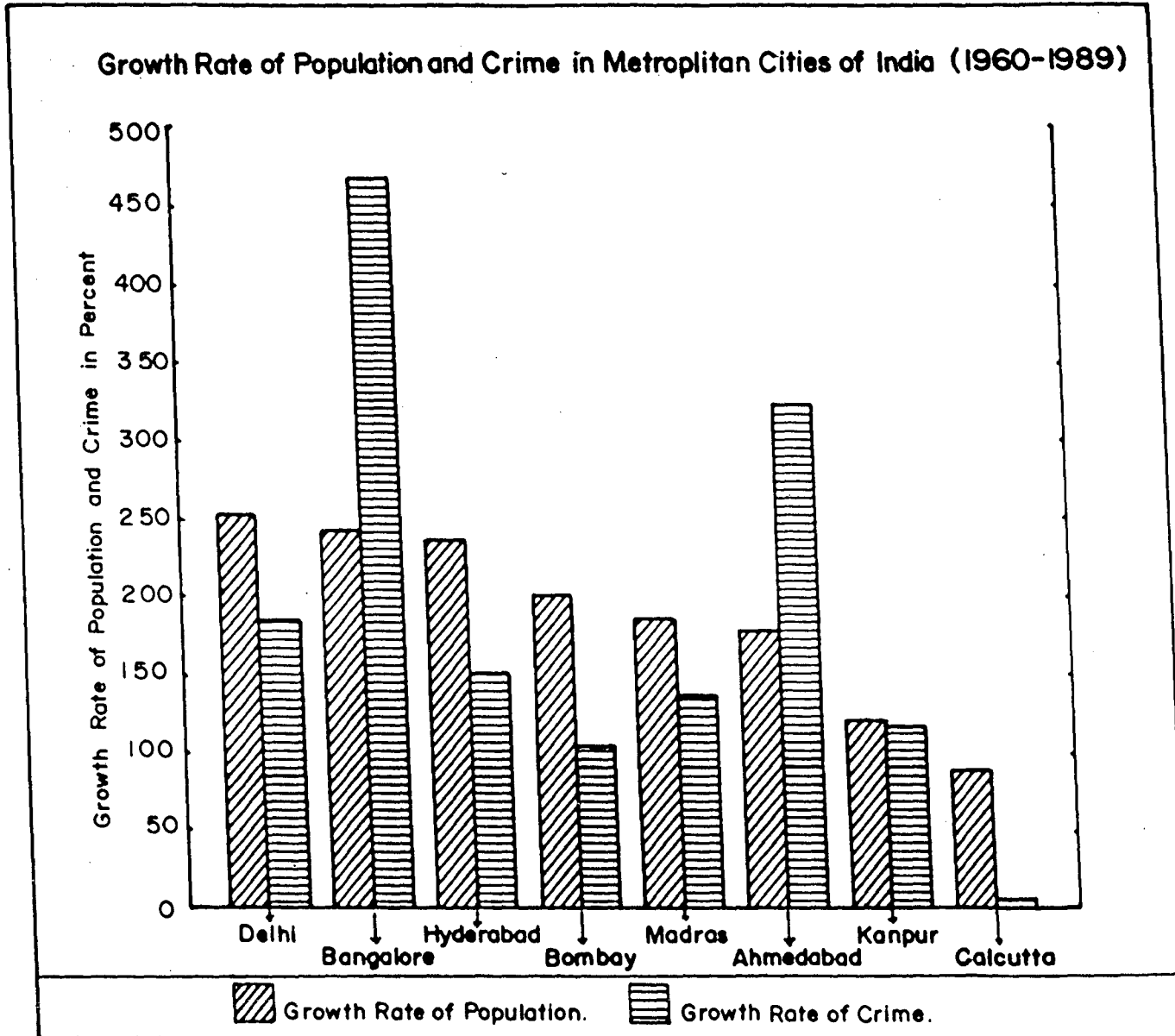


Fig. 2.3

industry into a modern industrial city, under the leadership of an indigenous financial and mercantile elite (Mehta 1990).

For the same 8 cities growth rate of crime and crime rate has been calculated. It becomes clear that among the eight metropolitan cities the highest growth of crime has occurred in Bangalore followed by Ahmedabad and Delhi whereas the lowest growth was in Calcutta (Fig. 2.4)⁶. The increase in crime after 1970 is very marked in all the cities.

The changes in crime rate indicate that all the cities had a declining growth of crime specially after 1980, except for Bangalore. The trend of the lines of four cities (Madras, Hyderabad, Bombay and Calcutta) in the figure on growth rates for the period 1960-1989 are very similar. The lowest growth rate can be observed in Calcutta which had a continuously declining crime rate after 1960. Delhi's position is third in respect of growth rate of crime, but its position is first as far as growth rate of crime rate is concerned for the same period.

Crime In 12 Metropolitan Cities (1989)

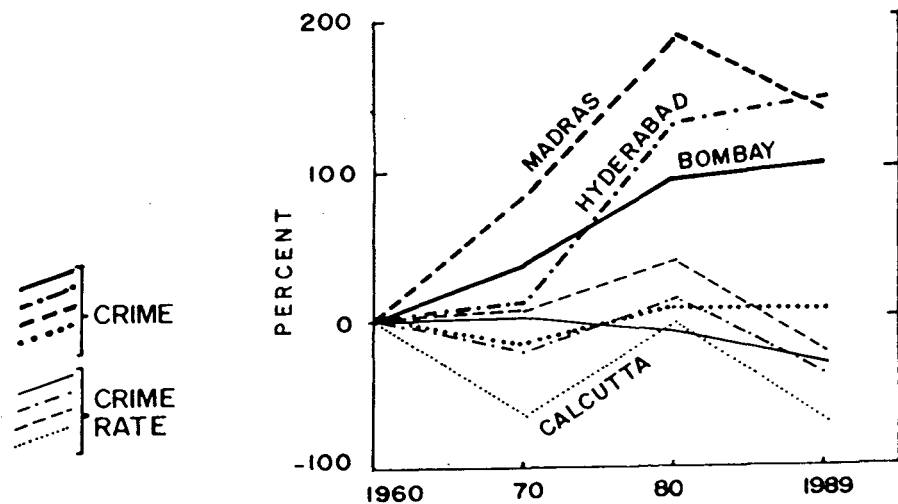
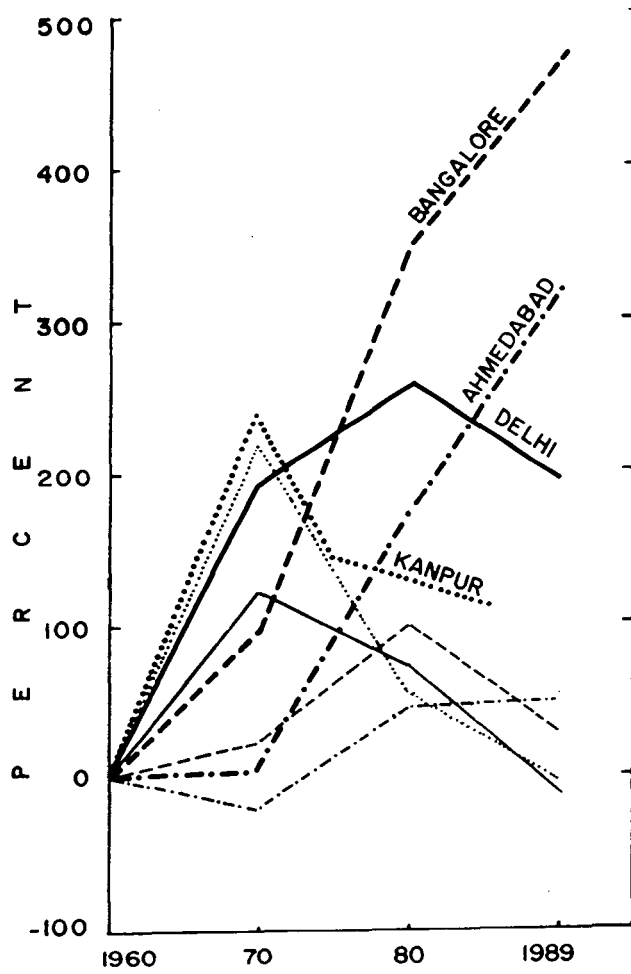
Figure 2.5 shows variation in crime occurrence from one city to another for the year 1989. Bombay is found to have the largest incidence almost equivalent to that of Hyderabad, Kanpur,

⁶ This may be attributed to a very low base, since in 1960 Bangalore had a very low incidence of crime.

INDIA

METROPOLITAN CITIES

CHANGES IN CRIME AND CRIME RATE (1960-89)



CRIME
CRIME RATE

Fig. 2-4

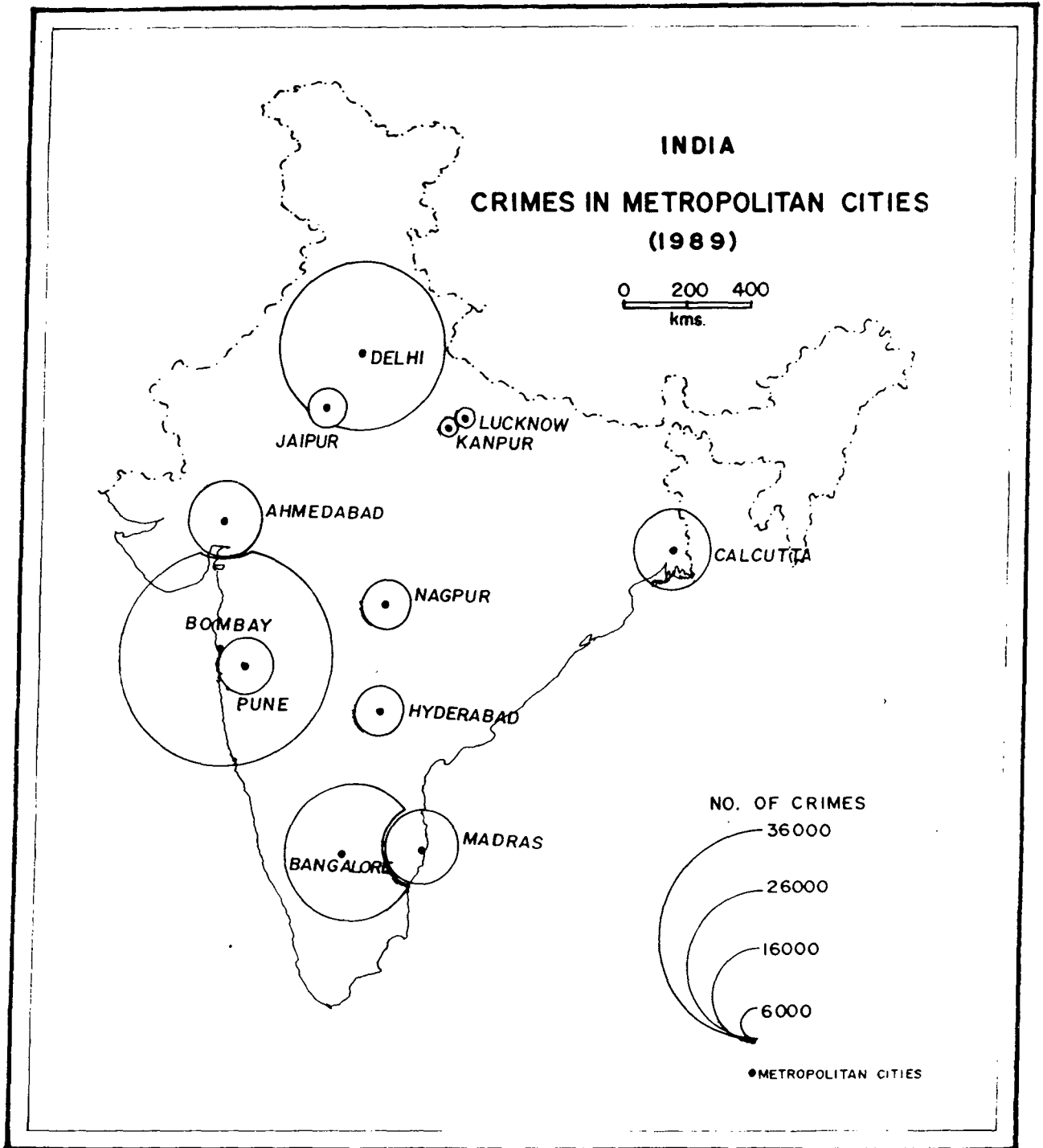


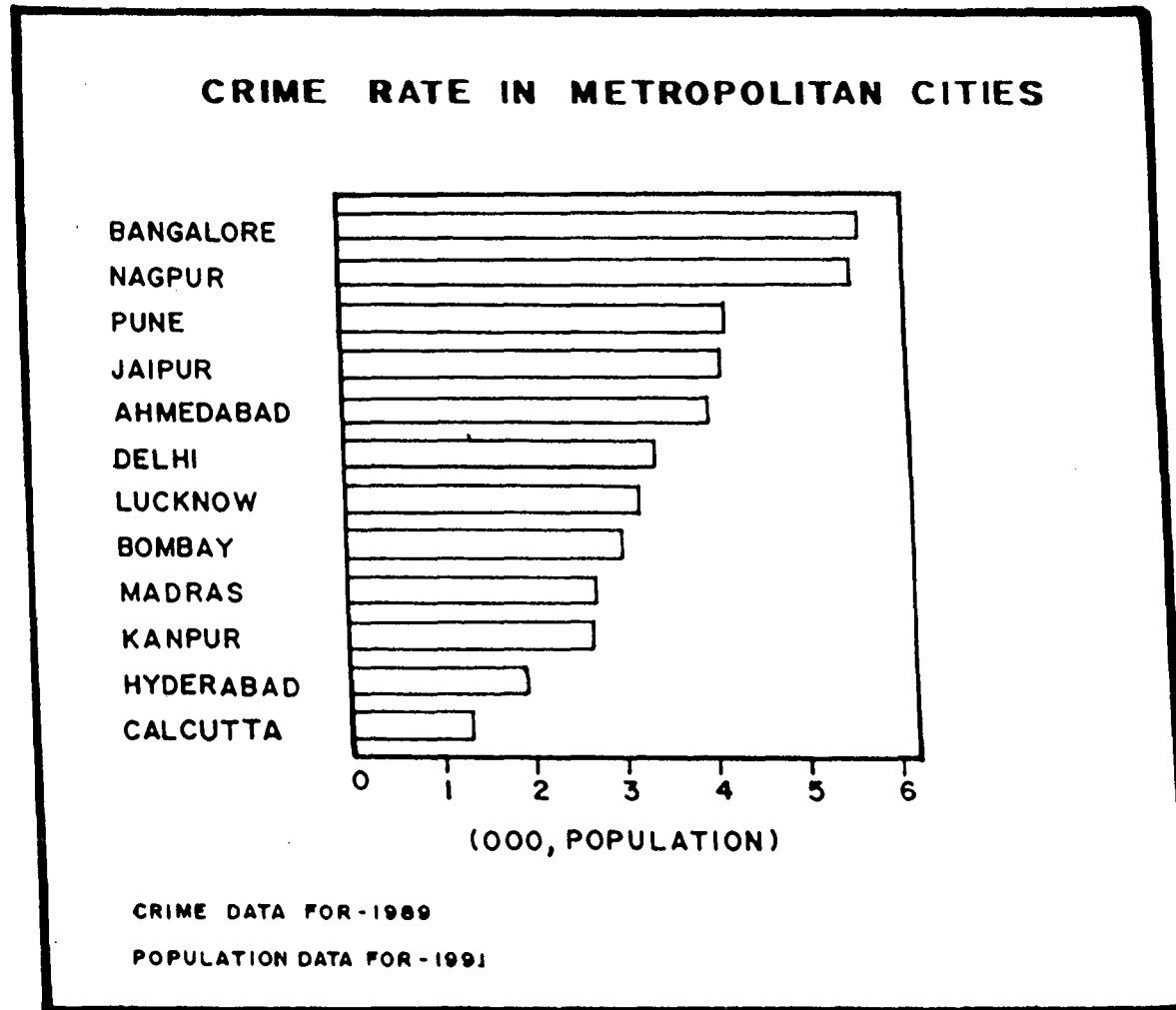
Fig. 2-5

Jaipur, Lucknow and Nagpur put together. Delhi is found to have the second largest incidence of crime. Lucknow and Kanpur are found to have the least incidence of crime in 1989.

Figure 2.6 shows crime rates in 12 metropolitan cities for 1989. The crime rate is the highest in Bangalore followed by Nagpur with 6 and 5 crimes per thousand of population respectively. Although Delhi and Bombay had the highest incidence of crime, their crime rates varied from 3 to 4 cases only (per thousand of population). Hyderabad and Calcutta had the lowest crime rates among the 12 metropolitan cities.

Crime Against Women In Major Metropolitan Cities

The incidence of crimes against women is escalating everyday. Although the problem is not new, women in Indian society have been victims of humiliation, torture and exploitation for as long as we have had written records of social organisations and family life (Ahuja 1986). Cases of abduction, rape, murder, assault and eve-teasing are getting to be commonplace. Till recently, however, crimes against women were not given much attention in the literature of social problem or in the literature on criminal violence. In India the problem has received greater attention only after the second half of the 1960's. Which explains the belated interest that sociologists and criminologists in India have begun taking on this crucial aspect of deviant behaviour.



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Fig. 2.6

As stated earlier, women have always been greatly exploited in our society. This attitude of indifference and negligence can be attributed to three basic factors : a lack of awareness in the seriousness of the problem; a general acceptance of man's superiority over women because of which violent acts against women were not viewed as either violent or deviant; and the denial of violence by women themselves on account of their conditioned response to outmoded attitudes (Blat 1984, Carlson 1987 and Singh 1990).

On observing the occurrence of crime against women in the various metropolitan cities of India for the period 1985-1990 it is very much clear that large cities like Delhi, Bombay and Calcutta had a much higher incidence as compared to smaller cities like Pune, Jaipur and others. Among the 12 metropolitan cities, Delhi alone accounted for 30 per cent of the rape cases and 46 per cent of kidnapping cases for the year 1990. The second position is that of Bombay with 21 per cent and 11 per cent respectively (Table 2.6). Rest of the metropolitan cities had percentage share of rape cases ranging between 2 to 9 and kidnapping cases between 1 to 8.

On observing the growth rate of crime between the period 1985 to 1990 it is clear that Delhi had the highest growth rate of rape cases accounting for 115 per cent followed by Ahmedabad with 100 per cent. A negative growth rate of rape cases can be observed in the metropolitan cities of Calcutta,

Table 2.6

Crime against women in Major Metropolitan Cities of India
Percentage Share

City	1985		1990	
	Rape	Kidnap/abduction	Rape	Kidnap/abduction
Ahmedabad	2.49	4.54	3.87	7.08
Bangalore	3.73	3.69	4.06	2.71
Bombay	25.37	10.68	20.70	11.03
Calcutta	6.72	5.72	4.64	3.54
Delhi	17.66	44.52	29.59	46.25
Hyderabad	7.71	4.82	5.22	1.24
Kanpur	8.96	8.51	5.42	8.38
Madras	3.23	1.04	3.87	2.36
Pune	5.47	2.93	4.26	2.42
Jaipur	4.73	5.43	2.51	7.08
Lucknow	7.21	5.67	6.96	5.60
Nagpur	6.72	2.46	8.90	2.30
Total	100	100	100	100

Table 2.6 (Contd.)

Growth Rate

Cities	Growth Rate 1985-90		Rate/Lakh of Population 1990	
	Rape	Kidnap/abduction	Rape	Kidnap/abduction
Ahmedabad	100.00	25.00	0.77	4.62
Bangalore	40.00	-41.03	0.61	1.33
Bombay	4.90	-17.26	0.99	1.73
Calcutta	-11.11	-50.41	0.71	1.78
Delhi	115.49	-16.77	1.90	9.72
Hyderabad	-12.90	-79.41	1.01	0.79
Kanpur	-22.22	-21.11	1.56	7.89
Madras	53.85	81.82	0.48	0.96
Pune	0.00	-33.87	1.41	2.63
Jaipur	-31.58	4.35	0.89	8.22
Lucknow	24.14	-20.83	3.50	9.22
Nagpur	70.37	-25.00	2.95	2.50
Total	28.61	-19.90	1.22	3.99

Source : Crime in India (1985 and 1990) A Government of India Publication and computation by the writer.

Hyderabad, Kanpur and Jaipur. In kidnapping and abduction cases the highest position is that of Madras having a growth rate of 81 per cent followed by Ahmedabad with 25 per cent. Negative growth rates were noted in 9 metropolitan cities. On calculating the crime rate per lakh of population it is clear that Delhi had

the highest rate of kidnapping cases and third highest rate of rape cases. Although there is a lot of variation in the incidence of rape, but there is not much of range in the rate of rape cases (i.e., 0.61 to 3.50 per lakh of population). The range in the kidnapping cases was much more (i.e., 0.79 to 9.72 per lakh of population).

DETERMINANTS OF CRIME

It may be recalled that according to the analytical framework of this study, outlined in the beginning of the study, crime is an outcome of various factors like demographic, socio-economic and environmental.

From an indepth review of the literature on crime there seemed to emerge certain determinants. Thus, some of the indicators of rising crime as hypothesized by various scholars and criminologists are mainly the size of the city, its level of crowding in terms of density of population, the economic set up of the citizens as shown by the occupational characteristics and the position of women as indicated by sex ratio and female literacy and its environmental factors.

Since this chapter aims at placing Delhi in a proper perspective some of the determinants of crime were analysed at the metropolitan city level. (Appendix - VII). Without going into the details of the analysis, it may be noted in passing that (a) larger the city higher were the incidence of crime, but the size

of the city did not play an important role in increasing the crime rate; (b) areas having high density of population were seen to be prone to greater incidence of crime, but it did not necessarily mean an increase in the rate of crime against persons too; (c) property crimes and crimes against women were not affected by varying levels of crowding; (d) with a decline in the sex ratio there was a significant rise in the rate of crime against women, but higher sex ratio promoted a higher rate of crime; and (e) a higher total literacy promoted a higher incidence of crime, but was found to decrease the occurrence of crime against women. Even with an increase in female literacy there was found to be a decline in the rate of crime against women.

The linkage between occupational characteristics and crime cannot be established at the macro level analysis of the cities under observation, because the published data which are available classifies the workers in broad industrial categories with no break-up under different occupations. However, at a micro level study of crime in Delhi at police station level, the occupational characteristics have been taken into consideration and their role have been analysed in the occurrence of various types of crimes and it has been observed that various occupational categories do have a bearing on crime.

At the metropolitan city level it is very difficult to ascertain the environmental factors promoting or inhibiting

crime. As such, these determinants have been analysed at micro level study of crime in Delhi. It is heartening to note that some of the conclusions arrived at from this macro analysis held true at a disaggregate level-Delhi Union Territory in the latter section of the thesis. However, some of the hypothesised determinants at micro level could not be tested here.

CONCLUSION

In sum, this chapter dealt with an analysis of crime in the major metropolitan cities of India for the period 1960-1989 in order to place Delhi in a historical perspective. The position of Delhi vis-a-vis the other metropolitan cities becomes very clear from the analysis.

From a study of the incidence of crime (1960-1989), it was found that in all the metropolitan cities there was a massive rise in the total occurrence of crime except for Calcutta. The first and second positions have been occupied by either Delhi or Bombay throughout the study period. In 1960 and in 1989 Bombay surpassed Delhi, but in 1970 Delhi stood at the top (30 per cent) followed by Bombay (25 per cent). In 1980 both Delhi and Bombay together occupied the first position. In 1989 the position of Bombay was very critical since its incidence of crime was found to be equivalent to that of Hyderabad, Kanpur, Jaipur, Lucknow and Nagpur put together. Thus, it is clear that although crime in Delhi increased after 1960, but after 1980 it experienced a considerable decline too. Among the other cities the incidence of

crime in Bangalore increased five times during the study period and by 1980 had even surpassed both Madras and Calcutta. Throughout the study period Hyderabad, Kanpur and Ahmedabad were found to have the least number of crime.

With an increase in population there is a subsequent increase in the incidence of crime. This became evident on analysing the growth rate of crime and population in the metro cities of India between the period 1960 to 1989. On calculating the growth of absolute crime it was found that Bangalore has had a very high growth followed by Ahmedabad and Delhi, whereas Calcutta had the least.

On analysing crime against women in major metropolitan cities it was found that larger cities like Delhi, Bombay and Calcutta had a much higher incidence as compared to smaller cities like Pune, Jaipur and others. Among the 12 metropolitan cities, Delhi accounted for 30 per cent of rape cases and 46 per cent of kidnapping cases in 1990. Growth rate of rape was higher in Delhi for the period 1985-1990 and negative growth rate of rape cases was observed in Calcutta, Hyderabad, Kanpur and Jaipur. Among all the metropolitan cities Madras had the highest growth rate in kidnapping and abduction cases. Ahmedabad occupied second position in the growth rate of rape as well as kidnapping cases.

The determinants which explained the varying occurrences of crime in the metropolitan cities were as follows :-

In large cities there was a greater incidence of crime and densely populated areas promoted a greater incidence too. With an overall increase in the literacy of both males and females there is an increase in the incidence of total crime. However, when there is an increase in both the sex ratio and female literacy there is a decline in the occurrence of crime against women thus indicating that crime against women is negatively related with position of women in society.

Chapter III

CRIME PROFILE IN DELHI UNION TERRITORY

The preceding chapter helped in understanding the crime problem in Delhi vis-a-vis that of the other metropolitan cities of India. It became evident that Delhi had experienced a high incidence of crime, medium rate of crime and the highest growth rate of crime among the metro-cities. Besides this, Delhi also accounted for a high share of various types of crime against women. After placing Delhi Metropolitan in a proper perspective it is now imperative to scrutinise the spatio-temporal variations in crime occurrence from one part of Delhi Union Territory to the other. By probing into the noted variations one can thus deduce the source of the problem. This would be dealt with in the ensuing chapter.

On the basis of the availability of data the time period of the present study is from 1979 to 1989. Over space different types of crimes have been analysed both at district and at police station tool. It may be seen that at every level temporal analysis has been placed first followed by the aggregate observation for a decade. Finally the contemporary scene has been analysed. This order is followed so as to provide a historical

¹ There were 9 districts in Delhi which were further subdivided into 100 police stations in 1989. The figures were 6 and 60 respectively in 1979. Refer to Methodology in chapter I regarding the grouping of various types of crimes.

base for the understanding of existing as well as changing crime scenario.

Although crime against women is a part of total crime, but due to its rising importance as a consequence of greater awareness, the gender aspect of crime has been dealt within a separate section of this chapter. Secondly, the rate of crime against women has been calculated per lakh of females as against per thousand of total population for the rest of the crimes.

CRIME IN DELHI²

A brief review of crime in Delhi revealed that between 1980 and 1989 the maximum number of crimes occurred in 1980 and the minimum in 1982, but the crime rate figures showed the highest in 1980 and the lowest in 1987 (Table 3.1). On calculating the growth rate of absolute crime it is found that there has been more often a negative growth rate. The maximum negative growth rate occurred between 1980 and 1981 showing a decline of -18.46 per cent. It may be reiterated at the risk of repetition that negative growth rate is consequent upon increased patrolling with the help of PCRs and greater division of work with a larger work force and increasing number of police stations in the national capital after 1980. This was followed by a negative growth rate between 1986 and 1987 showing a decline of 13.4 per cent. The maximum positive growth rate occurred between

² From here on Delhi refers to Delhi Union Territory.

Table 3.1

Growth Rate of Crime in Delhi

Year	Total I.P.C.	Population	Crime Rate per(000) population	Growth rate of crime	Growth rate of crime rate
1980	37586	5905405	6.36	-	-
1981	30646	6220406	4.93	-18.46	-22.48
1982	27165	6535407	4.16	-11.36	-15.62
1983	27360	6850409	3.99	0.72	-4.09
1984	30775	7165410	4.29	12.48	7.52
1985	30411	7480411	4.07	-1.18	-5.13
1986	29828	7795413	3.83	-1.92	-5.90
1987	25832	8110414	3.19	-13.40	-16.71
1988	28013	8425416	3.32	8.44	4.08
1989	28467	8740416	3.26	1.62	-1.81

Source : Data has been taken from Police Head Quarter, New Delhi and computed by the writer.

1983 and 1984 showing a 12.84 per cent increase. This may be as a consequence of the murder of the Prime Minister of India and the subsequent riots and turmoil that followed.

Among the different types of crimes the figure showing riots indicate the largest occurrence of riot cases (Fig.3.1). Otherwise riot cases have been generally on the decline after 1980. The incidence of major crimes against persons (murder and attempt to murder) have been on the rise. Property crimes (theft

DELHI

MAJOR TYPES OF CRIME

1980 - 89

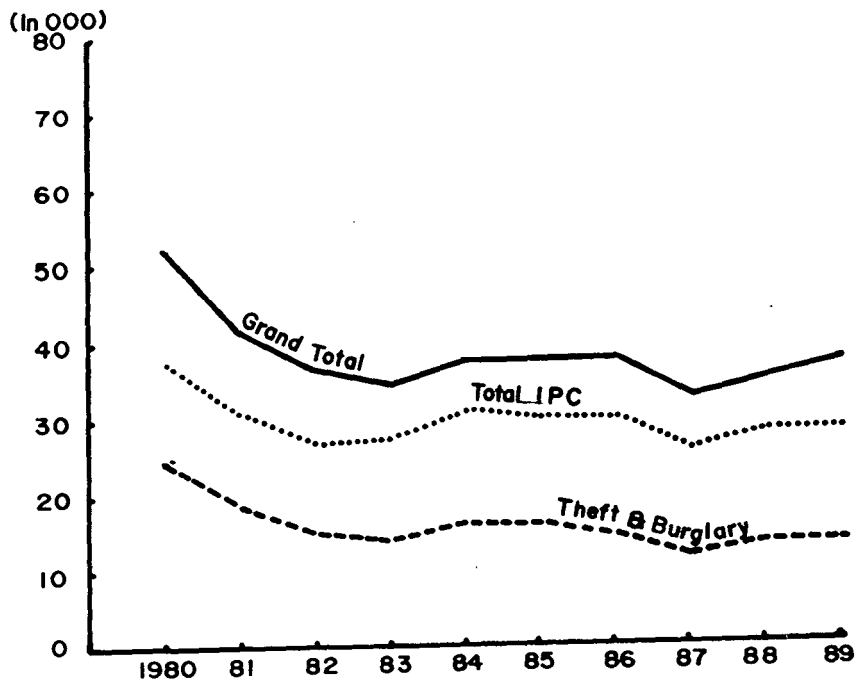
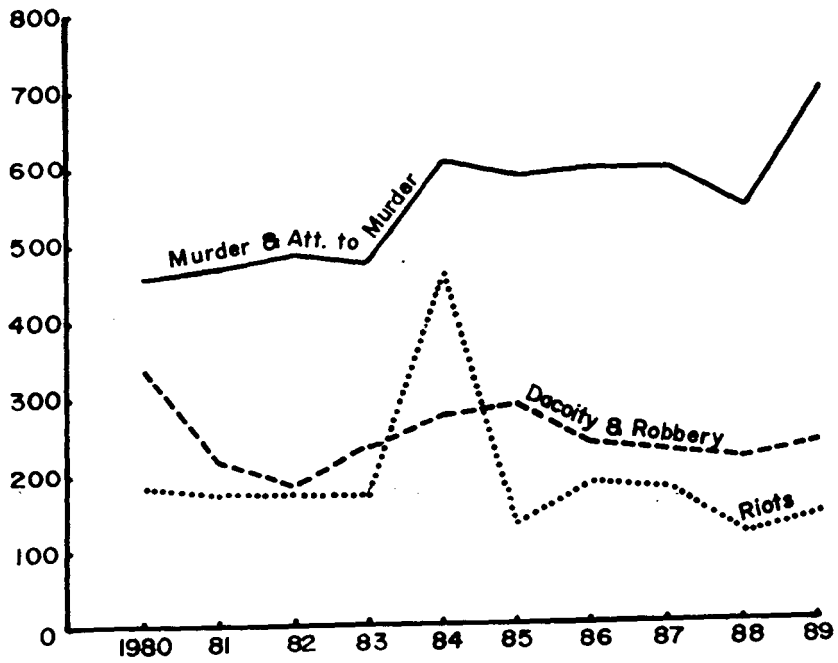


Fig. 3.1

and burglary; and dacoity and robbery) and total crime have shown a declining trend on the whole.

Table 3.2 shows the different types of crime in Delhi, their rate per thousand of population and growth rate of crime and crime rate for the period 1980-1989. All the different categories of crime experienced a decline in its rate except for murder and attempt to murder which has shown a positive growth rate.

Table 3.2

Types of Crime in Delhi

Type of Crime	Total no. of cases		Rate/thousand of population		Growth Rate 1980-89	
	1980	1989	1980	1989	Absolute number	Crime rate
Dacoity & Robbery	326	211	0.06	0.02	-35.28	-66.67
Murder & attempt to murder	450	614	0.08	0.07	36.44	-12.50
Riots	180	133	0.03	0.02	-26.11	-33.33
Burglary & theft	24708	13255	4.18	1.52	-46.35	-63.64
Total IPC Grand total	37586	2846	6.36	3.26	-24.26	-46.74
With acts	50323	36160	8.52	4.14	-28.14	-51.41

Source : Same as Table 3.1.

For Delhi as a whole there has been a decline in the incidence of crime and rate of crime too after 1980 as reflected through a negative growth rate of crime and crime rates. Among

the different types of crimes, only the incidence of murder and attempt to murder has increased for the period under review, but showed a stable crime rate. Riot cases have been stable throughout the period except in 1984.

DISTRICTWISE CRIME IN DELHI

There is a lot of variation not only in the incidence and rate of crime, but also in the type of crime from one district to another. This may be because of the singular characteristics of particular districts concerning land use, urban growth, socio-economic conditions, etc. Thus, some background information pertaining to the districts follows, prior to the analysis of crime in them.

A Resume Of The Districts

The growth of districts from 6 to 9 has already been dealt with in the Methodology part of Chapter I. Here each district has been described in brief³.

Central district which occupies the innermost part of Delhi, consists of twelve police stations and Dariyaganj is its district headquarter. Most of this district comes under the walled city and as such the area is full of shops, busy business

³ Table 3.3 from an earlier study indicates the district ranking of crime and other socio-economic variables. The data in the table pertains to only 6 districts. Although at present there are 9 districts, but the information provided by the table helps to give a general outline of the districts.

centres, old residential quarters and crowded streets. Jama Masjid, both a historical monument and a sacred place of Muslims, is located within the Jama Masjid police station area. It attracts a lot of tourists and devotees from all over the country and abroad. The density of population is the highest in this district (24195 persons/sq.km according to 1981, Table 3.3). It also has the highest percentage of scheduled caste population to its total population.

Table 3.3

Crime and Other Socio-Economic variables-District Rankings

Subject	North	East	Central	West	New Delhi	South
Density of Population/ sq. km (1981)	4056 (4)	11709 (2)	24195 (1)	2389 (5)	4589 (3)	682 (6)
Rate of crime/1000 of population*	45.99 (4)	32.9 (6)	51.4 (3)	33.8 (5)	130.8 (1)	52.4 (2)
SC population (Total)	6	3	1	2	4	5
SC Population (Male)	6	3	1	2	4	5
Total illiterates	3	1	4	2	6	5
Male illiterates	4	1	3	2	6	5
Non-workers (Total)	3	1	5	2	6	4
Non-workers (Male)	3	1	5	2	6	4
Marginal workers (Total)	2	5	6	1	3	4
Marginal workers (Male)	3	5	6	1	2	4

Note : Figures given in brackets stand for rank.
+ Population of 1981 and crime data of 1986.

Source : Research Cell, Police Headquarter, New Delhi. District Census Handbook of Delhi (1981) and computation by the writer.

Of the total scheduled caste population of Delhi about 12.1 per cent are residing in the central district (Table 3.4). The whole of the walled city of Delhi and its extensions were declared as slum under section 3 of Slum Area Act (Census of India 1981).

Table 3.4

Scheduled Caste and Slum Population : Districtwise 1981

Sl. District No.	No. of Police Stations	Percentage of Scheduled Caste population to the total SC population of Delhi	Percentage of Slum population to total population of district
1. West	12	13.07	13.6
2. Central ⁺	12	12.1	-
3. East	9	9.15	13.2
4. North-East	8	8.53	31.4
5. New Delhi	6	2.77	N.A.
6. South	15	17.74	11.1
7. South-West	11	8.4	10.5
8. North	13	8.26	N.A.
9. North-West	14	19.67	17.2
Delhi	100	100	

Note : + Almost the whole of central district has been designated as slum according to the Census of India, 1981.

Source : District Census Handbook of Delhi, Census of India, 1981, Municipal Corporation of Delhi (Slums), Sociology Division, 1981 and also computed by the writer.

According to an earlier study this district has very high rates of major crimes against persons, but Table 3.3 indicates only a medium crime rate⁴. The medium crime rate in central district can surely be attributed to less of reporting and less of registering by the citizens and police respectively. It has been explained in the latter part of the thesis how there is an uneven distribution of police force among the 9 districts. Although this district's density of population is six times to that of New Delhi, it has only one-third of police per ten thousand of population (Jos 1988).

New Delhi district lies to the south of the central district and it consists of 6 police stations. The District Headquarter is situated in Parliament Street. This district is the totally planned part of Delhi and thus comprises of urban localities only. There is a well-defined C.B.D. situated in Connaught Place together with well planned residential areas (specially for Government officials), shopping complexes (Palika Bazar, Janpath, etc.), innumerable parks, cinema houses, etc. It is also famous for its Embassies, High Commissions, art galleries, auditoria and hotels. The high rate of crime in this

⁴ From an earlier study it was found that New Delhi district had the highest rate of crime, that is, more than 100 crimes per thousand of population in 1986. Central and south districts had medium rate of crime (50-100 crimes per thousand of population), and north, east and west districts had a low rate of crime (less than 50 crimes per thousand of population) (Table 3.3).

district is mainly because of the opportunities available to the offenders to commit various types of property crimes. Percentage of illiteracy and non-workers is very low. It has only two per cent of the total scheduled caste population of Delhi. Thus, high rate in this district can be attributed to better reporting by its educated residents. To conclude it can be said that New Delhi district comprises of the best part of Delhi and is visited by a large number of tourists the year round.

