

Crime Dynamics and Distribution of Asansol Durgapur Police Commissionerate, Paschim Bardhaman District

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Abstract: Establishing the source of criminal behaviors among people in the society has continued to trigger a debate over time. In most cases, criminal activities have been associated with two main factors: nature and nurture. The argument behind this notion is whether an individual's genetic composition or physical environment makes him/her to engage in criminal activities. According to Pollock, crimes are actions that are prohibited by the law. Criminal activities have short-term and long-term effects on the society and affect everyone. This project discusses in a Police Commissionerate area, how crime is observed in every small places and with its relationship to the environment and people's education. The article focuses on crime.

It raises such questions: In recent times, what is the crime direction and what is its future? What is going on in the environment of human education? What is the relationship between the other side as well as the environmental degradation plays an important role in the area? And how is it affecting its neighboring areas and harassing people?

Key Words: Criminal behaviors, Criminal activities, Human education, Environmental degradation.

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I. INTRODUCTION

'Crime' as a specific and confined term in respect to the term: 'Deviance'. The concept of 'Deviance' is broader than that crime. Deviance may be defined as non-conformation of a set of norms that are conceived by a considerable number of people of a society or a community. Deviance maybe positively accepted or negatively or neither positively nor negatively. The positive sign of deviance makes, when a physical breaks the rule of self discipline for the establishment of the new theory. On the other hand, an example of negative sign of deviance may be a murder that don't only deviates from social norms but also deviates from the moral ethics of humanity. So, an action defined as deviance in one social condition may be considered as perfectly normal in another. As deviance is determined by culture, when culture changes over time and varies some society to society, divisions character also changes. For instance, in Western society once upon a time smoking of a woman, consuming alcoholic drink in public was considered as deviant but today this is accepted normally. On the other hand, homosexuality made legal since 1994 in Britain which in tern use to be a criminal offence in India till now. Crime is a serious issue that affects everyone in society. It affects the victims, perpetrators and their families. Crime has increased drastically within the last decade. More prisons are being built around the world because there is not enough room to hold inmates. The government has made an attempt to reduce crime by funding programs such as prevention and intervention for youth at risk, as well as rehabilitation for prisoners that will be released. In this article the relationship between crime and literacy has been shown, the trend of last 2 years of crime reported has been shown and also given some proposed suggestions at the end. Although we know that the crime rate is increasing continuously in our societies but in the area of Asansol Durgapur police commissionerate (*Study Area*) is working very good, so that we can see that the average reported crime has been decreased and the literacy is affecting some areas.

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II. CRIME AS AN ASPECT OF GEOGRAPHICAL STUDIES

Crime and the fear of crime are significant aspects of daily life and as such have been studied closely by human geographers who have examined the interactions between crime, space, and society. The event of crime shows strong spatial variations, and, perhaps unsurprisingly, work by geographers is initially concern with mapping and explaining patterns of crime, largely in town centers. While the mapping of crime remains important, especially with the growing sophistication of geographic information system (GIS), the sub discipline has burgeoned to encompass a wider range of theoretical and empirical concerns. Feminist geographers, for example, have experimented crimes against women and the ways in which it contributes to their exclusion from society, drawing view to the often hidden crimes committed in private and domestic spaces. Others have experimented how crime is policed and, increasingly, how policing contributes to the fragmentation and reshaping of public space, often with exclusionary results. Research into the geography of crime holds something of a niche position; various geographers, for paradigms, would describe themselves as 'crime' geographers and may instead ascertain with the broader strands social, urban or feminist geographies that inform their studies. Criminology, sociology, and spatial statistics overlap with the geographies of crime and these disciplines possess and have been informed by geographical studies. Experiment into the geography of crime remains different and vibrant, cutting across many areas of social and cultural geography as well marking on and contributing to debates in criminology and other related disciplines.

III. PERCEPTUAL FRAMEWORK

The study has been done on the crime scenario of ADPC with special emphasis on the safety, security and awareness. To start with any attempt to define the criminal behavior in an urban area and a rural area comprise of the fact that nature of crime here depends on the **socio-cultural conditions** and **Cosmo-population**.

