

● CLIMATE AND CRIME IN INDIA- A STUDY WITH SPECIAL REFERENCE TO THEORIES OF CRIME CAUSATION



Pramod Tiwari*
Prof. (Dr.) Pinki Sharma**

Abstract

It has been the endeavor of man to locate the cause of crime beside proscribing several behaviors as criminal from centuries together. The cause of crime has been located by the people depending upon their predominant socio-cultural structure. The earliest explanation of deviant behavior has been demonological explanation. It suggested that the cause of deviant behavior was devil and not the man himself. The emergence of utilitarian principle sought to explain such criminal behavior on the basis of utility, that is, pleasure and pain model. It emphasized that every human behavior is a 'rational choice' of man or the human behavior is the result of "free-will." Thus, a co-relationship between criminality and structure of human body is the outcome of Positive School of criminology. The atavistic approach located the cause in man itself. Italian criminologist Cesare Lombroso believed that human behavior is the result of physical structure. Further, Prof. E.H. Sutherland, the propounded of Sociological School of criminology, gave the theory of 'Differential Association'.

Key words

Climate, crime, body offences, property offences and crime causation etc.

INTRODUCTION

The origin of human civilization and the history of primitive societies reveal that there were certain factors which were responsible for crime causation. Human thinking, in those days, was dominated by religious mysticism (vague or ill-defined religious or spiritual belief) and all human relations were regulated through myths, superstitions and religious tenets. Meaning thereby, little attention was devoted to motive, environment and psychology of offender in causation of crime.¹

In the era of Pre-Classical School of Criminology, a general belief was that the man by nature was simple and his actions were controlled by some super power. It was generally believed that a man committed crime due to the influence of some external spirit called 'demon' or 'devil'. During the middle of eighteenth century, i.e., in era of Classical School of Criminology, *Beccaria and Bentham*, the pioneers of modern criminology, expounded their naturalistic theory of criminality by rejecting the omnipotence of evil spirit. They

*Assistant Professor, Law Centre-II, Faculty of Law, University of Delhi, Delhi-110007

**Professor, Law Centre-II, Faculty of Law, University of Delhi, Delhi-110007

¹Natasa Semmens, Jennifer Dillane and Jason Ditton, "Preliminary findings on seasonality and the fear of crime: A Research Note" (2002) 42 Brit. J. Criminol, 798-806 at 799

laid greater emphasis on mental phenomenon of the individual and attributed crime to 'free-will' of the individual.² They were much influenced by the utilitarian philosophy, which placed reliance on hedonism, namely, the "pain and pleasure theory". Further, the Neo-classicists approached the study of criminology on scientific lines by recognizing that certain extenuating situations or mental disorders deprive a person of his normal capacity to control his conduct. Again, with the advance of behavioral sciences, the monogenetic explanation of human conduct lost its validity and a new trend was adopted in nineteenth century wherein an attempt had been made to demonstrate a co-relationship between criminality and the structure of human body and brain. This led to emergence of the Positive School of Criminology. Main exponents of this school were three Italian criminologists, namely; *Cesare Lombroso*, *Raffaele Garofalo* and *Enrico Ferri*. They believed that human behavior is the result of his physical structure. In other words, structure determines the functions of individuals. This atavistic or hereditary approach of Lombroso was criticized by various scholars.³

Gabriel de Tarde, an eminent French criminologist, criticized Lombroso's arthrometric measurements and asserted that criminal behavior is the result of learning process. Tarde's assertion, which is known as "Tarde's law of Imitation, on was that "crime, like other social phenomenon which starts as a fashion and becomes as custom".

Prof. E.H. Sutherland, an American criminologist, criticized Lombrosian views in his theory of 'Different Association' and observed that by shifting attention from crime as a social phenomenon to crime as an individual phenomenon, Lombroso delayed for fifty years the work which was in progress.⁴

A. Lindesmith and Y. Levin in their work of 'Lombrosian Myth' in criminology¹ alleged that Lombroso's faulty assumptions were responsible for hindering the growth of scientific criminology for few more decades.⁵

An American Criminologist *Prof. E.H. Sutherland*, in Sociological School of Criminology propounded the theory of "Differential Association". In the crux of this theory, he opined that, "A person becomes delinquent because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of law."⁶

Further, in Socialist School of Criminology *William A. Bonger* has contributed in explaining the inter-relation of crime and economic conditions. He stated that capitalism was one of the potential causes of criminality.

