Chapter Six
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6.1 Title: A Study on the Quality of Life Variables in the Industrial Towns and Their Neighbourhoods with Reference to Reported Crime Rates for a Decade

6.2 Rationale of the Present Study

The influence of living under ‘poor environment’ and with ‘poor quality of life’ of a group of dwellers in the neighbourhood of industrial urban areas populated by accomplished citizen, lead to the growth and spread of sociopathic conditions conducive to crime and delinquency with reference to observed growing rates of cognisable crimes reported by Harries (1980) and Bose (1985).

With reference to the above context it may be assumed that certain major components of “quality of life” of the dwellers of industrial towns and their neighbourhood (North 24 Parganas) adjacent to Kolkata city bear to generate moral and legal deviant behaviour in the younger generations through the spread of criminogenic sub-culture. It may be further assumed that the gravity of the said unhealthy psychosocial influence, through laxity in social controls, would be traceable in the reported Census data and reported Crime statistics for a span of ten years (1996-2005).
6.3 Aim of the Study

The aim of the present research work was to ascertain the above rationale by empirical evidence with reference to the following major considerations:

6.3.1 Crime-statistics were collected from the recorded data available in the Police Bureau to depict crime patterns in the macroscopic and microscopic area-units of the territory and therefore to identify risk areas in the light of:
(i) overall crime-rate for a span; (ii) particular crime-rate; and (iii) rise and fall in the rates of crime and delinquency.

6.3.2 Ecological analysis examined the relationships between Police data and Census data. By using Regression model attempts were made to examine the influence of independent variables like demographic, socio-economic distance and land-use over crime-rates as dependent variables, area-wise and police station-wise.

6.3.3 Risk-related crime rate for an area was ascertained by using the method (Harries, 1980) given below:

\[ R_{rx} = \frac{C_x}{100000 R_{nx}} \]

where, \( R_{rx} \) is the risk-related rate for crime type \( x \);
\( C_x \) is the frequency of crime of type \( x \); and
\( R_{nx} \) is the number of units at risk in a specified area.

6.3.4 Poor environment hypothesis rests on two major ecological determinants, viz., (i) adverse living conditions and (ii) socio-economic circumstances. Involving few indicators, after the findings of Cardiff study, it assumes positive relationship with high unemployment, excess of males,
unaccomplished social class status, broken home and shared dwellings while negative relationship with accomplished social class and good housing conditions (Herbert, 1982). The said assumed relationship with poor environment may be illustrated after Rutter & Madge (1976) in a frame-work of a “cycle of poverty” as follows:

Figure 2: Cycle of Poverty

6.3.5 Meaning of Space to a group of dwellers was explored by a structured questionnaire consisting of enquiry areas, after Herbert & Evans (1974), related to (i) perception of the area, (ii) parents’ educational orientations and interests, (iii) modes of children’s punishment for misbehaviour, and (iv) recurrence of activities conducive to crime and delinquency.
Bose (1985) has developed a model to explain the interrelations of the above areas in qualifying a *space* on the basis of responses given by a group of percipients (Figure 2). The said model has been developed with the following rationale, seemed relevant to the present study:

![Diagram of Bose's Model](image)

**Figure 3 : Perceived Meaning of Space (Bose's Model)**
Perception and attitudes of good citizens of a locality about their own residential area reveal the meaning of the *Space* in their cognition. The said possibility is utilised by the researchers dealing with crime to identify ecological characteristics (Lee, 1996) where delinquent sub-culture can grow under the laxed social permissibility of behaviour and practices conducive to antisocial behaviour (*Ghosh, 1988*).

Accordingly, *Hypotheses* postulated for verification rest mainly on the knowledge that the incidence of cognisable crimes signify the influence of peculiarities of ‘Space’ and undercurrent of dysfunctions of some social systems – emerged out of ongoing social changes in the ‘Space’ concerned. Specifically, the following major research hypotheses have been developed for verification with reference to available local data:

6.4 Hypotheses

**Hypothesis 1**: In a defined macro-space within the North 24 Parganas density of different cognisable crimes show no variation over a span of time.

**Hypothesis 2**: Three cognisable dangerous crimes in the micro-space under rural and urban areas within the district bear no relations with (a) population density, (b) percentage of illiteracy, and (c) percentage of unemployment.

**Hypothesis 3**: Density of cognisable dangerous crimes of a micro-space varies as its distance varies (near and far) from the administrative H.Q. of the district or Administrative subdivisional units.
Hypothesis 4 : Perception and attitude of good citizens about their own residential space and neighbourhood reflect a ‘meaning of the space’ in relations to its criminogenic characteristics.