North and north-west districts lie towards the north of central district. The former consists of 13 police stations with its main office at Civil Lines and the latter with 14 police stations with headquarters at Ashok Vihar. These two districts have a medium density of population, but some parts of north district have very high density since it comes under Old Delhi. North-west district comprises of both rural and urban areas and has thus a mixed land use comprising of both congested colonies and posh residential settlements. Its rural areas like Rohini, Narela and Alipur have low density of population as against the urban ones. Disparity in the levels of living is very high in the peripheral parts of the district since these areas are inhabited by either very rich Jat people whose land had been sold and have become multi-millionaires and are doing flourishing business or is inhabited by very poor people like labourers doing some petty services. In sum, there is a lot of disparity in terms of distribution of wealth.

West district contains 12 police stations and its headquarter is located at Rajouri Garden. It comprises of both urban as well as rural areas. West district had a medium density of population in 1981, but since then it has undergone rapid urbanization with the coming up of new residential colonies in the peripheral part of the urban area. Most of this district comes under the unplanned part of Delhi and as such this district has a mixed land use comprising of industrial complexes, residential quarters of both rich and poor, shopping centres, cinema houses, etc. There are very few parks and gardens in this district. This district has a high percentage of scheduled caste population, slum population, illiterate population, non-workers and marginal workers. Congestion, pollution, increasing crime and unemployment are only some of the rising social problems. (Occasional Paper 1988, Negative Aspects of Urbanisation, Census of India).

South and south-west districts lie to the south of New Delhi and west district respectively. The former consists of 15 police stations with its base at Hauz Khas and the latter with 11 police stations with base at Vasant Vihar. These districts have well planned private and government residential areas interspersed with well maintained parks and gardens. South district has a low density of population, low percentage of scheduled caste population and low level of illiteracy. From an earlier study it was found that this district had the second

highest rate of crime and the highest rate of property crimes. Although no definite statement can be made, general affluence may be the reason for the high rate of property crimes.

Across river Yamuna two districts namely north-east and east came up entirely in the seventies and eighties. With increasing land price and rent rates in most parts of Delhi, people have been forced to migrate to colonies of these districts like Kalyanpuri and Trilokpuri which are mainly upcoming residential areas of the middle and the lower class people. Krishna Nagar is the headquarter of both districts. North east comprises of 8 police stations whereas east contains 9. These districts have a high density of population with an increasing growth rate. Disparity in the socio-economic levels of residents is very evident since there are both the upper class residential colonies like Preet Vihar, Gandhi Nagar and slums and resettlement colonies of the lower class in Shakarpur, Kalyanpuri, parts of Trilokpuri, Nand Nagari, Bhajanpura and Seelampur. In fact more than one-third of the total population of north-east district is living in slums. Lack of amenities and infrastructure in the latter has created various problems like garbage dumps, blocked drains, pollution, congestion, etc. Many slums have become breeding ground of criminals and has been dealt with in depth in the latter part of the thesis. Secondly, the disparity in housing, education, recreation, etc., promotes high crime rate since many people get incited to commit property crimes.

Temporal Analysis Of Crime⁵

As far as total crime is concerned all the 6 districts experienced a negative growth rate of crime and crime rate except for west and east districts which experienced a positive growth rate of crime only (Table 3.5). However, when the total crime is broken into different categories it has been found that the occurrence of crime against person (murder and attempt to murder) is slightly on the rise and crime against property are on the decline, but riot cases are definitely on the rise.

Table 3.5

District wise Crime in Delhi

District	*Total no. of cases		Rate/thousand of population		Growth Rate 1980-88	
	1980	1988	1980	1988	Absolute number	Crime rate
South	8950	7010	6.39	3.69	-21.68	-42.25
North	9472	5654	7.40	3.26	-40.31	-55.95
Central	5608	2738	6.77	2.44	-51.18	-63.96
West	4237	4318	3.19	2.40	1.91	-24.76
East	4106	4416	3.54	2.81	7.55	-20.62
New Delhi	4029	2466	18.19	8.22	-38.79	-54.81

Note : * Total IPC Crime taken.

Source : Same as Table 3.1.

⁵ This study is for 6 police districts as according to 1980 and thus the study period is from 1980 to 1988.

The least number of murder and attempt to murder cases throughout the period have been reported in New Delhi district. The trend has been quite stable in central district, but in south and east districts the incidence is found to be increasing at an increasing rate. On the other hand north and east districts have had a consistently high record of such cases (Fig. 3.2).

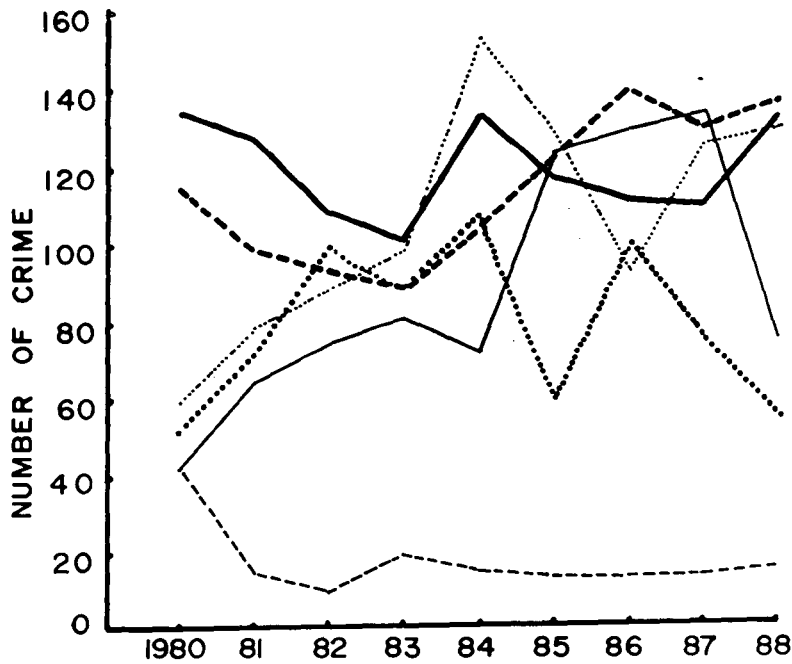
From the graph showing dacoity and robbery cases it is obvious that initially all the districts experienced a fall in the total occurrence of dacoity and robbery (Fig. 3.2). south, central and west districts are found to have undergone an increase between 1984 to 1987. On the whole, north and central districts have shown an overall descent in the occurrence of dacoity and robbery.

The total number of theft and burglary cases has also declined since 1980. Although there has been a slight rise and fall in between, but on the whole property offences without violence has markedly declined. Cases of theft and burglary are found to occur most in south district followed by east district (Fig. 3.3).

Between 1980 and 1983 riot cases have been quite stagnant in all districts except for north. As it has been observed at the aggregate level, in 1984 the riot cases shot up at disaggregate level also in the wake of the then Prime Minister's assassination. Subsequently there has been a decline in

DELHI

MURDER & ATTEMPT TO MURDER



DACOITY & ROBBERY

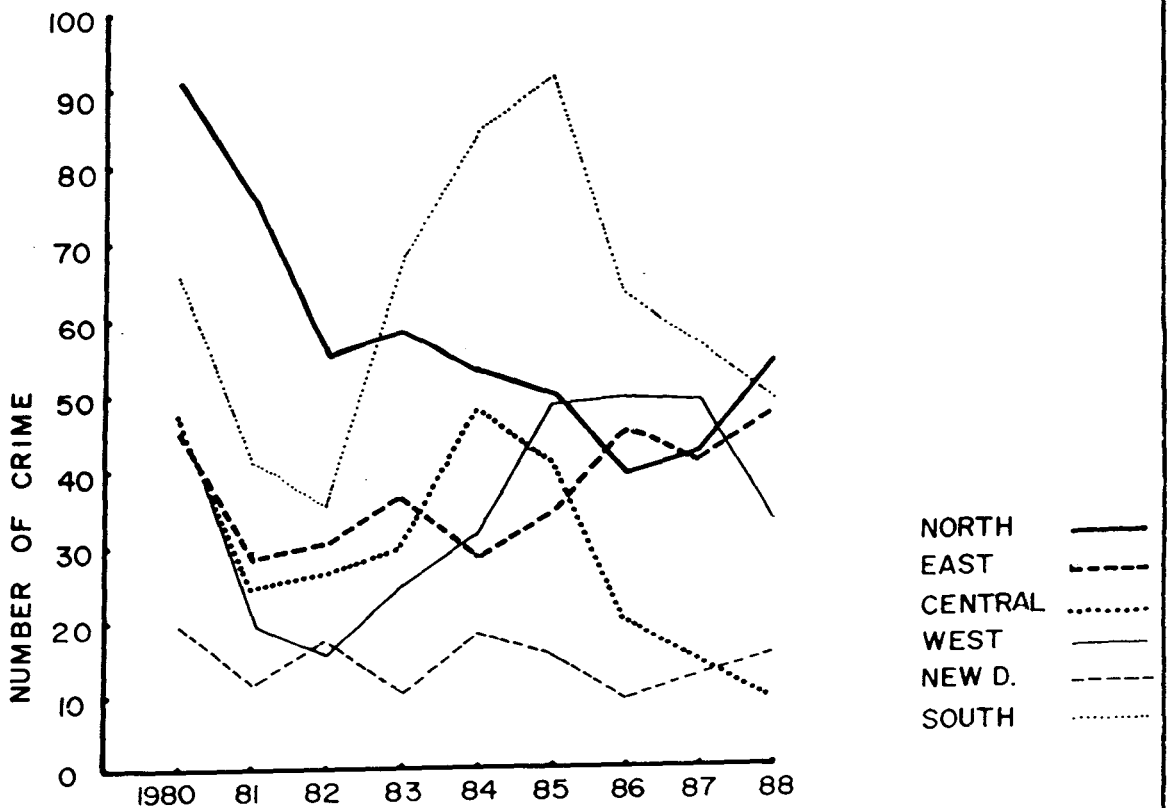


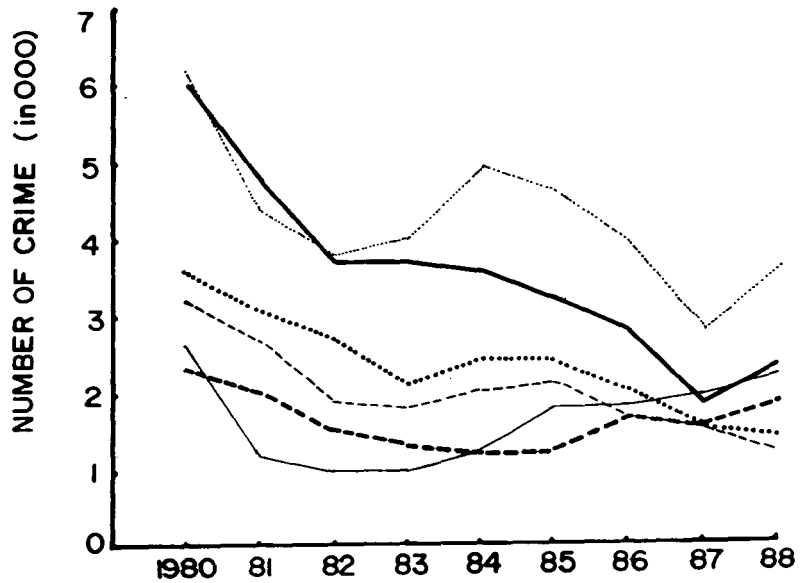
Fig. 3-2

DELHI

DISTRICT WISE CRIME

1980-88

TOTAL THEFT & BURGLARY



RIOTS

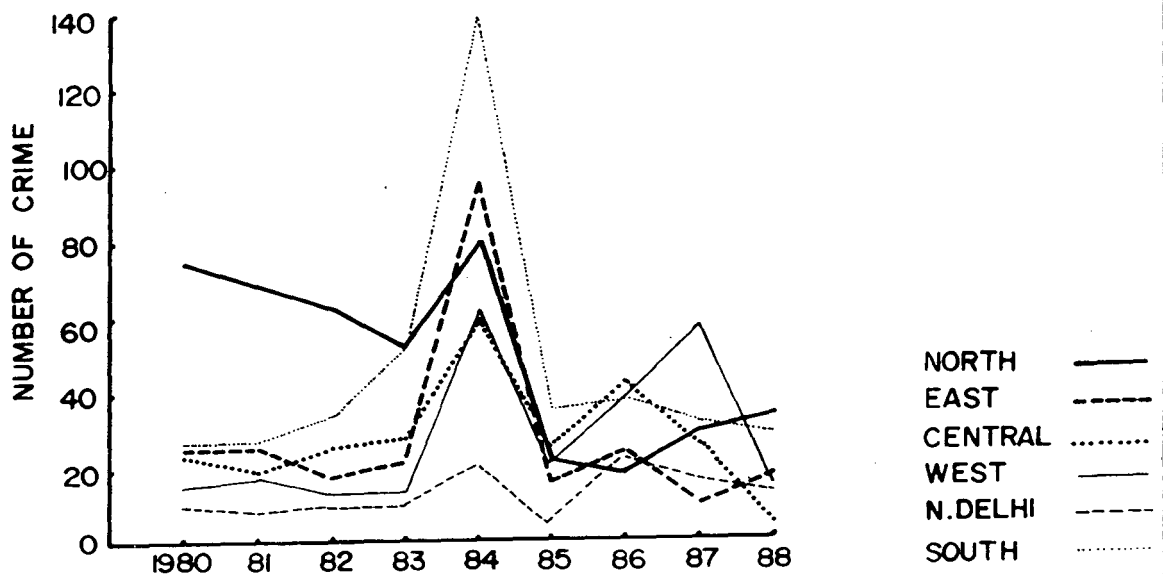


Fig. 3-3

riot cases in all districts except for west which had another peak in the year 1987. From the analysis of crime in Delhi as a whole it becomes clear that all the categories of crime experienced a decline except for murder and attempt to murder and riots. When a similar study was conducted at district level, it was again found that all property crimes are on the decline, but occurrence of murder and attempt to murder had slightly increased during the period 1980-88 in south and east districts.

Decadal Analysis Of Crime

A decadal study has been undertaken for 9 police districts of Delhi for the period 1979-88. This has been possible by making some adjustment since prior to 1989 there were only 6 police districts⁶. The main objective of this study is to find out that over the period of 10 years which type of crime is found to occur more in which district.

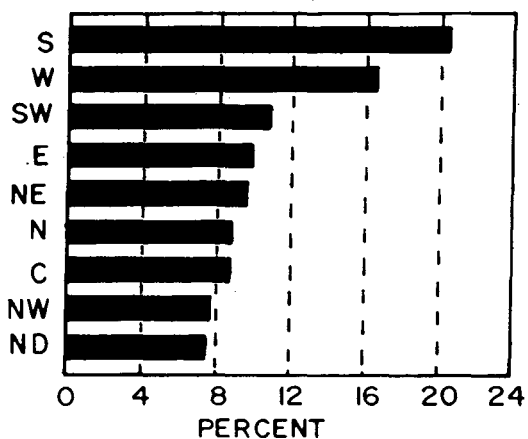
Between 1979-88 a total of 17549 burglaries occurred in the Union Territory of Delhi. This accounted for about 5.70 per cent of total I.P.C. that occurred between the same period. At the district level it was found that south district had the highest percentage (20.23) followed by west district. Both together accounted for about 36.91 per cent of the total burglary cases of Delhi. Rest of the seven districts had percentages ranging from 7 to 11 (Fig. 3.4). A total of 153639 theft cases

⁶ Refer to base maps given in Chapter I.

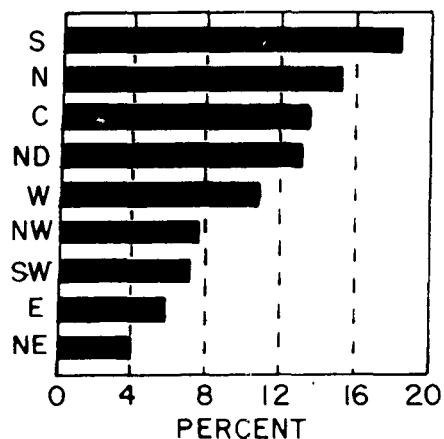
DELHI DISTRICT WISE CRIME

1979 - 88

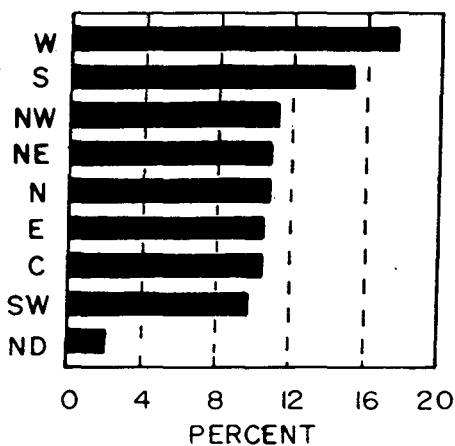
BURGLARY



THEFT



MURDER



ATTEMPT TO MURDER

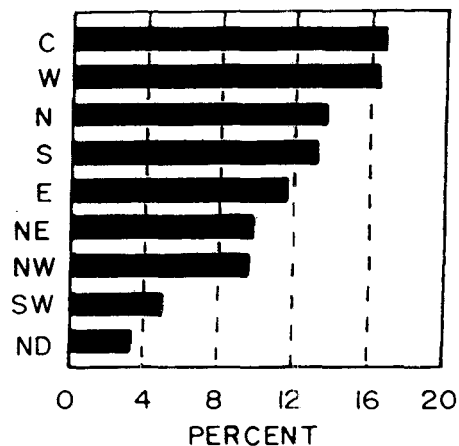


Fig. 3-4

occurred all over Delhi during 1979-88. Theft accounts for 49.93 per cent of total I.P.C. This property crime is found to occur maximum in south district (18.49 per cent) followed by north (15.72 per cent). It may be recalled that theft, burglary, dacoity and robbery are collectively known as property crimes. It is found to occur least in east and north-east districts. This is because the region called Yamuna Par has come up over a very short period and hence population as well as crime was also much less in the formative years of its development.

It is clear that south district which has the least density of population (682 persons/ sq km according to 1981) among all the districts has a high share of theft and burglary. Only some parts of south district have a high density of population. The rest of the urban areas of south district has only a medium or low density of population. The low density of population in an urban area is also an indicator of prosperity. This is because only the rich and the affluent can afford to buy big plots and build huge bungalows in any urban area. It is not thus surprising that south district accounts for a very high rate of property crimes, its low density of population, helping the criminals to escape easily, being an additional factor.

Percentage of murder is very high in west district (17.78) followed by south (15.24). Both together account for about 30 per cent of the total murder cases. A sum of 2565 cases of murder occurred during the years 1979-88. Cases of murder are

the least in New Delhi district. It accounted for only about 2 per cent. Rest of the six districts have percentages ranging from 9.5 to 11.5. Central district which is the most densely populated district of Delhi has the highest percentage of attempt to murder cases. The second position is occupied by west district. south-west district which is notorious for property crimes is found to have a very low percentage of attempt to murder cases and New Delhi the least densely populated district has the lowest percentage of such cases.

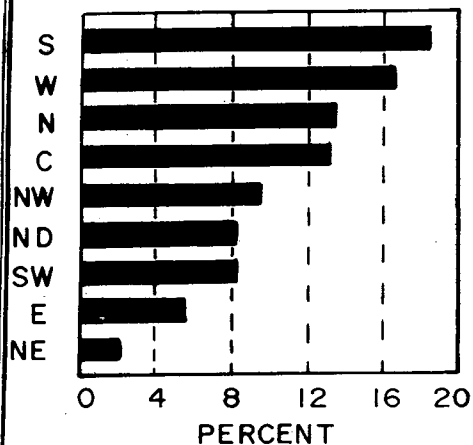
Total number of snatching cases that occurred in Delhi during the decade 1979-88 were 1745. Out of this, 308 cases (17.65 per cent) occurred in south district alone. South district is followed by west (14.47 per cent) as far as such cases are concerned. Snatching is found to occur the least in the districts of east and north-east (Fig. 3.5). A total 2531 robbery cases took place in Delhi during 1979-88. South district is found to have a very high percentage of robbery cases (17.90) followed by north district (16.12). Robbery cases are found to have occurred the least in east and north-east districts. A total of 283 dacoity cases took place in Delhi during 1979-88. Out of this 71 cases occurred in south district alone accounting for 25 per cent of the total dacoity cases of Delhi. The percentage share is the least in New Delhi district (3.89).

2121 riot cases occurred between the years 1979 to 88. The maximum number of such cases (351) occurred in the north

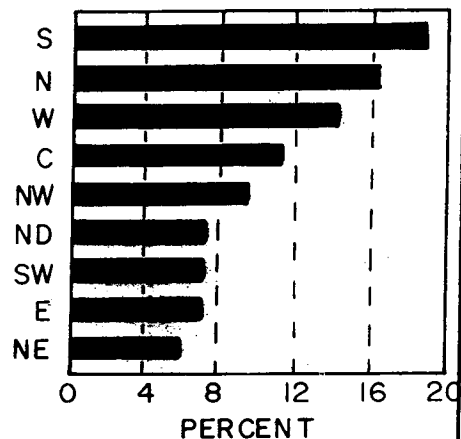
DELHI DISTRICT WISE CRIME

1979-88

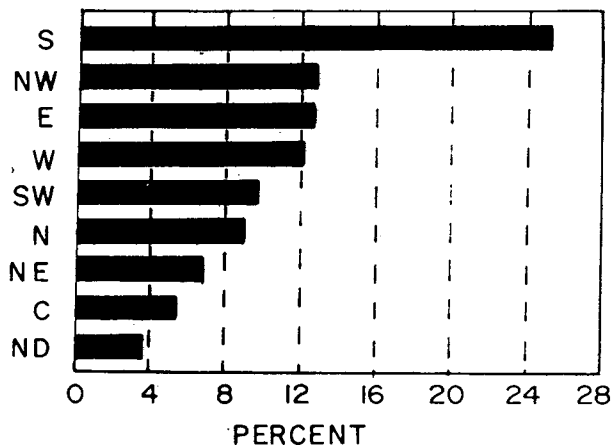
SNATCHING



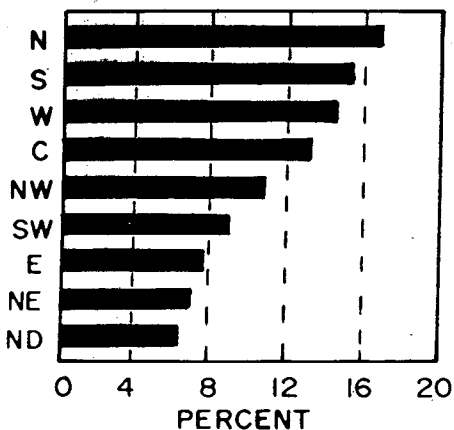
ROBBERY



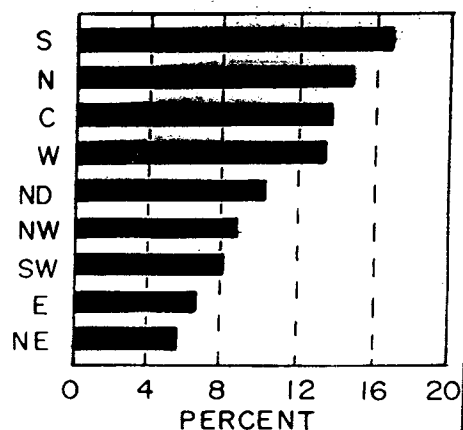
DACOITY



RIOT



TOTAL I.P.C.



district (16.55 per cent) followed by south district (15.51 per cent). Cases of rioting are found to be least in east, north-east and New Delhi districts.

A total of 30769 cases occurred in Delhi between 1979 to 1988. Out of this about 17 per cent of cases occurred in south district itself. North district comes second with about 15 per cent of the total cases. Percentage share is found to be the least in east and north-east districts.

Thus, from this decadal study it is clear that property crimes like burglary, theft, snatching, robbery and dacoity are found to be occurring utmost in south district which is one of the most affluent districts of Delhi. The second position with regard to property crimes is held either by north, west or north-west district. The percentage share is found to be least in New Delhi or north-east district. New Delhi inspite of being a prosperous and commercial hub of Delhi has a low percentage share because of its smaller size. Crime against persons such as murder is found to be occurring maximum in west district followed by south and north-west. Whereas attempt to murder is occurring maximum in central followed by west and north-west district. Cases of riots are prevailing most in north followed by south district. Thus, on the whole total crime is occurring utmost in south district followed by north and central districts and the least in east and north-east districts.

Present Scenario Of Crime

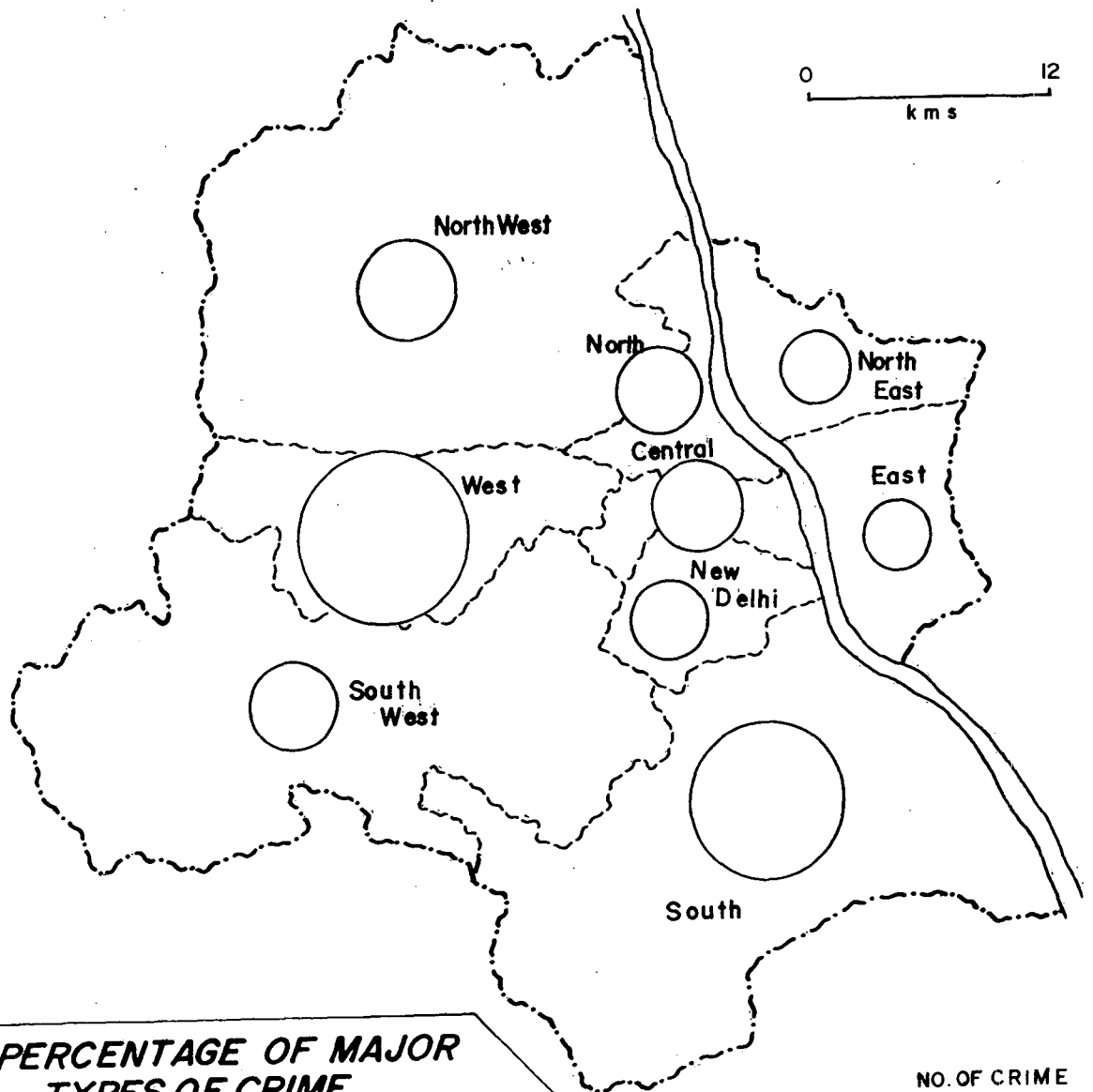
In order to see the latest position of crime occurrence in various police districts of Delhi 1989 data has been used for 9 police districts of Delhi. From Fig. 3.6, it is clear that west district accounts for the largest share of total crime followed by south. But on calculating the crime rate it was found that the highest rate was in New Delhi with as much as 848 cases (total IPC) per lakh of population (Table 3.6). This district is followed by west with 362 cases.

Table 3.6
Crime Rate in Districts (1989)

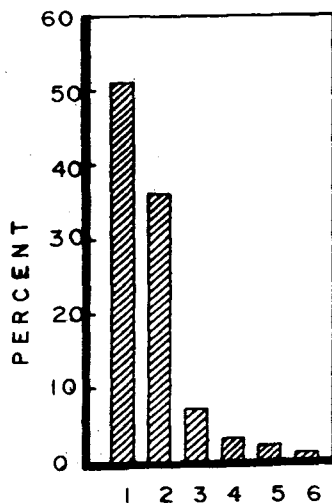
District	Rate (00,000) of Population					Total IPC	Grand Total with Acts
	Murder and Attempt to Murder	Dacoity and Robbery	Theft and Burg- lary	Snatch- and Pick- pocket- ing	Other IPC		
West	9	3	190	15	140	362	506
Central	8	2	144	33	105	292	552
East	10	3	106	5	101	225	348
North East	12	3	153	12	132	311	450
New Delhi	7	4	489	37	311	848	1017
South	6	3	172	35	80	296	351
South West	8	2	144	23	119	297	364
North	6	1	116	20	103	246	351
North West	7	3	75	5	107	197	284
Delhi	8	3	150	19	116	295	412

Source : Data from various district headquarters and computed by the writer.

TOTAL CRIME IN POLICE DISTRICTS OF DELHI 1989

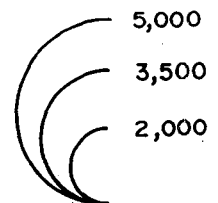


PERCENTAGE OF MAJOR TYPES OF CRIME DELHI (1989)



1. Theft and Burglary
2. Accident and Hurt
3. Snatching and Pick pocketing
4. Murder and Attempt to murder
5. Dacoity and Robbery
6. Riots

NO. OF CRIME



State Boundry
District Boundry

Fig. 3-6

The largest number of murder and attempt to murder cases occurred in west and north-west districts, but the highest rate was in east and north-east districts. Dacoity and robbery cases are taking place the most in south district accounting for more than 22 per cent of dacoity and robbery that took place in Delhi and has a rate of 3 cases per lakh of population (Table 3.7). West district has a high percentage of theft and burglary cases although till 1986 it was south which topped all the districts as far as property crimes were concerned. At present the highest rate of such cases are found to take place in the moderately densely populated New Delhi district with 489 cases followed by west with 190 and south with 172 cases per lakh of population.

In sum, at police district level study of Delhi for 1989, it has been found that the highest rate of total crime occurred in New Delhi followed by central and west districts. On observing the rates for various categories of crime it was found that areas beyond river Yamuna had the highest rate of murder and attempt to murder cases. Rates of various types of property crimes like dacoity, robbery, theft, burglary, snatching and pick-pocketing are found to be very high in New Delhi followed by west and south districts. Thus, crime against persons are occurring significantly in newly settled areas of the city (beyond river Yamuna) with a moderate density of population. It may be recalled from the earlier given 'resume of the districts of Delhi' that these districts came up entirely in the seventies

Table 3.7

**Percentage Share of Different Categories of
Crime, 1989 (Districtwise)**

District	per cent to Total Crime						Grand Total with Acts
	Murder and Attempt to Murder	Dacoity and Robbery	Theft and Burg- lary	Snatch- and Pick- pocket- ing	Other IPC	Total IPC	
West	16.74	17.62	19.89	11.77	18.41	18.68	18.66
Central	10.25	5.73	9.35	16.65	8.78	9.60	12.97
East	12.27	11.01	7.11	2.56	8.80	7.65	8.46
North East	11.98	7.93	7.96	4.70	8.92	8.23	8.53
New Delhi	2.74	4.85	10.05	5.89	8.30	8.85	7.60
South	11.69	22.47	19.25	30.32	11.69	16.84	14.31
South West	10.39	8.81	9.65	12.07	10.30	10.07	8.85
North	8.80	5.73	8.57	11.47	9.87	9.25	9.45
North West	15.15	15.86	8.15	4.58	14.93	10.83	11.15

Source : Same as Table 3.6.

and eighties. With increasing land price and rent rates in most parts of Delhi, people have been forced to migrate to colonies of these districts like Kalyanpuri and Trilokpuri which are mainly upcoming residential areas of the middle and the low class people. The population is very heterogeneous in nature not only in terms of castes and religions, but also class. As such, there is marked variation in the living conditions of the rich and the poor and many of the localities are faced with various environmental problems as a consequence of lack of basic

amenities. As high as 32 per cent of the total slum population of Delhi are residing in north-east and east district. On the other hand property crimes are occurring in affluent districts of New Delhi and south. There are no notified slums in New Delhi whereas the percentage of slum population in south to the total population is only about 11 per cent. West district has a very high rate of theft and burglary, but not of dacoity and robbery, may be because the high density of population inhibits criminals working in gangs to attack due to lack of escape routes.

POLICE STATIONWISE CRIME IN DELHI

After analysing crime in police districts it was found that all the districts underwent a significant decline over the study period in terms of growth rate of crime rate but the highest growth rate of crime was found in east district followed by west. The decadal analysis of crime at the level of police districts, revealed that affluent districts like south, followed by north and north-west, are prone to property crimes. On the other hand, maximum crimes against persons are occurring most in densely populated west and central districts, but the present scenario of crime shows an increase in the occurrence of such crimes in localities across river Yamuna. Such aggregate level analysis, however, conceal localised pattern within the districts. Further probe at the lowest level of available data, i.e., police station, has been done with a view to bring out such variations.

Temporal Analysis Of Crime⁷

For this section of the chapter the rate of crime has been calculated separately for 1979 as well as for 1989 using census data of 1981 and projected population data for 1991 at police station level. Further, the growth rate has been calculated category-wise for absolute number and finally growth rate of crime rate has been calculated. In the following sections the patterns as emerging from the data are shown.

At the outset it may be pointed out that dacoity, robbery, murder and attempt to murder, constitute a much less proportion of the total crime committed, but the regional variation offers an interesting picture.

In the case of dacoity and robbery 53 police stations of Delhi were found to have a negative growth rate over the study period whereas only 5 police stations had positive growth rate of crime rate⁸. There is not much of variation in the areas falling in high medium or low for growth rate of crime or for growth rate of crime rate. The worst affected localities are found to be three peripheral areas having a large number of rural population

⁷ This analysis is only for 60 police stations of Delhi since for the sake of comparability of the data, the data for 100 police stations in 1989 has been grouped together and thereby reduced to 60 police stations as in 1979.

⁸ The divisions of the data into high, medium and low has been done by visual observation. Because of lot of variation the mean plus minus half standard deviation method was found not to be applicable.

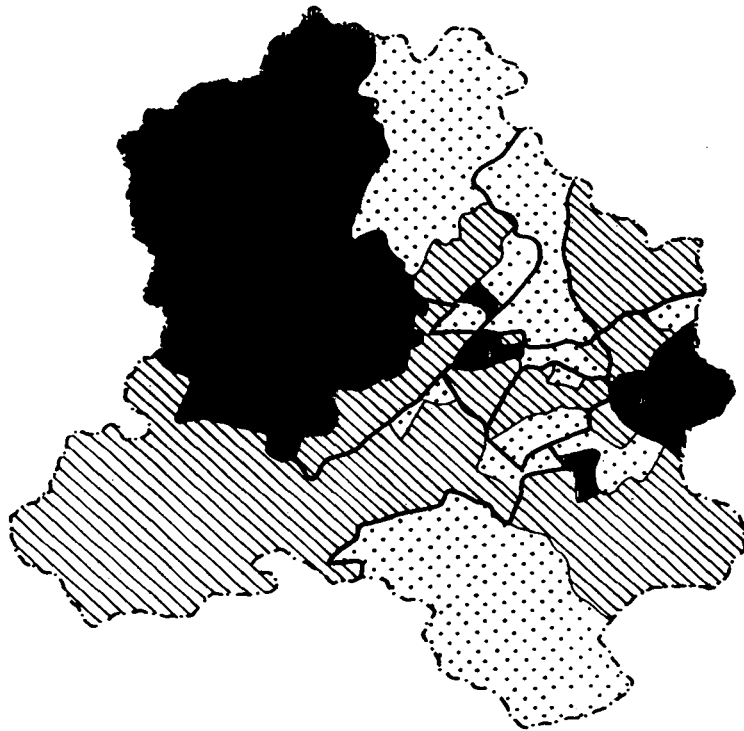
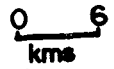
together with large farm houses of the rich and the affluent. These are namely that of Nangloi and Narela in north-west Delhi (Fig. 3.7). Two localities having high growth rate of crime rate in central part of Delhi are Karol Bagh of central district and Patel Nagar of west district. Both these localities are having a higher proportion of high class residential areas together with commercial complexes and moderate density of population. The areas having very low growth rate of crime and crime rate are located either in central district having very high density of population or in some parts of New Delhi and south district. Some of the rural areas of north district and Mehrauli of south district are also found to have a high negative growth rate.

Murder and attempt to murder cases are on the increase in some parts of New Delhi, west, south and east districts. Areas having high growth rate of crime as well as crime rate are found to be very much similar (Fig. 3.8). Murder and attempt to murder take place either because of street quarrels or disputes over property, family violence and also during dacoity and robbery attempts by various notorious criminals⁹. In east district most of the murder and attempt to murder take place because of

⁹ Lambert (1970) studied 562 disputes in Birmingham and found that they arose mostly from domestic quarrels, street arguments or disturbances in public houses. The highest number of disputes were associated with landlords-tenants or tenant-tenant disagreements in privately rented housing. Disputes, it was argued, are symptomatic of the general disorganization and instability typical of such areas.