Again, in Eclectic School of Criminology, *Prof. Healy*, *Albert K. Cohen*, *Barnes & Teeters*⁸ and *Donald Taft*⁹ observed that it is not one or two factors which turn a man delinquent

²Gerhard J. Falk, "The Influence of season on crime Rate" (1952) 43 Journal of Criminal Law Criminology and Police Science, 199-213 at 201

³A. Linde Smith and Y. Levin, "The Lombrosian Myth in Criminology" (1937) 42 The American Journal of Sociology, 653-671 at 659.

⁴E.H. Sutherland, Principles of Criminology (J. B. Lippincott co., 1955) p 56

⁵Supra Note 3, at 654

⁶Supra Note 4 at 78

⁷George B. Vold, Theoretical Criminology, Second Edition (New York : Oxford University Press, 1979) P. 253

⁸Barnes & Teeters, New Horizons of Criminology (New Delhi : Prentice Hall of India Pvt. Ltd., 1966) p. 186

⁹Taft, Criminology



but it is a combination of many more factors, which cumulatively influence him to follow criminal conduct.

Adolf Quetelet and A.M. Guerrey were the eminent criminologists of France and Belgium, respectively. These scholars in their Cartographic School of Criminology, which is the subject matter of our study, have tried to search crime causation not inside the body, as *Lombroso, Enrico Ferri* etc. rather outside the body i.e., somewhere in environment and in geographical condition.¹⁰

Apart from *Adolf Quetelet and A.M. Guerrey*, other scholars who attempted to demonstrate crime causation somewhere in environment, climate and geographical conditions, were *Montesquieu, Dexter, Prince Kropotkin, Baron and Ransherger, Carlsmith and Anderson, Defronzo, Feldman and Jarmon, Rotton and Frey and Perry and Simpson* etc.

On the basis of above theory, an attempt has been made, in this work to demonstrate the relationship between geographical conditions i.e., "climate or weather" and crime in Indian perspective. Against this background, the present study makes a humble attempt to analyse the relationship between climate and crime and to find out-Is there any relationship between climate and crime? While correlating weather and crime, data from India in general have been collected from the cases reported in the *Criminal Law Journal, 2018* and the date/month mentioned in the cases have been taken. The researcher collected data from Ghazipur police Head Quarter regarding day and month of commission of offences of year 2018.

FUNDAMENTAL PERSPECTIVE OF THE RESEARCH

In this paper two main fundamental perspectives have been discussed namely: a) Jurisprudential Perspective and b) Constitutional Perspective.

A) JURISPRUDENTIAL PERSPECTIVE:

One of the fundamental Criminal Jurisprudence is Focauldian Governmentality Theory¹¹ which is also known as Preventive Model of Criminology or Peace Keeping Criminology in common parlance, contrary to Punitive Model of Criminology. As per this model of Criminology, the causes of criminality should be identified before the actual commission of the crime so that state could be able to control criminality in the society. In this paper the Focauldian Governmentality Theory works and researcher has tried to locate criminality somewhere in climate or weather in India. Reliance has been put forth upon findings of cartographic criminology. Further this paper also focuses upon Risk Society Principle of Ulrich Beck which is based on surveillance model to control criminality. A humble suggestion has been made to the stack holders of criminal justice administration to have a deep and pervasive surveillance during extreme hotter and colder months.

¹⁰Piers Beirne, "Adolf Quetelet and the origin of positive criminology" (1987) 92 *The American Journal of Sociology*, 1140-1169 to 1158.

¹¹G. Mythen and Sandra Walklate, "Criminology and Terrorism" (2006) 46 *Brit J Criminol*, 579-596 at 579

B) CONSTITUTIONAL PERSPECTIVE:

It is one of the common believe that 'Law in general and Criminal Law in particular has class character'. If the same is relied upon then it becomes utmost obligatory on the part of the state to prevent offences before it's actual commission. After the commission of crime there is chance of non-redressal of grievances of the poor victims hence amounts to denial of Access to Justice to him which is one of the fundamental principles under the Preamble of the Indian Constitution. Apex court has also raised a suspicion about co- operation by police during lodging of FIR by poor victims¹². This amounts to arbitrary action by police officials, hence negation of Equality Principle and also unreasonable and unfair treatment by the state, thus violates articles 19 and 21 of the constitution. By locating the causes of criminality before actual commission, this paper will assist the state authorities to establish just and orderly society and to regulate public order¹³, which is one of the main objectives under Directive Principle of State Policy. Paper also suggested for deep police surveillance during hotter days to prevent crime commission. Further the rules and procedure under criminal law¹⁵ should be framed in such a way which would be able to control the criminality.