The study area suffers from the criminal activities and crime as a whole, is a significant social hazard affecting common people's property and life. So, the study is based on the crime dynamics, social conditions and protection measures taken for the above. The crime patterns in the study area (ADPC) have some theoretical background which expose the causation and nature of crime in that particular place.

The study area is an industrial mining complex and coal lifting OCP (Open Cast Project) zone. The area comprised of various cultural sub-groups and social classes. They gave birth to the Gangsters and different types of criminal offences here. A general study of crime and criminals, their dynamics of 17 police stations (ADPC) has been perceptualised.

IV. STUDY AREA

Asansol Durgapur Police Commissionerate established in 2011. The commissionerate is a part of the West Bengal police, and is under the administrative control of home ministry of west Bengal. The Commissionerate is headquartered at Asansol and divided into three divisions (*i.e. east division, west division, central division*).The commissionerate serves us with the help of 17 police stations .The charge of this commissionerate has been taken over by **Shri Sukesh Kumar Jain, IPS on 01.01.2020**.

The study area is located in West Bengal, with urban industrial complex and mining backbones. In the west of ADPC, there is Asansol-Chittaranjan Blocks; Raniganj-Durgapur is situated in the middle-eastern part of ADPC, and **Ajay River** in the North and **Damodar River** in the South of the Study Area. For the present study, Asansol Durgapur Police Commissionerate has been selected. The study area extending from **23° 22'59" N** to **23° 50'00" N** and from **86° 46' 51" E** to **87° 29'29" E**. Total area of the study area is **1,603.17 km² (618.99 sq mi)**.

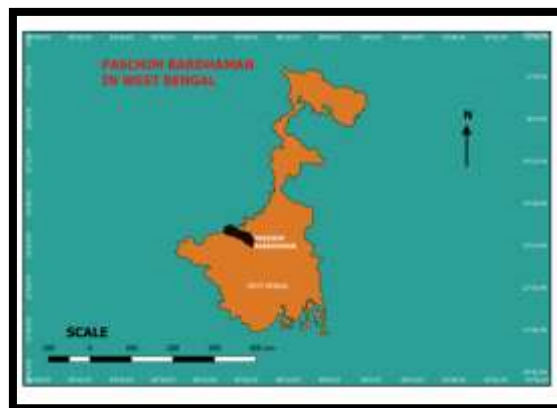


Fig 1. Source: Compiled by Author



Fig 2. Source: Compiled by Author

V. RATIONALE BEHIND SELECTION OF THE STUDY AREA

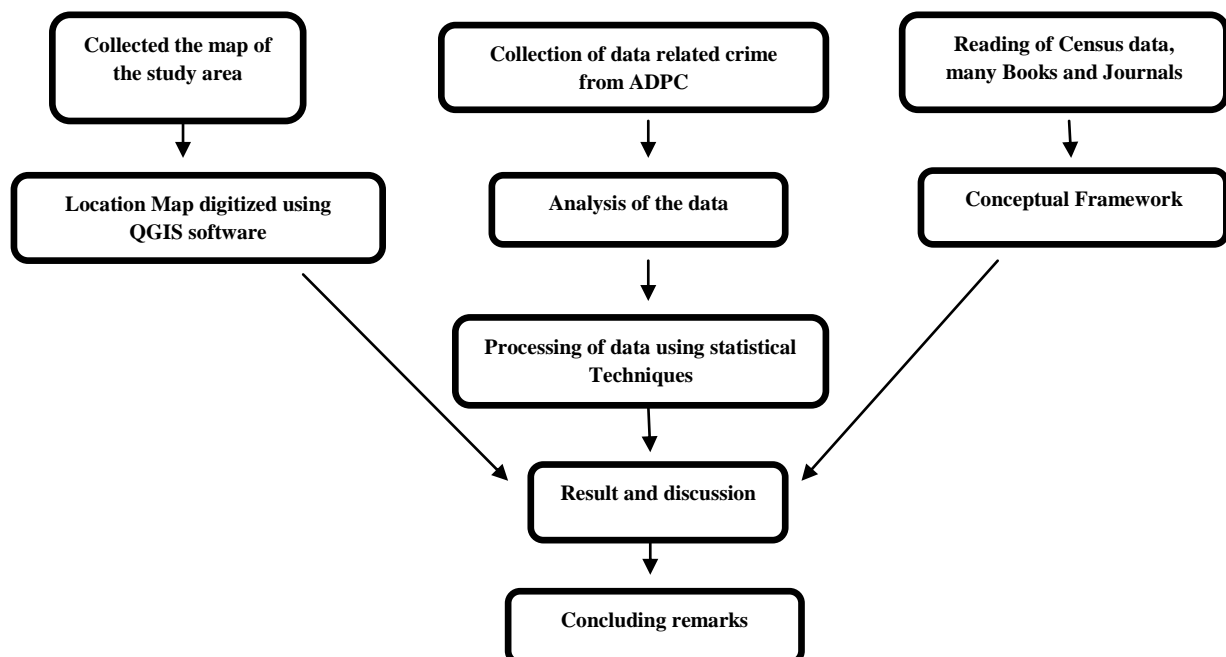
In social geography the analysis of crime is very important aspect. As it is respectively new established commissionerate, this kind of work has not been done in this area before. Being local I might have some responsibilities to figure out this kind of situation. As I have mentioned above it is a newly established commissionerate, so it is fully updated with new system & data are easily available on the website of Asansol-Durgapur Police Commissionerate.