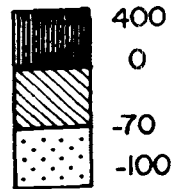
DELHI DACOITY AND ROBBERY

1979 - 89

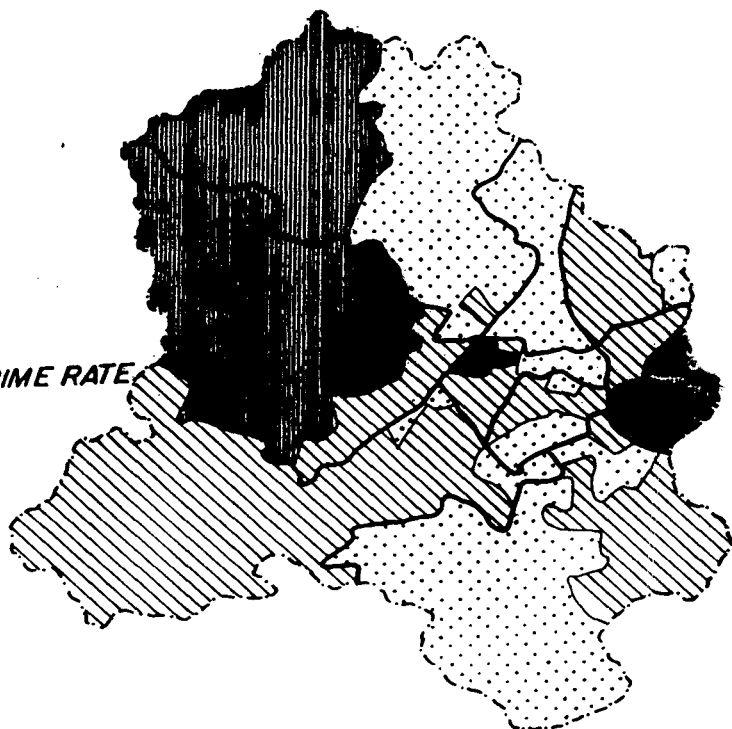
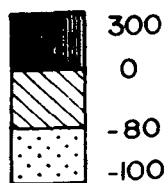


GROWTH RATE OF CRIME

PERCENTAGE



GROWTH RATE OF CRIME RATE
PERCENTAGE



— Police district boundary

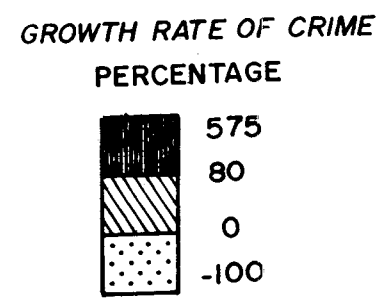
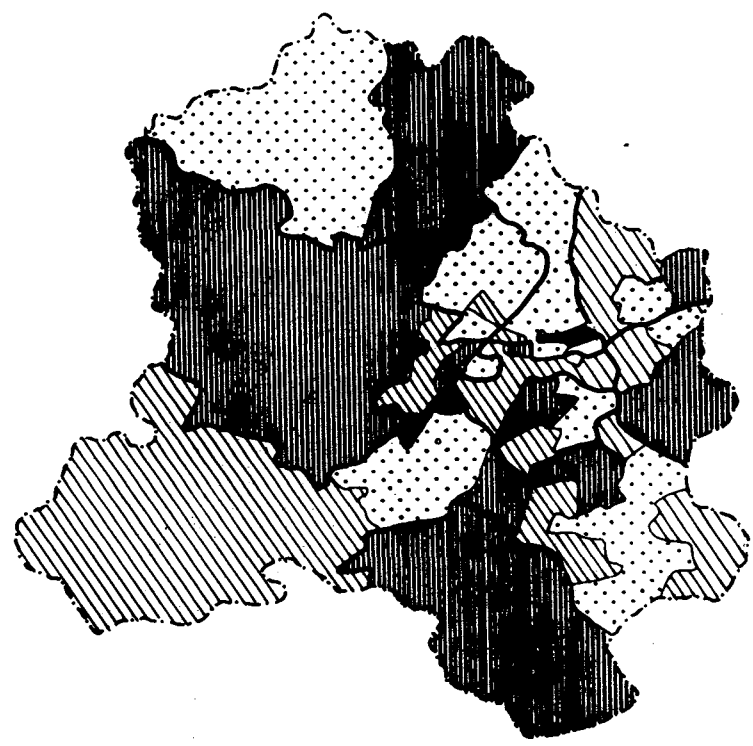
Fig 3-7

DELHI

MURDER AND ATTEMPT TO MURDER

1979 - 89

0 6
kms



GROWTH RATE OF CRIME RATE
PERCENTAGE

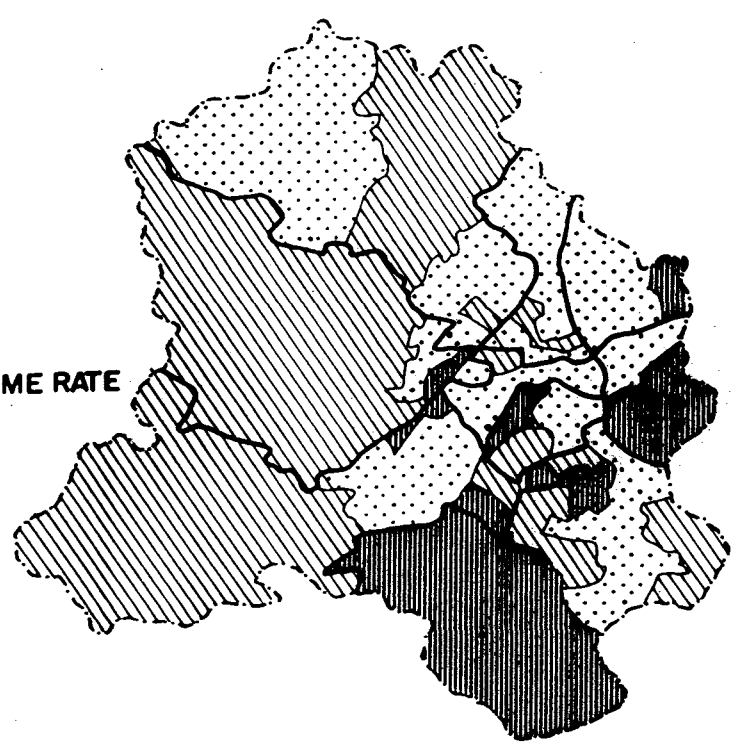
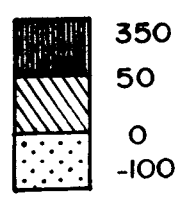


Fig. 3-8

quarrels among the residents specially in Jhuggi-Jhopri (squatters) and resettlement colonies in Kalyanpuri, Trilokpuri and Shakarpur. In these localities the percentage of slum population to the total population in 1981 is as high as 45 per cent.

Incidence of theft cases are on the increase in west and east districts, but on calculating growth rate of crime rate it has been found that all localities of Delhi underwent a significant decline and all of them are having a negative growth rate. The areas with least negative growth rate is to be noted in most of south-west and north-east and east districts (Fig. 3.9). High negative growth rate of such crimes are found in the whole of north district along with congested colonies of central district.

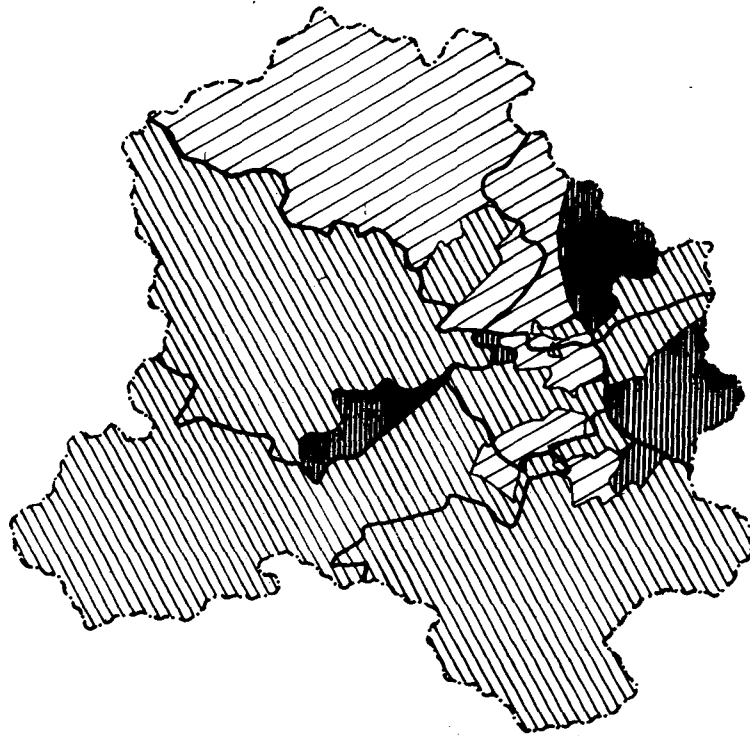
In sum, where all the crimes are taken together it was seen that ten police stations in different districts witnessed a positive growth in the total incidence of crime. Whereas only one locality experienced positive growth rate of crime rate (Fig. 3.10). The areas which experienced a very high negative growth rate are some localities of north district, most of central district and some parts of south district.

The conclusions drawn from the district level study on growth rates holds true at police station level too. In all the localities there was a decline in the growth rate of theft and

DELHI THEFT AND BURGLARY

1979-89

0 6
kms



**GROWTH RATE OF CRIME RATE
PERCENTAGE**

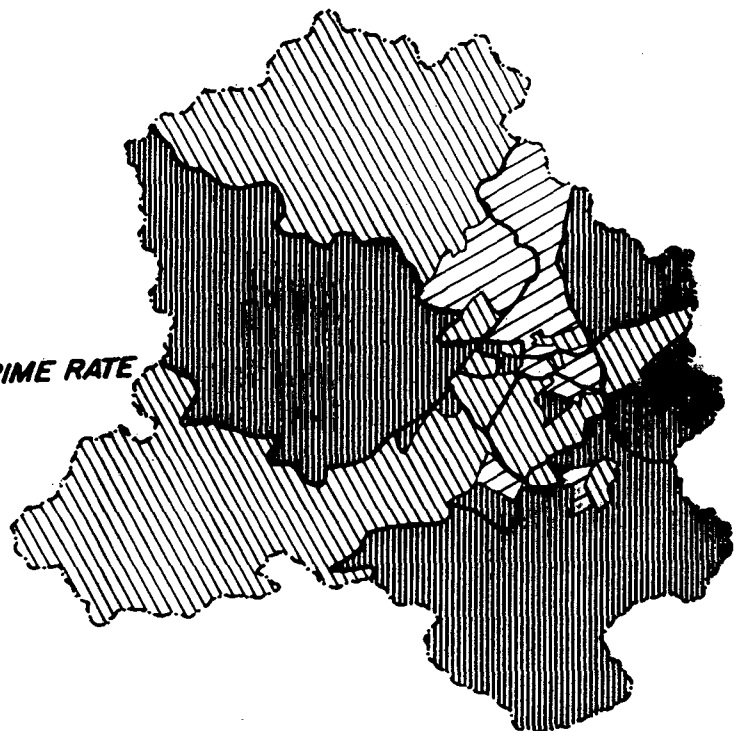
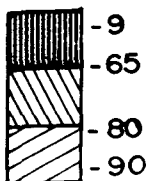
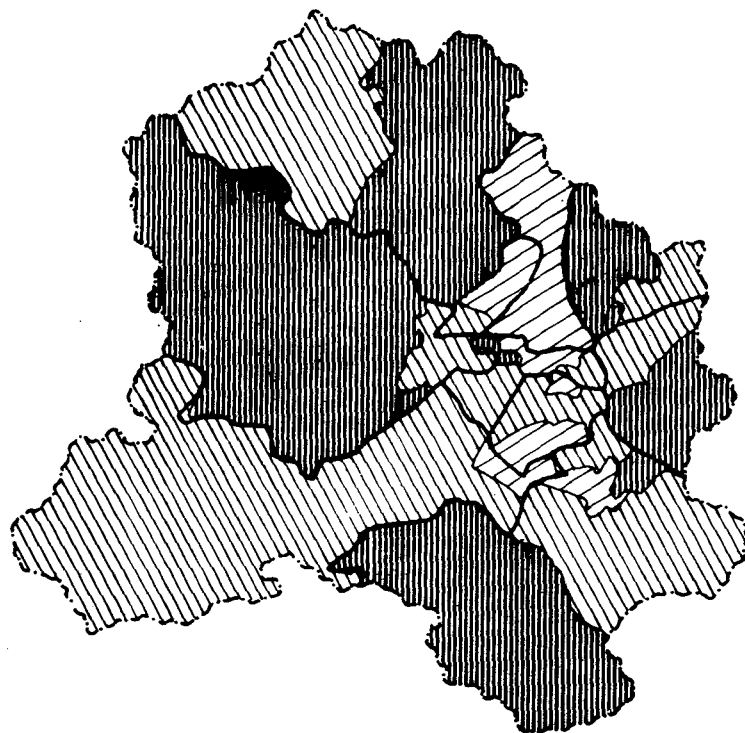


Fig. 3-9

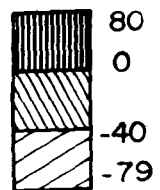
DELHI
GRAND TOTAL

1979-89

0 6
kms



GROWTH RATE OF CRIME
PERCENTAGE



GROWTH RATE OF CRIME RATE
PERCENTAGE

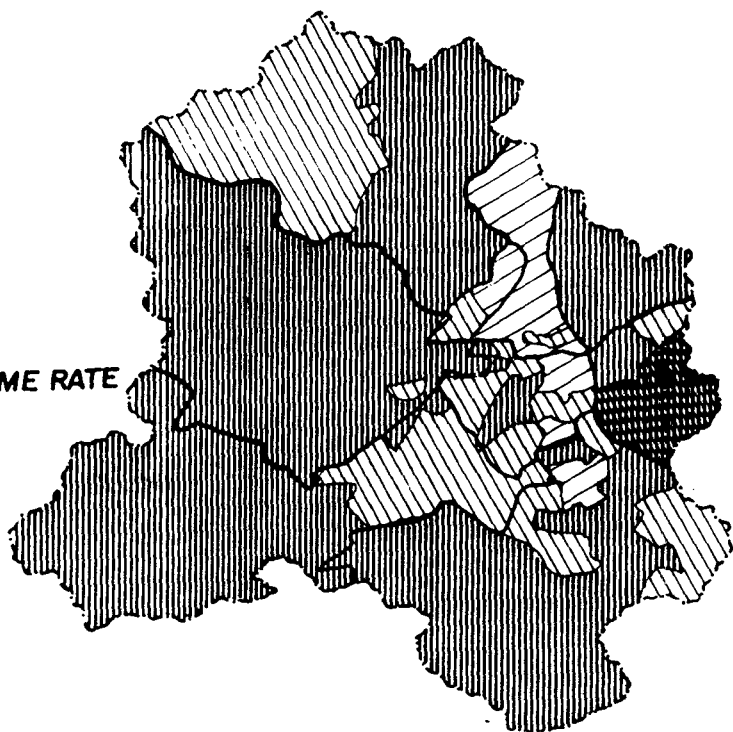
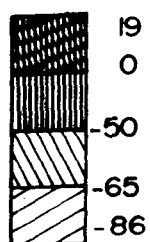


Fig. 3-10

burglary. Most of the localities had a negative growth rate of dacoity and robbery too. The localities which had a positive growth rate of crime rate are either well to do farm houses in suburban or peripheral parts of Delhi or high class residential areas of New Delhi interspersed with posh commercial complexes. Very high negative growth rate of dacoity and robbery was observed in very densely populated region of central district and middle class residential areas of New Delhi and south district. Murder and attempt to murder are on the decline in most of the localities. The growth rate of crime against person is low in rural areas also and in congested parts of Delhi.

Decadal Analysis Of Crime

This section attempts to identify the localities within the various districts which are prone to various types of crimes. Thus crime data over a period of ten years (i.e., 1979-88) have been aggregated and the analysis has been done for 60 police stations which are grouped under 9 districts¹⁰.

The whole of New Delhi and central district most, of north, west, south-west and parts of south have low percentage share of dacoity. It is to be noted that dacoity is a well planned affair and is generally done by a group of people. Since

¹⁰ For each category of crime the percentage of crime in each police station from the total for Delhi was calculated. With the help of mean plus minus half standard deviation method the percentages were divided into 3 categories and then plotted on a police station map of Delhi.

the value of property to be stolen is very high the dacoits when on a raid even injure the people or the residents who come in their way. Thus, a proper escape route is the most essential factor in determining the building or bungalow to be looted. As such, the central part of Delhi Union Territory is very much unsuitable because of very high density of population and innumerable red light signals at various road crossings as also road blocks are put up at various places so as to intercept suspected criminals on the run. From Fig. 3.11 it is clear that all the peripheral areas of Delhi are prone to a higher incidence of dacoity cases with the exception of Narela in north-west and Shahdara and Seemapuri of north-east district. While the former, consisting of many villages, has been undergoing rapid urbanization in the second half of the eighties (Islam 1982). This locality experienced a high growth rate in the incidence of dacoity cases between 1979 and 1989.

Areas prone to robbery are located in three parts of Delhi. All these are mostly residential areas of the middle and upper class people interspersed with a few commercial complexes. Thus, there are plenty of opportunities and properties to be looted by the criminals.

The areas having high percentage share of murder coincide with the areas having high percentage share of dacoity except for a few exceptions. Extreme northern part of Delhi, whole of central district (except Pahar Ganj) and New Delhi

DELHI

AREAS PRONE TO HIGH SHARE OF DACOITY AND ROBBERY (1979-88)

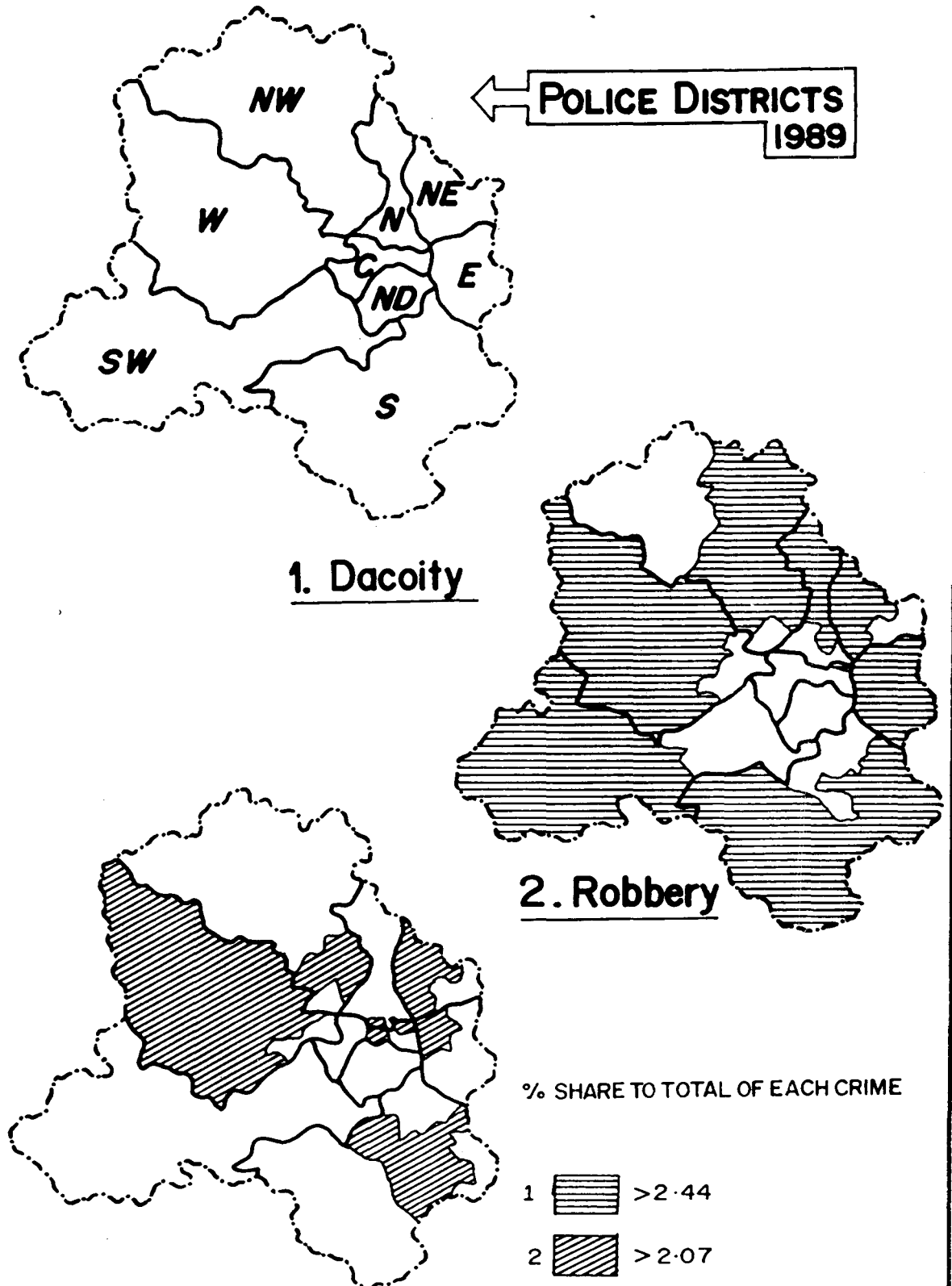


Fig. 3.11

district and part of south district have a low percentage share of murder (Fig. 3.12).

The whole of west, north-east and east districts are prone to high incidence of attempt to murder. These districts account for the highest share of scheduled caste population and slum population of total Delhi. Very often even on small pretext attempt to murder cases occur very often after provocative quarrels and enmity.

Over a 10 year period the maximum number of riots are found to occur in almost all the peripheral localities of Delhi with a little bit of concentration in north and central districts.

Between the period 1979-1989 property crimes like theft and burglary were occurring mostly in posh localities of south and east districts. On comparing the two maps on theft and burglary there is found to be much similarity except that burglary rates are higher in some parts of north and central districts (Fig. 3.13). Thus, from this analysis it is clear that posh residential colonies of south Delhi are the target areas of thieves and robbers. Moderate density of population together with large concentration of wealth is an ideal place for criminals to attack. Secondly, in most of the bungalows of these areas people keep a large number of servants for their household chores, gardening, driving, etc. Most of these people hail from poor

113
DELHI

**AREAS PRONE TO HIGH SHARE OF
MURDER, ATTEMPT TO MURDER & RIOTS
(1979-88)**

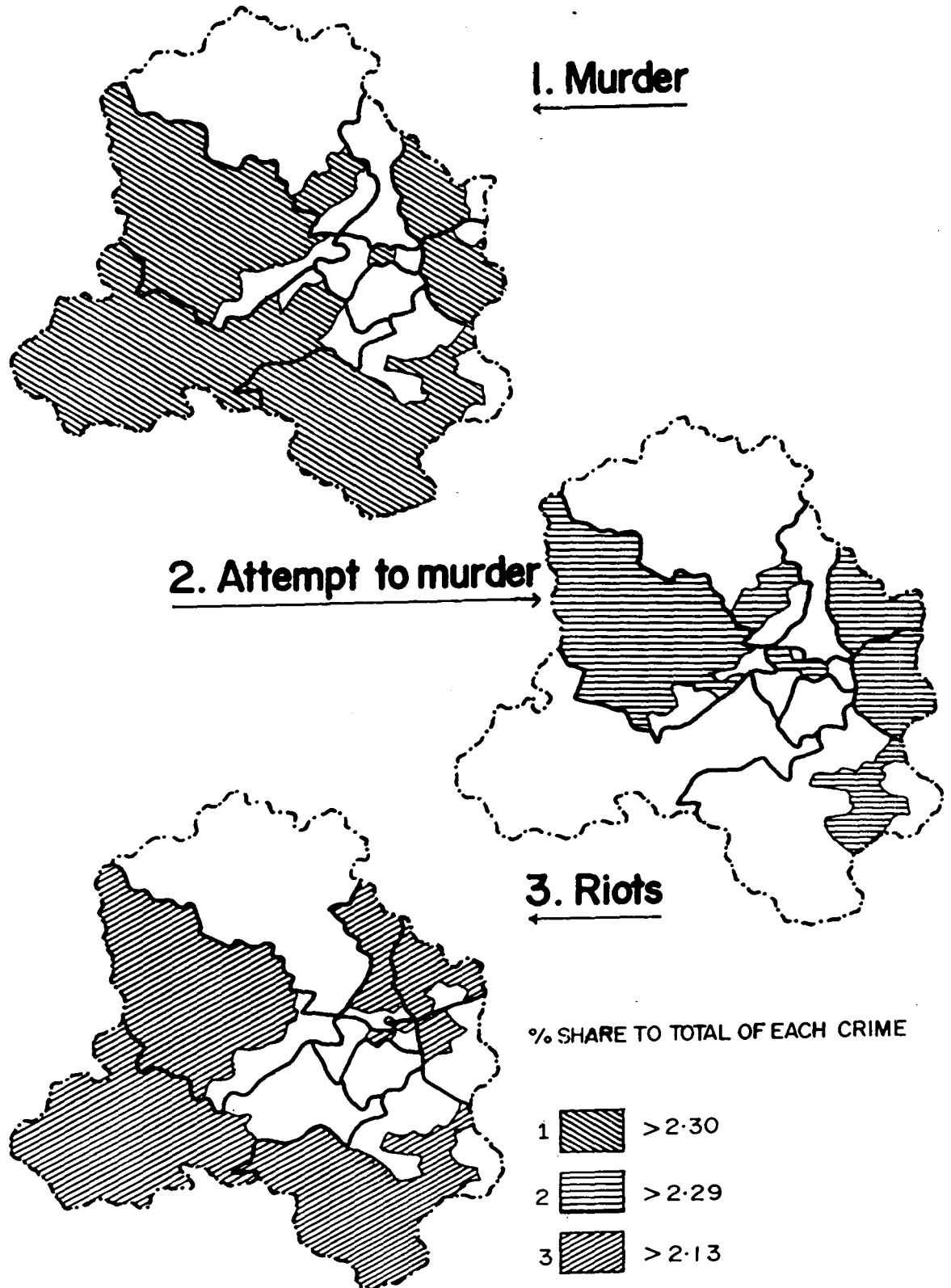


Fig. 3-12

DELHI

AREAS PRONE TO HIGH SHARE OF THEFT, BURGLARY & GRAND TOTAL CRIME (1979-88)

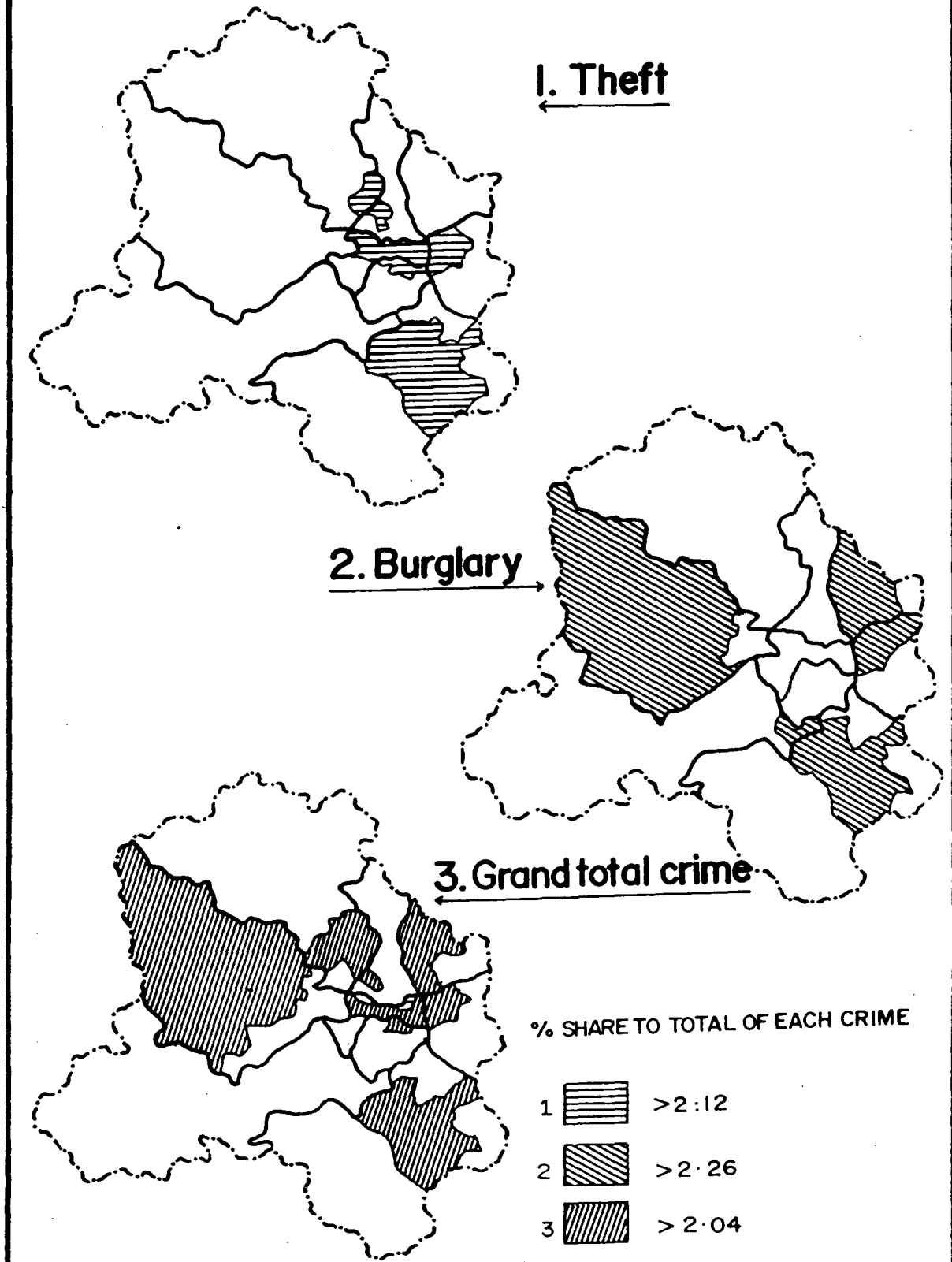


Fig. 3-13

class families of poor rural areas. The frustration within them builds up since they are unable to go back to their houses with large amounts of money. They are then forced to group together and commit property crimes.

The percentage share of total crime is found to be the highest in three localities of south district. All these are posh residential colonies of middle class and high class people. In north-east and east districts there are two localities having a consistently high share of crime. These are Seelampur and Gandhi Nagar. Both of them are congested colonies with innumerable shopping complexes specially Gandhi nagar which has got huge wholesale markets of ready made garments. Shop keepers from all over Delhi very often visit Gandhi Nagar on a buying spree. Daryaganj, Paharganj and Karol Bagh of central district are having a high share of grand total crime. All the three are commercial areas with high density of population. People from all over Delhi visit these places for shopping. According to a reporter (1992) Paharganj is a criminals' haven¹¹. According to him proximity to the railway station, congested environs with capital's busy markets of Old Delhi and Connaught Place at a stone's throw distance and over 150 guest houses offering accommodation at cheap rates make Paharganj an ideal place for both low-budget tourists and criminals.

TH-5011

¹¹ The Hindustan Times, New Delhi, April 25, 1992.

Kothwali and Subzimandi of north district are found to have a high share of total crime. The Subzimandi in this area is the collecting area for all kinds of vegetables which are brought from the hinterland of Delhi by means of trucks. A lot of money interaction takes place in this area since vegetable vendors from all over Delhi come to Subzimandi in the wee hours of the morning. Thus it is not surprising that these areas with very high density of population and floating population are prone to higher share of all types of crimes.

Connaught Place of New Delhi district has a very high rate of grand total crime. It has a large number of shopping complexes, cinema houses innumerable restaurants, guest houses and hotels together with some official buildings and street vendors around Janpath, etc. Because of all these above factors the density of moving population during day time is much more than the actual density of residential population. Under these circumstances it is obvious that there would be a high share of grand total crime.

From this decadal analysis it has been found that dacoity cases are occurring maximum in peripheral areas of Delhi, whereas robbery cases are occurring maximum in areas occupied by residences of the middle class and commercial complexes. The localities which are greatly prone to robbery cases are found to be in 3 pockets of Delhi-one in south-east, the second in north-

east and the third in west. Areas having high percentage of murder to the total murder cases of Delhi are found to coincide with areas having high percentage of dacoity. Attempt to murder is found to be occurring maximum in colonies which basically consist of resettlement colonies and Jhuggis-Jhopris and which are industrial in nature with innumerable small factories. Property crimes like theft and burglary occurs maximum in almost all the localities of south district. Percentage share of grand total crime are found to occur either in posh areas which are residential areas of the rich or are commercial complexes, Mandis or CBD area of Delhi or old bazaar areas of central district which still attract innumerable shopkeepers, retailers and customers from all over Delhi.

Present Scenario Of Crime

In order to see the latest position of crime occurrence in various police stations of Delhi 1989 data has been used for 100 police stations of Delhi. In this section not only the variation within the districts are analysed, but also the rate of various types of crime.

Rate of crime at police station level, 1989¹²

On district level study it had been found that largest

¹² After calculating the rate per 1000 of population for 100 police station with the help of mean, plus, minus half standard deviation method, the data have been divided into three categories of high, maximum and low. The same have then been plotted on the police station map of Delhi.

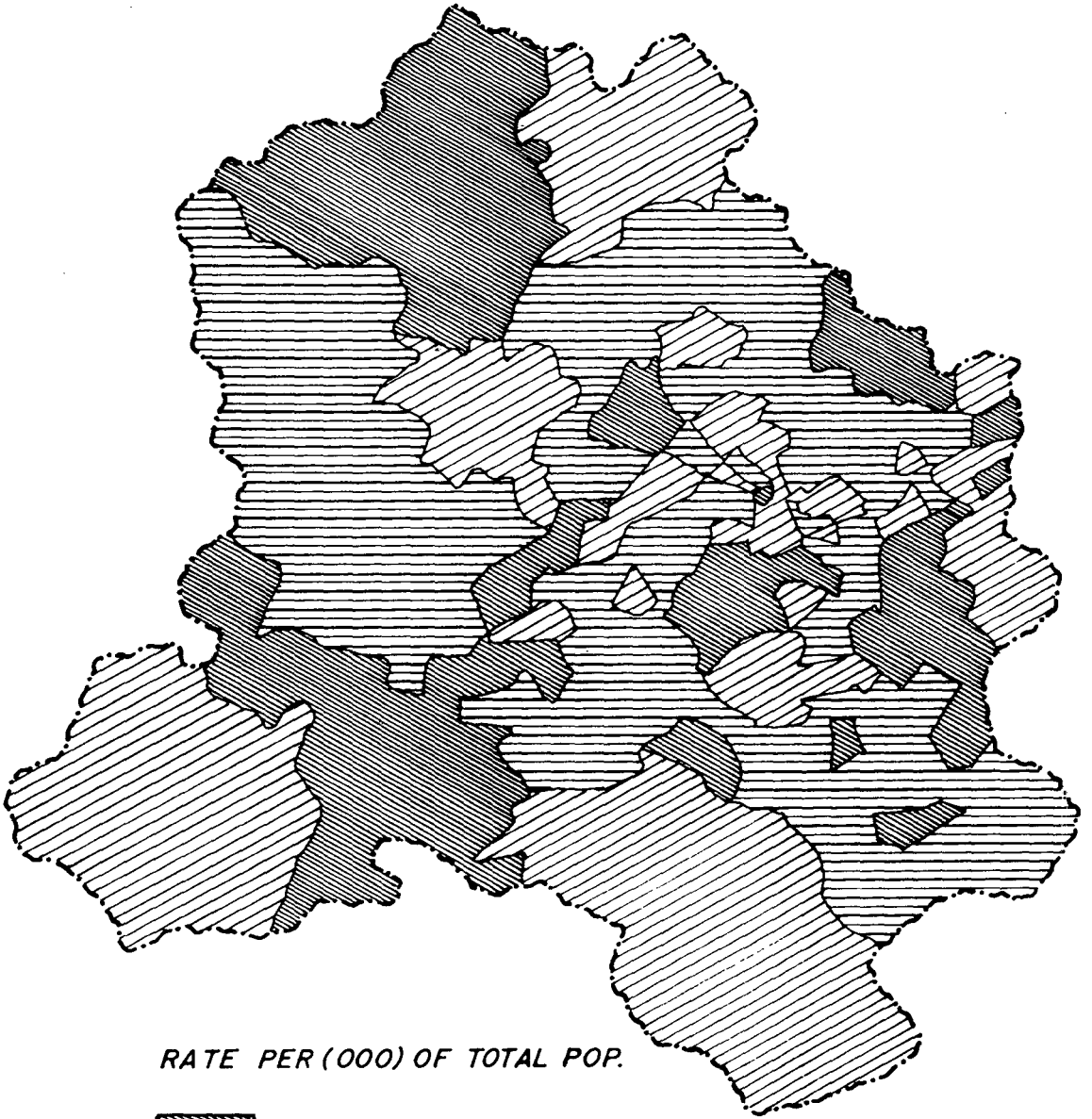
number of dacoity and robbery cases occurred in south district although the highest rate was in New Delhi district. But on observing the maps for dacoity and robbery cases there is a lot of spatial variation as far as occurrences of such cases were concerned. Except for central and north districts all the districts are prone to high cases of dacoity and robbery at some of its police stations. The district with the largest number of police stations prone to dacoity and robbery cases is south district with as many as 5 police stations with high rate. These are namely that of Nizamuddin, Defence Colony, Chittaranjan Park and Okhla Industrial Area. All these are posh residential colonies except for Okhla Industrial Area. Such cases are on the increase in the peripheral area of Delhi with the increase in the number of bungalows and big farms owned by upper class people (Fig. 3.14). With increasing pollution, congestion and all kinds of urban problems a large number of people are dissatisfied with urban life. They show a preference for rural or at least suburban way of life. And as such people have started buying big plots of land in sparsely populated suburban environment. This has thereby led to an increase in dacoity and robbery cases for again there is a lot of disparity since the conditions of living of the local rural people is very shabby. These rich people require the services of male and maid servants, dhobis, cobblers, drivers, chowkidars, etc. These casual workers are easily available from slum areas comparatively at a cheaper rate. It is a known fact that lot of anti-social elements are

DELHI

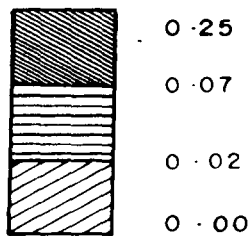
RATE OF DACOITY AND ROBBERY

1989

0 ————— 8
kms



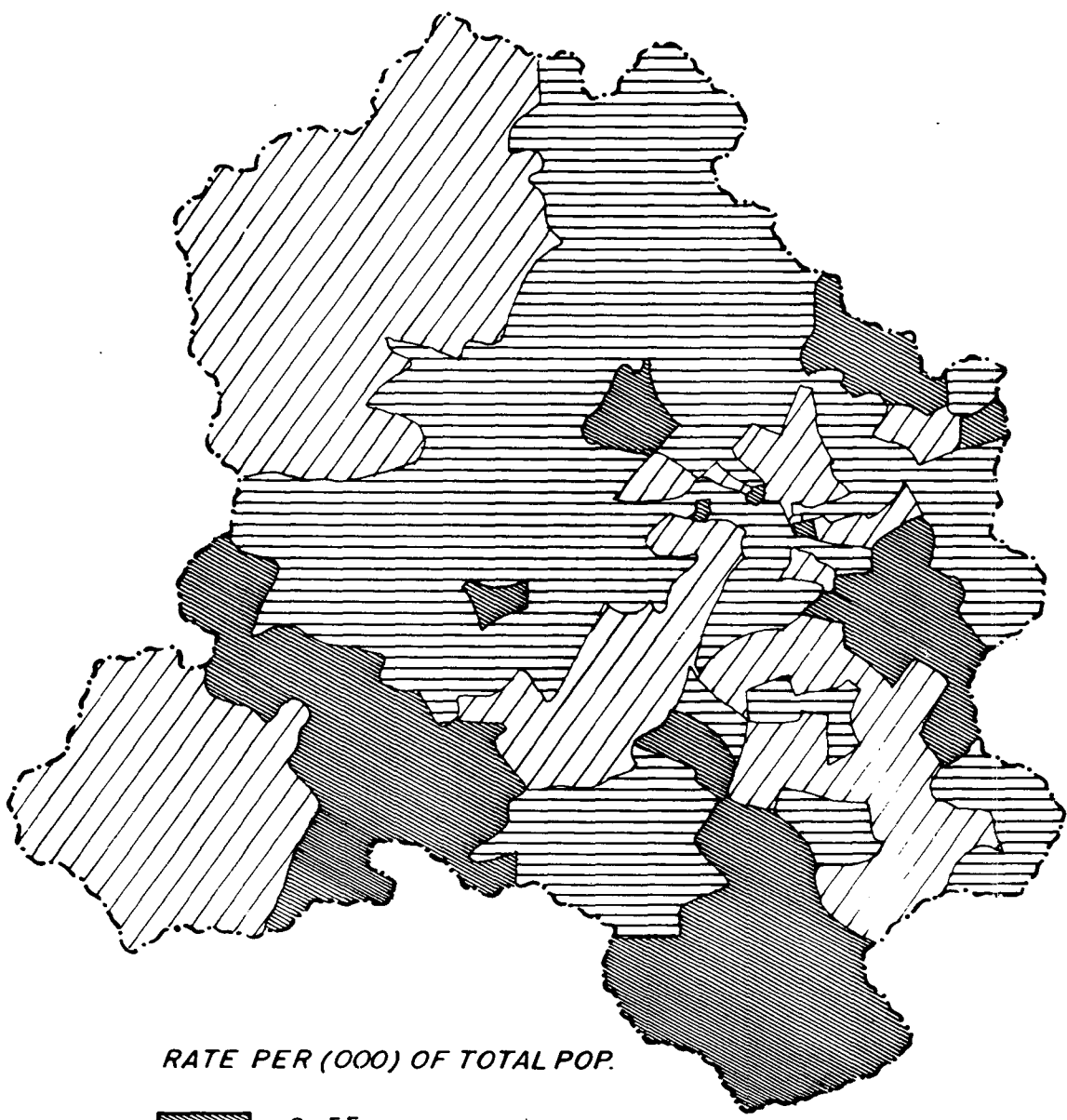
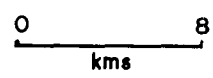
RATE PER (000) OF TOTAL POP.