RESEARCH METHODOLOGY

Keeping in view the nature of problem analytical, descriptive, informative and evaluative methods has been adopted to draw the necessary inferences and conclusions. Materials for the present study have been collected from both primary and secondary sources. In general, Journals, Research Articles, Books and materials available on the websites have been consulted. Data for present study have been taken from the fact of the Criminal Law Journal 2018 and also the report from the police head quarter district Ghazipur, U.P. The year and district as aforesaid have been selected by the researcher on the basis of convenient sampling. On the basis of information obtained in Indian perspective, the findings of scholars of Cartographic School have been verified.

CLIMATE AND CRIME: THEORETICAL PERSPECTIVE

"Social environment is the heat in which criminality breeds".

-Lacassange¹⁶

The climatic effect on crime can well be understood at international perspective after studying the Cartographic School of Criminology because this school evaluates crime on the basis of climate and temperature etc.

The Cartographic School of crime causation sees crime as the expression of the environmental influence. This school considers that the geographical surroundings determine the culture of community concerned, and this culture may vary according to

¹²Lalita Kumari v. State of U.P.(2014)2 SCC 1

¹³Entry I List II, 7th Schedule, The Constitution of India, 1950

¹⁴Entry II List II, 7th Schedule, The Constitution of India, 1950

¹⁵Entry I List III, 7th Schedule, The Constitution of India, 1950

¹⁶Ram Ahuja, Vivechnatmak Aparadhsastra (Jaipur : Rawat Publication, 1998) p. 65



the environment. Unfavorable social conditions may be responsible for criminality. Social conditions may be linked with the ecology or the geographical surroundings of the people concerned¹⁷. The basic tool of the social ecologists is a "social map" showing the geographical distribution of the phenomenon under investigation, i.e., crime and especially their relative frequency in different kinds of natural area.

Montesquieu, Adolf Quetelet and A.M. Guerrey, Dexter and Kropotkin etc¹⁸. are the proponents of this school of criminology, who brought before us some idea about relationship between climate and crime-Montesquieu in his book, *Spirit of Law, 1784*, was of the view that criminality increases as one approaches the equator and drunkenness is more prevalent as we approach the poles. In this way Montesquieu gave his own thesis about the effect of climate on crime.¹⁹

Adolf Quetelet and A.M. Guerrey were the leaders of this school in France and had a large number of followers in France, England and Germany. The school flourished from about 1830 to 1880. Later Yale Levin and Alfred Lindesmith did extensive research on it.²⁰

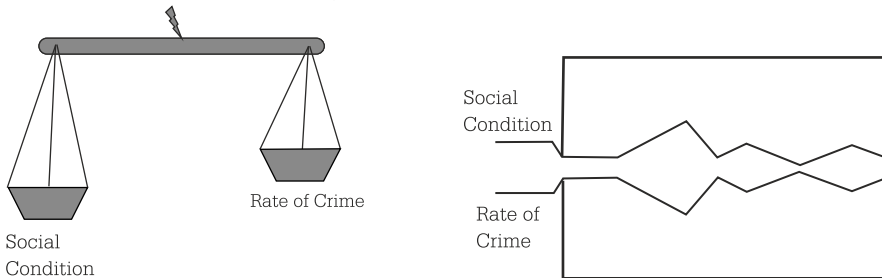
Quetelet and Guerrey were of the view that -²¹

- i) In favorable social conditions crime are lesser
- ii) In unfavorable social conditions crime are higher.