As a large industrial area, the crime rate is much higher than in other surrounding areas.

VI. OBJECTIVES

- 1] To see spatial temporal occurrence of criminal offences.
- 2] To know the causes of crimes of the study area.
- 3] To compare the criminal occurrences with the literacy rate in ADPC.
- 4] To see crime dynamics and distribution of ADPC in last two years.

VII. METHODOLOGY



VIII. LIMITATION OF DATABASE

The database of the study incorporates the secondary data sources as well as the primary data sources:

- i. The Secondary data sources are different types of maps collected from many Websites and ‘Google Earth’, information about the place from ADPC Websites.
- ii. I have also collected the number of Criminal cases of ADPC area from their websites in last two years as well as went to the all police stations & collected the charts of cases.

IX. CAUSES OF THE CRIMINAL ACTIVITIES TO THE AREA

Several explanations are provided as causes of crime, for instance, hereditary abnormalities, personal psychological differences, or differences in patterns of socialization that can influence person to commit crimes. Historically, many criminological theories try to interpret causes of crimes among people. They include:

Biological Theory:

Under the biological theories of crime, the relationship between criminal activities and individuals is constructed through hereditary or biological features of individuals. According to this theory, the basic contributing factor of human conduct, for instance, criminal activities, is inherently grounded and all human conducts are inherited from one generation to another. Notwithstanding, the theory does not prove that a parent who is a thief is likely to give birth to child who might become a thief. The ancestral criminal characteristics and behaviors are passed on from parents to their children, which are attached to the brain activity. For instance, criminals have been found to expertise less brain response to insecure circumstances than other people. Under such a brain function, it is apparent that they can easily take risks in life and set in criminal functions. Criminals do not also fear the penalty and other repercussions that come along with criminal activities.

Psychological Theory:

According to **Rawlins**, psychological theories describe causation of crime to the early developments of an individual. This entails defect in the early constructive years of character among people that make them commit crimes. In this theory, crime is instigated by a roughness of the character and conscience caused by an incorrect equilibrium during the early years of development. This implies that a person committing a crime is not directly liable for his / her behavior. The blame is on the non-compatible character qualities, for instance, antagonism, instinct, and conflict. A case example is where children grow up realizing exploitation or disorderly behaviors in their home. Such children are likely to be mistreated by their own parents and end up following the same pattern.

Many children who are mistreated or blamed will most probably commit crimes later in their lives. In the same manner, when children are sexually abused during their infancy, they often become sexual predators when they grow up. According to this theory, many inmates on death row have histories of some kind of such misuse. Therefore, the negligence and abuse of children advances through numerous generations. Criminal behavior can, therefore, be said to be a psychological condition and not necessarily a deliberate action.