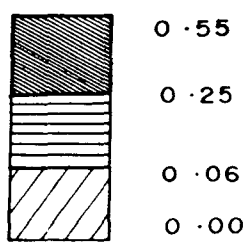
continuously developing in slums. So it is obvious that these casual workers at one time or the other are incited to commit property crimes. Many areas are less prone to dacoity and robbery either because of proper security facilities like that in Parliament Street or because of low class residential colonies as found in Kalyanpuri or areas having typical rural set up with not much of urban influence like that of Alipur and Jaffarpur colonies.

On observing the map of murder and attempt to murder it has been found that in the south eastern part of Delhi there is big pocket which has very high rate (Fig. 3.15). In south and New Delhi districts murder and attempt to murder usually take place during dacoity and robbery attempts by various established criminals or servants and known people of such servants working in the houses of rich residential class people. On the other hand such cases are high in east district mainly because of high density of population of slums in Shakarpur and Trilokpuri and poor conditions of living due to lack of basic amenities like protected water supply, sewerage, electricity etc. The other areas where such crimes are found to be very high are mostly in rich residential colonies or in very densely populated areas. Except for Shalimar Bagh the whole of north western part of Delhi has a low rate of such cases. The main reason for this is the rural way of life of these areas as compared to the urban way of

DELHI
RATE OF MURDER AND ATTEMPT TO MURDER
1989



RATE PER (000) OF TOTAL POP.



life in metropolitan part of Delhi¹³.

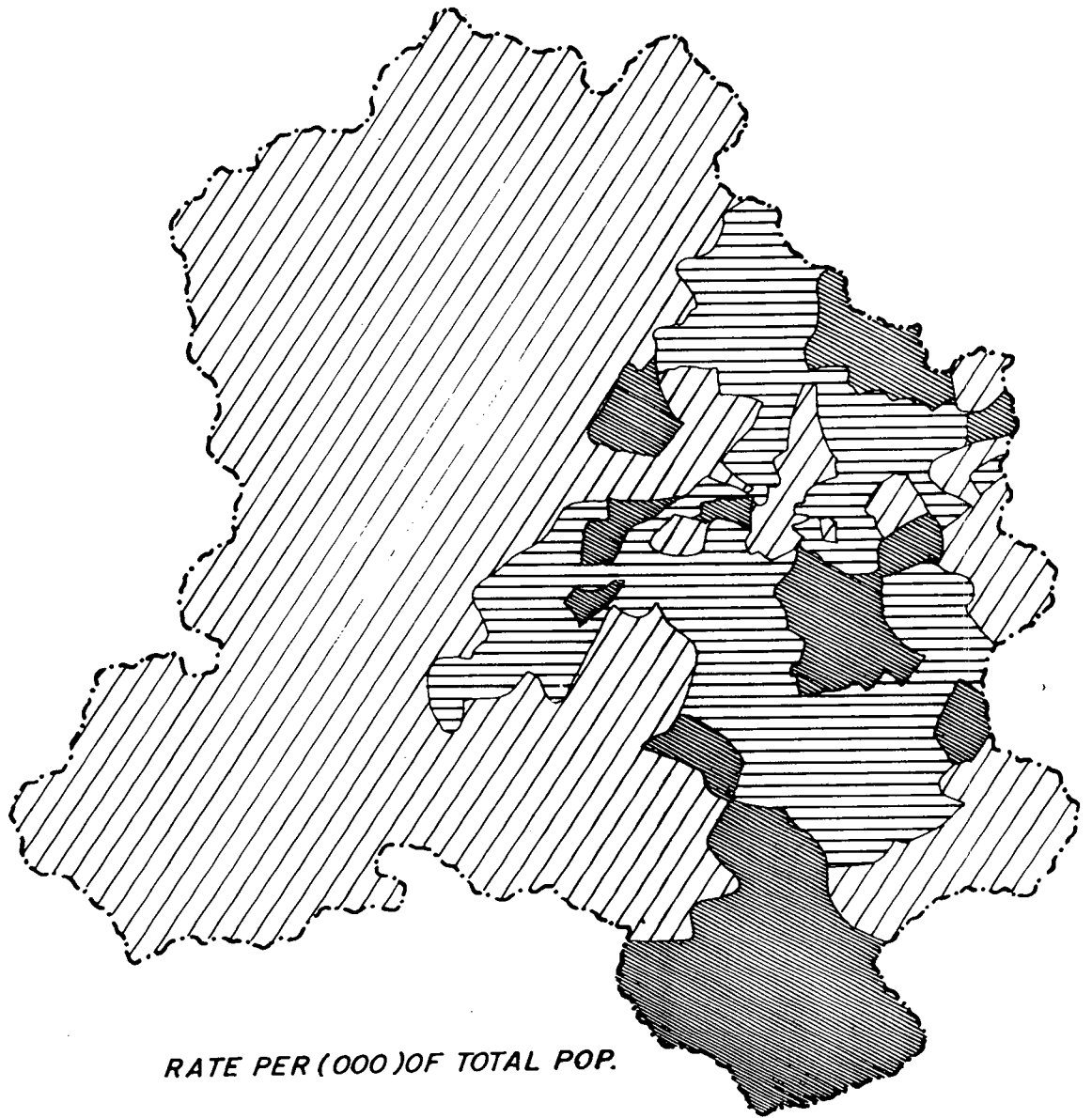
Almost the whole of west Delhi has very low rate of theft and burglary cases (Fig. 3.16). Some parts of central district, east district and south district too have very low rate. The highest rate is found to be concentrated in New Delhi and some parts of south Delhi. Some police stations of west and north-east, east and central districts too have very high rates of theft and burglary.

On calculating the rate of crime for total I.P.C. for 100 police stations of Delhi it was found that the highest rate was located in the Delhi metropolitan area and Mehrauli Tehsil too. The whole of north western and extreme western part of Delhi had a comparatively low rate of total crime. Some parts of congested central and north Delhi too had a very low rate of crime. One continuous belt is located in eastern part of New Delhi and western part of east district. As compared to the rural areas it is obvious that crime in metropolitan areas is much more but it is very surprising to know that Mehrauli Tehsil which consists of many villages too has very high rate (Fig. 3.17). This may be because of the increasing urbanization with

¹³ This has been proved by many scholars like Vold (1941), Hallan Back (1951), Caldwell (1959), Clinard (1964), Wolfgang (1972), Dutt, Noble and Singh (1979) and Jos (1988). According to all these writers in the rural areas the social control system was more effective due to greater homogeneity of the rural population, its lesser mobility, lesser population, lesser opportunities for criminals to hide their activities and so on.

DELHI
RATE OF THEFT AND BURGLARY
1989

0 8
kms



RATE PER (000) OF TOTAL POP.

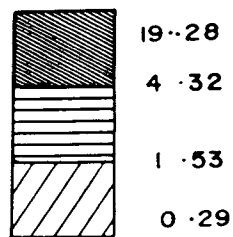
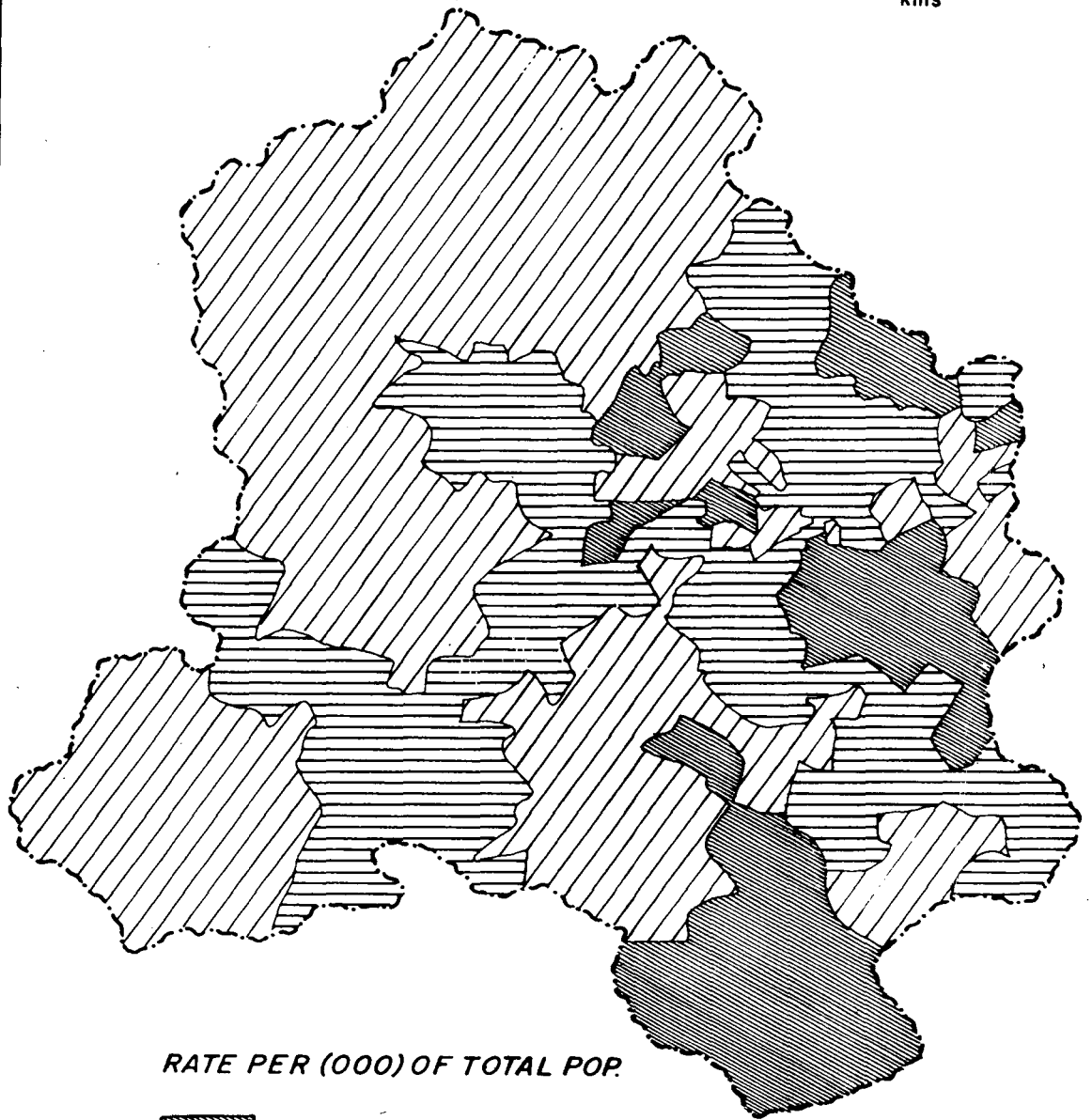
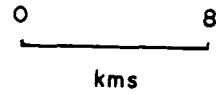
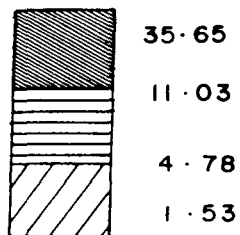


Fig. 3.16

DELHI
RATE OF GRAND TOTAL I.P.C.
1989



RATE PER (000) OF TOTAL POP.



development of suburban environment in Mehrauli Tehsil which is disturbing the otherwise peaceful rural areas. It is obvious that an increase in the population of the upper class people there, would lead to an increase of various types of crime, specially that of property crimes.

Crime variation within districts

South district

South district consists of 15 police stations with its headquarters at Hauz Khas. Share of murder and attempt to murder is maximum in Okhla Industrial Area police station (16 per cent) followed by Mehrauli (14 per cent). A number of factories are located in Okhla Industrial Area. People commute from great distances to work in these factories. On the other hand Mehrauli which is the southern most police station of south district consists of a number of villages. Since Mehrauli is a bordering police station, it gives an easy outlet for criminals to sneak into the bordering state namely Haryana. About 53 per cent of the murder and attempt to murder cases of south district are found to occur in the four police stations of Okhla Industrial Area, Mehrauli, Malviya Nagar and Hazrat Nizamuddin.

On observing the figures of dacoity and robbery it is clear that Defence Colony and Chitranjan Park have the highest percentage share. Both of them are rich residential colonies. These two police stations alone account for about 31 per cent of

this crime of the district. Thus it is clear that both major offences against person and property offences with violence are prone to concentrate in certain locations.

Crimes like theft and burglary are found to occur all over the South district with no particular concentration. The percentage of theft and burglary is moderate or low in those localities which showed higher percentages for dacoity and robbery.

Thus, it is clear that some police stations have almost the same percentage share for each category of crime. On the other hand some localities are prone to occurrence of a certain type of crime, e.g., dacoity and robbery in Defence Colony and murder and attempt to murder in Okhla Industrial Area.

West district

West district comprises of 12 police stations with its headquarters at Rajouri Garden. Only 4 police stations of west district account for about 50 per cent of the total major offences against the person. Percentage share of dacoity and robbery is also very high in these police stations but along with Paschim Vihar. These 5 police stations together account for about 60 per cent of the total dacoity and robbery cases in this district. All these are middle and higher class residential colonies having a high density of population interspersed with shopping complexes. Thus, there are ample chances for offenders

to commit various types of property crimes.

Incidence of theft and burglary cases is the highest in Hari Nagar which has a lesser density of population comparatively. It is inhabited by middle and lower class people. Tilak Nagar and Rajouri Garden have high percentage share of all the four categories of crime. On the other hand Hari Nagar has high percentage of theft and burglary, Paschim Vihar has high per cent share of dacoity and robbery. Nangloi has high per cent share of murder and attempt to murder. Thus it is clear that criminals do not attack randomly but selectively. They get attracted to certain area for committing a certain type of crime.

Central district

There are 12 police stations in central district with Daryaganj as district headquarter. This is the most densely populated district of Delhi. It occupies the inner most part of Delhi city. This district has very high rates of major crime against person according to an earlier study by Jos (1988).

Murder and attempt to murder is found to occur equally in eight out of 12 police stations of central district. The total incidence of dacoity and robbery cases is low in the central district. All the police stations have low percentage of this type of crime except for Rajinder Nagar which is an old settled posh colony of west district. But surprisingly theft and burglary cases are not so high here. Such property offences without

violence are occurring more frequently in crowded localities particularly the busy business centres of this district.

East district

There are 9 police stations in east district with its headquarter located in Krishna Nagar. There is a lot of variation in the occurrence of crime from one police station to another. Trilokpuri and Kalyanpuri together account for as high as 43 per cent of total murder and attempt to murder cases of east district. These areas are composed of resettlement colonies and Jhuggi Jhompri. Most of the lower class people live in 25 sq. yard of plots. Property offences with violence is found to be more occurring in newly settled rich residential colonies like Preet Vihar and Gandhi Nagar (44 per cent).

North-east district

North-east district with its headquarter at Krishna Nagar consists of 8 police stations. There is a lot of internal variation in the percentages of crimes for the various police stations of north-east district. Three police stations alone account for about 60 per cent of murder and attempt to murder cases of north-east district. Three localities of north-east districts alone account for about 57 per cent of dacoity and robbery cases. But the internal variation in the case of theft and burglary is not so much as in the case of major offences against the person and property offences with violence.

To conclude it can be said that some localities of north east Delhi have very high percentages of all categories of crimes. On the other hand some have high percentage of only a certain type of crimes. For example murder and attempt to murder in Seemapuri and property offences in Shahadra.

North-west district

North-west district consists of 14 police stations. Head Quarter of this district is situated at Ashok Vihar.

Cases of murder and attempt to murder is found to be equally high in Ashok Vihar and Samaipur Badli (14 per cent each) followed by Sultanpuri (13 per cent). These three police stations account for 41 per cent of such cases of north-west district.

Extremely high percentages of dacoity and robbery are to be seen in Narela (33 per cent) which is a peripheral locality of Delhi. It may be recalled that Narela is inhabited by either very rich Jat people whose land had been sold and have become multimillionare and are doing flourishing business or is inhabited by very poor people like labourers doing some petty services. Therefore the disparity in the levels of living is very high.

Theft and burglary cases are seen to be high in Ashok Vihar and Mangolpuri. Percentage of other crimes is found to be very high in Mangolpuri, Jahangirpuri and Sultanpuri. All these puris are resettlement colonies. Property offences without

violence and other crimes are found to occur in all localities of north-west district.

On the whole it is found that in the north-west district there are some localities in which all types of crime occur almost in the same ratio whereas there are some localities which are prone to attack by certain types of criminals only. The best example is that of Narela which accounts for a very high percentage share of dacoity and robbery.

New Delhi district

New Delhi consists of 6 police stations and its head quarter is situated at Parliament Street. This district comprises of only urban localities and it has a totally well planned land use.

As a consequence of the homogeneous set up of this district there is not much of variation in the occurrence of crime from one part of the district to another. Four police stations out of six have an almost equal incidence of various types of crimes. Unlike in the other districts, in New Delhi district the areas having high incidence of dacoity and robbery and murder and attempt to murder are similar. Thus, indicating that in this district crimes against person are interrelated with major crime against property. Theft and burglary cases are found to be occurring all over this district. On the whole it is seen that there is not much of variation in the localities of New

Delhi district as far as incidence of crime is concerned as compared to other districts.

South-west district

South-west district consists of 11 police stations and its headquarter is situated at Vasant Vihar. There is a lot of internal variation as far as percentages of crimes are concerned. Percentage of major offences against person is the highest in Najafgarh which accounts for about 25 per cent of the total cases of murder and attempt to murder of south-west district. Najafgarh along with two other police stations account for about 52 per cent of such crimes of south-west district.

Percentage share of dacoity and robbery is very high again in Najafgarh (30) followed by Vasant Vihar¹⁴ (20). These two localities together account for about half of such cases of south-west district. The inter police station variation in the case of theft and burglary is not so obvious.

Other crimes are found to be high in three colonies of south-west district namely that of R.K. Puram, Najafgarh and Delhi Cantt. The lowest share of this crime is found in Jafarpur Kalan which comprise of a large number of villages also¹⁵.

¹⁴ Najafgarh and Vasant Vihar consist of mostly middle and upper class residential areas.

¹⁵ Mc Clintock and Avison (1968) in a study of crime in U.K. found that districts with significant rural component fall into the lower vankings of crime.

On the whole it can be concluded that Najafgarh and R.K. Puram has very high percentages of all categories of crimes, while upper class residential area of Vasant Vihar has high percentage share of dacoity and robbery.

North district

North district consists of 13 police stations with its head quarter located at Civil lines. Cases of murder and attempt to murder are maximum in Subzi Mandi and Sadar Bazar followed by Timarpur and Town Hall. Property crimes like dacoity and robbery are found to be occurring maximum in Lahori Gate, Subzi Mandi and Bara Hindu Rao. These three police stations together account for 54 per cent of the total cases of dacoity and robbery. There is not much variation as far as theft and burglary are concerned.

On analysing variation of crime within the nine districts of Delhi it has been found that in every district there are certain localities which are greatly prone to occurrence of certain types of crime more. From the study of crime in south district, it was found that dacoity and robbery occurred in posh residential quarters whereas crime against persons occur in industrial areas. In west district it was found that murder and attempt to murder cases occurred in densely populated heterogeneous areas interspersed with shopping complexes and four localities out of twelve accounted for 50 per cent of the total of such crimes. One locality of west which has a greater

proportion of its population living in villages was prone to crimes like murder and attempt to murder. Such crimes occur in rural areas because of the great number of disputes which take place between the landlords and the tenants.

The central district has the highest density of population of Delhi. Some of its localities whose land use consists of shopping complexes, old residential quarters, historical and religious monuments and business core of Delhi, had the lowest percentage of all crimes among the twelve localities of central district. Within this district dacoity and robbery occurred maximum in one of its oldest settled posh residential colonies. But for other crimes there was found to be not much of variation from one part of the district to the other. In north-east and east districts innumerable localities have come up over the past decade and two localities of east district which mainly comprise of resettlement colonies and Juggi-Jhompri had a very high share of murder and attempt to murder cases. On the other hand, property offences with violence occurred in rich residential colonies and theft and burglary occurred in heterogeneous areas with mixed land use comprising of middle and lower class residential areas along with innumerable shopping complexes.

North-west district which comprises of many villages had a very high percentage share of dacoity and robbery in only a few of its peripheral localities. In these areas the disparity in

the levels of living is very high with rich millionaires living in bungalows side by side with landless and poor labourers doing petty jobs. New Delhi district is the second district wherein there is not so much of variation in the incidence of crime from one locality to another. In south-west district dacoity and robbery occurred either in peripheral areas which comprise of large number of villages or in posh residential areas whereas theft and burglary occurred maximum in middle class residential areas.

PLAUSIBLE EXPLANATION FOR THE EMERGING CRIME PATTERN

The major attempts in this section is to verify the specific patterns as observed from the earlier section. A limited exercise has been undertaken to analyse the reasons for the same by means of a model, other things being equal. Prior to the postulation of a model which explains the varying patterns of crime it is necessary to recapitulate the major findings of the spatio-temporal analysis of crimes in Delhi.

From the district level study of crime it was found that property crimes are occurring maximum in affluent New Delhi, south and south-west district, but crime against person was occurring in west, central, east and north-east districts. Minor crimes against property like theft and burglary are found to be occurring in all districts. The rate of such crimes is the highest among all the various categories of crime. It has been observed that among the 9 districts New Delhi, south and west

account for the highest rate as well as the largest share of theft and burglary.

Such aggregate level analyses conceal localised patterns within the districts. Further probe at the lowest level of available data, i.e., at police station level, has brought forth some interesting findings.

On the basis of the emerging patterns of various types of crimes within the districts, one can group the districts basically under two heads. Firstly, those districts where the analysis done at police station level does not bring out any localised variation different from the one which has been observed at the aggregate district level. Under such circumstances it may perhaps be argued that all the police stations within the districts contribute without much variation to the emerging pattern at the district level. However, in the second group can be included such districts where all the police stations within the district do not conform to the general picture which emerges at the district level. Instead some of the districts show highly varying pattern.

Since the spatial variation in crime in the former case is less, the districts can be termed as homogeneous in nature indicating that the circumstances responsible for the occurrence of crime are more or less similar from one part of the district to the other. Whereas in the latter case the districts can be termed as heterogeneous in nature which reflects in large spatial

variation in the occurrence of crimes. Out of the 9 districts, New Delhi and central districts belong to the first category and the rest to the second. The various police stations of New Delhi district have high rate of total crime, theft and burglary, dacoity and robbery and murder and attempt to murder. Police stations of central district have low rate of dacoity and robbery; high rate of murder and attempt to murder and medium rate of theft and burglary.

It is heartening to note that these observations are substantiated by means of co-efficient of variation (CV). From the foregoing analysis it becomes imperative that in the case of homogeneous districts CV should be low whereas in the case of districts having a heterogeneous nature it should be high. Table 3.8 shows very clearly that this is indeed the case.

Notwithstanding the emergence of homogeneous and heterogeneous districts another finding from the spatio-temporal analysis of crime in police districts and police stations revealed that within a district there is not much of spatial variation in the occurrence of a certain type of crime as against another type of crime irrespective of the district being homogeneous or heterogeneous in nature. On the one hand, minor crimes against property like theft and burglary are found to be occurring in all the police stations of each district with not much of internal variation. On the other hand, violent crimes

Table 3.8

Coefficient of variation for various categories of crime

Districts	Dacoity & Robbery		Murder & Attempt to Murder		Burglary & Theft		Grand Total	
	1979	1989	1979	1989	1979	1989	1979	1989
Central	35.87	32.11	49.37	54.45	52.69	55.37	37.74	47.11
North-east and east	65.25	64.63	58.85	49.32	56.53	42.64	47.87	37.93
South	54.19	107.44	87.57	68.41	69.59	54.84	56.33	54.74
North	59.64	74.81	42.38	58.91	47.11	36.84	44.65	32.52
South-west	17.19	62.68	78.11	45.27	38.39	17.24	23.15	17.64
West	37.49	41.97	68.41	61.84	19.13	41.83	12.99	34.28
North-west	52.38	79.87	26.43	48.35	44.85	49.53	45.98	51.56
New Delhi	35.81	49.15	38.38	53.43	48.48	45.38	48.53	36.34
Delhi Total	68.14	102.5	75.23	88.67	58.59	62.79	58.65	78.78

Source : Same as table 3.1.

against persons such as murder and attempt to murder and major property crimes like dacoity and robbery are found to be occurring only in a few of the police stations of each district thereby indicating a greater degree of internal variation.

Further, it may be postulated that petty crimes like theft and burglary are mainly ubiquitous in nature and would thus occur in every type of setting. In keeping with this, Table 3.8 shows that for theft and burglary the pattern has not only been consistent, but the consistency has been increasing over the

period as reflected in values for co-efficient of variation which is not only the lowest for this group of crimes as compared to other crimes, but are also declining over the years.

In contrast, murder and attempt to murder and dacoity and robbery are serious crimes which require some sort of apriory planning. In addition, certain conditions have to prevail so that the planned action may be executed. It may be recalled from the earlier analysis that certain conditions provide conducive environment for the occurrence of such crimes. These are high class residential areas coupled with lower densities where it becomes relatively easier for culprits to escape after committing a crime. It is only logical to assume that these conditions would be available only in certain pockets of a district. This in turn may create a crime scenario within a district which is highly uneven. Once again this is substantiated by high values of co-efficient of variation for these categories of crime (Table 3.8). The figure for 1989 shows an increase in the value of co-efficient of variation as against 1979 thus indicating that these crimes continue to be location specific as compared to other crimes like theft and burglary.

CRIME AGAINST WOMEN

Many sociologists, psychologists and other scholars have tried to study the reasons for rising crimes against women and various socio-psychological, psycho-pathological and socio-cultural theories have been formulated. But the spatial aspect of criminal

behaviour has been omitted by most of them. This section attempts to examine the spatio-temporal analysis of crime against women in Delhi for the period 1979 to 1989.

This study is divided into the following four parts. The first part analyses crime against women in Delhi between the period 1985 to 1989. The second part deals with the district level study of various categories of crime against women for 1988. The third part deals with the police station level study of rape and dowry death cases in Delhi between the period 1979 to 1989. The last part deals with the growth rate of crime between 1981 and 1989.

This study uses crime data for rape, dowry deaths, kidnapping and abduction, eve-teasing and molestation. The crime data had to be adjusted prior to the analysis¹⁶. The district level study was undertaken for 9 districts using crime data for 1988. Police stationwise data for all categories of crime against women was available only for 5 districts, namely, central, north-east, north-west, south-west and east. In 1981 these five districts were having 31 police stations as against 54 in 1989. Thus, in order to calculate the growth rate of crime it was essential to redivide the crime data for 31 police stations of 1981 so as to tally with the crime data for 54 police stations of 1989.

¹⁶ Refer to Methodology in Chapter I.

Crime Against Women In Delhi (1985-1989)

On taking the total of all crime against women it was found that in 1985 a total of 1832 cases had occurred. Between 1985 and 1986 there was 75 per cent growth in the incidence and the number rose to 3203. There was a slight decline in the year 1987 but in 1988 the number of cases rose to 4606 (Table 3.9).

Table 3.9

Crime Against Women in Delhi (1985-1989)

Content	1985	1986	1987	1988	1989
Total Crime	1832	3203	3187	4606	4116
Rate of Crime/ Lakh of female population	54	91	87	121	104

Source : Same as table 3.1.

From the table it is clear that the rate of crime was highest in 1988 with 121 and lowest in 1985 with 54 cases per lakh of female population. Thus over time there has been an increase not only in the absolute number of crime cases but also in the rate of crime.

On calculating the percentage share of various types of crime for Delhi (1985 to 1989) it was found that eve-teasing topped the list with 58 per cent followed by kidnapping and abduction with 18 per cent. Dowry death and dowry related cases accounted for 9 per cent and another 9 per cent is accounted by cruelty by in-laws or husbands (Fig. 3.18).

DELHI CRIME AGAINST WOMEN 1985-1989

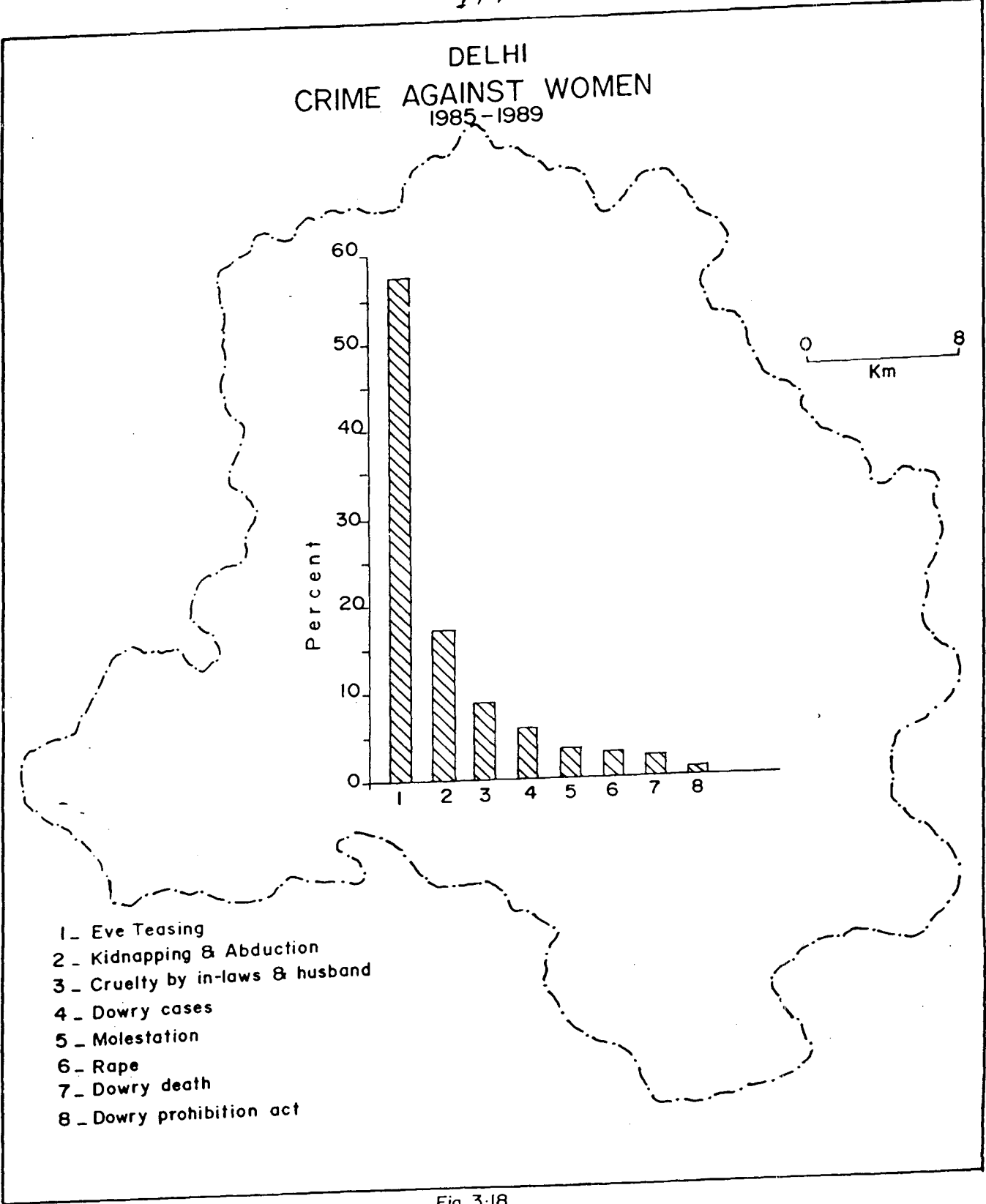


Fig. 3-18

In terms of absolute numbers as well as rate the trend of various types of crimes have been analysed between 1985 and 1989 in Delhi (Table 3.10 and Fig. 3.19). From the figure 3.19 it is clear that there has been a consistent growth in the incidence of eve-teasing cases during the study period. Incidence of kidnapping and abduction was high in both the initial as well as the final period. The least growth was noted in serious crimes such as dowry death and rape. Increasing rates of all categories of crimes, except for kidnapping and abduction, are very clear from Table 3.10.

Table 3.10
Rate of Atrocities Against Women in Delhi
(per lakh of female population)

Type of Crime	1985	1987	1989
Eve Teasing	22.0	48.5	61.0
Kidnapping or Abduction	18.2	15.5	16.8
Molestation of Women	2.8	2.6	4.0
Rape	2.6	2.8	3.8
Dowry Death	1.2	2.2	2.8

Source : Same as table 3.1.

District Level Study Of Crime Against Women, 1988

The rate of crime has been calculated per lakh of female population for 1988¹⁷. The highest rate for total crime against

¹⁷ 1988 data on crime and 1991 data on population have been used in this analysis.

CRIME AGAINST WOMEN

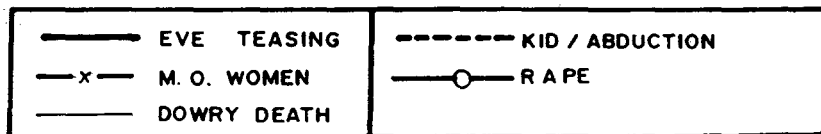
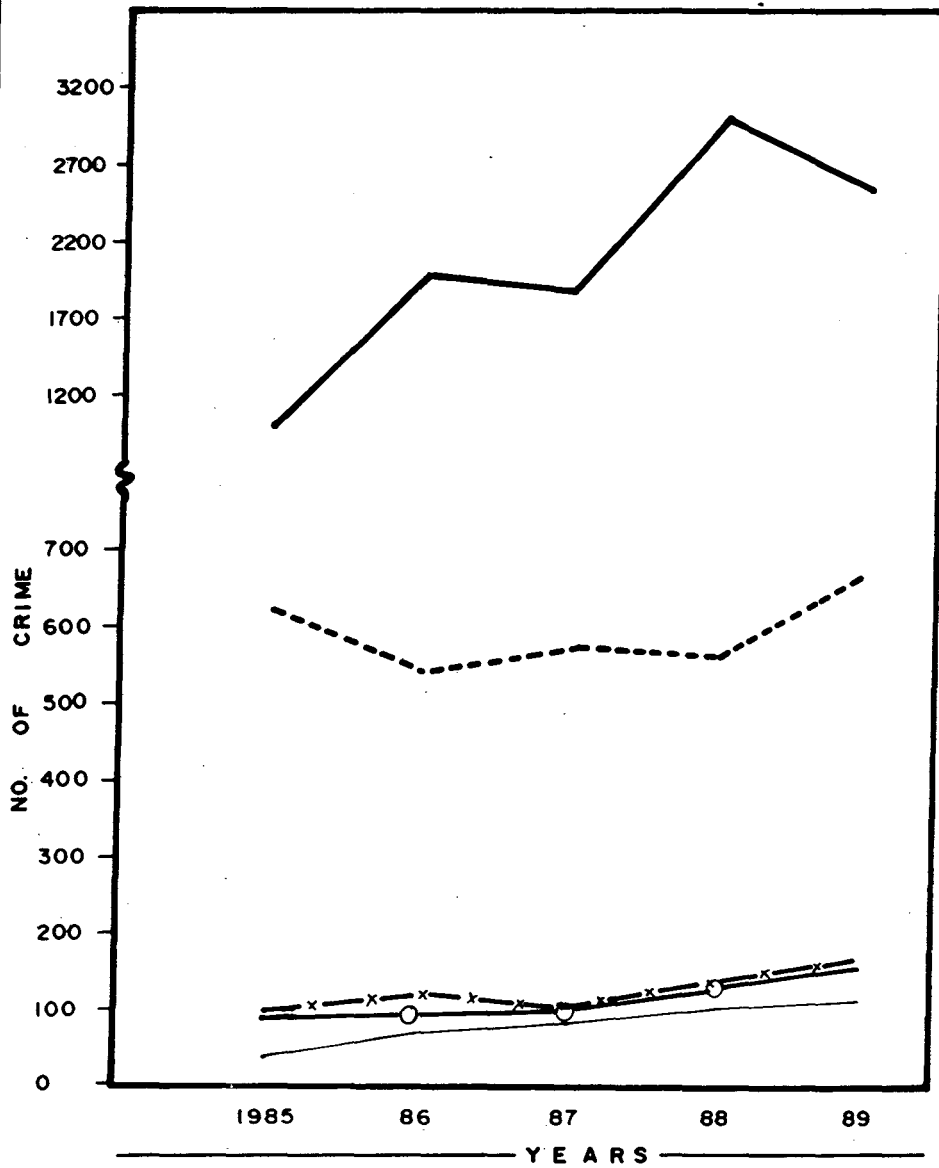


Fig. 3-19

women is noted in New Delhi district with about 475 cases per lakh of female population. This district is followed by central, south and north-east districts, each of them having a rate between 200 to 225.