It means, social condition is inversely proportional to crime rate.

$$\text{Meaning thereby (Social condition) } \propto \frac{1}{\text{crime rate}}$$

These can be well understood by following figures-



- iii) Weather having close relationship with the nature of crime. In this regard Adolf Quetelet and A.M. Guerrey said-
 - a) Crime against person is more in warm climate

¹⁷George B. Vold, *Theoretical criminology*, Second Edition (New York : Oxford University Press, 1979) p. 23

¹⁸E.H. Sutherland, *Principles of Criminology* (J.B. Lippincott co., 1955) p. 53

¹⁹Piers Beirne, "Adolf Quetelet and the origine of positive criminology" (1987) 92 *The American Journal of Sociology*, 1140-1169 at 1157

²⁰A.Lindesmith and Y.Levin, "The Lombrosian Myth in Criminology" (1937) 42 *The American Journal of sociology*, 653-671 at 658

²¹RuthShonleCavan, *Criminology*, Third Edition (New York : Thomas Y. Crowell Company, 1962) p. 686. See also Natasha Semmens, Jennifer Dillane and JasonDitton, "Preliminary findings on seasonality and the fear of crime : A Research Note" (2002) 42 *Brit. J. Criminol.*, 798-806 at 801

- b) Crime against property is more in cold climate
- iv) In more congestion area, offences are more and in less congestion area offences are less.
- v) Where the land is fertile, offences are less in comparison to places where land are less fertile.
- vi) Where there is favorable rainfall, offences are less.
- vii) Where natural resources are sufficient, offences are less.

Dexter an American scholar was of the view that there is close relationship between geographical conditions like climate, temperature etc. and crime. He said that violent crime is more in hotter days of the year.

Prince Kropotkin (1911) was a Russian scholar. He prescribed a formula for predicting homicides on the basis of climate. Take average temperature of the month, multiply it by 7, add to it average humidity, and multiply by 2 and you will obtain the number of homicides committed during the month. For this he gave a mathematical formula as-

$2(7x + Y)$, Here X = temperature and
Y = humidity.

These views have however been criticized on the ground that there is no direct relationship between crime and geographical environment.²²

Apart from these criminologists, various studies have been made to show relationship between weather and crime, however the relationship, between weather and crime and criminal behavior was not studied seriously until the 1960. After a series of riots in the United States sparked a popular belief that the causal factor was the summer heat. This belief was reinforced when the United States Riot Commission (1968) published a report showing that the majority of riots in 1967 began on days when the temperature was over 80°F.

WEATHER AND CRIME: INDIAN PERSPECTIVE

Under this head an attempt has been made to analyse the relationship between weather and crime, mainly offences against body and offences against property under twenty Indian States. For this purpose, I have surveyed the Criminal Law Journal of year 2018 and on the basis, offences reported there under this study have been made. The data of occurrence of offences either against the person or property has been taken from the fact of the case. The study has been made for year 2018. In this study year has been divided into three seasons, namely- 1) Summer, 2) Rainy and 3) winter and each season have been studied under two heads namely- a) India in general and b) Individual State in particular. Further, for each and every year three tables of crime data have been made for all the aforesaid seasons. Again, the analysis of these crime data has been made to see a relationship between climate and crime.

²²DonC. Gibbons, Society, Crime and criminal Carrers : An Introduction to Criminology, Third Edition (New Delhi : Prentice Hall of India Pvt. Ltd., 1978) p. 132.



Offences against Body and Property during summers for year 2018 (March to June) [Table No. 1]