Sociological Theory:

The sociological theory states that an individual’s habitation or place in the society designates whether he/she will engage in criminal activities. The theory asserts that factors, such as lack of equal benefits, area disarray, and bad social environment are responsible for making individuals to engage in criminal deeds. Other sociological factors that are associated with causation of crime include peer pressure, drug and substance use, and easy access of crime tools, such as hand guns. Certain social aspects influence a person’s ability to make a decision. For example, in an environment where children are not able to attend school due to financial constraints, they become idle and are likely to be influenced by their peers into drugs and alcohol abuse. As they remain in the society without expectancy, they develop an urge to commit crime in order to support a given course. This is stimulated by drugs and alcohol since they impair normal decision and lessens self-consciousness, thus, increasing cases of crimes.

X. ANALYSIS OF THE STUDY OF CRIME TO THE AREA BY USING STATISTICAL TECHNIQUES

I’ve used two statistical techniques to analyze my work; the first is **Residual Mapping** and second is ‘**Standard**’ or ‘**Z**’ **score**, which helped to know the extent of the distribution of crime in our chosen area and to know how much average crime is high or low to the police stations in our study area from the *assumed mean* respectively.

| Table 1: Absolute Residual Mapping (ADPC, Paschim Bardhaman) | | | | | |
|--|------------------|-----------------|--------------------|-------|--------|
| Sl. No | Name of P.S | Literacy (in %) | Crime occurred (Y) | Yc | Y - Yc |
| 1 | Andal p.s. | 79 | 15.5 | 17.67 | -2.17 |
| 2 | Asansol (N) P.S | 84.82 | 21 | 17.78 | 3.22 |
| 3 | Asansol (S) P.S | 84.82 | 27.67 | 17.93 | 9.74 |
| 4 | Baraboni P.S | 63.57 | 8.58 | 17.52 | -8.94 |
| 5 | Budbud P.S | 80.71 | 9.33 | 17.53 | -8.20 |
| 6 | Chittaranjan P.S | 92 | 2.27 | 17.38 | -15.11 |
| 7 | Durgapur P.S | 86 | 43.92 | 18.28 | 25.64 |
| 8 | Faridpur P.S | 74 | 8.25 | 17.51 | -9.26 |
| 9 | Jamuraia P.S | 69 | 20.42 | 17.77 | 2.65 |
| 10 | Kulti P.S. | 75.41 | 41.17 | 18.22 | 22.95 |
| 11 | Pandaveswar P.S | 73.01 | 8.83 | 17.52 | -8.69 |
| 12 | Raniganj P.S | 74 | 27.45 | 17.92 | 9.53 |
| 13 | Salanpur P.S | 79 | 9.08 | 17.53 | -8.45 |
| 14 | Kanksa P.S | 76 | 29.08 | 17.96 | 11.12 |
| 15 | Cokeoven P.S | 80 | 15.83 | 17.67 | -1.84 |
| 16 | New Township P.S | 92 | 10.18 | 17.55 | -7.37 |
| 17 | Hirapur P.S | 83.30 | 25.08 | 17.87 | 7.21 |

Data Source: ADPC Official Website

• Residual Mapping to the Study Area (ADPC):