The highest rate of molestation of women is observed in New Delhi followed by north-east and north-west districts. The rate of rape cases is the highest in north-east and south district and the lowest in central and west districts¹⁸. The rate of dowry death cases is maximum in north-west, north-east and New Delhi districts (Fig. 3.20). The rate of eve-teasing is found to be maximum in north-west district followed closely by north-east and New Delhi districts. Thus, on the whole it can be seen that the whole of northern part of Delhi has very high rate of crime against women. North-west district ranks first in the case of the dowry deaths and eve-teasing, north-east ranks first in the case of rape and New Delhi ranks first in the case of molestation of women.

Police Stationwise Study Of Rape And Dowry Death Cases(1979-1989)

Since rape cases do not occur on a large scale, it is difficult to get a clear picture of spatial variation in the

¹⁸ New Delhi is a diplomatic area whereas central district comprises mainly of old and congested parts of Delhi. On the other hand, north-east comprises mostly of private colonies and some older localities which have basically developed from small villages. North-west district comprises of both urban as well as rural areas.

DELHI

RATE OF CRIME AGAINST WOMEN

(District wise)
1988

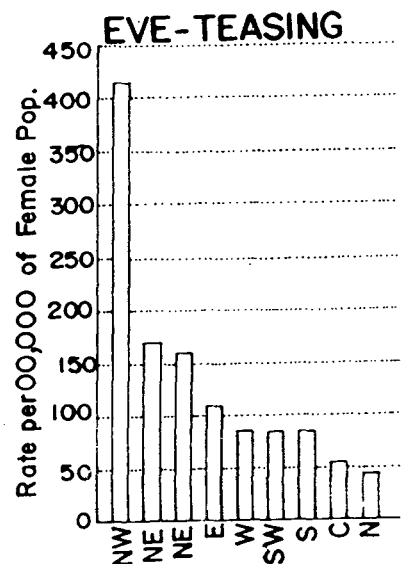
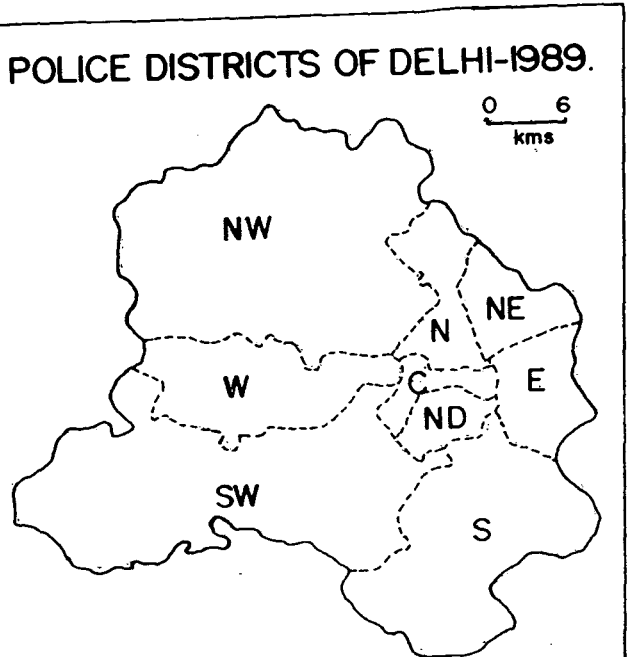
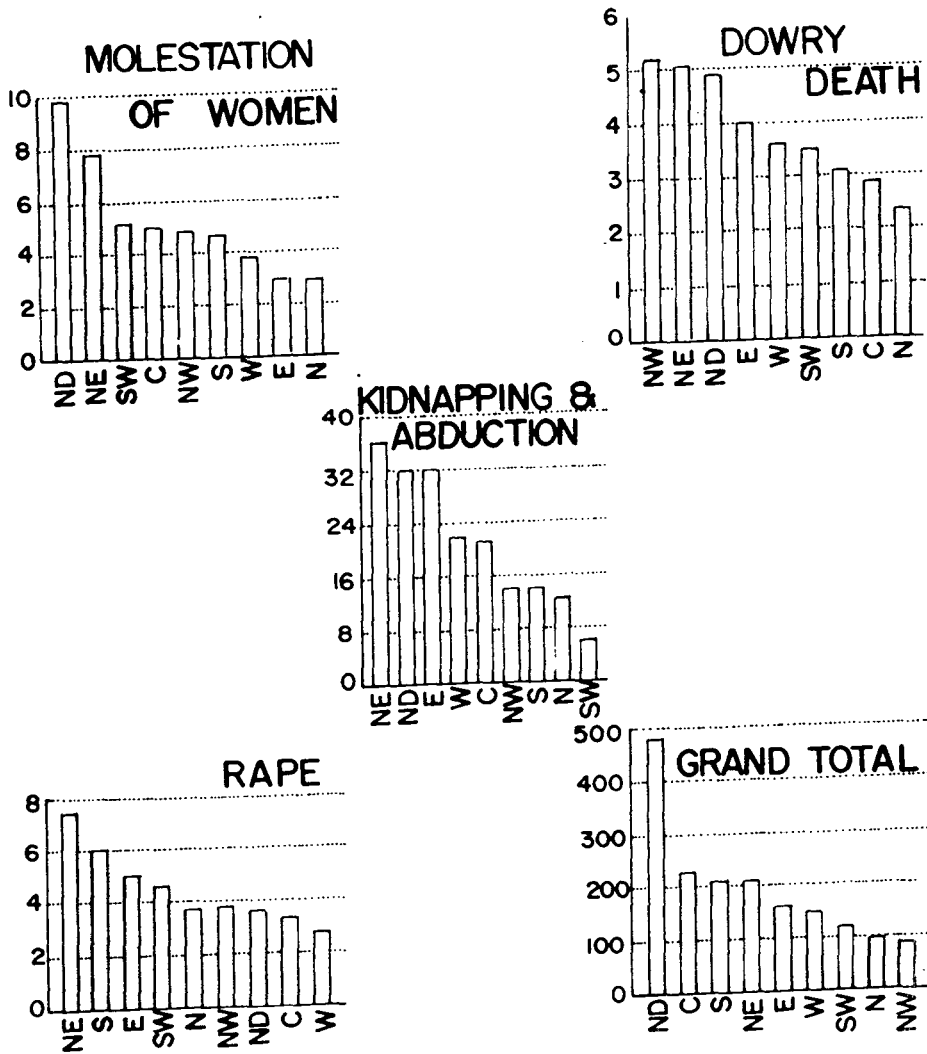


Fig. 3-20

occurrence of rape from one year's data. Thus a decadal study (1979-1989) has been undertaken at police station level. As pointed out earlier, in 1989 there were 100 police stations. With the help of some data adjustment it has been possible to obtain figures for 60 police stations for a total period of 11 years.

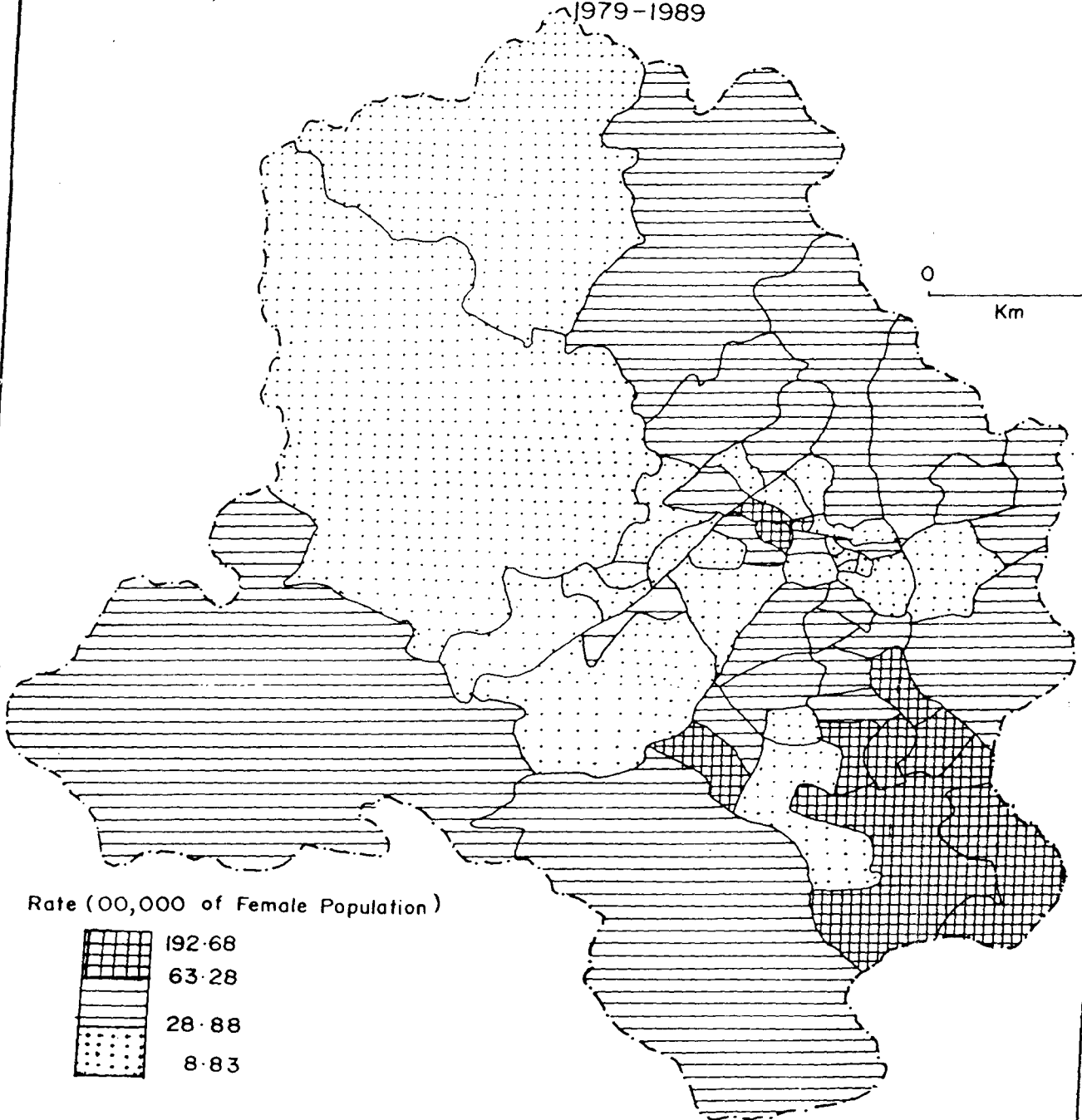
The rate of rape cases per lakh of female population for the period 1979 to 1989 has been calculated using population data of 1981 (Fig. 3.21). Two urban localities of central and six localities of south district and one locality of south-west are found to be highly prone to rates of rape cases¹⁹. It has been seen that the rate of such cases is very low in the north-west and west districts which comprises of mostly rural and mixed residential areas respectively.

Dowry death cases have also been analysed in a similar way to that of rape.

Dowry death cases are found to have a positive correlation with that of increasing distance from the city centre, i.e., rate of such cases increases from the city centre to the periphery (Fig. 3.22). Most of the localities of central, New Delhi and south district are found to have very low rate of such cases. This may be due to the high levels of literacy in these areas as compared to the low levels of literacy in the

¹⁹ The explanation for the same is given in the ensuing chapter at the appropriate place.

DELHI
RATE OF RAPE
1979-1989



Rate (00,000 of Female Population)





	192.68
	63.28
	28.88
	8.83

Fig. 3-21

DELHI RATE OF DOWRY DEATH 1979-1989

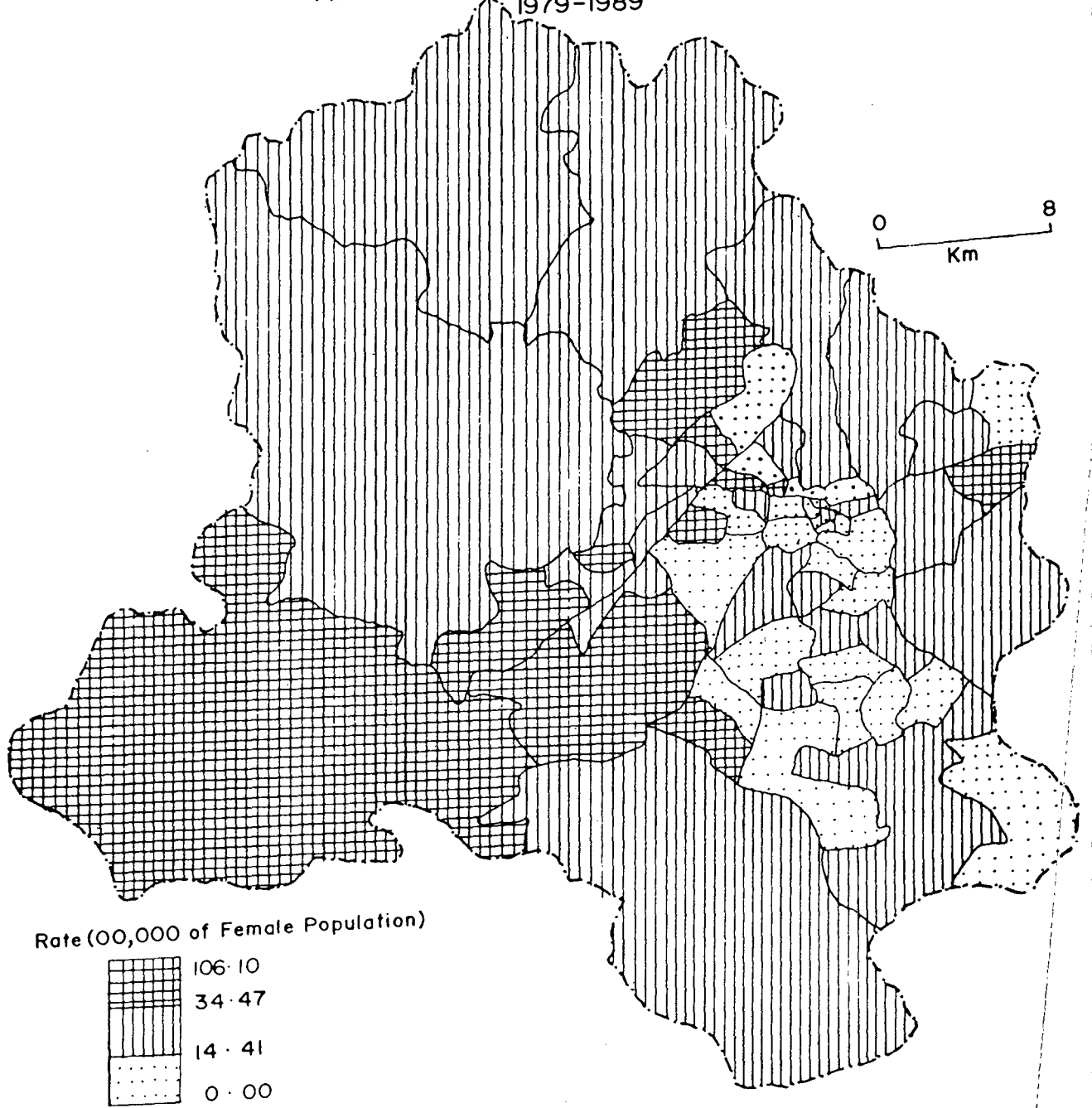


Fig. 3-22

rural areas of Delhi. Thus the whole of north-west and parts of north district and south-west and Mehrauli tehsil of south district are found to have a high rate of such cases and a few urban areas of central and north are also found to have high rates of such cases.

Growth Rate Of Crime 1981-1989

Depending on the availability of data, growth rate has been calculated only for 5 police districts made up of 54 police stations. Growth rate has been calculated for total incidence and rate of crime for the period 1981 to 1989 (Table 3.11).

At district level it has been observed that there has been a positive growth rate of crime for all the districts with the highest being in the east district. East district is an area which has come up mostly during the later part of 1980s due to increasing population density in Delhi. It consists of both posh residential colonies like Geeta colony and it also has resettlement colonies in Shakarpur, Trilokpuri and Kalyanpuri. The growth rate of crime rate has also been on the rise in all districts except for central district.

Central district is the only district out of the five selected districts which has a negative growth rate (-11 per cent, Table 4.4). This is a very good indicator and explains the fact that increasing population may increase the general crime,

Table 3.11

Crime Against Women (District wise)

District	Total No. of Cases		Rate/lakh of Pop.		Growth Rate (1981-89)	
	1981	1989	1981	1989 ^x	Absolute Number	Crime Rate
Central	362	457	131	117	26	-11
North-East	149	334	69	108	55	57
North-West	252	531	57	84	111	47
South-West	186	442	64	108	138	69
East	129	414	46	103	221	124

x = projected

Source : Same as Table 3.6.

but may not necessarily increase the rate of crime against women. Among the police stations of central district, D.B. Gupta Road has the largest incidence and also the highest crime rate (757 cases per lakh of female population in 1981 and 375 in 1989).

Negative growth rate of crime has been noticed in the commercial-cum-residential-cum-religious localities as in the case of Jama Masjid and others. High growth rate of crime rate in central district has been noticed only in two localities²⁰.

In north-east district the rate of crime for the study period increased from 69 to 100 cases per lakh of female

²⁰ Rajinder Nagar which has a growth rate of 186 per cent is a posh residential area whereas Nabi Karim with 210 per cent is a congested residential-cum-commercial area.

population (Table 3.11). All its localities had a medium growth rate of crime as well as crime rate. Only Mansarovar Park which is a posh residential colony of north-east had a negative growth rate of crime rate (-29 per cent).

North-west district has been observed to have a medium growth rate of crime rate. One locality in its northern part, namely, Alipur, had a zero growth rate of crime. Negative growth rate of crime rate has been observed in two of its posh residential areas as well as that of Alipur. Growth rate of crime rate is found to be second highest in south-west district (69 per cent). All its localities had a positive growth rate of crime as well as crime rate.

CONCLUSION

An attempt has been made in this chapter to analyse the spatio-temporal variation in the occurrence of crime both at district and police station level. On the basis of the availability of data the time period of the study was from 1979 to 1989. Crime against women has been dealt in a separate subsection of this Chapter.

For Delhi as a whole there has been a decline in the incidence of crime and rate of crime too after 1980 as reflected through a negative growth rate of crime and crime rates. Among the different types of crimes, only the incidence of murder and attempt to murder has increased for the period under review, but

showed a stable crime rate. Riot cases have been stable throughout the period except in 1984. When a similar study was conducted at district level, it was again found that all property crimes are on the decline and occurrence of murder and attempt to murder have slightly increased, but riot cases have increased significantly during the period.

After the temporal study a decadal study has been undertaken for 9 police districts of Delhi for the period 1979 to 1988. The main objective of the analysis was to find out, that over the period of 10 years, which type of crime is found to occur more in which district. From this decadal study it is clear that property crimes like burglary, theft, snatching, robbery and dacoity are found to be occurring utmost in south district which is one of the most affluent districts of Delhi. The second position with regard to property crimes is held either by north or west or north-west district. The percentage share is found to be the least in New Delhi or north-east district. New Delhi, a prosperous and commercial hub of Delhi, has a low percentage share because of its smaller size. Crime against persons such as murder is found to be occurring maximum in west followed by south and north-west districts. Whereas attempt to murder is occurring maximum in central followed by west and north-west districts. Cases of riots are prevailing most in north followed by south district. Thus, on the whole total crime is occurring utmost in south district followed by north and central districts and the least in east and north-east districts.

On analysing the present scenario of crime for the year 1989 in various police districts of Delhi it was found that crime against persons are occurring mostly in localities across Yamuna river.

The conclusions drawn from the district level study on growth rates holds true at police station level too. In all the localities there was a decline in the growth rate of theft and burglary. Most of the localities had a negative growth rate of dacoity and robbery too. The localities which had a positive growth rate of such crimes are either well to do farm houses in suburban peripheral parts of Delhi or high class residential areas of New Delhi interspersed with posh commercial complexes. High negative growth rate of dacoity and robbery was observed in densely populated region of central district and middle class residential areas of New Delhi and south district. Murder and attempt to murder are on the decline in most of the localities. The growth rate of crime against person is low in rural areas and also in congested parts of Delhi.

From the decadal analysis of crime at police station level it has been found that dacoity cases are occurring maximum in upper class residential areas located in peripheral areas of Delhi whereas robbery cases are occurring maximum in areas occupied by residences of the middle class and commercial complexes. The localities which are prone to robbery cases are found to be in 3 pockets of Delhi - one each in south-east,

north-east and west districts. Areas having high percentage of murder to the total murder cases of Delhi are found to coincide with areas having high percentage of dacoity. Attempt to murder is found to be occurring maximum in colonies which basically consist of resettlement colonies and Jhuggi-Jhompris and which are industrial in nature with innumerable small factories. Property crimes like theft and burglary occur in almost all the police stations of various police districts.

In order to see the latest position of crime occurrence in various police stations of Delhi the rate of various types of crimes are analysed using 1989 data. Dacoity and robbery are occurring mostly in affluent residential colonies together with peripheral areas of Delhi. On the other hand, crime against person like murder and attempt to murder are occurring in central district, south-eastern part of Delhi and in north-east district. Theft and burglary which accounts for more than 50 per cent of crime in Delhi are occurring both in the rural and urban parts of Delhi.

On the basis of the emerging pattern of various types of crimes within the districts, the districts can be grouped under two heads. In the first group of districts the police station level analysis does not bring out any localised variation different from the one which has been observed at district level (New Delhi and central district). In the second group of districts the police stations within the districts do not conform

to the general picture which emerges at the district level (rest of the seven districts). The former group of districts are homogeneous and the latter heterogeneous since the circumstances responsible for the occurrence of crime is similar from one part of the district to the other in the former case and vice versa in the latter case. These observations are substantiated by means of co-efficient of variation values (CV).

The second major finding from the spatio-temporal analysis revealed that within a district there is not much of spatial variation in the occurrence of a certain type of crime as against another type of crime irrespective of the district being homogeneous or heterogeneous in nature. Minor crimes like theft and burglary are examples of the first case wherein the inter-police station variation is not much evident. Major crimes like dacoity, robbery, murder and attempt to murder are occurring only in a few of the police stations of each district thereby indicating a greater degree of internal variation. Thus, it has been postulated that petty crimes like theft and burglary are unplanned and mainly ubiquitous in nature and would thus occur in every type of setting as against major crime against person and property which are localised. In keeping with this the C.V. shows a consistency in the occurrence of theft and burglary as indicated by low values of C.V., but in the case of serious crimes the internal variation in spatial occurrence is substantiated by high values of C.V.

Crime against women is definitely on the rise in the national capital. Between 1985 and 1989 there has been a tripling of absolute cases of crime and doubling of crime rate as well. On observing the percentage share of crime for Delhi as a whole it has been found that eve-teasing accounts for 58 per cent of the total crimes committed against women; kidnapping and abduction also account for another 18 per cent. It is very unfortunate that even in the urban areas as high as 18 per cent of crime are committed against women which are basically related to dowry and harassment by husbands and in-laws. This also exhibits the poor status of Indian women even in the capital city. There is a lot of spatial variations in the occurrence of such crimes. North-east district had very high rates of kidnapping and rape; north-west district had very high rates of eve-teasing and dowry deaths and New Delhi, north-east and north-west had very high rates of molestation. Thus, almost the whole of the northern part of Delhi had very high rates of total crimes committed against women. But a detailed analysis of rape and dowry death cases at police station level revealed that certain localities are prone to very high rates. Some localities of central, south and south-west district were prone to high rate of rape cases whereas localities of north-west and west districts had a lower rate of such cases. This can be attributed to the rural composition of these police stations and a large amount of under-reporting and also due to a homogeneous close-knit rural life. On analysing dowry death cases it was found that it has a

positive correlation with that of increasing distance from the centre. Most of the localities of central, New Delhi and south districts are found to have very low rate of such cases. The peripheral areas of Delhi having a rural composition had a comparatively high rate of such crimes. This may be attributed to the low level of literacy of these areas as compared to the urban areas.

Chapter IV

SOCIO-ECONOMIC CORRELATES OF CRIME

One of the characteristic features of crime is its variation over space. This has already been observed earlier from the study of crime in the 9 police districts covering 100 police stations of Delhi. Different scholars give different reasons for spatial variation of crime and have related this to various socio-economic characteristics of a given society.

Such attempts, however, are essentially made by western scholars. According to Benedict (1935) and Ley (1983) criminal deviation is a function of the pattern of culture to which an individual belongs. The temperament which is considered to be normal in one pattern of culture may be a deviation which is dangerous to the community in another as has been stated by Thouless (1960). Knox (1982) had found out that most aspects of deviant behaviour seem to exhibit a definite spatial pattern of some sort rather than being randomly distributed across the city. As early as in 1929 Shaw had noticed that in certain distinctive areas of the city the occurrence of crime and delinquency is well above the average. That the social environment plays a vital role in the commitment of crime has been observed by Burt 1925. He along with many others came to the general conclusion that there is a positive association between the occurrence of crime and poverty. (Pyle 1974, Corsi and Harvey 1975, Pyle 1976, Dunstan

and Roberts 1980, Huff and Smith 1980, Brown 1982 and Williams 1985). However, Schmid (1960) and Pyle (1976) explained that the occurrence of crime vary considerably by the type of offence. Boggs (1965), Baldwin, Bottoms and Walker (1976) gave importance to opportunity factors like the relationship between property values and house-breaking. Ley and Cybriwsky (1974) and Brantingham and Brantingham (1975) explained of how burglary could benefit from the weaker social control of 'anonymous' boundary areas. The dominant pattern of crime occurrence was found to be associated with inner-city areas of low social cohesion where there was a concentration of burglary, car theft and hand bag snatching (Schmid and Schmid 1972).

Some Indian scholars have also come to the conclusion that crime rate is related to many socio-economic reasons. Kulkarni (1981) from his study on Ahmedabad came to the conclusion that crime rate of an area is based upon the proportion of illiterate population, proportion of people belonging to backward communities and the proportion of labourers engaged in industrial activities. He also discovered that the areas of constant and intense social interaction and friction are more prone to conflicts and crimes. Lastly, he found that the property crimes occur in more prospective areas. Sivamurthy (1982) also agreed to this point regarding that of property crimes. Dutt, Noble and Sharma (1985) studied the variation of the spatial patterns of crime in Ajmer, India. They found that crimes do vary spatially in Ajmer and that there is a positive

relationship between crime rate and population density. Also, that percentage of scheduled caste and scheduled tribes and illiterates do play a positive role in increasing the crime rate of an area of the city.

From the literature review and analytical framework as outlined in the first chapter it became very clear that crime is an outcome of complex interplay of various environmental, demographic, social and economic conditions and has to be viewed in that light. Some of these variables have been tested while attempting an analysis of crimes in various metropolitan cities of India in Chapter II. This chapter attempts to do a similar analysis, but at a micro level, i.e., by using the data at police station level within Delhi Union Territory¹.

Since there are various types of crimes they are clubbed together as property crimes, crime against person and crime against women. The different categories of crime are dacoity and robbery; theft and burglary; murder and attempt to murder; crime against women; other crimes (riots, snatching, hurts, accidents and cheating); and total crime. The rates have been calculated per thousand of total population for all categories of crime except crime against women.

¹ The latest data, for socio-economic variables at the time of the analysis, were available only for 1981. As such, correlations between crime and socio-economic data were attempted for 1981. Data of crime, used in the analysis, is for 1989. Further, at the time of submitting the thesis, 1991 census data had been published.

In order to do a correlation exercise the data has been used at police station level for all the 100 police stations of Delhi for all the various categories of crime excluding crime against women. Whereas data on crime against women were available for only 5 districts comprising of 54 police stations. Thus, the correlation has been attempted for the same 54 and the rate of crime against women has been calculated per thousand of female population.

From the spatial pattern of crime against women it was observed that south and south-west districts had two pockets in which there was a high rate of rape and dowry death cases respectively. Thus, a correlation exercise was undertaken for 14 police stations of these two districts between serious crime against women and various socio-economic variables.

Before setting out a set of hypothesis to explain the variation in crime occurrence it was necessary to find out the relationship between crime against women and total crime. Since if there is a positive correlation between the two it would indicate that the variables which would be taken to explain the total crime would also explain crime against women. On attempting a correlation between the two for two years 1981 as well as 1989, it was found that there is a high positive correlation between the two ($r=0.58$ and 0.72 respectively). Thus, the variables taken to explain the crime against women are similar to that of other variables taken to explain the rest of various types of crime.

A part of this study looks at one aspect of the social geography of Delhi, i.e., the segregation of scheduled castes and non-scheduled castes and how it relates to crime. According to Bhatt (1972) residential segregation would probably occur if the sub-group of a city's population were considered to be of undesirable status by the rest of the population or the dominant groups. This situation would result in involuntary segregation. Sub-groups of a city's population may voluntarily segregate themselves as well, since living near others from the same sub-groups may help facilitate adjustment in a new situation or help to maintain sub-group identity.

Delhi consists of 97 charges, 37 census towns and 231 villages (Appendix V). The charges are further divided into blocks whereas census towns and villages are not. Micro level data on scheduled caste population was required in order to calculate this index. Thus, segregation index could only be calculated for the urban areas of Delhi which consists of New Delhi Municipal Corporation, Delhi Cantt and Delhi Municipal Corporation, (Appendix VIII).

DEVELOPMENT OF HYPOTHESES

A heuristic model to explain the spatial variation has been proposed in the earlier chapter. The model assumes no intervening variables. However, in the real ground situations, there can be a number of intervening variables which would distort the proposed model. In this section, therefore, further

analysis has been done to assess the impact of intervening variables such as demographic, social, economic, environmental and infrastructural characteristics. These variables are correlated with rate of various types of crime (Table 4.1). In the following paragraphs the variables and their impact on crime have been presented.

DEMOGRAPHIC VARIABLE

Sex Ratio

Sex ratio seems to have a bearing upon the rate of crime in general. The correlation between the two is negative and relationship is statistically significant ($r=-0.32$, Table 4.1). Areas having high sex ratio (i.e. number of female per thousand of males is high) are less likely to have various types of crimes particularly crime against women. But the incidence of dowry related cases has a significant and positive correlation with sex ratio ($r=0.58$). From an overview of the data it was found that sex ratio is comparatively higher in the peripheral and rural areas as compared to the inner and urban part of Delhi. This is because of selective male migration to the urban part of Delhi which has created imbalances in the sex ratio.

SOCIAL VARIABLES

Density Of Population

Density of population seems to have a negative bearing upon the rate of crime in general since the correlation between

Table 4.1

Correlation of crime variables with that of socio-economic variables

Variable	Rate of crime (per 1000 of population)					Crime against women
	Murder and attempt to murder	Dacoity and robbery	Theft and burglary	Other IPC	Total IPC	
A. Demographic variable						
1. Density of population	-0.0821	-0.3068*	-0.3711**	-0.1489	-0.2709*	-0.0728
2. Sex ratio	-0.2571	-0.1865	-0.3078*	-0.2840*	-0.3226*	-0.2537
B. Social variable						
3. Scheduled Caste population	0.2844*	-0.0762	-0.0978	0.0040	-0.0389	-0.1288
4. Literate population	-0.1698	-0.0600	0.1461	-0.0669	0.0266	0.2934
5. Segregation index	0.2708*	0.0447	0.0440	-0.002	0.0190	0.1731
C. Economic variable						
6. Cultivators	0.4442**	0.4477**	0.0796	0.0669	0.0927	-0.3165*
7. Non Primary workers	-0.0839	0.1309	0.5372**	0.2356	0.3979**	0.2048*

+ Significant at 0.01 level

++ Significant at 0.001 level

Source : District Census Handbook of Delhi 1981, Police Headquarter, New Delhi and computations by the computer.

the two is negative and statistically significant ($r = -0.27$). All the various types of crimes including that of crime against women is found to be negatively correlated with population density². The relationship is significant in both the types of property

² Even the incidence of serious crime against women has an insignificant negative correlation with density of population.

crimes such as dacoity and robbery and theft and burglary. Crime against person and crime against women are negatively related with density of population, but the relationship is not statistically significant. Thus, on the whole the negative relationship seems to support Smith's (1981) contention that spatial proximity is inevitable in a densely populated areas which discourage crime for obvious reasons.

Literacy

The percentage of literate population seems to have no bearing on the total crime rate as indicated by the correlation between the two ($r=0.03$). Among the various categories of crime, crime against person, major property crimes and other IPC are having a negative and insignificant correlation with the percentage of literate population. Whereas minor property crimes and crime against women are having a positive, but an insignificant correlation with literate population. The insignificant nature of the correlation may be because of the fact that literacy is very loosely defined in the Indian census. On the one hand crime against person such as murder and attempt to murder are not influenced by urbanization to that extent and these crimes are occurring in districts having a comparatively low literacy as evident from the r values which shows a negative correlation ($r = -0.17$). Theft and burglary occur mostly in all types of localities, but the rate of such crimes is higher in

urban part of Delhi as compared to the rural. The impersonal and heterogenous set up in urban areas promotes the rate of total crime against women. Since literacy is one of the characteristics of urbanization, areas having high total and female literacy are prone to high rate of crime against women. This is indicated by the r values for total and female literacy ($r=0.29$ and 0.28 respectively).

The urban part of Delhi is prone to high rate of total crime against women as compared to the peripheral and the rural part, but from the data it was clear that not all types of crime against women are occurring greatly in urban areas. Eve-teasing, molestation of women, kidnapping and rape were found to be occurring more in the urban part whereas dowry related cases and dowry deaths were found to be occurring more in the rural part. But since the former account for a high proportion of total crime against women, the relationship between literate population and crime against women is positive.

Scheduled Caste Population

The percentage of scheduled caste population seems to have a negative bearing on the crime rate as indicated by the correlation between the two ($r=-0.04$). There is a negative correlation with theft and burglary too. However, when the percentage of scheduled caste population is correlated with major offences against persons, the situation changes. The correlation of co-efficient becomes positive. It may be that when there is

not much disparity among scheduled castes themselves in their standard of living the tendency to steal neighbours' property is less. On the other hand they are known for their drinking habits. When they get drunk they easily pick up a quarrel with their neighbours in the streets. It may be recalled from the earlier analysis on spatial variation that the percentage of scheduled caste population is high in resettlement colonies and jhuggi jompris. It had also been found that crime against person are on the rise in such areas. (Further, the ensuing chapter has revealed that in these jhuggi-jhompris and resettlement colonies drunkenness and subsequent street fights are a common phenomenon). it has been further found from this correlation exercise that there is a negative relationship between scheduled caste population and literacy. This may explain why there exists a positive correlation between scheduled caste population and major offences against the persons.

Scheduled caste population is found to have no bearing on the occurrence of total crime against women. But on analysing the relationship between scheduled caste population and the occurrence of total serious crime against women, it was found that there is a positive correlation ($r = 0.40$)³ In fact the

³ But a note of caution is warranted since rape cases are invariably hushed up when occurred in affluent areas of the city. Herbert (1980) rightly stated that the geography of crime is actually the geography of lower class crimes, since those in power have the means of doing various types of crimes undetected.

incidence and rate of rape and dowry death cases taken individually are having a positive correlation with that of percentage of scheduled caste population. The latter part of Chapter III revealed that there is a pocket in south Delhi which has a high rate of rape cases. The localities within this pocket include slum, resettlement colonies and residential areas of the lower and the middle class. The percentage of scheduled caste population to the total population in this locality is as high as 20 per cent. In fact the slum colonies located within these localities had a high percentage of scheduled caste population (Kalkaji 50 percent; Ambedkar Nagar 45 per cent; and Badarpur 30 per cent).

Segregation Index

Segregation index has been calculated for the whole of Delhi in order to test the hypothesis that where segregation index is low, there crime rate is also low and vice versa⁴. Inference is that the tendency to commit crime is maximum if an area is occupied either by only scheduled caste population or by only non-scheduled caste population. And when they live together then the tendency to commit crime is less.

⁴ It may be recalled that the way segregation index is computed for a given locality which has its population belonging to either the non-scheduled castes or the scheduled castes, the values for segregation becomes very high.

When a correlation between segregation index and crime rate is attempted for various police stations of Delhi, the r value works out to be 0.019 which is not statistically significant for general crime. But the correlation between segregation index and crime against person is statistically significant ($r=0.27$). Segregation index is found to have no bearing on the occurrence of various property crimes as well as crime against women.