Offences/States	Offences against Body					Offences against Property					Total in number	Total in %	
	Murder	Rape	Kidnapping	Grievous Hurt	Dowry Death, Cruelty	Total in number	Total in %	Theft	Extortion	Robbery			Dacoity
Andhra Pradesh	1	1	0	0	0	2	0.8%	1	0	1	1	3	2%
Assam	8	10	2	1	3	24	9.8%	1	0	3	6	10	6.7%
Bihar	10	12	3	0	3	28	11%	5	1	6	12	24	16%
Chattisgarh	1	1	1	1	1	5	2%	1	0	1	2	4	2.6%
Delhi	2	5	1	0	2	10	4%	0	1	1	2	4	2.6%
Gujarat	2	3	1	0	1	7	2.8%	1	1	2	2	6	4%
Himanchal Pradesh	5	4	1	1	1	12	4%	2	0	1	3	6	4%
Jammu & Kashmir	13	7	5	0	2	27	11%	7	0	0	7	14	9.3%
Jharkhand	6	5	3	1	2	17	6%	2	0	1	3	6	4%
Karnataka	1	2	2	0	1	6	2.4%	1	0	1	2	4	2.6%
Kerala	0	1	1	0	2	4	1.6%	1	0	1	0	2	1.3%
Madhya Pradesh	3	2	1	1	3	10	4%	3	1	1	5	10	6.7%
Maharashtra	8	3	1	1	1	14	5.7%	1	0	1	2	4	2.6%
Orissa	5	3	1	0	3	12	5%	0	1	3	0	4	2.6%
Punjab & Haryana	1	0	1	0	3	5	2%	2	0	1	2	5	3.3%
Rajasthan	10	4	3	1	1	19	7.7%	2	1	2	6	11	7.3%
Tamil Nadu	2	1	0	0	0	3	1.2%	1	1	1	1	4	2.6%
Uttaranchal	3	5	2	0	2	13	5.3%	2	0	2	4	7	4.6%
Uttar Pradesh	8	2	0	0	3	14	5.7%	5	0	5	3	14	9%
West Bengal	6	3	0	1	0	10	4%	1	1	2	3	7	4.6%
						244	62%					149	38%

Note- Total No. of offences from 1 March to 30 June = 244+149= 39

Total No. of offences against body from 1 March to 30 June= 244 (62%)

Total No. of offences against property from 1 March to 30 June = 149 (38%)

Offences against Body and Property during rains for year 2018 (July to October) [Table No. 2]

Offences/States	Offences against Body				Offences against Property				Total in number	Total in %		
	Murder	Rape	Kidnapping abduction	Grievous Hurt	Dowry Death, Cruelty	Total in number	Theft	Extortion			Robbery	Dacoity
AndhraPradesh	1	0	1	0	0	2	1	1	1	0	3	2%
Assam	10	7	1	1	0	19	9.9%	3	2	2	9	6%
Bihar	11	10	2	0	4	26	13%	7	2	9	25	13%
Chhattisgadh	3	2	1	0	1	7	3.6%	1	0	2	5	3.4%
Delhi	3	3	0	0	0	6	3%	0	0	3	4	2.7%
Gujarat	2	1	0	0	1	4	2%	1	0	2	3	2%
HimanchalPradesh	1	3	0	0	2	6	3%	2	1	0	3	2%
Jammu & Kashmir	10	5	1	1	2	19	9.9%	1	1	2	13	8.9%
Jharkhand	4	5	1	0	1	11	5.7%	5	0	3	9	6.1%
Karnataka	0	0	2	1	1	4	2%	1	2	0	3	2%
Kerala	1	0	1	0	0	2	1%	2	2	0	4	2.7%
MadhyaPradesh	2	1	0	0	1	4	2%	5	1	3	11	7.5%
Maharashtra	6	4	1	1	2	14	7.3%	2	0	6	12	8.2%
Orissa	3	4	1	0	3	11	5.7%	5	1	3	10	6.8%
Punjab & Haryana	1	1	0	0	3	5	2.6%	2	0	0	2	1.3%
Rajasthan	5	6	2	0	4	17	8.9%	5	0	5	10	6.8%
Tamil Nadu	2	3	1	0	0	6	3%	3	1	0	4	2.7%
Uttaranchal	4	5	0	0	1	10	5%	3	0	2	5	3.4%
UttarPradesh	8	5	2	1	2	18	9.4%	6	1	4	19	13%
West Bengal	1	1	1	0	2	4	2%	1	0	2	3	2%
						191	56%				146	44%

Note- Total No. of offences from 1 July to 31 October 191 + 146 = 337

Total No. of offences against body from 1 July to 31 October = 191 = (56%)

Total No of offences against property from 1 July to 31 October = 146 = (44%)



Offence against Body and Property during winter for year 2018 (November to February) [Table No. 3]