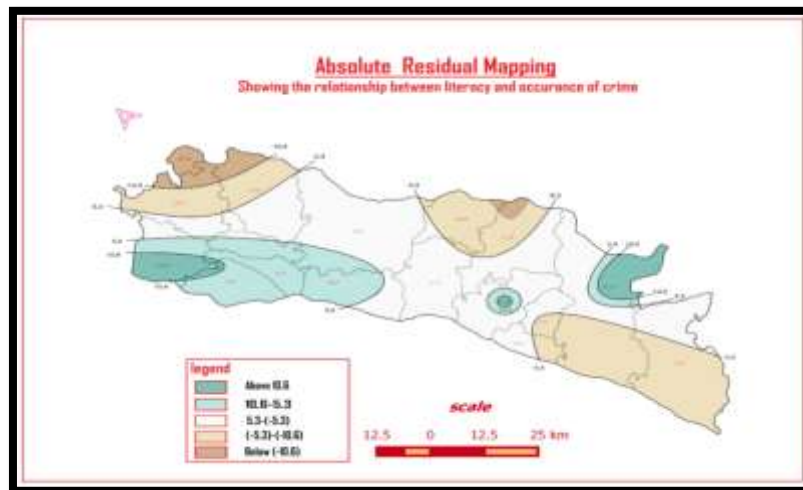


Fig 3. Source: Compiled by Author

Here are two variables taken. The first is literacy (X) and the second is the average crime occurred (Y). It has been seen in the statistics of Asansol-Durgapur Police Commissionerate that the Average Crime Deviation rate of the **Durgapur police station** is very high among the 17 police stations (25.64). Average crime occurred in **Durgapur block** is 43.92 and to be actual is 18.28 and literacy rate is 86%, which is very good but there is so much evidence that average crime is not related with Literacy, where many other factors are increasing the number of criminal activities i.e. as the centre of industrial zone, the region has a lot of daily commuters from outside. As a result, the amount of crime is higher than normal.

On the other hand, Y-YC is the lowest in the **Chittaranjan Police Station (-15.11)**. The literacy rate here is the highest (92%) of all ADPC blocks and Average Crime Occurred is 2.27 where the actual crime rate is 17.38. Here are fewer levels of crime for literacy and favorable environment.

Other 7 police stations, which have more (+) Average Crime Rate than their Actual Crime Rate , are:

Asansol North PS (3.22), Asansol South PS (9.74), Jamuria PS (2.65), Kulti PS (22.95), Raniganj PS (9.53), Kanksa PS (11.12), & Hirapur PS (7.21).

Other 8 police stations, which have Less (-) Average Crime Rate than their Actual Crime Rate , are:

Andal PS (-2.17), Baraboni PS (-8.94), Bud-Bud PS (-8.2), Faridpur PS (-9.26), Pandaveswar PS (-8.69), Salanpur PS (-8.45), Cokeoven PS (-1.84), & New Township PS (-7.37).

• Table 2: Standard or Z- Score Mapping (ADPC, Paschim Bardhaman)

| SL No | Name of P.S | Crime Occurred (X) | Mean | X-Mean | (X-Mean) ² | SD | X-Mean / SD |
|-------|------------------|--------------------|-------|--------|-----------------------|-------|-------------|
| 1. | Andal P.S. | 15.25 | 19.04 | -3.538 | 12.517 | 11.64 | -0.3 |
| 2. | Asansol (N) P.S | 21 | | 0.169 | | | |
| 3. | Asansol (S) P.S | 27.67 | | 0.742 | | | |
| 4. | Baraboni P.S | 8.58 | | -0.9 | | | |
| 5. | Budbud P.S | 9.33 | | -0.83 | | | |
| 6. | Chittaranjan P.S | 2.27 | | -1.44 | | | |
| 7. | Durgapur P.S | 43.92 | | 2.138 | | | |
| 8. | Faridpur P.S | 8.25 | | -0.93 | | | |
| 9. | Jamuria P.S | 20.42 | | 0.119 | | | |
| 10. | Kulti P.S. | 41.17 | | 1.902 | | | |
| 11. | Pandaveswar P.S | 8.83 | | -0.88 | | | |
| 12. | Raniganj P.S | 27.45 | | 0.723 | | | |
| 13. | Salanpur P.S | 9.08 | | -0.86 | | | |
| 14. | Kanksa P.S | 29.08 | | 0.863 | | | |
| 15. | Cokeoven P.S | 15.83 | | -0.28 | | | |
| 16. | New Township P.S | 10.18 | | -0.76 | | | |
| 17. | Hirapur P.S | 25.08 | | 0.519 | | | |

Data Source: ADPC Official Website

‘Z score’ is calculated by dividing the average deviation with the standard deviation. And the meeting points of X and Y Axis are considered to be zero. I have used this method in my work to see how much deviate a police station from zero. Among the police stations of the ADPC, we see the **Durgapur police station** has the highest level of deviation (2.138) and the lowest of deviation has been seen to the **Chittaranjan police station** (-1.44). The deviations of the **Asansol North Police Station** and the **Jamuria police station** are almost near to zero. These are 0.169 and 0.119 respectively.