ECONOMIC VARIABLES

It had been set out in Chapter I, in the section on hypotheses, that the nature of labour force participation affects the rate of crimes. The police station level data revealed not much of variation in the percentage of main workers and marginal workers from one police station to the other. Therefore, these two have not been taken as explanatory variables. Since Delhi Union Territory comprises of a large number of villages as well as census towns and charges there was found to be a lot of variation in the various categories of main workers. According to 1981 census as much as 21 per cent of the population of rural areas were engaged in cultivation as against 0.39 per cent in urban areas. In a similar manner there is a lot of variation in the percentage of workers engaged in other work such as construction, trade, transport and manufacturing. The percentage of workers in rural areas in these occupations, is only 68.08 per cent as against 97.66 per cent in urban areas. Percentage of

cultivators and non-primary workers are the two economic variables taken to explain the spatial variation in crime rates. The workers have been grouped under these broad categories essentially to capture the intensity of rural and urban characteristics of the population, since this study is for the Delhi Union Territory which consists of both urban as well as rural areas.

Cultivators

Localities having a rural set up with the majority of the people being cultivators are found to have a very high positive correlation with major crimes against persons like murder and attempt to murder ($r=0.44$) and major crimes against property like dacoity and robbery ($r=0.45$), both of them being statistically significant. But these areas have a positive and insignificant correlation with all the other types of crimes. A relatively high share of dacoity and robbery cases in the rural areas are an outcome of massive out-migration of upper class people from urban to rural Delhi in search of a better environment free from all kinds of pollution and associated urban problems. However, due to the transportation problem and high cost of land prices in the suburbs of urban Delhi, only the rich and the affluent can afford to buy land in these areas and construct huge bungalows and also commute daily to and fro from their residences to urban Delhi and back. These huge bungalows and farm houses attract a large number of dacoits and robbers and it is

also very easy for them to get away because of the nearness to the Delhi Union Territory border. Secondly, these areas have a comparatively low density of population and escape is possible without being noticed by witnesses. Many times while a dacoity or robbery attempt is made the dacoits and robbers commit murders and attempt to murder. Various property disputes among the agriculturists of these areas also lead to a higher share of murder and attempt to murder (Islam 1982). It may be noted in passing that these observations are in keeping with the model proposed earlier.

Percentage of total and female cultivators seems to have a bearing upon the rate of crime against women too. The relationship between the two are negative and statistically significant ($r=-0.32$ and -0.29 respectively).

Non-Primary Workers

Percentage of non-primary workers (i.e., those engaged in secondary and tertiary activities) have a significant positive correlation with that of crime rate ($r=0.40$). It may be noted in passing that a higher proportion of workers in the non-agricultural pursuits would indicate a relatively more urbanized context. This becomes more evident on observing high positive correlations between these workers and rate of theft and burglary and other crimes. However, when the percentage of other workers is correlated with major offences against persons, the situation changes. The correlation of co-efficient becomes negative. r

being -0.004 which is insignificant. When total and female non-primary workers are correlated with crime against women there is found to be a positive and significant correlation between the two ($r=0.28$ and 0.23 respectively)⁵.

CONCLUSION

The main aim of this chapter had been to identify certain socio-economic variables to help explain the occurrence of crime by using micro level data. Police station level data has been used for this study and socio-economic and crime variables were adjusted accordingly.

The socio-economic variables have been correlated with the rate of crimes per lakh of population. The various categories of crime included in this study are major crime against person (murder and attempt to murder), major property crimes (dacoity and robbery), minor property crimes (theft and burglary), other crimes and total crimes. In order to analyse the reasons for variation in the occurrence of crime against women firstly, a correlation was attempted between crime against women and total crime. It was found that there is a high positive correlation and thus, a similar set of variables were taken to explain the rate of crime against women as well as other crimes.

⁵ The varying percentage of non-primary workers from one locality to the other does not explain the occurrence of serious crimes against women.

Sex ratio seems to have a negative relationship with the rate of crime in general, i.e., areas having high sex ratio are prone to low rate of various types of crimes particularly crime against women. However, dowry related cases have a positive and significant relation with sex ratio. In the case of Delhi, there is a high sex ratio in its rural parts. The above two statements reveal thereby that dowry related cases are occurring mainly in rural areas.

All the various types of crimes including that of crimes against women is found to be negatively correlated with population density. Where density of population is high there opportunities for criminal activities is low. Property offences with violence do not generally take place in congested colonies with small houses since firstly, there is not enough to loot and secondly, a quick escape is not possible. There is a high negative correlation between density of population and major crimes against property (dacoity and robbery).

The percentage of literate population seems to have no bearing on the total crime rate as well as the various categories of crime. Literacy is found to have a positive correlation with theft and burglary and crime against women. Although the correlation is insignificant, but the positive relation indicates that such crimes are influenced by urbanization and since literacy is one of the characteristics of urbanization, the

positive relation is evident. The insignificant nature of the correlation may be because of the fact that literacy is very loosely defined in the Indian census.

At the aggregate level the percentage of scheduled caste population seems to have an insignificant negative bearing on total crime rate as indicated by the correlation between the two. However, at the disaggregate level it has been found to have a positive and significant correlation with major offences against person and total serious crime against women. It may be recalled from chapter III that the rate of murder, attempt to murder and rape cases are high in areas dominated by slums and resettlement colonies which have a high percentage of scheduled caste population to the total population (more than 50 per cent).

Segregation index which implicitly identifies the extent of inter-mixing of non-scheduled caste and scheduled caste population does not have a positive bearing upon the crime rate, when Delhi is studied as a whole. However, correlation between segregation index and crime against person is statistically significant and positive. This means higher the segregation index higher is the crime rate, but only in the case of crime against persons. This index does not explain the variation in crime against property as well as crime against women.

The nature of labour force participation has a bearing on crime rate. Percentage of cultivators and non-primary workers

are the two economic variables taken to explain the spatial variation in crime rates. On the one hand, areas having a high proportion of cultivators are prone to crime against person and major property crimes. On the other hand, areas having high percentage of non-primary workers are prone to minor property crimes and crime against women.

Chapter V

MICRO-ENVIRONMENT OF CRIME AND CRIMINALS

The geography of urban crime incorporates not only the identification of the localities prone to crime and its spatial patterns, but also deals with the micro-environment of crime and criminals. The former has already been dealt with in the previous two chapters and the latter would be analysed here.

Within the localities there may be specific settings in which crime occurs. These specific settings may be home, in the street, place of work, market, service and entertainment places. On the one hand, micro-environment of crime provides a theory on situational crime prevention, by analysing the proportion of various types of crimes occurring in these settings. On the other hand, micro-environment of criminals analyses their residential set up. The socio-economic conditions together with environmental circumstances, that surround such residences, are analysed in order to evaluate the constraints having a bearing on their criminal disposition.

MICRO-ENVIRONMENT OF CRIME

The first part of this chapter deals with the micro-environment of crime. In the following paragraphs the functional properties of different settings, in which various types of crimes occur, within a locality are analysed. This is followed by

a probe into the age composition of the criminals¹. In the present study, the places of occurrence of crime have been grouped under the following categories:- commercial complexes, at home, public places, premises, entertainment areas and rural settings². The various types of crimes taken for the study are theft, burglary, snatching and murder and attempt to murder for the year 1990.

Location of Crime

This section deals with a micro level study of 1085 number of cases occurred in various settings in 1990. These cases include theft and burglary, snatching and murder and attempt to murder. Out of the total number of cases about 52 per cent of crimes occurred in public places (Table 5.1). The second position is that of home which accounts for 25 per cent of all crimes.

¹ One of the limitations of the data used here is that the age group data is available only on criminals and not on that of victims.

²

Commercial	-	Jewellery shops, milk booths, chemists and other shops in market.
Home	-	House, hut, backyard, garage, courtyard, garden and terrace.
Public places	-	Road, pavement, petrol pump, parked vehicle, running bus, parking place, railway station, bus/auto-rickshaw stands.
Premises	-	School, hospital, banks, factory, office, godown, warehouse.
Entertainment	-	Parks, cinema, hotel.
Rural setting	-	Field, pond, tubewell.

Table 5.1

Total Crime in Various Settings 1990

Setting	Number	Total Crime	Per cent
Commercial	92		8.44
Home	273		25.16
Public place	571		52.63
Premises	91		8.38
Entertainment	34		3.13
Rural area	24		2.21
Total of all settings	1085		100

Source: Police Headquarter, ITO, New Delhi

The least number of cases were occurring in rural settings and entertainment areas.

As high as 571 cases occurred in public places of which 62 per cent were of theft and burglary, 30 percent snatching and 8 per cent murder and attempt to murder (Table 5.2).

About 273 cases occurred in homes and the pattern of occurrence of various types of crimes is similar to that of public place. 91 cases occurred in premises and 92 in commercial areas. While the former is mainly prone to theft and burglary (95 per cent), but the latter is prone to snatching, and murder and attempt to murder (13 and 12 per cent respectively) as well.

The least number of cases occurred in rural settings (24). From the table it is clear that snatching is an uncommon criminal act in rural settings, but such areas are prone to murder and attempt to murder.

Table 5.2

Percentage showing Crimes in Various settings 1990

Type of crime	Setting of Crime											
	Comm- ercial		Home		Public place		Premises		Enter- tainment		Rural setting	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Theft and burglary	69	75	181	66	355	62	86	95	29	85	19	79
Snatching	12	13	56	21	169	30	4	4	3	9	--	--
Murder and attempt to murder	11	12	36	13	47	8	1	1	2	6	5	21
Total Crime	92	100	273	100	571	100	91	100	34	100	24	100

Source: Same as Table 5.1

Out of the total number of theft and burglary cases (739) 48 per cent occurred in public places, followed by 25 in homes, and 12 in various premises (Table 5.3). The least per cent of such cases occurred in rural settings.

As high as 69 per cent of snatching cases occurred in public places, followed by 23 per cent in home settings. There was no case of snatching in rural areas and quite surprisingly the percentage share in entertainment areas was also very low. The least percentage of such crimes occurred in the entertainment places and premises of public institutions.

Table 5.3

Types of crime vis-a-vis setting 1990

Type of Crime	Setting of Crime							Total setting of all settings
	Comm- ercial	Home	Public	Pre- place	Enter- mises	Entertainment	Rural	
Theft and burglary	No. 69 % 9.34	181 24.49	355 48.04	86 11.64	29 3.92	19 2.57	739 100	
Snatching	No. 12 % 4.92	56 22.95	169 69.26	4 1.64	3 1.23	-	244 100	
Murder and attempt to murder	No. 11 % 10.78	36 35.29	47 46.08	1 0.98	2 1.96	5 4.90	102 100	

Source: Same as Table 5.1

Public places accounted for around 46 per cent of murder and attempt to murder cases followed by 35 per cent in home settings. The least percentage of such crimes occurred in premises and entertainment areas.

Age Group Of Criminals

The age composition of criminals has been divided on the basis of less than 20, 21-30, 31-40, 41-60 and 61 and above (Table 5.4).

Out of the total number of criminals it was found that as high as 52 per cent was accounted by those in the age group of 21 to 30; 30 per cent by criminals in the age group of 31-40 and 17 per cent by less than 20 category. With increasing age the

Table 5.4

Age Group of Criminals 1990

Age group and	Theft and burglary		Snatching and attempt		Murder to murder		Total crime	
	No.	%	No.	%	No.	%	No.	%
Upto 20	146	19.76	25	10.25	11	15.29	182	16.77
21-30	405	54.80	115	47.13	37	51.44	557	51.34
31-40	139	18.81	99	40.57	44	61.17	282	25.99
41-60	43	5.82	3	1.23	10	13.90	56	5.16
61 and above	6	0.81	2	0.82	-	-	8	0.74
Total	739	100	244	100	102	100	1085	100

Source: Same as Table 5.1

percentage fell from 5 per cent in 41-60 to 1 per cent in 61 and above category. When a similar type of analysis was undertaken for the various types of crimes it was found that with an increase in age the proportion of criminals tended to decline. 54 per cent of criminals who committed theft and burglary are in the age group of 21-30 and 47 per cent in the case of snatching for the same age group. In the case of murder and attempt to murder the highest percentage of criminals are in the 31-40 category (62 per cent) followed closely by criminals in 21-30 category (51 per cent).

Location And Age Interface

Age group of criminals in various settings has been given in Table 5.5. It can be observed from this table that

Table 5.5

Age group of criminals in various settings 1990

(Per cent)

	Public place	Home	Comm- ercial	Prem- ises	Enter- tainment	Rural areas
Upto 20 years						
1	62.33	17.12	6.85	10.96	1.37	1.37
2	84.00	16.00	-	-	-	-
3	36.36	45.45	9.09	-	9.09	-
21-30 years						
1	43.70	27.41	10.37	12.84	2.96	2.72
2	83.48	8.70	5.22	-	2.61	-
3	37.83	45.95	8.11	2.70	2.70	2.70
31-40 years						
1	40.29	25.18	10.07	10.79	9.35	4.32
2	47.47	42.42	6.06	4.04	-	-
3	54.55	22.73	15.91	-	-	6.82
41-60 years						
1	58.14	23.26	6.98	6.98	4.65	-
2	100.00	-	-	-	-	-
3	50.00	40.00	-	-	-	10.00
61 and above						
1	100.00	-	-	-	-	-
2	100.00	-	-	-	-	-
3	-	-	-	-	-	-

1 = Theft and burglary, 2 = Snatching, 3 = Murder and attempt to murder

Source: Same as Table 5.1

irrespective of the age group public place accounts for a high share of theft and burglary and snatching cases. Murder and attempt to murder is found to be occurring mostly in homes in the age groups less than 20; and 21-30, but mature criminals in the age groups of 31 and above are seen to be committing this serious crime mostly in public places and in the rural areas.

In sum, it has been found that theft and burglary account for 68 per cent of the total crimes; snatching 22 per cent; and murder and attempt to murder 10 per cent. As far as the settings are concerned, the most vulnerable areas for attacks by criminals in the present context are public places (which include parking place, railway stations, bus stands, road, highway, petrol pump, etc) and in homes. Rural areas are prone to minor property crimes and crime against person. There was no case of snatching in rural areas and the percentage share occurring in entertainment areas was also very low.

In the present study, with an increase in age there is found to be a decrease in the percentage of criminals. Further, not only the younger people are committing crimes more often in the streets and public places, but criminals of higher age group also are committing various crimes in such settings. The former is in keeping with Davidson's findings (1986). From a study on crime in U.K. he found that people in higher age group tended to commit crime more often in private and isolated places such as home, field, park, etc. This is because, for the assailant,

privacy increases security and reduces fear of being caught.

MICRO-ENVIRONMENT OF CRIMINALS

It has been generally observed that with increasing urbanization and urban growth, some parts of the city are turning into breeding grounds for criminals. Many scholars have attempted to analyse the reasons behind the same. In doing so, it has been observed that some areas of the city emerge repeatedly as criminal prone (Burt 1925, Shaw and McKay 1942, Schmid 1960, Hargreaves 1967, Baldwin and Bottoms 1976, Gill, 1977 and Herbert 1980). The majority of them have explained the emergence of criminal prone areas as a consequence of a wide gap in the income and other amenities of life between the rich and the poor. According to them, some of the variables which are important in such circumstances are poor socio-economic conditions leading to poverty and poor educational and recreational facilities. The degenerated environment as a consequence of inadequate infrastructure and the lack of values and ethics among its residents and a high proportion of immigrant population are promoting the perpetuation of criminality.

Consequent upon these observations, an attempt has been made in this section to see if Delhi also has the same spatial phenomenon. That is, whether in Delhi there exist areas from which most of the criminals are coming or which are considered as 'criminal prone' areas. A detailed analysis follows, but it may be noted in passing that such areas do indeed exist.

The identification of such areas in the city is followed by an extensive observation and recording of those socio-economic variables which might have gone into the making of such areas.

Spatial Pattern Of Criminality

On compiling the information from the individual case histories it was found that the criminals' residences were not only in Delhi but also in other states of India. The case histories provided detailed information on 776 criminals as obtained from Police Headquarter, New Delhi. It was found that Delhi accounted for the highest share of criminals (66.49 per cent) followed by Uttar Pradesh (14.05 per cent). As expected, there is a higher proportion of criminals from neighbouring states of Delhi, like Haryana, Rajasthan, Punjab and Bihar whereas very few criminals from South India (Table 5.6 and Fig. 5.1). About 0.26 per cent of criminals are from Karnataka and 0.90 per cent from Tamil Nadu.

Out of the total 516 criminals of Delhi, north-east and east districts together accounted for 28 per cent of criminals living there followed by west with 19 per cent and north with 16 per cent. South and central districts accounted for 11 and 9 per cent respectively. The lowest share of criminals was accounted by New Delhi (2 per cent). But on doing a micro level analysis of the criminals' addresses, it was found that some localities in

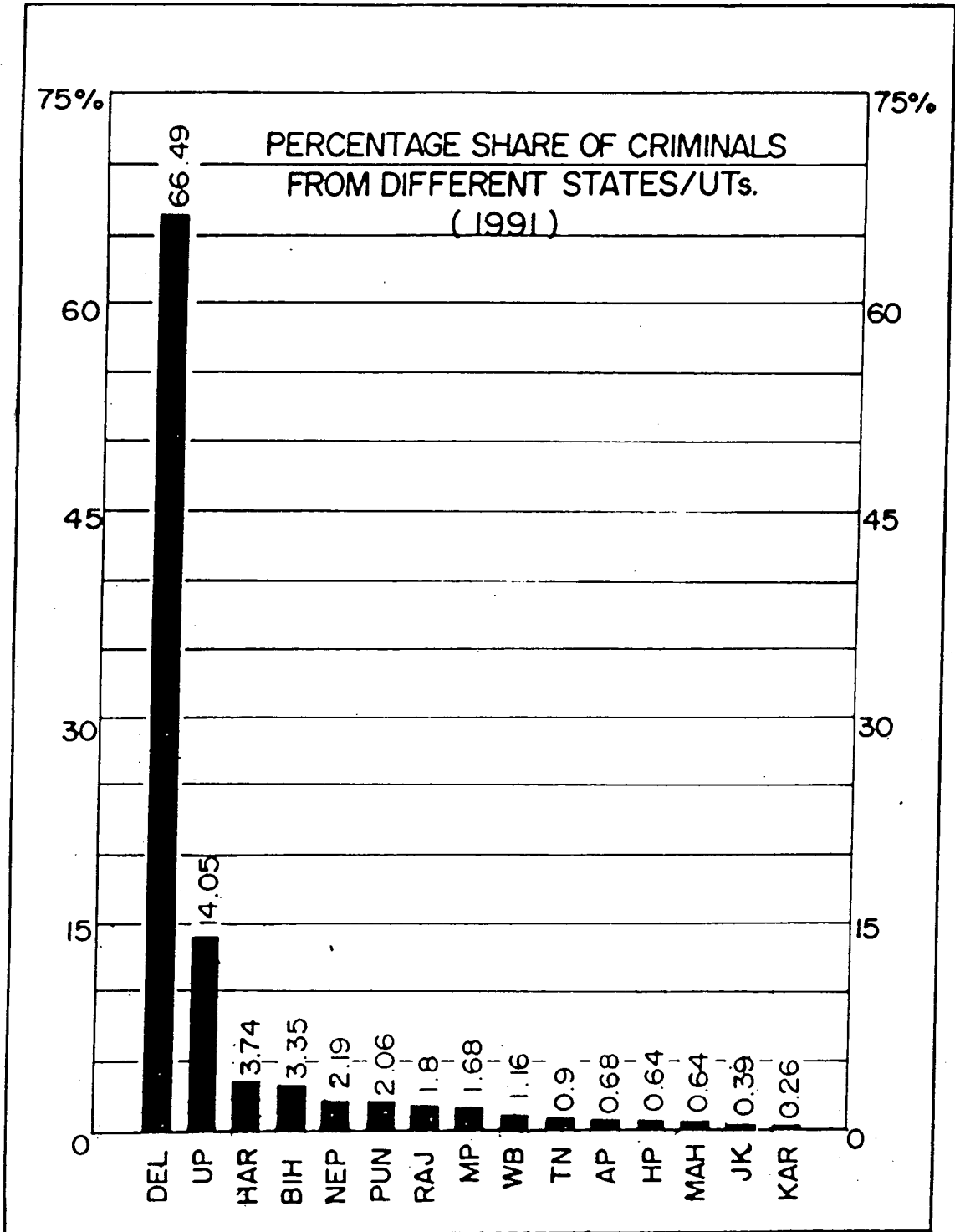


Fig. 5-1

Table 5.6

**Percentage share of criminals from various
States/Union territories (1990)**

State/Union Territories	Number of criminals	Percentage share
Andhra Pradesh	5	0.64
Bihar	26	3.35
Delhi	516	66.49
Haryana	29	3.74
Himachal Pradesh	5	0.64
Jammu & Kashmir	3	0.39
Karnataka	2	0.26
Madhya Pradesh	13	1.68
Maharashtra	5	0.64
Nepal	17	2.19
Punjab	16	2.06
Rajasthan	14	1.80
Tamil Nadu	7	0.90
Uttar Pradesh	109	14.05
West Bengal	9	1.16
Total	776	100

Source: Same as Table 5.1

certain districts are prone to a very high rate of criminals per lakh of its population as against other localities which had a very low rate.

For the primary survey 12 maximum offender prone localities of Delhi had been selected along with another 12 which had the least offender rate³. A list of the localities selected for the survey is given in Table 5.7 and Fig. 5.24. A summary of the field survey of 24 localities is given in Appendix X.

A Theoretical outline on Criminality

Spatial associations of crime and criminality have consistently tried to identify key correlates of offence rates and offender rates. For the purpose of this discussion, six types of hypothesis will be discussed in detail in order to identify reasons for high offender rate in some localities as against the others⁵. At the risk of deviation, it may be pointed out that the set of hypothesis already given in Chapter I may be spelt out once again in a more detailed manner. Demographic factors:

- If dependency ratio and average family size is high, criminal rate is also high.

³ In order to analyse the reasons for high criminality in some areas, it was necessary to have a reference point by way of having a few localities where the offender rate was minimum. For further details refer to Methodology in Chapter I.

⁴ The questionnaire used in the survey is given in Appendix VI.

⁵ Besides the already tested hypothesis there are some more hypothesized relation for which the data from the present study does not seem to substantiate. As such, a few of the hypothesis were not found to be applicable in the present context. Refer to Appendix XI for further details.

DELHI

LOCALITY WISE RATE OF OFFENDERS

1990

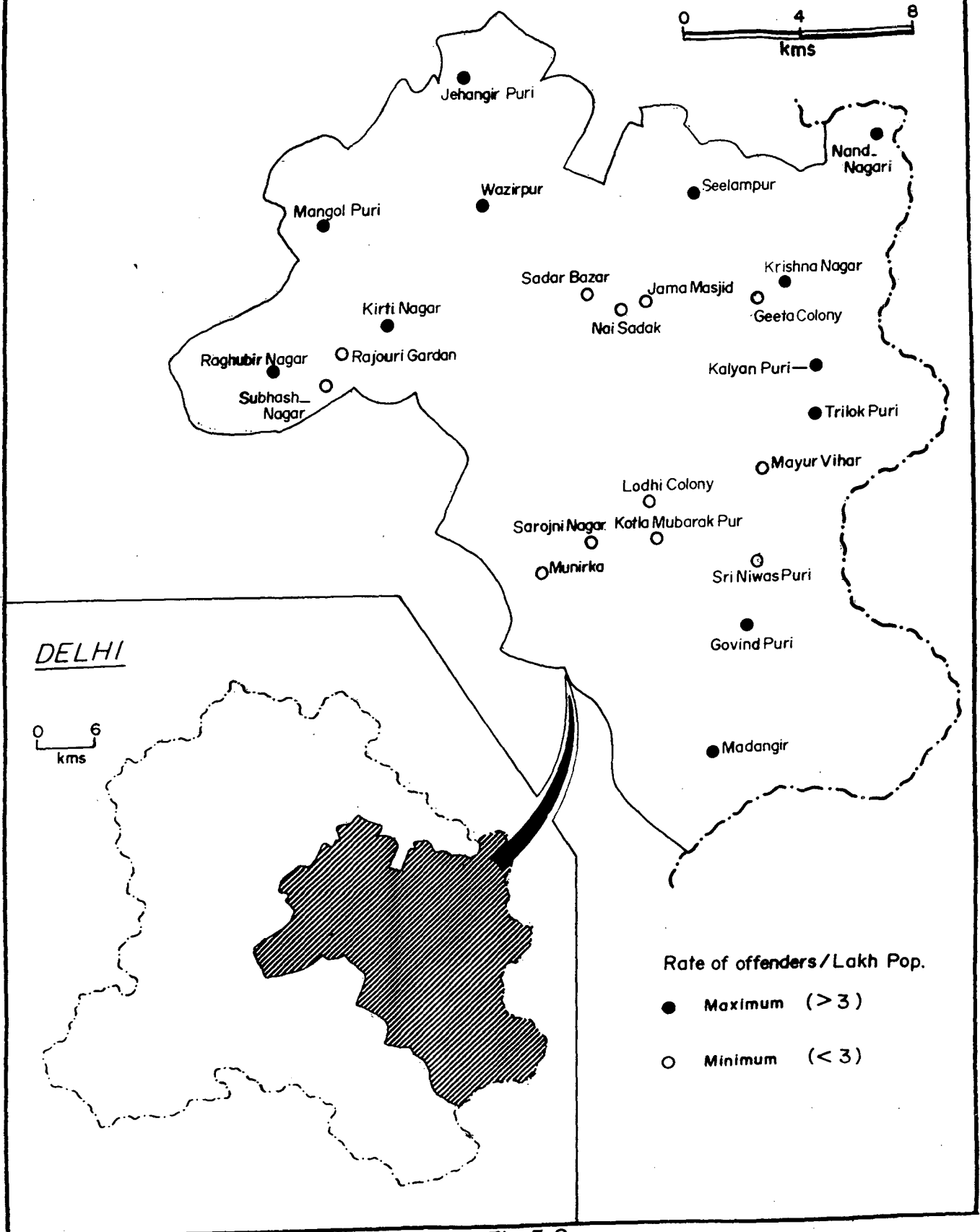


Fig 5.2

Table 5.7

Surveyed localities* (Maximum offender prone and minimum offender prone)				
Name of the locality of	Number of offenders 1990	Percentage share in Delhi	Population (projected) 1991	Rate of criminals per lakh population
Jehangir Puri	13	2.52	33317	39
Madangir	22	4.26	271724	8
Raghubir Nagar	24	4.65	67555	36
Kirti Nagar	17	3.29	79856	21
Nand Nagari	14	2.71	104540	13
Trilok Puri	21	4.07	77923	27
Seelampur	19	3.68	330715	6
Kalyanpuri	26	5.04	264807	10
Krishna Nagar	19	3.68	123677	15
Gobindpuri	18	2.52	615965	3
Mongolpuri	10	1.94	139675	7
Wazirpur	24	4.65	72489	33
Sriniwaspuri	1	N	96724	1.03
Sarojini Nagar	1	N	101617	0.98
Kotla Mubarakpur	1	N	115786	0.86
Lodhi Colony	1	N	63192	1.58
Jama Masjid	1	N	58315	1.71
Nai Sadak	1	N	52986	1.89
Subhash Nagar	1	N	45036	2.22
Rajouri Garden	1	N	187756	0.53
Mayur Vihar	1	N	58442	1.71
Geeta Colony	1	N	149357	0.67
Munirka	1	N	61328	1.63
Sadar Bazar	1	N	185244	0.54

* Year of Survey 1992; N = Negligible

Source: Same as Table 5.1

Housing:

- If amount of space/person is low, criminal rate is high.
- Substandard housing with no open space leads to more of criminals.

Education:

- Higher the illiteracy, higher is the offender rate.
- Educational attainment of children are good indicators of the quality of home environment and the opportunities made available leading to less of criminals.

Economic status:

- Lower the rate of youth unemployment and higher the security in jobs lower the offender rates.

Social set up:

- Break down of traditional family set up, i.e. joint family will lead to higher proportion of criminals.

Environment and infrastructure:

- Localities lacking in basic amenities and infrastructure are more prone to crime and delinquency.
- Higher the degree of environmental problems and lower its level of perception and its impact on the children, higher the offender rate.

The following section is thus based on a statistical analysis of data collected from the field survey of 24 localities, in order to test the hypothesized association between rate of criminals and various parameters (Appendix IX).

Demographic factor:

Average family size and dependency ratio are the two variables taken to explain the influence of demographic factors on the rate of criminals. Both the variables are found to have no bearing on the rate of criminals (Table 5.8). Thus, on the whole demographic factors do not explain the incidence of large number of criminals in an area significantly.

Table 5.8
Socio-economic Correlates

Variables	Rate of criminals (per lakh of population)
Depending ratio	.2739
Amount of square per person in sq. yards	-.3923
Average family size	.1033
Sub-standard housing	.4783*
Percentage of illiteracy	.4588+
Percentage of school going children out of the total children in school going age (5-18)	-.4858*
Security in jobs	-.6546**
Percentage of youth unemployment	-.1103
Percentage of joint families	.4568+
Perception of environmental problems	.1843
Percentage of infrastructural facilities	-.3121
Percentage of environmental problems	.5650*

* Significant at .01, ** Significant at .001

+ Significant at .05

Source: Data collected from field survey and computed by the computer.

Housing:

The attempt here is to prove whether substandard housing and lack of space per person are a reflection of a comparatively lower socio-economic status leading to a higher rate of criminals. Housing quality has been taken as the independent variable to explain the dependent variable, i.e., the rate of criminals⁶. There is a positive and significant correlation between substandard housing quality and the offender rate ($r = 0.48$). Amount of space per person has an insignificant negative correlation with the rate of criminals. Although the relationship is insignificant, but the negative sign hints at a tendency whereby a decrease in space person leads to an increase in delinquency and criminality.

Education:

Education helps in the attainment of economic prosperity as well as social well being. However, many people do not have access to literacy and subsequently to education due to ignorance, poverty and lack of opportunities, thereby hampering the betterment of their socio-economic status. This may lead some to take up to crimes specially in dire circumstances.

Two variables have been taken to explain the educational

⁶ Housing quality has been calculated on the basis of availability of open space (terrace, balcony, courtyard, garden) and basic amenities within the house (light, water bathroom and toilet).

attainment of the people. These are illiteracy above 5 years and percentage of school going children (out of the total children in the school going age). On the one hand, the r value between illiteracy and criminal rate indicates a positive and significant relationship ($r = 0.46$). On the other hand, educational attainment of children is found to have a negative relationship with the rate of criminals ($r = -0.49$). This indicates that wherever there is greater illiteracy and where not much importance is given to education there the propensity to criminal behaviour is high.

Economic status:

The economic status of the residents of a locality is an important indicator of increasing or decreasing offender rate, since lesser unemployment together with higher proportion of workers in secure jobs may lead to lower offender rate. The latter part of this hypothesized relationship seems to emerge from this study since greater security in jobs is negatively and significantly related with offender rate ($r = -0.65$). On the other hand, youth unemployment is not associated with offender rate as hypothesized.

Social set up:

Under general circumstances, it may perhaps be argued that the traditional family set up, that is, joint family, plays a key role in providing a relatively more disciplined

environment. With increasing urbanization there is a tendency towards the break up of this set up. If so, an increasing percentage of joint families in a given locality will be negatively related with offender rate. In the present study, however, there is a positive correlation between percentage of joint families and offender rate ($r = 0.46$).

This association may perhaps be because of the location specific situations whereby joint families may actually mean an increased burden on per unit residential area leading to substandard housing. This seems to be the case as there emerges significant relationships in hypothesized direction between percentage of joint families and amount of space per person and substandard housing ($r = -0.57$ and 0.76 respectively). Moreover, a positive and significant relation exists between percentage of joint families and percentage of environmental problems ($r = 0.76$). Thus, the potential benefits of a joint family system in traditional set-up gets mitigated in such areas by the other more pressing ground realities of survival.

Environment and infrastructure:

From the foregoing analysis it is not difficult to comprehend that substandard housing is part of a deteriorated environmental set up. The former is found to be positively related with the offender rate. Here, the latter aspect has been looked into more closely. Areas having a higher proportion of environmental problems (noise and air pollution, overflowing dust

bins, water logging, dirty community latrines, mosquitoes, flies and crowdedness) are prone to higher offender rate ($r = 0.57$). This finding gets further substantiated from the data which indicates a significant and positive relationship between substandard housing and percentage of environmental problems ($r = 0.86$). Also, where the percentage of infrastructural facilities is low there the offender rate is high.

Secondly, it has been hypothesized that lower the perception of such environmental problems and its impact on children, higher the offender rate. From the correlation exercise it was found that the level of perception of environmental problems has no relationship with offender rate ($r = 0.18$). Although the perception of the environmental problems is not very high, but the total effect of such an environment on the children is evident from the high rate of delinquency as observed above.

From this correlation exercise it was found that out of the 12 selected independent variables, 6 had a high significant correlation with the rate of criminals. Although the correlation exercise explains associations it does not tell as to how the various parameters behave in conjecture with others. A stepwise regression has been attempted (Table 5.9).

In the first step security in jobs alone accounts for 42 per cent variation in explaining the criminal rate (Y_1). In the second step percentage of school going children gets included and it accounts for a further 10 per cent variation (R^2 increase from

Table 5.10

Correlation Matrix

Variables	Y ₁	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆
Rate of criminals per lakh at population	1.0	.478*	.459	-.486*	-.655+	.457	.565*
Substandard housing quality		1.0	.669+	-.283	-.824+	.756+	.863+
Percentage of illiteracy			1.0	-.190	-.636+	.380	.577*
Percentage of school going children and the total children in school going age (5-18)				1.0	.297	-.170	-.350
Security in jobs					1.0	-.665+	-.827+
Percentage of joint families						1.0	.757+
Percentage of environmental problems							1.0

* Significant at .01 level, + Significant at .001 level

Source: Data collected from field survey and computed by computer.

CONCLUSION

In this chapter the micro-environment of crime and criminals are analysed. The former deals with an analysis of the specific settings in which various types of crime occurs and the latter analyses the residential set up of the criminals.

The first part of the chapter deals with an analysis of micro-environment of crime. From this study it was found that as far as the settings are concerned, the most vulnerable areas for attacks by criminals committing theft and burglary; snatching; and murder and attempt to murder are public places and homes. Rural settings are prone to minor property crimes (theft and burglary) and crime against person (murder and attempt to murder). There was no case of snatching in rural settings.

Micro-environment of crime also dealt with a probe into the age composition of the criminals. In the present study, with an increase in age there is found to be a decrease in the percentage of criminals. Further, not only the younger people are committing crimes more often in the streets and public places, but criminals of higher age group also are committing various crimes in such settings.

The second part of the chapter deal with the micro-environment of criminals. Several western scholars have suggested that with increasing urbanization and urbangrowth, some parts of the city become breeding grounds for criminals. Consequent upon such observations, an attempt had been made in this chapter to see if Delhi also had the same spatial phenomenon.

From the available data on criminals it was possible to identify the maximum and minimum criminal prone areas of Delhi. From the analytical framework and from the literature review it

was possible to identify six major hypotheses which may identify the reasons for high offender rate in some localities. Twelve maximum and twelve minimum criminal prone localities were selected for the study. By means of a questionnaire, the various demographic, socio-economic and environmental conditions of these localities were studied in depth.

On the whole, demographic factors, such as dependency ratio and average family size, do not explain incidence of large number of criminals in an area significantly. Substandard housing is found to be a reflection of a comparatively lower socio-economic status leading to a higher rate of criminals. Substandard housing has a positive and significant correlation with illiteracy. As such, wherever there is greater illiteracy and where not much importance is given to education, there the propensity to criminals behaviour is high. Higher the educational attainment of the children lower is the offender rate.

It may be hypothesized that a higher proportion of workers in secure jobs would lead to lower offender rate. This is because 'security in jobs' would also mean lower level of illiteracy and better housing conditions. The data also reveals a negative and significant correlation between security in jobs with illiteracy and substandard housing. Further, security in jobs has a negative association with offender rate as hypothesized above.

It had been hypothesized prior to this study that traditional set up (joint families) may play a key role in disciplining the young ones and would thus reduce the offender rate. But contrary to the hypothesis stated, localities having a high proportion of joint families are found to be prone to high offender rates. A closer look at the data reveals that the percentage of joint families is high in areas having less amount of space per person leading to substandard housing. Thus the potential benefits, if any, of a joint family system in a traditional set up gets sidetracked in such areas in the face of more pressing ground realities of survival.

Not only the circumstances within the individual houses, but the general environment also affects the offender rate. Because of this, offender rate is high in areas having a higher proportion of environmental problems and lacking in infrastructural facilities.

Although the correlation exercise explains associations, it does not tell as to how the various parameters behave in conjecture with others. A stepwise regression had thus been attempted. However, it is heartening to note that the regression analysis has actually reinforced what has been observed through correlation.

It may be recalled that an overall deprived socio-economic and environmental conditions within individual houses as well as outside seem to make certain specific areas more

vulnerable for concentration of criminals. It may be argued that under such circumstances 'security in jobs' encapsulates much more than what its face value suggests, since secure jobs also mean lower level of illiteracy, relatively better socio-economic conditions as well lower degree of environmental problems.

In the regression analysis the variable, 'security in jobs' explains as high as 42 per cent variation in criminal rate followed by percentage of school going children which explained another 10 per cent.

Chapter VI

CRIME, POLICE AND MASS MEDIA

The role of police and mass media cannot be overlooked in a study of crime since on the one hand, the police has an important role in controlling crime and also in the preparation of official statistics. On the other hand, the mass media plays an important role in drawing the attention of relevant machinery and personnel to crime occurrences. From a review of the literature on police and crime it has been explained that increasing crime may be due to the inadequacy of the police force (Ficker and Graves 1971) or their uneven distribution (UN 1990) and paucity of funds for their maintenance (Jones 1974). However, it may be argued that since this study is for Delhi alone, the discrepancies arising out of such practices would be reduced to the minimum and that although the official statistics may be affected by under-reporting of crime in terms of absolute numbers as a whole, it would not affect the relative level that much.

This chapter is divided into two sections. the first section deals with crime and police and the second deals with newspaper reporting.

CRIME AND POLICE

The major objective of the first part is to analyse the impact of police strength and police protection expenditures on the crime pattern of Delhi. It also attempts to analyse the

biases of policemen against previous known offenders.

Development Of Hypotheses

At the risk of repetition an attempt is made here to expand the earlier hypotheses put forward to explain the association between police strength, expenditure and crime. However, this association may not be so simple because the evidences are not enough to suggest that police involvement in any way creates difference in crime rate between different residential areas (Mawby 1979). Instead, when a residential area continues to be prone to higher crime rate it may invoke a strengthening of the police control system by incorporating more of police officials (Lowman 1982). Following Lowman's argument, in the present study an attempt has been made to test the following proposition :-

Rate of crime has a positive relation with the police facility and the relationship works both ways.