Offences/States	Offence against Body					Offence against Property					Total in Number	Total in %	
	Murder	Rape	Kidnapping	Grievous Hurt	Dowry death	Theft	Extortion	Robbery	Docoity	Total in %			
AndhraPradesh	2	1	1	0	2	6	2.4%	0	0	1	2	3	2%
Assam	5	6	3	1	5	20	8.2%	2	0	3	3	8	5.3%
Bihar	10	11	2	0	5	28	11.5%	8	2	6	11	27	18%
Chhattisgarh	5	5	2	0	2	14	5.7%	1	0	2	0	3	2%
Delhi	5	4	0	0	0	9	3.7%	1	0	0	3	4	2.6%
Gujarat	3	2	1	0	2	8	3.3%	0	0	1	4	2	1.3%
HimanchalPradesh	0	2	2	0	0	4	1.6%	3	1	2	3	9	6%
Jammu & Kashmir	10	8	3	2	0	23	9.5%	1	0	6	2	9	6%
Jharkhand	3	4	0	0	3	10	4%	5	1	3	0	9	6%
Karnataka	2	1	6	1	1	11	4.5%	1	0	0	0	1	0.6%
Kerala	2	2	1	0	0	5	2%	1	0	2	2	5	3.3%
MadhyaPradesh	3	4	0	0	4	11	4.5%	10	1	2	1	14	9.3%
Maharashtra	6	6	2	0	2	16	6.6%	3	0	6	0	9	6%
Orissa	3	5	1	1	1	11	4.5%	1	2	1	1	5	3.3%
Punjab&Hayana	1	1	1	0	0	3	1.2%	1	2	0	0	3	2%
Rajasthan	10	11	1	0	4	26	10.7%	8	1	3	2	14	9.3%
Tamil Nadu	1	3	1	1	0	6	2.4%	1	1	1	1	4	2.6%
Uttaranchal	2	5	0	0	0	7	2.8%	2	1	3	0	6	4%
UttarPradesh	8	5	0	0	4	17	7%	7	2	6	5	19	12%
West Bengal	2	3	1	0	1	7	2.8%	0	1	1	0	2	1.3%
						242	61%					150	39%

Note- Total No. of offences from 1 November to 28 February = 242 + 150 = 392

Total No. of offences against body from 1 November to 28 February = 242 (61%)

Total No. of offences against property from 1 November to 28 February = 150 (39%)

Year 2018: Climate and Crime- An analysis

The of data of offences has been collected from the Criminal Law Journal. The data of occurrence of offence either against the person or the property has been taken from the fact of the case. This data is of twenty States of the country. An attempt has been made to study the variation of crime rate with respect to climate. For this purpose, the whole year has been divided into three seasons namely, summer, winter and rains. The study of climatic effect on crime has been made under two heads for each respective season-

- a) India in general, and
- b) Individual States

1- Summer- Table No. 1 of year 2018 is for summer season which comprises from 1 March to 30 June and this table has been analyzed under two heads as stated above.

a) India in general-As per data of crime reported from 1 March to 30 June, the total number of offences are 393, out of which 244 are offences against body which comprises 62% of the total offences and 149 are offences against property, which comprises 38% of the total offences.

Thus, it can, therefore, be said that in summers offences against body has been more in comparison to offences against property.

b) Individual States- As per data of crime rate in summers of year 2018, it has been observed that in some States like Assam, Delhi, Jammu and Kashmir, Karnataka, Maharashtra, Orrisa, Rajasthan, and Uttaranchal the number of offences against body is more in comparison to property offences whereas in remaining States offences against property are more in comparison to offences against body. Thus, there is no uniform correlation as to temperature and crime because in some States, irrespective of their average temperature, offences against body are more and, in some States, offences against property are more in the same season.

2-Rains- Table No. 2 of year 2018 is for the offences during the rainy season running from 1 July to 31 October and this table has been analyzed under following two heads:

a) India in general-As per the data of crime from 1 July to 31 October, 2018, the total number of offences are 337 out of which offences against body are 191, which comprises 56% of the total offences committed during this year and 146 are offences against property which comprises 44% of the total offences. Thus, the offences against body are more in comparison to offences against property in India during rainy season of year 2018.

b) Individual States - As per the data of crime of rainy season it has been observed that offences against body in States like Assam, Delhi, Himanchal Pradesh, Jammu and Kashmir, Rajasthan, Tamil Nadu, and Uttaranchal are more and in remaining States offences against property are more in the same season.