- Standard or Z- Score Mapping to the Study Area (ADPC):

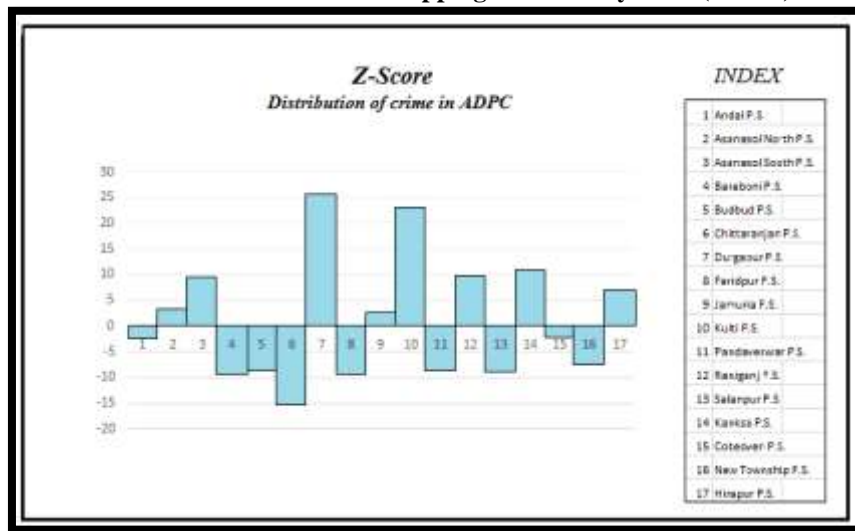


Fig 4. Source: Compiled by Author

CYBER CRIME ANALYSIS: We all know that we are living in an era of digital revolution. Along with digital revolution cyber crime is also increasing continuously. But, Asansol-Durgapur Police Commissionerate is little bit exceptional. At 2018 the rate of average monthly cyber crime was 2.67 whereas at the end of the 2019 the average monthly server trying is very much decreased which is 0.58.

XI. RESULTS AND DISCUSSIONS

The consequences of crime on society embrace feelings of panic and fright that interrupt the normal society's sense of unity, thus, cessation of societal associations as a result of habitual evasion of certain places. Besides, the distress of crime in a community is damaging, as it emotionally affects individuals who live in fright and feel vulnerable. This also causes many people in the society to avoid going to certain places due to fright of spoiling the image of the society as a result of crime actions. The sight of a society or community being disposed to criminals can discourage others from investing in it. The migration of residents to other areas has a negative effect on the economy of the society.

Criminal activities are caused by various factors, which in most cases are not deliberate. The society needs to come up with effective measures that will assist not only in punishing offenders but also helping them to shape up and create an environment that does not breed crimes. Families and law enforcing officers should be actively involved in ensuring that criminal activities are curbed in a society.

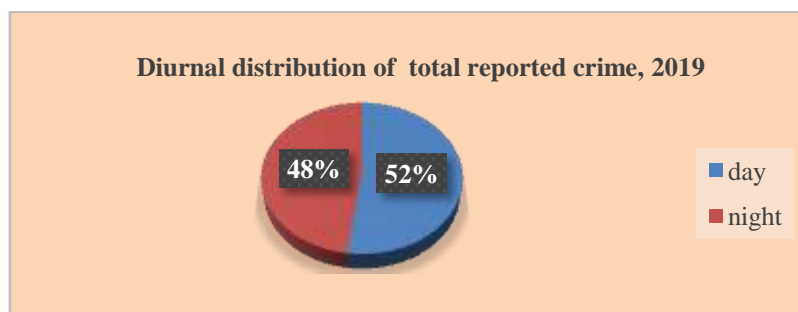


Fig 5. Source: Compiled by Author

In the study area, more than the amount of crime in the day compared to the night. The amount of crime in the Day is 52% and the amount of crime at night is 48%. Besides,

- The last two years from the ADPC website I've collected reports of crime with every month. Compared to 2018, the level of crime in 2019 has decreased considerably in this Crime Prone, which is a very good aspect of different cities and rural areas of this region. And it is expected that in the future, a lot of crimes in this region can be reduced by various policies and various rules and regulations.