The second question is that of any relationship between existing police expenditures and crime. The detection of crime and apprehension of criminals in metro cities is not only a complicated and technical affair, but it is also very expensive. It is logical to argue that if rising police expenditure does not bring about a decline in the crime rate, it will only be a waste. More so because such expenditure is usually diverted from the funds which might be more productively used elsewhere. Notwithstanding this, police expenditure per thousand of

policemen should increase substantially with rising costs of maintenance. Thus, the second hypothesis of this study is as follows :

The rise in police expenditures over the years has a positive relation with that of crime.

An additional attempt has been made to prove the biasis of policemen against the previous known offenders. In police records it is often seen that crimes are committed by repeated criminals. There is a catch in this statement since the police have a tendency to apprehend the known offenders. This is because the police are able to identify the repeated criminals much more quickly as compared to the new ones. There is sufficient evidence from the literature on police records to substantiate this statement. As such, some of the scholars like Russel (1973) and Moynihan (1969) who came to the conclusion that by far the greatest proportion of all crimes is committed by repeaters. Secondly, the share of repeated criminals would be higher in less serious crimes and the proportion of repeated criminals would be higher in higher age group and vice versa.

Spatio-Temporal Analysis Of Police Strength And Crime Rate

Data on police strength¹ are available only for

¹ The police strength has been taken on the basis of total number of Inspectors, Sub-Inspectors, Assistant Sub-Inspectors, Head Constable and Constables.

central, north and south districts for the period 1980 to 1989². This is because the other districts experienced too much of changes in terms of police stations as well as boundaries during the same period. As such for the temporal analysis only 3 districts were selected where there were minimum changes.

Crime rates for all the three districts have been found to decline significantly with a marginal increase in police enforcement. Crime rate in central district dropped from 1652 cases (per lakh of population) in 1980 to 522 in 1989 (Table 6.1). Same is the case for south and north districts. On observing the absolute figures on police strength it has been found that between 1980 and 1986 there has been no change in actual police strength in the central, north and south districts. According to the police officers of Delhi, the police strength increases with an increase in the number of police stations and police districts.

In the present study, an attempt has been made to analyse the role of police strength in various parts of the city in explaining the variation in crime rates. As such, police strength per 1000 of population and crimes per 1000 of population

² It may be recalled from the earlier analysis that central district is the most densely populated and oldest residential-cum-marketing complexes for the middle and upper class people. North district comprises of not only urban, but rural components as well. Thus, it has a mixed land use varying from the villages in the north to the congested urban settlements of old Delhi in the south.

have been calculated for 100 police stations of Delhi³.

Table 6.1

**Police strength and Crime Rate (1980-89)
(per lakh of population)**

Year	Central		North		South	
	Police Strength	Crime Rate	Police Strength	Crime Rate	Police Strength	Crime Rate
1980	239	1652	280	1930	206	1048
1981	227	1398	266	1643	195	779
1982	216	1231	253	1401	186	641
1983	206	921	241	1187	177	672
1984	197	987	232	1163	168	723
1985	187	913	221	1001	192	684
1986	208	809	236	833	187	618
1987	198	660	225	571	196	472
1988	253	538	212	699	267	524
1989	225	522	202	332	254	332

Source: Police Headquarter, ITO, New Delhi and computed by the writer.

There is a positive correlation between police strength and crime rate ($r = 0.68$, significant at 0.01 level). Thus, it proves the hypothesis that rate of crime has a positive relation with the police strength. It may be that a more visible police force encourages a better reporting. While allotting police

³ Crime data is for 1989. The police strength is as on 31st December 1989. Total population is for 1981.

force at police station level, certain localities are given a larger police force as compared to others because of its greater criminality. An overview of the data revealed that among the various police stations of one district there is a lot of variation in terms of total police strength.

Crime And Police Expenditure

Many studies have shown to prove that high crime rate in cities can be basically attributed to various characteristics of urbanization such as size, density, heterogeneity and lack of face to face interaction among people. Thus, the city can be blamed for creating an environment which induces a higher crime rate. It has also been proved that total crime rate in large metropolitan areas is much higher than the rates in other cities and rural areas. Thus, the detection of increasing crime and apprehension of criminals are becoming more and more complicated, technical and expensive in modern cities. There has to be not only an expansion of the police force, but a lot of money has to be spent on infrastructural set-up besides the giving of regular wages. The question that arises is whether, with an increase in police strength there is a subsequent increase in police expenditure on infrastructural set-up. Thus, in the present study an attempt is made to analyse the relationship between police expenditure with police strength as well as with crime rate.

A line graph has been drawn for showing relationship between police expenditure and incidence of crime for central and

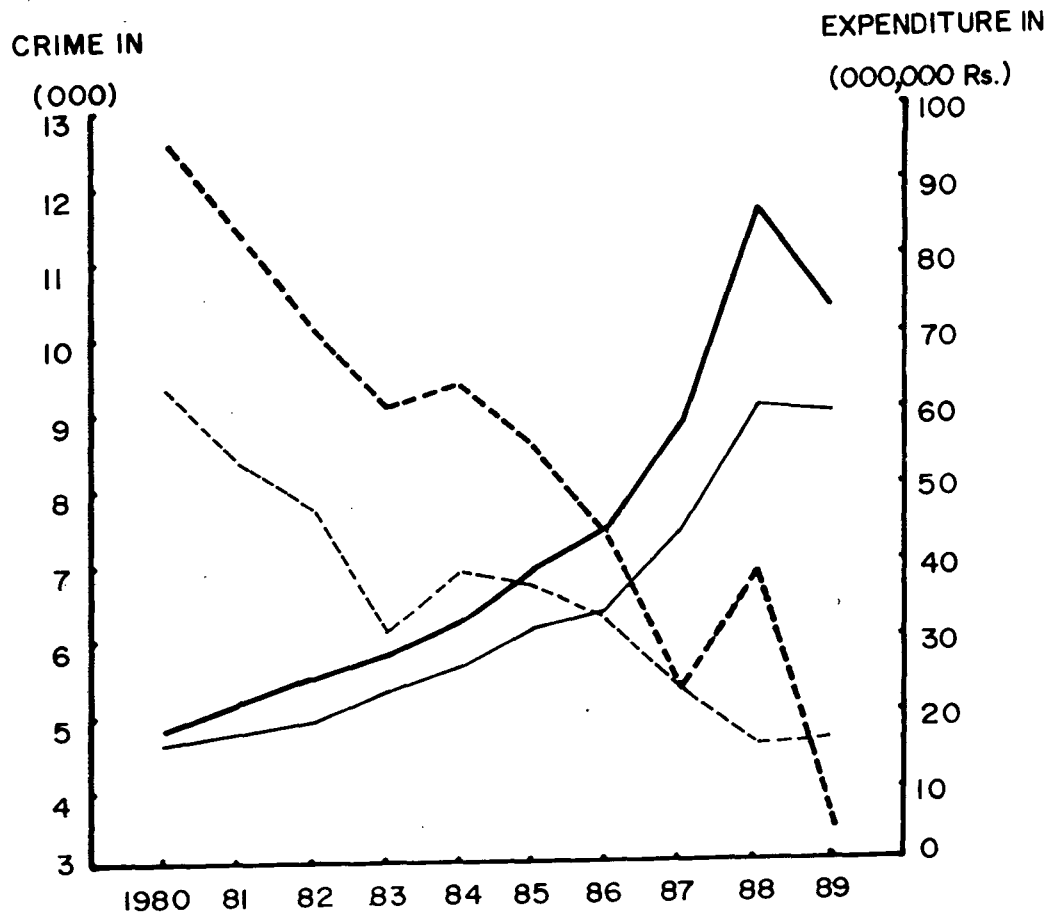
north districts between 1980 and 89⁴. From Fig. 6.1, it is clear that crime incidence has been decreasing with a subsequent increase in police expenditures. From the chapter on spatio-temporal analysis of crimes in Delhi it had been found that till 1980 there had been a growth in the incidence and rate of crime in Delhi. After 1980 with a change in the overall management and working of the police staff by means of increased patrolling with the help of PCR's helped to bring down the crime rate significantly. It may be recalled from the analysis on the micro-environment of crime (Chapter V) that in the present study more than 50 per cent of the crimes are committed in public places, be it theft, burglary, murder, snatching etc. Therefore, it is not surprising that with an increase in total police expenditure there has been a decline in the incidence of crime⁵. Although there is an increase in police expenditure in absolute terms, but has there been an increase in the expenditure per 1000 policemen? For this purpose the money spent only on infrastructural set up for the period 1980 to 1989 has been taken into account. Table 6.2 shows police expenditure in north and central districts in relation to crime rate for the period 1980 to 1989. From the Table it is clear that with an increase in the expenditure per thousand of policemen there is a drastic decline in the crime

⁴ The police officers at various police districts refused to give a detail of police expenditure within their district for the period 1980 to 1989 except for central and north districts.

⁵ Total expenditure includes salaries + additional inputs.

DELHI

CRIME VERSUS POLICE EXPENDITURE



NORTH DIST. {
 - - - - - Crime Incid. 000
 ————— Expenditue in Rs. 000000

 CENTRAL DIST. {
 - - - - - Crime Incid. 000
 ————— Expenditure in Rs. 000000

Fig. 6-1

Table 6.2

Police Expenditure and Crime Rate

Year	Expenditure*			Crime rate per lakh of population
	Actual Rs. (000)	At constant prices**	Per 1000 policemen	
<u>NORTH DISTRICT</u>				
1980	2,443	100	54.35	1930
1981	3,035	124	67.39	1643
1982	3,717	152	82.61	1401
1983	3,615	148	80.43	1187
1984	3,611	148	79.66	1163
1985	6,701	274	147.31	1001
1986	8,515	349	166.75	833
1987	8,368	342	163.40	571
1988	15,872	650	314.16	699
1989	11,652	477	230.55	332
<u>CENTRAL DISTRICT</u>				
1980	3,412	100	72.94	1652
1981	3,535	104	75.80	1398
1982	3,856	113	82.36	1231
1983	4,060	119	86.61	921
1984	4,353	128	93.09	987
1985	6,414	188	137.03	913
1986	7,177	210	130.68	809
1987	8,251	242	150.59	660
1988	11,506	337	156.00	538
1989	12,366	362	179.90	522

* Expenditure does not include wages. ** Base year 1980=100.
Source : Same as Table 6.1.

rate too. Thus, it shows that simply an increase in police strength may not necessarily bring down the crime rate, but there should be a subsequent increase in the expenditure on police too. Better management, round the clock vigilance and infrastructure set up have played a vital role in minimising the crime occurrence.

Repeated Criminals⁶

On compiling the information from individual case histories it was found that lesser the seriousness of the crime higher the proportion of repeated criminals. Secondly, higher the age group higher is the proportion of repeated criminals and vice versa. This part of the chapter attempts to test the above two propositions.

The different types of crimes taken into the analysis are murder and attempt to murder, snatching and theft and burglary.

Repeated criminals in various types of crimes

Table 6.3 shows the percentage share of repeated criminals in the various categories of crime for the year 1990.

⁶ For the study on repeated criminals, data are taken from the individual case histories for the year 1990 which give information pertaining to not only the addresses of the criminals, but also the age group and whether they are repeated or not.

Table 6.3

Percentage Share of Repeated Criminals, 1990

Type of crime	Total no. of offenders	Total no. of repeated criminals	Percent share of repeated criminals to the total offenders
Murder and attempt to murder	102	47	46.08
Snatching	244	157	64.34
Theft and burglary	739	432	58.46
Total	1085	586	54.01

Source : Same as Table 6.1.

Among the three categories it was found that as high as 64 per cent of total snatching was done by the repeaters. Whereas in the case of theft and burglary the percentage of repeated criminals was 58. The share is the lowest in the case of serious crimes like murder and attempt to murder in which the repeaters are accounted for only 46 per cent thereby proving that the percentage of repeated criminals to the total is higher in less serious crimes and is lower in more serious crimes.

Age group of repeated criminals

Age groups are divided as follows :-

Less than 20, 21-30, 31-40, 41-60 and 61 and above (Table 6.4).

Table 6.4

Age Group of Repeated Criminals, 1990

	Murder & attempt to murder		Snatching		Theft & Burglary	
	No.	%	No.	%	No.	%
< 20	6	12.77	18	11.46	89	20.60
21-30	12	25.53	53	33.76	204	47.22
31-40	26	55.32	84	53.50	115	26.62
41-60	3	6.38	-	-	24	5.56
> 60	-	-	2	1.27	-	-
Total	47	100	157	100	432	100

	Murder & attempt to murder			Snatching			Theft & Burglary		
	A	B	C	A	B	C	A	B	C
< 20	11	6	54.55	25	18	72.00	146	89	60.96
21-30	37	12	32.43	115	53	46.09	405	204	50.37
31-40	44	26	59.09	99	84	84.85	139	115	82.73
41-60	10	3	30.00	3	-	0.00	43	24	55.81
> 60	-	-	-	2	2	100.00	6	-	0.00
Total	102	47	46.08	244	157	64.30	739	432	58.00

Note : A = Total number of offenders.
 B = Number of repeated offenders.
 C = Percentage share.

Source : Same as Table 6.1.

Theft and burglary

On calculating the age group of repeated criminals it was found that the highest proportion of repeated criminals occurred in the age group 21-30 with as high as 47 per cent of the criminals from this group. The second position is that of people in the age group of 31-40 with 27 per cent, but on calculating the percentage share of repeated criminals from the total criminals of theft and burglary it was found that as high as 82 per cent of the crimes are committed by repeated criminals within the age group 31-40. This category is followed by less than 20 category accounting for 61 per cent.

Snatching

Snatching is a petty property crime and the repeated criminals accounted for 54 per cent of the total criminals in the age group 31-40 whereas in the less than 20 category it accounts for only 11 per cent. On observing the figures for repeated criminals for snatching from the total criminals of snatching it was found that again a very high share of repeated criminals in the 31-40 category and less than 20 category 85 per cent and 72 per cent respectively.

Murder and attempt to murder

In this category too the percentage share of repeated criminals is the highest in the 31-40 category with 55 per cent and lowest in 41-60 category. In the 31-40 category repeated

criminals of murder and attempt to murder accounts for as much as 60 per cent of the total criminals caught. Whereas in the case of other crimes it was more than 80 per cent. There is quite a high share of repeated criminals even in the 41-60 category accounting for 30 per cent of the total crime. In the above 61 category there is no repeated criminals. Thus, from the above analysis it is very much clear that higher the age group higher the proportion of repeated criminals and vice-versa. It was also found that the percentage of repeated criminals to the total is higher in less serious crimes and is lower in more serious crimes.

CRIME AND MASS MEDIA

The major objective of the second part of this chapter is to analyse as to what extent mass media is biased towards some areas of the city and also towards certain categories of crimes⁷. Since from a review of crime reports in the newspaper there seems to emerge the fact that the mass media tended to ignore the incidence of crime in some localities, but highlighted the crime problem in selective areas of the city. According to the police various crimes are reported to the mass media and the mass media with its own discretion publishes

⁷ It may be recalled from the methodology as given in chapter 1 that not only the number and type of crime committed in various districts are noted from the newspapers (The Times of India 1989), but also whether the item has come in the 1st, 2nd, 3rd, 4th or 5th page and the total coverage given per case in cm in either of these pages.

selected crime events. Some of the questions that are raised are as follows :

- (i) Is there any discrimination by the press while reporting a case in newspaper?
- (ii) Is there any discrimination regarding coverage given for the same type of crime in different localities?
- (iii) And what is the percentage of reporting of crime against women as against other crimes?

Number And Percentage Of Various Types Of Crimes Reported (Districtwise)

On comparing the data from newspaper reporting and from official statistics it was found that around 30 per cent of murder and attempt to murder cases were reported in the newspaper. Second position is that of dacoity and robbery with a percentage share of 27 (Table 6.5). The least published of all crime cases is theft and burglary with only 0.47 per cent. Crime against women is a very important issue and one of the most serious crimes is found to be given very less of media coverage. Only 1.19 per cent of total crime against women were found to be published in the newspapers. Although we have looked into this aspect closely, a disproportionately higher proportion of victims of such crimes essentially belong to poorer section of the society. Thus, it is not difficult to understand this biased reporting of crime against women.

On tabulating the information at district level it was found that maximum number of crimes against persons was published from north-west district followed by east and south district.

Table 6.5

Sources of Crime Data for Delhi (1989)

Description	Data on number of crimes from		Percentage share of crime reported in newspaper
	Newspaper reporting	PHQ, ITO	
Murder & attempt to murder	204	693	29.4
Dacoity & Robbery	62	227	27.0
Theft & Burglary	61	13099	0.47
Accidents & Hurts	301	9948	3.03
Crime against women	53	4459	1.19

Sources : The Times of India, 1989.
Police Headquarter, ITO, New Delhi.
And computed by the writer.

According to the official data, maximum number of such cases occurred in west district followed by north-west and east districts; and major crimes against property like dacoity and robbery occurred maximum in south followed by west district (Table 6.6). The newspaper reporting also gave importance to south and west districts. Theft and burglary cases occurred maximum in south followed by west district. Newspaper reporting showed maximum occurrence in south followed by north-west. West and north - west districts are found to be prone to accidents and hurts, but newspaper reporting showed maximum occurrence in south followed by north-west district. In the case of crime against women south district had the highest share in both newspaper

Table 6.6

Number and Percentage Share of Various Types of Crimes - 1989

DATA ON CRIME FROM I.T.O. P.H.O., NEW DELHI

District	Murder and Attempt to Murder		Dacoity and Robbery		Theft and Burglary		Accidents and Hurts		Crime against Women		Total	
	Number	%age	Number	%age	Number	%age	Number	%age	Number	%age	Number	%age
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
West	116	16.74	48	17.68	2606	19.89	1835	18.35	632	14.17	5219	18.36
Central	71	10.25	13	5.73	1225	9.35	879	8.34	623	13.97	2811	9.89
East	85	12.27	25	11.01	931	7.10	879	8.34	457	10.25	2377	8.36
North-East	83	11.98	18	7.93	1043	7.96	869	8.94	451	10.11	2484	8.74
New Delhi	19	2.74	11	4.85	1317	10.05	825	8.29	385	8.63	2557	9.00
South	81	11.69	51	22.47	2522	19.25	1156	11.62	892	20.00	4702	16.54
South-West	72	10.39	20	8.81	1264	9.65	1021	10.26	336	7.54	2713	9.54
North	61	8.88	13	5.73	1123	8.57	988	9.93	279	6.26	2464	8.67
North-West	105	15.15	36	15.86	1068	8.15	1486	14.94	404	9.06	3899	10.90
Total	693	100.00	227	100.00	13099	100.00	9948	100.00	4459	100.00	28426	100.00

Contd.....

Table 6.6 (Contd.)

DATA ON CRIME FROM NEWS PAPER REPORTING

District	Murder and Attempt to Murder		Dacoity and Robbery		Theft and Burglary		Accidents and Hurts		Crime against Women		Total	
	Number	%age	Number	%age	Number	%age	Number	%age	Number	%age	Number	%age
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
West	22	10.78	12	19.35	5	8.20	42	13.95	6	11.32	87	12.78
Central	18	8.82	7	11.29	8	13.11	18	5.98	2	3.77	53	7.78
East	35	17.16	8	12.90	4	6.56	36	11.96	3	5.66	86	12.63
North-East	13	6.37	7	11.29	5	8.20	15	4.98	6	11.32	46	6.75
New Delhi	4	1.96	0	0.00	6	9.84	18	5.98	1	1.89	29	4.26
South	34	16.67	13	20.97	13	21.31	58	19.27	13	24.53	131	19.24
South-West	23	11.27	4	6.45	4	6.56	41	13.62	8	15.89	80	11.75
North	18	8.82	6	9.68	6	9.84	25	8.31	3	5.66	58	8.52
North-West	37	18.14	5	8.06	10	16.39	48	15.95	11	20.75	111	16.30
Total	204	100.00	62	100.00	61	100.00	301	100.00	53	100.00	681	100.00

Source : Police Headquarter, ITO, New Delhi.
The Times of India, 1989.
and computed by the writer.

reporting as well as in official statistics. Thus, on observing the actual figures there seems not to be much variation or much discrimination while reporting a news item. In the districts variations are not emerging to a significant extent. There emerges a positive correlation between newspaper reporting and official data on crime. Although r value is insignificant, the tendency towards positive association may be noted ($r = 0.49$).

Placement Of Crime Report In Newspapers

At a district level study an attempt has been made to find out the total number of cases that appeared on the various pages of newspapers and thus, the percentage share of crimes appearing on various pages was calculated. It has been found that New Delhi and south district are given maximum coverage on the 1st page and minimum coverage on 5th page as against other districts. A total of 17 per cent of crimes were reported on the 1st page for New Delhi district and 16 per cent for south district (Table 6.7). Whereas the other districts had less than 7 per cent of the cases being reported on the 1st page. On the 5th page it was found that north district had 80 per cent of its total crime being reported followed by central with 79 per cent. New Delhi and south district were at the bottom level registering only 53 per cent and 60 per cent respectively on page 5. Thus, it is very clear from this that there is a discrimination while allotting the front page for various news items. Diplomatic areas of New Delhi and affluent residential colonies of south district are definitely given maximum importance. On the other hand east, north and north-west districts had less than 3 per cent of the total crime being reported on the 1st page.

Extent Of Coverage

Which district is given maximum coverage per case for various categories of crime? In other words if a murder is

Table 6.7

**Percentage share of cases published on
various pages of newspaper**

Districts	Page Number			
	1	3	4	5
West	5	13	7	75
Central	4	9	8	79
East	2	17	5	76
North-east	6	10	15	69
New Delhi	17	17	13	53
South	16	20	4	60
South-west	7	16	10	67
North	3	7	10	80
North-west	3	16	5	76

Source : The Times of India, 1989 and computed by the writer.

committed in New Delhi or east district, is there any difference between the extent to which coverage is given per case? Thus, for each district the total coverage was calculated for all the news items on crime appearing in the pages 1,3,4 and 5. With the help of total cases reported in each district it was possible to find out the average extent of coverage given per case per district. Since the width of the column in every page of the newspaper is the same, only the length of the news item had been taken.

For total crime it was found that New Delhi was given maximum coverage followed by south west and south district and least coverage was given to west and central districts (Table

6.8). Among the various categories of crime it was found that extra importance was given to south and south-west districts whenever a murder or attempt to murder took place. As much as 10.09 cms and 9.39 cms were allotted to south and south west districts whereas central district was allotted only 6.56 cms (Table 6.9). Crime against property with violence showed three districts with the highest levels, that is south, south-west and

Table 6.8
Extent of Coverage
(Total Crime - 1989)

Districts	Total Coverage in cms	Total Cases reported	Average Coverage per case (cms/case)
West	484	89	5.14
Central	286	53	5.40
East	497	87	5.71
North East	302	46	6.57
New Delhi	227	30	7.57
South	975	133	7.33
South West	609	82	7.43
North	332	58	5.72
North West	686	111	6.18

Source : Same as Table 6.7.

north with around 10 cms in each case. The least coverage for dacoity and robbery cases was given to east district. Theft and

burglary cases were given maximum coverage if occurred in west and New Delhi districts. For accidents and hurts it was found that New Delhi and south-west districts were given maximum coverage and least to west and north-east districts. In the case of crime against women there is not much of variation to be noticed. Thus, it is clear from the above analysis that New Delhi, south and south-west districts are given special preference and space was given generously whenever major crimes or accidents or hurts occurred.

Table 6.9

Extent of Coverage (Different Categories of Crime - 1989)

cms per case

Districts	Murder and Attempt to murder	Dacoity and Robbery	Theft and Burglary	Accidents and Hurts	Crime against Women
West	7.18	5.25	7.40	2.90	12.83
Central	6.56	5.86	3.38	4.44	9.00
East	8.20	2.75	4.00	3.08	10.00
North East	7.00	6.00	6.80	3.20	8.83
New Delhi	7.25	-	7.50	6.44	9.00
South	10.09	10.85	3.15	4.19	11.15
South West	9.39	9.75	3.25	6.05	11.25
North	7.11	10.00	3.83	3.92	10.33
North-West	7.32	5.40	4.50	4.23	11.09

Source : Same as Table 6.7.

CONCLUSION

The role of police and mass media adds yet another dimension to the geography of crime. This chapter was divided into two sections, the first dealt with crime and police and the second with newspaper reporting.

The main objective of the first part was to analyse the impact of police strength and police protection expenditures on the crime pattern of Delhi. It also attempted to analyse the biases of policemen against previous known offenders.

From the temporal analysis of police strength and crime rate for the period 1980-89, it was found that the police strength of Delhi was not keeping pace with increasing population, but the crime rate declined markedly. The spatial analysis of police strength vis-a-vis crime rate revealed that the rate of crime has a positive relation with the police facility and the relationship works both ways. On the one hand, it may be that a more visible police force encourages a better reporting. On the other hand, various police stations are given a larger police force because of its inherent criminality.

The detection of increasing crime and apprehension of criminals are becoming more and more complicated, technical and expensive in modern cities. There has to be not only an expansion of the police force, but a lot of money has to be spent on infrastructural set-up besides the giving of regular wages. It

may be pointed out that crime rate has been declining with a subsequent increase in police expenditure. Thus, contrary to the hypothesis, the rise in police expenditure over the years has a negative relation with that of crime.

It shows very clearly from the analysis of police strength and police expenditure that simply an increase in police strength may not necessarily bring down the crime rate, but there should be a subsequent increase in the expenditure on police too.

From the study of repeated criminals, it was found that by far the greatest proportion of all crimes is committed by repeaters, thereby proving the biases of policemen against the previous known offenders. Further, the percentage of repeated criminals to the total is higher in less serious crimes and is lower in more serious crimes. Lastly, the proportion of repeated criminals is higher in the higher age group and visè-versa.

Interesting inferences have been drawn from the study of newspaper reporting. There is not only a discrimination in the amount of publicity given to certain localities as against the others, but some types of crimes are also given wider coverage by the media. On the one hand, out of the total murder and attempt to murder cases, 30 per cent of them were reported and published by the press and 27 per cent of dacoity and robbery cases were published. On the other hand, crime against women which accounts for a very large share of total crime is hardly given much

importance. Only 1.19 per cent of such cases were published. Maximum allotment of front page is given to New Delhi and south district. It has been found that 17 and 16 per cent of all their cases respectively came on the first page as against less than 3 per cent each of east, north and north-west districts. On calculating the coverage given per case it was found that New Delhi south and south-west district were given space more generously as against other districts for the same type of crime. The correlation of newspaper reporting and official statistics revealed an insignificant positive correlation. That is, at district level no district is given extra importance as far as proportion of its crime appearing in the newspaper is concerned.

Chapter VII

SUMMARY AND CONCLUSIONS

In the present study the structure of crime and its spatial patterns in the Union Territory of Delhi are analysed. The study attempted to examine the determinants of spatial variations. The three levels at which the geography of crime was undertaken are (i) where the offences occurred; (ii) who the offenders were; and (iii) the role of police in controlling crime and preparation of official statistics and the role of media in drawing the attention of relevant machinery and personnel to crime occurrence.

Consequent upon the literature review and from the analytical framework of the study, the conclusion drawn was that crime is an outcome of complex interplay of various demographic, socio-economic, environmental and infrastructural facilities and has to be viewed in that light.

The available literature on crime in the Indian context essentially deals with the spatial patterns of offences. It also deals with the role of police, its strength and police expenditure which has a bearing on crime. A virtually absent component in the extant literature is the study of the residences of the criminals and the type of socio-economic conditions prevailing there which might have triggered criminal behaviour. Another missing component is the role of media in reporting of crimes.

The present study assumes significance since it not only analyses the spatial patterns of crime and the role of police, but also identifies the residences of the criminals with associated characteristics and the role of media.

The present study was based on primary as well as secondary sources. Crime data was collected from 9 police districts and 100 police stations of Delhi. For the primary data 24 localities of Delhi were selected and surveyed for the purpose. For newspaper reporting The Times of India for the year 1989 was gone through thoroughly.

The major limitations of official statistics on crime arise due to under-representation, mis-representation and the extent to which the sample of offences is representative of the overall pattern. The former may be due to geographical and communication factors which would rather be true in a rural context. The latter is due to varying police patrol strategies and the policies adopted from country to country and city to city within a country. However, this study was confined to only one city and the factors behind the biases were not unique to any particular area within the city. Therefore, it may be contended that official statistics may be under reporting crime (in terms of numbers) as a whole, but it would not affect the relative level that much.

Considerable data adjustments had to be done prior to the analysis, due to uneven number of police stations during the

period under review. Since there are a large number of categories of crime it was necessary to club some of the types.

In this study both the qualitative and quantitative methods have been used. Various statistical methods such as coefficient of correlation and stepwise regression were used in the analysis of the data. The segregation index was also calculated in order to see whether high segregation of schedule caste or non-scheduled caste population would lead to more of crimes.

This study is organised into seven chapters. The first chapter deals with the introduction, conceptual and analytical framework, literature review as well as objectives and hypotheses. The second chapter deals with temporal perspective on crimes in metropolitan cities of India (1960-1989). This chapter attempts to identify a macro-level pattern of crime over the years in the major metropolitan cities of India and thereby situated Delhi in a proper perspective.

The third chapter outlines a profile of crime in Union Territory of Delhi. In this chapter the spatio-temporal variations in crime occurrence from one part of Delhi to the other are examined over the decade between 1979 and 1989. The fourth chapter tries to explain the existing patterns of crime with a set of socio-economic parameters. In this chapter crime in 100 police stations of Delhi for the year 1989 is studied in

greater detail to clearly identify the correlates of crime in an Indian situation.

The fifth chapter deals with a case study of few localities where there is a predominance of criminals and further explains the same by means of socio-economic conditions and infrastructure facilities available within them. This chapter also deals with micro-environment of crime. The sixth chapter deals with crime, police and mass media. In this chapter an attempt is made to analyse the role of police strength and police expenditure in a study of geography of crime (1980-89).

Following are the major conclusions of this study:

In all the metropolitan cities of India, except for Calcutta, there was a positive rise in the total occurrence of crime during the period 1960 to 1980. After 1980 most of the cities experienced a decline, except for Bombay, Bangalore and Hyderabad. Throughout the period 1960-1989, the first and second position was occupied by either Delhi or Bombay. During the period 1960-1989, Bangalore had the highest growth of crime followed by Ahmedabad and Delhi, whereas Calcutta had the lowest. On analysing the growth rate of crime and population in the metro cities (1960-1989) it became evident that with an increase in population there is a subsequent increase in the incidence of crime too.

Among the 12 metropolitan cities Delhi alone accounts for 30 per cent of rape cases and 46 per cent of kidnapping cases in 1990.

The following determinants seem to explain the varying occurrence of crime in the metropolitan cities. In this context, city size is important as it has a positive relation with incidences of crime. Given the process of urbanization in India, large urban centres imply high densities with limited space per person which may be taken as an indicator of over-crowding. This in turn has a positive association with incidence of crime.

Literacy is a surrogate variable which may be considered as sum articulation of enhanced socio-economic conditions and to certain extent to relative affluence. As such, a positive association between literacy and incidence of crime is not surprising. However, when there is an increase in sex ratio and female literacy, there is a decline in the occurrence of crime against women. This indicates that crime against women is negatively related with position of women in societies.

After analysing the temporal perspectives on crimes in metropolitan cities of India (1960-1989), the next step was to examine the spatio-temporal variation in crime occurrence from one part of Delhi to the other (1979-1989).

It is heartening to note a decline in the incidence and rate of total and various types of crime in Delhi after 1980. The

only exception to the case was that of murder and attempt to murder which experienced an increase during the period under review.

A district level analysis also revealed a similar pattern. However, murder and attempt to murder are on the increase only in the affluent south district and in the densely populated east district. The latter has been undergoing rapid population growth since the late seventies.

Further probe at police station level revealed a greater degree of inter police station variations specially for serious crimes. Between 1980-1989, there is a high growth rate of major property crimes like dacoity and robbery in the peripheral parts of Delhi only. Certain conditions provide conducive environment for the occurrence of such crimes. These are high class residential areas coupled with lower densities where it becomes relatively easier for culprits to escape after committing a crime. Murder and attempt to murder are on the rise in some police stations of south, west and east districts either in upper class residential colonies or in Jhuggi Jhompris. However, the rate of minor property crimes like theft and burglary are on the decline in all the police stations of Delhi for the period under review.

From the decadal analysis of crime (1979-1989) at police district level it was clear that all types of property crimes are occurring maximum in the affluent south district, crime

against person in west and riots in north.

A more crystallized pattern emerges as the analysis moves from district to police station level. Dacoity and murder cases are occurring maximum in the peripheral parts of Delhi as observed above. Robbery occurred maximum in areas occupied by the residents of the middle class and commercial complexes in three pockets of Delhi, one each in south-east, north-east and west districts. Attempt to murder occurred maximum not only in the above mentioned peripheral areas, but also in resettlement and jhuggi jhompri colonies of west, north-east and east districts. Minor property crimes like theft and burglary occur in all the police stations without much variation, but affluent localities of south and southwest districts are more prone to such crimes.

The contemporary scene has been analysed by using 1989 data on crime. A similar picture as noted above seemed to emerge on analysing the spatial variation of crime both at police district as well as police station levels.

On the basis of the analysis done so far, the districts can be grouped under two heads. The first group consists of New Delhi and central districts. Here the police station level analysis does not bring out any localised variation in crime different from the one which has been observed at district level. In the rest of the seven districts, the police stations within the districts do not conform to the general picture which

emerges at the district level in that some of the police stations account for a disproportionately higher share of various types of crimes. The former group of districts is homogenous across their spatial limits in terms of various socio-economic characteristics responsible for occurrence of crimes. In the latter group of districts, however, the prevailing condition differs considerably from one police station to the other.

From the spatio-temporal analysis of crime it had been noted that minor crimes like theft and burglary are occurring in all the police stations of various districts with not much of internal variation. Whereas dacoity, robbery, murder and attempt to murder occur only in a few of the police stations of each district.

Consequent upon this observation it has been postulated that the former set of crimes are unplanned and ubiquitous in nature as against the latter set of crimes, which require some sort of apriory planning. It may be recalled from the earlier analysis that certain conditions provided conducive environment for the occurrence of such crimes. It is only logical to assume that these conditions would be available only in certain pockets of a district. This in turn creates a crime scenario within the district which is highly uneven.

In keeping with recent concern about gender related observations, crime against women have been analysed under an independent head. It may be pointed out that between 1985 and

1989 alone there has been a tripling of absolute cases of such crimes and doubling of crime rate as well.

Among the various types of crimes, incidence of eve-teasing cases experienced a consistent growth during the period 1985-1989. Incidences of kidnapping and abduction were high in both the initial as well as the final period. The least growth was noted in serious crimes like dowry death and rape.

Between 1985 and 1989 eve-teasing accounted for more than half of total crimes followed by kidnapping plus abduction and dowry related crimes (18 per cent each).

A district level study of crime for the year 1988 revealed the highest rate for total crime against women in New Delhi district, followed by central, south and north-east districts. Among the various categories of crime the rate of eve-teasing is maximum in north-west district followed closely by north-east and New Delhi. The rate of rape cases is the highest in north-east and south districts, whereas the rate of dowry death cases is maximum in north-west, north-east and New Delhi districts. Thus, on the whole it can be seen that the whole of northern part of Delhi has high rate of crime against women.

Further, probe at police station level for the decade 1979 to 1989 revealed a high rate of rape cases in only some localities of central, south and south-west districts. The rural areas of most of districts had a high rate of dowry death cases.

The identification of spatial variation of crimes in general as well as different categories has been followed by an explanatory framework for the observed pattern, whereby certain demographic and socio-economic variables are taken into consideration.

Only one demographic variable has been taken into the study, i.e., sex ratio. It may be recalled that total crime rate is higher in urban areas as against rural. Secondly, sex ratio is low in the urban part due to selective male migration. The above finding gets further substantiated by means of data which indicates a significant negative correlation between sex ratio and crime rate. Dowry related crimes which occur more in rural areas has a positive correlation with sex ratio.

The social variables taken to explain the varying patterns of crime are crowding (as indicated through density of population), literacy, scheduled caste population and segregation index.

Unlike at metro city level, high density of population is found to be a deterrent in the occurrence of various types of crime in Delhi Union Territory. Although high density of population is a characteristic of urban areas, but very high densities within an urban area may discourage the occurrence of crime due to increased spatial proximity. It has been hypothesized that the percentage of scheduled caste population

has a bearing on crime. In keeping with the hypothesis, there is a positive correlation between scheduled caste population and rate of major offences against person (murder and attempt to murder) and serious crime against women (rape and dowry death). It may be recalled from the spatio-temporal analysis of crime that resettlement and jhuggi-jhompri colonies have a high rate of attempt to murder and rape cases. Further, the percentage share of scheduled caste population in these colonies is as high as 50 per cent.

The percentage of scheduled caste population has no bearing on total crime rate.

Segregation index has been calculated for the whole of Delhi in order to test the hypothesis that a highly segregated distribution of scheduled caste and non-scheduled caste population tends to increase the crime rate. Although this index does not have a bearing on total crime, but the correlation between segregation index and crime against person is positive and statistically significant.

Total and various types of crime have insignificant correlations with literate population. The insignificant nature of the correlation may be because of the fact that literacy is very loosely defined in the Indian census.

The nature of labour force participation has a bearing on crime rate. Percentage of cultivators and non-primary workers

are the two economic variables taken to explain the spatial variation in crime rates. On the one hand, areas having a high proportion of cultivators are prone to crime against person and major property crimes. On the other hand, areas having high percentage of non-primary workers are prone to minor property crimes and crime against women.

It may be recalled that the police station level analysis do not conform to the general picture on crime which emerges at the district level, except in the case of New Delhi and central districts. As such, an attempt was made to identify the socio-economic variables at the police station level to explain the varying patterns of crimes.

Further, micro-environmental settings such as street, place of work, market may be playing a vital role in the occurrence of various types of crime. Their analysis reveals that public places and homes are the most vulnerable areas for attacks by criminals irrespective of the crimes. Rural settings are prone to minor property crimes (theft and burglary) and crime against person (murder and attempt to murder).

Micro-environment of crime also deals with a probe into the age composition of the criminals. In the present study, with an increase in age there is a decrease in the percentage of criminals. Further, not only the younger people are committing crimes more often in the streets and public places, but even

criminals of higher age group are committing various crimes in such settings.

So far, the analysis has been confined to identification of spatial patterns of crime. The section that follows deals with who the offenders are, where they live, and what kinds of socio-economic conditions and infrastructural facilities prevail there which might trigger the residents' propensity to criminal behaviour.