3)-Winter- Table No. 3 of year 2018 in for winter season which runs from 1 November to 28 February and this table has been analyzed under following two heads.



a) India in general-As per the data, the total number of offences in the country are 392 out of which offences against body are 242 which comprises 61% of the total offences and offences against property are 150 which 38.2% of the total offences committed during the winter season of year 2018

b) Individual States in particular- As per the crime data, it has been observed that the number and percentage of offences against body in States like Andhra Pradesh, Assam, Chhattisgarh, Delhi, Gujarat, Jammu and Kashmir, Karnataka, Maharashtra, Orissa, Rajasthan and West Bengal are more in comparison to offences against property and in remaining States the offences against property are more in comparison to offences against body in the same season.

Conclusion - After analyzing the crime data for the year 2018 of all the seasons it is clear that in general the offences against body are more and offences against property are less in all seasons but at the same time in some States offences against body are more in all seasons while in some States offences against property are more in all seasons. It may therefore be summarized that there is no definite relationship between temperature and the crime.

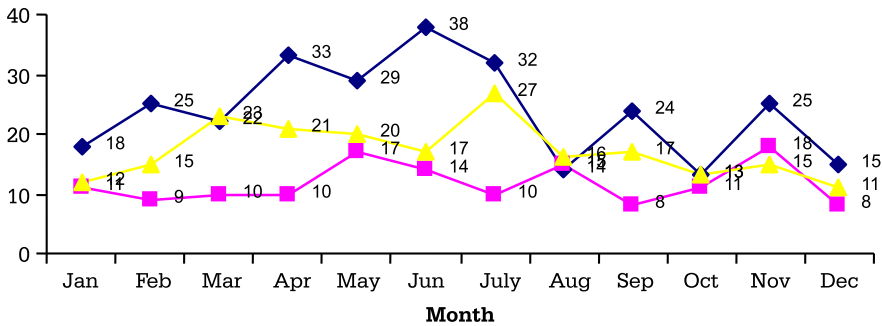
Adolf Quetlet and A.M. Guerry were the leaders of Cartographic School of Criminology, contended that crimes against persons were more prevalent in warm climates and crime against property were more prevalent in cold ones; may be true for their own countries i.e., in France and in Belgium but not for India, so far as our study of year 2018 is concerned.

EFFECT OF WEATHER ON CRIME: A STUDY OF DISTRICT GHAZIPUR, UTTAR PRADESH

Under this head an attempt has been made to analyse a relationship between weather and crime, mainly offences against body and offences against property in District Ghazipur, Uttar Pradesh. For this purpose, a crime data for the year 2018 have been obtained from the office of Superintendent of Police, District Ghazipur, Uttar Pradesh and on the basis of aforesaid data this study has been made. In this study, analysis regarding climatic effect on crime has been made for the year 2018. The data have been studied month wise. Further, offences are classified into three categories, namely, offences against body, offences against property and other offences. The available data have been shown in the crime table and its graphical representation.



Offences against body, offences against property and other offences in District Ghazipur, Uttar Pradesh for year 2018- A graphical representation



Weather and crime for year 2018 of District Ghazipur, Uttar Pradesh

As per the data of crime of District Ghazipur, Uttar Pradesh for the year 2018 as shown in the Table the total number of offences reported during the year are 636, out of which offences against body are 288, which comprises 45% of the total offences while 141 are offences against property, which comprises 22% of the total offences reported during the year. It means offences against body are approximately two times in comparison to offences against property during the year of District Ghazipur, Uttar Pradesh. The data for offences against human body and the property have been analyzed as under:

i) Offences against Body-As per crime data of crime of year as shown in the Table, offences against body are higher in summers namely- April, May, June, and July and lesser in winters namely, October, December and January. The number of offences committed against human body in summer constitute 46% of the total offences, while this figure is 16% in winter.

It can, therefore, be said that a definite relationship exists between the body offences and the weather, as body offences are higher in summers and lesser in winters.

ii) Offences against Property-As per data of crime for the year, 2018 as show in the Table, offences against property are higher in some winter months; namely in January and November and are also higher in some summer months; namely in May, June and August.

The study for the year therefore, suggests that no definite relationship exists between weather and the property offences at may be surmised that the offences against property is more during the months when property is available after harvest etc.