Table 3: Monthly Distributed of Reported Crimes in ADPC, Paschim Bardhaman

| Months | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Year (2019) | 359 | 349 | 357 | 335 | 325 | 303 | 415 | 424 | 363 | 334 | 288 | 128 |
| Year(2018) | 364 | 299 | 362 | 437 | 443 | 454 | 413 | 363 | 401 | 374 | 406 | 365 |

Data Source: ADPC Official Website

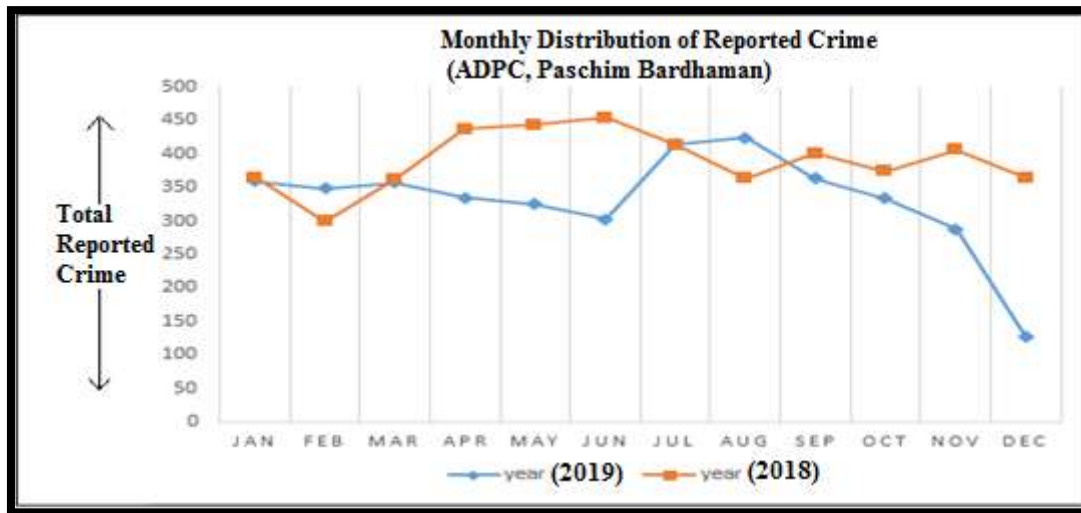


Fig 6. Source: Compiled by Author

XII. PROPOSED SUGGESTIONS

The study reveals some primary lack of attention of the administration and public awareness to deter the Crime and thus propose a few suggestions regarding this:

- The mental hospitals, prisons, asylums and correction homes are important institutions and thus should improve to set up social equilibrium in social environmental system;
- To decrease the mental distance between common people and criminals or delinquents;
- Prisoners should be rehabilitated for the humanitarian interests;
- NGOs and voluntary organizations should be encouraged in counseling with the prisoners;
- Establishment of Police Squads in every possible nodal points of the area;
- NGOs, voluntary organizations and college students should adopt mass campaign and campus security programs to aware the public;
- Finally, proper welfare and employment of urban poor may be sustainable checks to control crime.

XIII. CONCLUDING REMARKS

Today, Crime is a social hazard and takes place in society due to degradation of social environment of this area. It thus takes attention of social scientists, environmentalists, geographers also. Many of the more recent study of crime data in the study area as revealed the fact that crime statistics depend on the socio-economic conditions of the residents. The Technology of geographical information system (GIS) has recently enhanced the field of research in the geography of crime by locating special pattern of criminal activities. These areas are called *hotspots in geography of Crime*. These are particular locations such as nodal points, bustees and slums retail, outlets and some of the residential areas also. The hotspot areas have changed its location from the inner cities area towards the periphery. Crime types and also changed from small theft, dacoit and murder to gambling fraud case and smuggling etc. The study helps to develop further ideas and suggestions about how to reduce crime and control criminals by adopting change in imprisonment. Rehabilitation programs have been taken by government, NGOs, voluntary organization and participation of the community as a whole helps in combating the social disease i.e. Crime.

XIV. SUMMARY

The main focus of this work is to establish, through an objective empirical process, the spatial pattern and trend with regards to the crime geography of ADPC in West Bengal. Seventeen Police Stations are in the area. Crime register at each of the elected stations became the sample structure from which numerical statistical information on criminal assaults were purposely collected. The characteristic pattern of this societal menace to **Durgapur Police Station in ADPC is highest and Chittaranjan Police Station in ADPC is lowest**. Poverty

alleviation programs and scientific way to crime prohibition and management from studies such as this, greatly maintain the key to effective crime reduction and control in the towns.

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