It may be hypothesized that increased burden of familial responsibilities in an overall deprived condition would trigger the criminal rate. However, demographic variables such as dependency ratio and average family size per se do not explain significantly the incidence of large number of criminals in given areas.

Substandard housing is found to be a reflection of a comparatively lower socio-economic status leading to a higher rate of criminals. Substandard housing has a positive and significant correlation with illiteracy. As such, wherever there is greater illiteracy and where not much importance is given to education, there the propensity to criminal behaviour is high. Higher the educational attainment of the children lower is the offender rate.

The economic status of the residents of a locality is an important indicator of increasing or decreasing offender rate

since lesser unemployment together with higher proportion of workers in secure jobs may lead to lower offender rate. The latter part of this hypothesized relationship seems to emerge from this study also since greater security in jobs is negatively and significantly related with offender rate. On the other hand, youth unemployment is not associated with offender rate as hypothesized.

It had been thought that joint family would play a key role in providing a relatively more disciplined environment. With increasing urbanization there is a tendency towards break up of this set up. As such, it had been hypothesized that an increasing percentage of joint families in a given locality will be negatively related with offender rate. Contrary to the hypothesis stated, there is a positive correlation between percentage of joint families and offender rate. This negative relation is intriguing. However, a closer look at the data shows the percentage of joint families high in areas having less amount of space per person leading to substandard housing. This is reflected through a negative correlation existing between percentage of joint families and amount of space per person and a positive correlation between percentage of joint families and substandard housing. Thus, it may, therefore, be argued that the potential benefits of a joint family system in a traditional set up gets mitigated in such areas by the other more pressing ground realities of survival.

Not only the circumstances within the individual houses, but the general environment also affects the offender rate. Because of this, offender rate is high in areas having a higher proportion of environmental problems and lacking in infrastructural facilities.

Although the correlation exercise explains associations, it does not tell as to how the various parameters behave in conjecture with others. A stepwise regression had thus been attempted. However, it is heartening to note that the regression analysis has actually reinforced what has been observed through correlation.

It may be recalled that an overall deprived socio-economic and environmental conditions within individual houses as well as outside seem to make certain specific areas more vulnerable for concentration of criminals. It may be argued that under such circumstances 'security in jobs' encapsulates much more than what its face value suggests since secure jobs also mean lower level of illiteracy, relatively better socio-economic conditions as well as lower degree of environmental problems.

In the regression analysis the variable, 'security in jobs' explains as high as 42 per cent variation in criminal rate followed by percentage of school going children which explained another 10 per cent.

The role of police and mass media added yet another dimension to the geography of crime. From the temporal analysis of police strength and crime rate for the period 1980-1989, it was found that the police strength of Delhi was not keeping pace with the increasing population, but the crime rate declined markedly. The spatial analysis of police strength vis-a-vis crime rate revealed that the rate of crime has a positive relation with the police facility and the relationship works both ways.

It may be pointed out that crime rate has been declining with a subsequent increase in police expenditures. Thus, contrary to the hypothesis -- the rise in police expenditure over the years has a positive relation with that of crime -- the rise in police expenditure over the years has a negative relation with that of crime.

It shows very clearly from the analysis of police strength and police expenditure that simply an increase in police strength may not necessarily bring down the crime rate, but there should be a subsequent increase in the infrastructural expenditure on police too.

From the study of repeated criminals, it was found that by far the greatest proportion of all crimes is committed by repeaters, thereby proving the biases of policemen against the previous known offenders. Further, the percentage of repeated criminals to the total is higher in less serious crimes and is

lower in more serious crimes. Lastly the proportion of repeated criminals is higher in the higher age group and vice versa.

Interesting inferences have been drawn from the study of newspaper reporting. At district level, no district is given extra importance as far as proportion of its crime appearing in the newspapers is concerned. But there is a discrimination in the amount of publicity given to certain localities as against the others and some types of crimes are also given wider coverage by the media. Maximum allotment of front page is given to affluent New Delhi, south and south-west districts. These districts are given space more generously as against other districts for the same type of crime. A high percentage of murder and attempt to murder, dacoity and robbery cases are published as compared to very low percentage of crime against women.

Appendix 1

LIST OF VILLAGES, CENSUS TOWNS & CHARGES

CODE NO.	NAME	CODE NO.	NAME
1,2,3	Delhi Union Territory	24.	Palam (C.T.)
4,5,6	Delhi District	25.	Mahipalpur (C.T.)
7.	Delhi Urban Agglomeration	26.	Raajokri (C.T.)
8.	N.D.M. Committee	27.	Chhattarpur (C.T.)
9.	Delhi Cantt.	28.	Lado Sarai (C.T.)
10.	D.M.C. (Urban)	29.	Tigri (C.T.)
11.	Samepur	30.	Deoli (C.T.)
12.	Bhalswa Jahangirpur	31.	Molar Band (C.T.)
13.	Jaffarabad (C.T.)	32.	Pul Pehlad (C.T.)
14.	Badarpur (C.T.)	33.	Bawana (C.T.)
15.	Gokalpur (C.T.)	34.	Alipur (C.T.)
16.	Mandoli (C.T.)	35.	Pooth Khurd (C.T.)
17.	Kotla (C.T.)	36.	Fehladpur Banger (C.T.)
18.	Roshanpura alias Dichaon (C.T.)	37.	Bijwasan (C.T.)
19.	Nangloi Jat (C.T.)	38.	Delhi Tehsil
20.	Sultanpur Majra (C.T.)	39.	Mehrauli Tehsil
21.	Nangloi Sayed (C.T.)	40.	Delhi Tehsil
22.	Bindapur (C.T.)	41.	Lampur
23.	Nasirpur (C.T.)	42.	Bankner
		43.	Bhorgarh

Contd.....

Appendix I (Contd.)

CODE NO.	NAME	CODE NO.	NAME
44.	Kureni	66.	Ochandi
45.	Tikri Khurd	67.	Mungeshpur
46.	Singhola	68.	Qutabgarh
47.	Singhu	69.	Ketewara
48.	Hamidpur	70.	Bazidpur Thakran
49.	Tajpur Kalan	71.	Nangal Thakran
50.	Akbar Pur Majra	72.	Iradat Nagar
51.	Falla	73.	Holambi Khurd
52.	Qallakpur	74.	Holambi Kalam
53.	Jhangola	75.	Zindpur
54.	Sunger Pur	76.	Hiranki
55.	Fatehpur Jat	77.	Modh. pur
56.	Tigipur	78.	Tehri Daulat pur
57.	Bakhtawar pur	79.	Ibrahimpur
58.	Bankauli	80.	Garhi Khasru
59.	Khampur	81.	Mukhmelpur
60.	Shahpur Garhi	82.	Bodhupur Bijapur
61.	Razapur Kalan	83.	Khera Kalan
62.	Sanoth	84.	Khera Khurd
63.	Ghoga	85.	Sultanpur Dabas
64.	Daryapur Kalan	86.	Chandpur
65.	Hareoli	87.	Budhanpur

Contd.....

Appendix I (contd.)

CODE NO.	NAME	CODE NO.	NAME
88.	Salahpur Majra	109.	Libaspur
89.	Khor Jat	110.	Bhalswa Jahangirpur
90.	Khor Punjab	111.	Naharpur
91.	Chatesar	112.	Pitampura
92.	Jonti	113.	Yakut pur
93.	Garhi Rindhala	114.	Sahipur
94.	Ladpur	115.	Haider pur
95.	Kanjhawala	116.	Shanjar Pur
96.	Mohd. Pur Majri	117.	Mukand Pur
97.	Karala	118.	Kamalpur
98.	Barwala	119.	Jharoda Mazra
99.	Pansali	120.	Wazirabad
100.	Sahibadad Daulatpur	121.	Gopal Pur
101.	Kankar khera	122.	Jagat Pur (Burari)
102.	Siraspur	123.	Sabapur
103.	Nangli Poona	124.	Baqiabad
104.	Qadipur	125.	Saadat Pur Musalmanan
105.	Salempur Mazra Burari	126.	Saadat Pur Gujran
106.	Badarpur	127.	Sher Pur
107.	Pur	128.	Garhi Mendu
108.	Burari	129.	Khajoori Khas

Contd.....

Appendix I (contd.)

CODE NO.	NAME	CODE NO.	NAME
130.	Beharipur	151.	Gheora
131.	Qarawal Nagar	152.	Jaffarpur alias Hiran Kudna
132.	Dayal Pur	153.	Bakarwala
133.	Jiwanpur alias Johripur	154.	Bapraula
134.	Khanpur Dhani	155.	Nangli Sakrawati
135.	Mustafabad	156.	Dichaon Kalan
136.	Mirpur Turk	157.	Neelwal
137.	Tukhmir Pur	158.	Jharoda Kalan
138.	Ziauddin Pur	159.	Surakhpur
139.	Shakarpur Baramad	160.	Mitraon
140.	Shamaspur	161.	Khera
141.	Gharonda Neemka Bangan alias Patpar Ganj	162.	Dindar Pur
142.	Gharonda Neemka Khadar	163.	Kharkhari Nahar
143.	Chilla Saroda Khadar	164.	Surera
144.	Chilla Saroda Banger	165.	Kair
145.	Dallo Pura	166.	Mundhela Khurd
146.	Kondli	167.	Mundhela Kalan
147.	Gharoli	168.	Jaffarpur Kalan
148.	Tikri Kalan	169.	Khera Dabar
149.	Nizampur Rasidpur	170.	Sherpur Deri
150.	Saoda	171.	Ujwa

Contd.....

Appendix I (contd.)

CODE NO.	NAME	CODE NO.	NAME
172.	Shamaspur Khalsa	193.	Nithari
173.	Bagar Garh	194.	Mundka
174.	Isapur	195.	Tilangpur Kotla
175.	Qazipur	196.	Ranhola Shafipur
176.	Malikpur Najafgarh	197.	Qamuruddin Nagar
177.	Daryapur Khurd	198.	Mangholpur Khurd
178.	Goman Hera	199.	Rithala
179.	Jhuljhuli	200.	Mangholpur Kalan
180.	Sarangpur	201.	Garhi Piran
181.	Dhansa	202.	Jawala Heri
182.	Ghalibpur	203.	Nilothi
183.	Raota	204.	Hastsal
184.	Deorala	205.	Razapur Khurd
185.	Mehrauli Tahsil	206.	Nawada Mazra Hastal
186.	Madanpur Dabas	207.	Matola
187.	Rasoolpur	208.	Mirzapur
188.	Rani Khera	209.	Dabri
189.	Mubarakpur Dabas	210.	Sagarpur
190.	Begumpur	211.	Lohar Heri
191.	Pooth Kalan	212.	Kakrola
192.	Kirari Suleman Nagar	213.	Goela Khurd

Contd.....

Appendix I (contd.)

CODE NO. NAME

214. Tajpur Khurd

Appendix I (contd.)

CODE NO.	NAME	CODE NO.	NAME
256.	Saidul Ajaib	267.	Kotla Mahigiran
257.	Rajpur Khurd	268.	Saidabad
258.	Satberi	269.	Aali
259.	Chandan Hola	270.	Jaitpur
260.	Jonapur	271.	Mithepur
261.	Dera	272.	Tajpul
262.	Mandi	273.	N.D.M.C.
263.	fatehpur Beri	274-282.	Change Nos. 1-9 in N.D.M.C.
264.	Bhati	283.	Delhi Cantt
265.	Asola	285-370.	Change Nos. 1-86 in D.M.C.
266.	Shahurpur		

Appendix II

Code Nos. and Names of 100 Police Stations
and Code Nos. of Charge/Village/Census
Towns under each Police Station

12.	Nangloi	1/2 151, 19, 1/2 212, 148, 152, 153, 154, 155, 156, 157, 158, 21, 194, 195, 196, 197, 203, 204, 205, 206
13.	Darya Ganj	3/4 302
14.	Chandni Mahal	1/2 300, 2/3 301
15.	Jama Masjid	1/4 300, 1/3 301, 1/4 302
16.	Kamla Market	1/3 299, 1/4 300
17.	I.P. Estate	303

Contd.....

Appendix II (contd.)

Code No. of Police Station	Name of Police Station	Code No. of Charge/Village/Census Towns under each Police Station
18.	Hauz Qazi	2/3 299
19.	Pahar Ganj	1/2 310, 308
20.	Nabi Karim	320, 1/2 310, 309
21.	D.B. Gupta Road	319
22.	Karol Bagh	321
23.	Parshad Nagar	1/3 323
24.	Rajinder Nagar	315, 316
25.	Gandhi Nagar	288
26.	Geeta Colony	289
27.	Shakarpur	1/3 290
28.	Kalyanpuri	292, 17, 144, 145, 146, 147
29.	Trilokpuri	2/3 290, 138, 140, 141, 142, 143
30.	Preet Vihar	1/3 291
31.	Anad Vihar	1/3 287
32.	Vivek Vihar	2/3 287
33.	Krishan Nagar	2/3 291
34.	Seelampur	1/3 286
35.	Bhajanpura	126, 127, 128, 1/3 286
36.	Welcome	1/6 286
37.	Shahdra	1/6 286, 13, 14

Contd.....

Appendix II (contd.)

Code No. of Police Station	Name of Police Station	Code No. of Charge/Village/Census Towns under each Police Station
38.	Seemapuri	1/4 285
39.	Nand Nagari	1/4 285, 16
40.	Mansarover Park	1/4 285
41.	Gokulpuri	123, 124, 125, 129, 130, 131, 132, 133, 134, 135, 136, 15
42.	Parliament Street	277, 1/4 278
43.	Mandir Marg	275, 276
44.	Chanakyapuri	282
45.	Tughlok Road	1/2 278
46.	Commanght Place	274
47.	Tilak Marg	1/4 278, 1/4 343
48.	Lajpat Nagar	344, 1/2 347
49.	Hazrat Nizamuddin	1/2 343
50.	Sriniwaspuri	1/2 347, 1/3 346
51.	Defence Colony	3/8 348
52.	Greater Kailash	1/3 349, 1/8 348
53.	Chitranjan Park	1/3 350, 1/6 351
54.	Kalkaji	1/3 350, 1/3 351
55.	Badarpur	1/3 346, 267, 269, 31, 271, 272, 32, 270
56.	Okhla Ind. Area	1/3 346

Contd.....

Appendix II (contd.)

Code No. of Police Station	Name of Police Station	Code No. of Charge/Village/Census Towns under each Police Station
57.	Hauz Khas	355, 1/2 348, 1/4 356
58.	Ambedkar Nagar	1/3 350, 1/2 351, 29, 30
59.	Malviya Nagar	2/3 349
60.	Kotla Mubarak Pur	345
61.	Lodhi Colony	1/4 343, 278
62.	Mehrauli	28, 256, 255, 254, 257, 27, 253, 252, 259, 258, 266, 265, 264, 262, 261, 260, 251, 263, 1/4 356
63.	Vasant Vihar	248, 1/4 356
64.	Vasant Kunj	242, 1/2 37, 244, 245, 26, 25, 246, 250, 249, 247, 1/4 356
65.	R.K. Puram	352, 353, 354
66.	Delhi Cantt.	283, 24, 218
67.	Vinay Nagar	280, 281
68.	Naraina	318
69.	Inderpuri	317
70.	Mayapuri	1/4 360, 1/3 361
71.	Najafgarh	18, 1/3 37, 158, 159, 160, 162, 1/2 212, 213, 214, 215, 216, 217, 219, 220, 221, 222, 223, 224, 225, 235, 236, 237, 238, 239, 240, 241, 243, 369

Contd.....

Appendix II (contd.)

No. of Charge/Village/
s Towns under each
e Station

3, 207, 208, 209, 210,

33, 164, 165, 166,
38, 169, 170, 171,
73, 174, 175, 176,
78, 179, 180, 181,
13, 184, 226, 227,
29, 230, 231, 232,
14

/4 331, 312

20, 121, 122, 105,
08, 1/2 118, 119

1

30

37

27

06, 307, 1/3 304

94, 1/3 304

4

/2 296, 295

/2 297

', 1/2 296

., 358

Contd.....

Appendix II (contd.)

Code No. of Police Station	Name of Police Station	Code No. of Charge/Village/Census Towns under each Police Station
88.	Mangolpuri	370, 200, 111
89.	Sultanpuri	1/2 97, 96, 99, 190, 191, 192, 193, 20, 198, 199
90.	Samaipur Badli	78, 79, 80, 81, 3/4 83, 100, 101, 102, 103, 104, 109, 11, 110, 1/2 12
91.	Model Town	1/3 334, 1/3 333, 332, 1/2 338
92.	Adarsh Nagar	1/2 338, 2/3 334
93.	Jehangirpuri	1/2 12, 117, 116, 1/2 118
94.	Mukherjee Nagar	2/3 333
95.	Ashok Vihar	339
96.	Shalimar Bagh	112, 113, 114, 115, 1/2 341
97.	Keshav Puram	326
98.	Khanjhawla	1/2 97, 1/2 151, 68, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 149, 150, 186, 187, 188, 189
99.	Narela	340, 41, 42, 43, 44, 60, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 84, 33, 35, 36, 98
100.	Alipur	1/4 83, 82, 75, 76, 77, 34, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59.

Appendix III

Police Station Formation

Police District	Year of formation	Name of new Police Stations formed	Names of Corresponding old Police Stations
1	2	3	4
North	1986	Town Hall	Kotwali
	1988	Timarpur	Civil Lines
	1988	Maurice Nagar	Roop Nagar
	1988	Partap Nagar	Subzi Mandi
North-West	1980	Mangolpuri	Nangloi
	1980	Sultanpuri	Nangloi
	1986	Saraswati Vihar	Punjabi Bagh
	1986	Jehangirpuri	Adarsh Nagar
	1988	Kanjhawla	Sultanpuri
	1988	Samaipur Badli	Alipur
	1988	Mukerjee Nagar	Model Town
	1988	Shalimar Bagh	Jehangirpuri and Adarsh Nagar
New Delhi Central	All Police Stations were formed by 1979		
	1980	Jama Masjid	Chandni Mahal
	1986	Nabi Karim	Pahar Ganj
	1988	I.P. Estate	Darya Ganj
	1988	Parshad Nagar	Karol Bagh

Contd.....

Appendix III (contd.)

Police District	Year of formation	Name of new Police Stations formed	Names of Corresponding old Police Stations
1	2	3	4
East	1980	Shakarpur	Gandhi Nagar
	1980	Krishan Nagar	Gandhi Nagar
	1986	Trilokpuri	Kalyanpuri
	1988	Geeta Colony	Shakarpur and Gandhi Nagar
	1988	Preet Vihar	Shakarpur
	1988	Anand Vihar	Vivek Vihar
North-East	1980	Yamuna Vihar	Seelampur
	1986	Nand Nagari	Seemapuri
	1988	Bhajanpura	Yamuna Vihar and Seelampur
	1988	Welcome	Shahdra
	1988	Mansarover Park	Shahdra
South	1980	Ambedkar Nagar	Kalkaji
	1980	Kotla Mubarakpur	Defence Colony
	1986	Greater Kailash	Kalkaji
	1987	Chitranjan Park	Greater Kailash
	1988	Okhla Ind. Area	Kalkaji and some part of Badarpur
	1988	Malviya Nagar	Hauz Khas

Contd.....

Appendix III (contd.)

Police District	Year of formation	Name of new Police Stations formed	Names of Corresponding old Police Stations
1	2	3	4
South-West	1988	Vasant Kunj	Mehrauli
	1988	Inderpuri	Rajinder Nagar
	1988	Mayapuri	Naraina
	1988	Dabri	Janakpuri and some part of Delhi Cantt.
	1988	Jafarpur Kalan	Najafgarh
Palam Airport West	1986	Mahipalpur	Mehrauli
	1986	I.G.I. Airport	Delhi Cantt.
	1986	Vikaspuri	Janakpuri
	1986	Anand Parbat	Karol Bagh
	1986	Kirti Nagar	Moti Nagar
	1987	Hari Nagar	Tilak Nagar
	1987	Paschim Vihar	Nangloi

Note :- This study excludes Palam Airport District.

Appendix IV

Code Number of 60 Police Stations

Code No.	Police Station	Code No.	Police Station
1.	Daryaganj	21.	Hauz Khas
2.	Chandni Mahal	22.	Mehrauli
3.	Kamla Market	23.	Lodhi Colony
4.	Hauz Qazi	24.	Kotwali
5.	Pahar Ganj	25.	Civil Lines
6.	D.B.Gupta Road	26.	Roop Nagar
7.	Karol Bagh	27.	Subzi Mandi
8.	Rajinder Nagar	28.	Sarai Rohilla
9.	Seelampur	29.	Sadar Bazar
10.	Shahdra	30.	Kashmeri Gate
11.	Seemapuri	31.	Bara Hindu Rao
12.	Gandhi Nagar	32.	Lahori Gate
13.	Kalyanpuri	33.	Vasant Vihar
14.	Vivek Vihar	34.	R.K. Puram
15.	Lajpat Nagar	35.	Delhi Cantt.
16.	Nizamuddin	36.	Vinay Nagar
17.	Sriniwaspuri	37.	Naraina
18.	Defence Colony	38.	Najafgar
19.	Kalkaji	39.	Palam Airport
20.	Badarpur	40.	New Delhi Rly. Station

Contd.....

Appendix IV (contd.)

Code No.	Police Station	Code No.	Police Station
41.	Delhi Main Rly. Station	51.	Model Town
42.	Tilak Nagar	52.	Adarsh Nagar
43.	Janakpuri	53.	Ashok Vihar
44.	Patel Nagar	54.	Keshavpuram
45.	Moti Nagar	55.	Parliament Street
46.	Rajouri Garden	56.	Mandir Marg
47.	Punjabi Bagh	57.	Chanakyapuri
48.	Nangloi	58.	Tughlak Road
49.	Narela	59.	Connanght Place
50.	Alipur	60.	Tilak Marg

Appendix V

Police Station Chosen for Traceable Crime# (Case History of Offenders of traced crimes of the above Police Stations had been taken)

Police District	Police Station
North	Kashmeri Gate Lahori Gate Sadar Bazar Sarai Rohilla Bara Hindu Rao
North-West	Ashok Vihar Narela Keshavpuram
West	Rajouri Garden Patel Nagar
South-West	Vinay Nagar Vasant Vihar R.K. Puram
South	Lajpat Nagar Hazrat Nizamuddin Srinivaspuri Lodhi Colony
Central	D.B. Gupta Road Kamla Market Hauz Qazi
New Delhi	Connanght Place
North-East	Seelampur, Yamuna Vihar
East	Kalyanpuri Trilokpuri

Appendix VI

Questionnaire

1. Name of the locality
2. House No.
3. Head of the household
4. Religion
5. Mother tongue
6. Native Place
7. Caste/Community/Tribe
8. Demographic Factors
 - (a) Total number of members
 - (b) When did you shift to this locality
 - i) 1964 (28 years before)
 - ii) 1965-1974 (18-27 years)
 - iii) 1975-1984 (8-17 years)
 - iv) Recent (within the past 7 years)
 - (c) How did you shift to this locality
 - i) Govt. allotted the land and you shifted from others parts of Delhi
 - ii) Came from your state and settled here because of other people from your state
 - iii) Bought the land from others
 - iv) Cheap rent
9. Educational Background
 - (a) Do you and your children visit the temple or any other religious place
 - (b) Type of School attended by your children
 - i) Govt.
 - ii) Private
 - iii) Lady comes to teach in the mohalla

(d) Information on members above 5 years of age

Sl. No.	Relation to head	Age	Sex	Illit-erated	Liter-ate	PHIG	Any voca-tional train-ing	Learning family business	Comment
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(e) Children below 5 years of age

Sl. No.	Relation to head	Age	Sex	Codes Used
				P Primary
				H High School (10th)
				I Inter (12th)
				G Graduate and above
				Perm. Permanent
				Temp. Temporary

10. Economic Factors (only for working members)

Sl. No.	Relation to head	Type of Occupation			If Service				No of jobs changed in last 5 year
		Service	Business	Others (specify)	Perma	Temp.	Full Time	Part Time	

11. Housing

(a) Type of locality

- i) Slum authorised
- ii) Slum unauthorised
- iii) Janta Flat
- iv) Others (specify)

(b) Type of Tenure

- i) Rented (independent/shared with other tenants)
- ii) Own house
- iii) If own house do you give part of it on rent

Very often > 4* Some times 2-4 Very Rare < 2 Indifferent

 Vandalism

Street lighting and drunkenness

* Times per week

Where do your children play-park/roads/house/other (specify)

Do people leave this locality because of i) the above problem ii) any other problem (specify)

Leave to i) other parts of Delhi
 ii) back to native place

b) Community Facilities

 Are the given facilities or services in Your Locality

Type of Facility	Suff-icient	Insciff-icient	Facility not avai-lable	Indiff-erent	Comments
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 Education

Health

Parks

Post office

Bank

Market

Security

Public Telephone

Street Light

Any Other

General comments by Residents

General observation of investigator

Appendix VII

Determinant of Crime at Metropolitan City Level

(Dependent Variables)

City of	Rate per lakh of population					Inci- dence total crime 1989
	Murder & attempt to murder 1989	Density and robbery 1989	Theft of burglary 1989	Crimes against women 1989	Total crime 1989	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ahmedabad	8.6	4.5	204.4	4.5	546.8	13364
Bangalore	4.3	5.7	253.7	1.7	643.5	23107
Bombay	5.5	7.2	162.8	2.9	355.6	37309
Calcutta	6.8	5.5	215.8	3.3	403.6	13738
Delhi	7.5	2.8	160.9	10.8	345.6	28467
Hyderabad	8.7	2.8	182.0	2.5	318.3	8063
Jaipur	4.3	2.8	133.7	9.9	439.9	6269
Kanpur	14.7	8.8	120.7	8.6	304.5	5526
Lucknow	16.4	15.4	273.9	12.8	516.1	5336
Madras	1.5	2.2	118.3	1.4	343.8	14168
Nagpur	11.3	21.8	219.7	6.8	593.7	9368
Pune	9.4	12.3	241.8	4.2	667.5	10380

Contd.....

Appendix VII (contd.)

(Independent Variables)

City	Total Population	Density of population per sq. km.	Sex Ratio	Percentage of total literate	Percentage of male literate	Percentage of female literate	Percentage of slum population to total population	Rate of 4-wheeler per 1000 population
	1991	1991	1991	1991	1991	1991	1981	1987
(1)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ahmedabad	3297655	16612.87	898	69.41	75.48	62.69	26.16	18.75
Bangalore	4886548	11176.88	983	68.95	74.45	62.86	18.82	5.38
Bombay	12571728	18227.88	829	72.81	77.61	65.25	38.38	28.42
Calcutta	18916272	12836.64	827	69.28	74.83	63.54	35.35	15.45
Delhi	8375188	14158.86	831	64.69	78.45	57.74	38.19	23.54
Hyderabad	4288261	11318.88	924	57.59	64.85	58.59	21.28	9.78
Jaipur	1514425	7288.46	868	61.87	67.22	53.99	15.62	14.71
Kanpur	2111284	7861.62	837	62.83	67.85	56.82	48.34	5.87
Lucknow	1642134	11252.12	867	61.61	68.31	54.67	38.83	8.91
Madras	5361468	9374.34	927	72.17	77.51	66.41	31.87	12.57
Nagpur	1661489	7488.88	916	71.88	76.78	64.78	33.98	5.65
Pune	2485814	6763.97	985	78.83	76.26	23.14	17.69	24.87

Note : A correlation exercise had been undertaken to explain the dependent variables with the help of independent variables. Thus a correlation matrix was calculated with the help of the above data.

Appendix VIII

SEGREGATION INDEX

Code No. of * Police Station	Segregation Index	Code No. of Police Station	Segregation Index
1.	81.23	23.	39.91
2.	62.69	24.	71.22
3.	49.26	25.	52.89
4.	59.75	26.	53.51
5.	39.91	27.	61.78
6.	50.75	28.	51.70
7.	60.10	29.	61.78
8.	64.90	30.	62.27
9.	56.50	31.	63.30
10.	60.90	32.	63.30
11.	64.33	33.	62.27
12.	-	34.	55.86
13.	77.59	35.	55.86
14.	75.41	36.	55.86
15.	76.13	37.	55.86
16.	69.74	38.	49.25
17.	68.70	39.	49.25
18.	63.98	40.	49.25
19.	53.06	41.	-
20.	58.25	42.	36.38
21.	57.67	43.	52.18
22.	55.57	44.	46.54

Contd...

Appendix VIII (contd.)

Code No. of Police Station	Segregation Index	Code No. of Police Station	Segregation Index
45.	38.56	67.	48.33
46.	44.08	68.	76.02
47.	44.80	69.	51.41
48.	58.97	70.	61.66
49.	70.01	71.	53.89
50.	56.68	72.	-
51.	62.12	73.	-
52.	62.15	74.	52.15
53.	40.82	75.	57.31
54.	40.82	76.	66.67
55.	55.43	77.	55.75
56.	55.43	78.	62.39
57.	59.66	79.	45.82
58.	40.82	80.	58.10
59.	62.17	81.	71.97
60.	56.93	82.	72.02
61.	54.28	83.	79.51
62.	61.31	84.	70.11
63.	61.31	85.	74.02
64.	61.31	86.	76.88
65.	44.84	87.	54.44
66.	60.95	88.	30.83

Contd...

Appendix VIII (contd.)

Code No. of Police Station	Segregation Index	Code No. of Police Station	Segregation Index
89.	-	95.	65.28
90.	-	96.	50.85
91.	61.59	97.	68.63
92.	60.89	98.	-
93.	-	99.	70.06
94.	64.08	100.	-

* Refer to Appendix II for names of police stations as per code No.

Appendix IX

Determinants of Criminality at Police Station level in Delhi

Dependent Variable	Independent Variable											Y
	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	
Gobindpuri	3.92	2.65	6.88	66.67	38.83	56.40	9.50	71.11	42.22	66.67	100.00	3.00
Raghubir Nagar	3.96	3.82	7.88	42.78	46.88	23.78	5.88	49.41	42.96	11.11	87.50	36.88
Trilokpuri	2.58	2.88	6.28	77.58	65.36	36.48	28.84	84.45	53.84	66.67	100.00	27.88
Kalyanpuri	2.48	1.88	4.88	57.75	44.77	49.17	28.88	85.11	66.44	66.67	100.00	18.88
Seelampur	3.88	8.38	8.98	17.58	41.64	36.56	31.88	27.68	79.39	44.44	62.58	6.88
Nand Nagri	4.25	5.88	6.88	76.38	36.38	31.33	18.75	42.23	65.88	100.88	75.88	13.88
Krishna Nagar	4.88	15.48	6.28	4.38	27.28	33.87	36.65	28.93	88.88	77.78	62.58	15.88
Madangir	3.43	2.34	9.68	38.75	25.78	42.89	25.88	48.33	75.88	33.33	87.58	8.88
Mangolpuri	5.68	4.46	5.98	34.75	28.38	23.81	38.88	81.53	94.88	8.88	75.88	7.88
Jahangirpuri	2.88	3.31	7.18	44.38	41.83	12.58	28.84	65.88	68.88	11.11	75.88	39.88
Mazirpur	4.85	1.98	12.68	33.75	41.53	28.83	28.88	51.66	85.58	44.44	75.88	33.88
Kirti Nagar	3.48	24.68	4.98	8.88	19.34	68.57	44.88	33.33	72.58	8.88	58.88	21.88
Srinivaspuri	3.43	16.66	6.28	5.88	8.88	28.54	49.58	31.67	27.88	8.88	58.88	1.83
Sarojini Nagar	3.81	14.23	5.98	3.13	9.97	44.86	48.48	31.65	38.88	8.88	12.58	8.98
Kotla Mubarakpur	2.67	22.92	6.88	5.88	6.25	25.53	57.38	35.81	64.88	11.11	58.88	8.86
Lodhi Colony	2.32	28.83	5.58	8.88	4.84	28.54	64.15	27.73	35.88	8.88	25.88	1.58
Jama Masjid	2.36	3.13	12.48	26.15	49.38	33.78	48.18	25.88	69.58	8.88	58.88	1.71
Nai Sarak	2.42	3.34	18.68	23.84	45.85	48.26	53.75	23.73	77.88	8.88	58.88	1.89

Contd.....

Appendix IX (Contd.)

Dependent Variable	Independent Variable											Y
	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	
Subash Nagar	3.03	15.34	5.30	0.00	12.20	69.33	55.80	36.87	72.65	0.00	25.00	2.22
Rajouri Garden	3.24	18.56	7.10	2.50	25.23	64.13	52.45	28.40	69.40	0.00	25.00	0.53
Mayur Vihar	3.42	14.30	6.20	0.00	21.00	54.47	47.95	36.10	35.45	0.00	25.00	1.71
Geeta Colony	3.03	15.40	7.80	0.00	29.35	51.57	44.85	32.64	37.00	0.00	25.00	0.67
Munirka	3.19	17.20	6.40	0.00	39.00	43.80	45.75	15.13	25.20	0.00	12.50	1.63
Sadar Bazar	2.20	5.60	8.80	14.91	41.55	41.73	42.15	22.03	76.93	0.00	50.00	0.54

Note : Y = Rate of criminals per lakh of population.

X₁ = Dependency ratio.

X₂ = Amount of space per person in sq. yards.

X₃ = Average family size.

X₄ = Decline in housing quality.

X₅ = Percentage of illiteracy.

X₆ = Percentage of school going children out of the total children in school going age (5-18).

X₇ = Security in jobs.

X₈ = Percentage of joint families.

X₉ = Perception of environmental problems.

X₁₀ = Percentage of facilities not available.

X₁₁ = Percentage of environmental problem.

Appendix X

Summary of the Field Survey

Socio-economic Conditions	Criminal Prone Localities	
	Maximum	Minimum
<u>TYPE OF LOCALITY</u>		
	10 localities were either resettlement colonies of 25/22+ / 12+ sq yards plots or were unauthorized slums of 10 to 20 sq yards plots. Only in 2 localities the average size of plots was around 150 sq yards.	9 localities were either private or government colonies of 100-250sq. yards plots. Only 3 localities of central district was poor in terms of housing.
<u>DEMOGRAPHIC FACTORS</u>		
Average amount of space per person in sq yards.	6.33	13.89
Average family size.	7.30	7.42
Dependency ratio.	3.75	2.86
Structure of population in the locality.	Mostly homogeneous	Mostly heterogeneous
New immigrant population	Negligible	Negligible
<u>HOUSING</u>		
Open space (Terrace, balcony, lawn, courtyard etc.)	Houses in 10 localities have no open space	Houses in 3 localities have no open space
Basic amenities within the house		
Light	11 localities	Available in all
Water	Only 4 localities	-do-
Bathroom & Toilet	Only 2 localities	-do-

Contd.....

Appendix X (Contd.)

Socio-economic Conditions	Criminal Prone Localities	
	Maximum	Minimum
Own house	100 per cent	86 per cent
Use of public dustbins	Only 6 localities	10 localities use
Condition of the houses	A general observation revealed that greater proportion of houses was dirty & poorly furnished in the maximum offender prone areas.	Most of the houses were clean and moderately/well furnished.
<u>EDUCATION</u>		
Percentage of illiteracy above 5 years.	34.53	22.68
Percentage of those literates who have done only primary	82.62	45.75
Percentage of school dropouts (children in the age-group 5-15 years sitting at home and doing some menial jobs)	35.66	21.32
<u>ECONOMIC STATUS</u>		
Percentage of workers in secure jobs	43.18	84.40
Percentage of workers who have done some vocational training	3.75	23.64
Percentage of youth unemployed	6.70	26.78

Contd.....

Appendix X (Contd.)

Socio-economic Conditions	Criminal Prone Localities	
	Maximum	Minimum
<u>SOCIAL SET-UP</u>		
Percentage of nuclear families	25.80	58.67
Percentage of houses having no privacy in bathroom	52.08	3.82
Street fighting and vandalism	Around 65 per cent of the respondents agreed to high frequency of street fighting (more than 4 times a week)	Around 70 per cent of the respondents agreed to low frequency of street fighting (0 to 2 time a week)
<u>ENVIRONMENT AND INFRASTRUCTURE</u>		
Percentage of environmental problem	79.17	33.35
Percentage of facilities not available (park, security, health, market, street light, school, post-office, bank, telephone)	43.50	0.93
Perception of environmental problems	68.00	50.90

Appendix XI

Some Other Related Theories

Due to varying demographic and socio-economic set up and the cultural milieu, some of the hypothesized relationship explaining high offender rate in one area may not be necessarily true in another. Following are the hypothesis which were not found applicable in the present study.

1. The rate of delinquency is high in heterogeneous low class area with greater proportion of new immigrants

In the case of Delhi, greater homogeneity was found in offender prone areas as against the heterogeneous nature of society in the other areas. This is because people migrating from the rural areas generally tend to cluster together in one area and secondly, the caste system and religious unity is very much strong among the lower class people which has promoted a homogeneous set up specially in the low class residential areas of Delhi. For example, Raghbir Nagar is inhabited by Gujaratis, Gobindpuri by Bangladeshis and Madangir by Rajasthanis. Thus, regionalism is very much evident in the offender prone areas as against the others.

In all the localities surveyed there is not much of new immigrant population since all of them had been settled by the government in one particular year and population increase within

the locality has mainly been due to natural increase rather than due to migrants.

Thus, the theory on greater proportion of immigrant population and heterogeneous nature of the population leading to higher offender rate are not applicable in the present context.

2. Offender rates are lower among owner-occupied housing as against tenants :

The criminal prone localities had almost 100 per cent owner-occupied houses. Rented houses were a more common phenomenon in the non-offender-prone areas. Thus, there was no need to test this hypothesis statistically since the data openly revealed the fact. In slum areas, resettlement colonies and jhuggi-jhompris there are not enough space for the family itself, leave alone to give on rent. Thus, out of the 12 localities having a large number of criminals, 10 were found to be fully owner-occupied and the remaining 2 only 60- 75 per cent. Thus, the hypothesis on owner-occupied housing leading to lower offender rate does not apply in this case.

3. Declining importance of religion leads to higher offender rate

It has been observed from the survey of the localities that people are very religious whether it is an affluent colony or an unauthorised slum colony. All of them agreed to being religious and visiting places of worship like church, mosque, temple or gurudwara. In the Indian context where religion is

basically a way of life and is a sum of rituals and customs, it does not play any role in decreasing or increasing the offender rate. Whereas, in the western countries it was found that lack of faith and practice of religion and religious teachings are some of the important reasons in the breeding of criminals.

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