Variation of body offences, property offences and other offences with respect to weather of year 2018, as stated above, has been shown in graph (see graph). Blue line is about variation of offences against body, red line is for variation of offences against property and yellow line is for variation of other offences with respect to weather, of District Ghazipur, Uttar Pradesh for the whole year of 2018.

It may, therefore, be said that the effect of weather on body offences for District Ghazipur, Uttar Pradesh is similar as suggested by the scholars of Cartographic School of

Criminology. At the same time effect of weather on property offences is not similar as suggested by those scholars.

Thus, the entire study of year 2018, District Ghazipur, Uttar Pradesh regarding effect of weather on crime, reveals that weather is a factor which affect crime rate, although it may not be the sole one.

CONCLUSION

Since long it has been the endeavor of man to locate the cause of crime beside proscribing several behaviors as criminal. The cause of crime have been located by the people depending upon their predominant socio-cultural structure. Thus, the attempt to locate the cause has been from super-mundane to mundane affairs depending upon the knowledge of man about himself and his surroundings and circumstances. The earliest explanation of deviant behavior has been demonological explanation. It suggested that the cause of deviant behavior was devil and not the man himself. The emergence of utilitarian principle sought to explain such criminal behavior on the basis of utility, that is, pleasure and pain model. It emphasized that every human behavior is a 'rational choice' of man or the human behavior is the result of "free-will".

Again, with the advancement of behavioral sciences, a new trend emerged to demonstrate the cause of criminality on objective basis i.e., Positivism. Thus, a co-relationship between criminality and structure of human body is the out come of Positive School of criminology. The atavistic approach located the cause in man itself. Italian criminologist Cesare Lombroso believed that human behavior is the result of physical structure. Further, Prof. E.H. Sutherland, the propounder of Sociological School of criminology, gave the theory of 'Differential Association' and observed that : A person becomes delinquent because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of law.

Further, a Socialist thinker, William A Bonger, contributed that capitalism was one of the potential causes of criminality. In Multiple Factor Approach, the criminologists like Prof. Healy and Albert K. Cohen observed that it is not one or two factors which turn a man delinquent but it is the combination of many more factors. In Cartographic School of Criminology, the scholars like Quetelet and Guerrey, Montesquieu, Dexter, Kropotkin and many others have tried to search the cause of crime somewhere in the environment and the geographical conditions which is the subject matter of this study. To them, there is a necessary causal relationship between the climate and geographical conditions on the one hand and crime on the other. Our entire study as well as the research works conducted under various countries reveal that climate is a factor which affects crime rate although it may not be the sole one.

Various research works which are conducted in U.S.A., England Hong Kong and other countries with regard to heat and crime, reveal that high temperature is more or less responsible for high rate of offences relating to body. This study of effect of temperature on body offences, with respect to twenty States of the country as well as of District Ghazipur, Uttar Pradesh, suggest the similar result that offences against body are higher in warm season in comparison to cold one.

Further, research works of abovenamed countries with regard to heat and property offences reveal that during warm climate, property offences are less. This study of effect



of temperature on property offences, with respect to twenty states of the country, as well as of the District Ghazipur, Uttar Pradesh produce the general result that during 'hotter days' property offences are less but at the same time in some summer months like April, May, October and November, property offences are more. It may, therefore, be conjectured that in months like April, May, October and November-- property is available with the victim giving rise to an opportunity to commit such offences.

The research works conducted in various countries with respect to effect of cold weather on crime reveal, that property offences are more in cold weather. It is not because of emotional upsets rather to obtain the additional goods needed to stay alive during cold weather (warm clothing and heating etc.) Our study regarding the effect of cold weather on crime in twenty states of the country as well as of District Ghazipur, Uttar Pradesh, produce the result that body offences are less in winters and property offences are generally seen more in winters but at the same time, it has been seen more in some summer months also. It may be due to availability of property with victim during harvesting etc. It may, therefore, be said that there is no definite relationship between property offences and cold weather.

The research works conducted in various countries show no definite relationship between rain and crime of any kind what so ever. Similarly, our study regarding effect of rains on crime shows no definite relationship in India in general and various states in particular including the case of District Ghazipur, Uttar Pradesh as well.

Lastly, it can be generally summarized that body offences are higher in hotter days, property offences are higher in some cold months and at the same time in some summer months as well. So far as body and property offences with respect to rainy season is concerned, no definite pattern is discernable.