6.5 Data (both primary and secondary) to reflect the nature and characteristics of the variables were collected from the following sources:

6.5.1 Ecological Variables (Independent)

(i) Geographical descriptions of the ‘Space’ were collected from the published reports of the State or Central Government.

(ii) Population density, Male-Female proportion, housing density, literacy-illiteracy and employment-unemployment data were collected from the published Census Reports or District Gazetteers – available in the market as current edition of Govt. Publications.

6.5.2 Crime-rates / Statistics (Dependent)

(a) Crime rates of a macro-space (administrative division) or of a microspace (police station area) were collected from the official records of Police Bureau of the State or from the District Bureau of Crime Records by the investigator for a period of 10 years (1996-2005), as made accessible to the investigator by the authority concerned.

(b) Data for the ‘Perception of Space’ were collected by the present investigator by a specially devised structured Inventory with selected enquiry-areas fitted with a Likert-type 5-point scale – to collect space-perception measures, developed by the present investigator with a ‘test-retest’ reliability coefficient as 0.88.
6.6 Sample

Here the sample size was randomly selected local people (510 adults 290 male and 220 female) who are employed in a recognised job or profession and are parents of school-going children. The said 510 adults were selected from a group of 900 randomly selected people from both the urban and rural areas of the Barrackpur subdivisions on whom the questionnaire were administered and out of which only those persons were selected who were residing in their locality at least for 10 years. They were residents of an area within the district and whose family remained free of any record of criminal case.

6.7 Tools Used

6.7.1 The District Statistical Handbook (2006) (based on latest Census Report 2001) the ecological variables in terms of population density, literacy-illiteracy, employment-unemployment, housing density were collected.

6.7.2 The Police records and District Bureau of Crime Records were the sources of Crime statistics of a macrospace (administrative division) or a microspace (police-station areas)

6.7.3 Dwellers’ Safe-Space Perception Inventory designed and developed by the present investigator was used to understand the relevant perception of 510 selected employed adults. The final questionnaire consists of 10 opinion statements regarding safety and security of the place, crime-sensitivity of the areas etc. The reliability coefficient has been observed to be as 0.88. The original Bengali version as well as its English translation have been presented in the Appendix-I.
6.8 Steps Followed

In order to conduct the present investigation the local Bureau of Crime Records were consulted to collect official records of total number of six cognisable crimes for the two administrative subdivisions, viz., Barrackpur and Barasat, for the span 1996-2005. Amongst the six cognisable crimes, viz., dacoity, robbery, murder, rioting, burglary and theft – the term dacoity needs a bit clarification. Dacoity refers to robbery caused by typical gangs by raiding a particular house or a group of houses specially, in the rural or semi-urban area particularly, to rob of valuable moveable properties and cash money at the point of locally available arms. Dacoits generally avoid sex crimes and murder for their own safety and strategic success. They live in distant places under a different civilian identity, collect information through source persons to fix-up a target, plan their operation carefully to be done under opporturned moments along with ways and means to return back to a safe place, by-passing police vigilance. Their actions may involve robbery and burglary. Under risky confrontations and for the safe escape of gangmen they may commit murder. They generally are not interested in ordinary stealing of household goods and committing violent crime against women for mere sexual pleasures or perversions. Dacoits follows gang life-style and subculture, which vary regionally and locally.

Besides, the authorities permitted to collect records of police-stationwise incidents of dacoity (including burglary), robbery (including armed and personal), and murder for the span 1996-2005 – partly due to non-availability of records from each of the 21 police stations under Barrackpur and Barasat (formerly two subdivisions of undivided district 24 Parganas upto 1986) and partly due to Government restrictions against
free use of police maps and crime data for North 24 Parganas district (adjacent to Bangladesh border, under Section 5(i)(d) of the Official Secret Act – violation of which is a criminal offence under the appropriate section of the Indian Penal Code.

6.9 Statistical Treatment

(1) Ecological characteristics in terms of population density, adult population male-female proportion, literacy-illiteracy, unemployment housing density were determined by calculating mainly the percentages of the said variables.

(2) Crime data were treated to calculate the crime density for each microspace (Police Stations) and macrospace (Subdivisions). Correlational analysis and regression analysis were done to ascertain causal relationships between the variables for hypothesis verification at the macro- and micro-space levels. Sign test was also applied to determine the probable difference in crime records observed in the ‘near to H.Q.’ and ‘far from the H.Q.’.