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# Spatio-Temporal Pattern of Crime Combination in The Manipur Central Valley

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#### **Abstract**

Manipur Central Valley is the most striking topographic feature in a mountainous state like Manipur. This is a small intermont valley of the Himalayan System encircled by the Eastern and Western Hills. Crime is a legally forbidden and intentional action which has a harmful impact on social interest, which has a criminal intent, and which has legally prescribed punishment for it. By utilizing the information from primary and secondary sources and a technique of combination, the current study aims to find the combination of crime in the Manipur Central Valley for the past few decades. The study shows that the dominant Crime was Robbery in 1981, kidnapping and abduction in 1991, Dacoity in 2001, Theft in 2011 and 2021.

**Keyword**: Crime combination, Thomas, social crime, theft, dominant, Manipur Central Valley.

#### Introduction

Geography seeks to describe and interpret the variable characteristics of the earth surface as the habitat of men.(Hartshorne, R, 1959) Social Geography is the understanding of the pattern, which arises from the use of social group as they see it, and the process involved in making and changing such pattern (Jones, E,1975). Social problems such as crime arises as a "deviation from the social ideal remediable by group effort (Wash, Mary E & Furfey, Paul H, 1961). It may also be defined as a condition, which is defined by considerable number of persons as a deviant from some social norms which they cherished. Crime is a perennial and universal problem of all societies. The concept of crime is rooted in man's rudimentary attempts to distinguish between right and wrong in his interaction with the fellow humans (Roa, S.V, 1981). The legal definition of crime is that it is the behaviour or activity in violation of the legal code.

The Geomorphology of the Manipur Central valley is surrounded by the blue hills, mountains, its scenic beauty in the middle part of the imphal valley –is an oval shaped depression of intermountain basin over the alluvium deposits, at an elevation of above 760 meters from the mean sea level. The study area is located between 24°20'N to 25°0'N latitudes and 93°0'E to 94°0'E longitudes with a total geographical area of 2,067 km². It consist of five districts; Imphal East, Imphal West, Bishnupur, Thoubal and Kakching.(Singh, Nabakumar, Th., 2014)

The Manipur Valley society consists of community such as Schedule caste, Schedule Tribe, Manipuri Muslim, and other etc. The community religion and social life differ from one community to another. Hence, the Manipur Central valley has a complex social space (*Ibid*).



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#### **Review of Literature**

Shawn and McKay paper's *Social Factors in Juvenile Delinquency* (Shawn, C.R and McKay, H.D), *Juvenile Delinquency and Urban Area* (Shawn, C.R and McKay, H.D), deals with the study of crime in Chicago. The study shows that delinquency and crime follow the pattern of social and physical structure of the city.

A study on Crime zone in Mexico City by Hayner, indicate that juvenile delinquency and adult criminals are highly concentrated in the central part of the city (Hayner, N.S, 1960). The study indicates that, crime rate have shifted from one area to another as transport facility and national customs have changed. In India, both criminologists and sociologists have researched different aspects of crime, but the spatially oriented crime study started to appear in the 1970s. Sivamurthi studies, *Urban Ecological Aspect of crime in Madras City*, combined eight crime factors with 22 physical, social and occupation parameter, using regression, correlation and trend analysis. The study shows that property crime was shown to be consequent of physical features and economic prosperity, but the violent crime (Sivamurthy, A, 1981). Nayer's state wise study of national crime pattern from 1959 to 1968 examines two hypothesis, long-term trend are the functions of expansion or determination of economic and political capability, and short-term deviation are the function of economic, political shift in the State (Nayar, B. R, 1975).

Bajpai and Garima paper's *Transport and Crime: An account of Crime Against Women in Cab in the Delhi/NCR Region*, attempt to identify myriad of issues concerning womwn's safety in cabs in the Delhi/NCR region(G.S Bajpai and Garima pal, 2021). Laksheeta and Rufus paper's *An Analysis of Interaction between victims of Domestic Violence and their Advocates in Jodhpur*, focus on the advocate, Criminal Justice system, Domestic Violence and Victim. The study found that the victims' advocates had to make efforts to elicit the information which are vital for the cases (Laksheeta Choudhary and Rufus D, 2021) Lalli *paper's Attitude to prison Reforms: An Empirical survey*, focus on the study of prison reform, human right, public opinion, Rehabilitation. The paper also analysed the historical background of prison reforms and problems faced by prison system in India (Upneet Lalli, 2019).

In Manipur, Sanatomba provide an epidemiological survey of the cognizable crime in Manipur between (1985-1989). The variable of crime include theft, rape, suicide, murder, kidnap and abduction robbery etc (Singh, Sanatomba, R.K). Crime against suicide were studied. Meera and Singh paper's *Pattern of neck finding in suicide hanging : A study in Manipur*, analysed the pattern of hanging in Manipur. The study was based on 84 cases brought for autopsy to the mortuary of the Regional institute of Medical Science, Imphal during 2004-2008. The study shows that more male commit suicide than female (Meera, Th., & Singh, M., 2011).

Combination is a technique that helps us to combine any phenomena in the space. The phenomena may be industry, agriculture, race, religion, or even social crime. The first attempt towards the identification of the dominant characteristics of an area was made by Harries's *A Functional Classification of Cities in the United state*, (Harris, C.D, 1943). Nelson's *A service Classification of American Cities*, adopted the technique of combination analysis in the functional classification of Town.(Nelson, H.J, 1955) The publication of the Weaver work, *Crop-Combination Region in the Middle West* (Weaver, J.C.) provide a new technique for the combination analysis in Geography. Thomas modified the technique of Weaver in his work Agriculture in the Napoleonic War (Thomas, D, 1963).

In India, S.M Raufiullah paper's *A New Approach to Functional Classification of Town*, modified the weaver technique and present a more unique and advance technique (Rafiullah, S.M, 1965). Satwant



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adopted the Weaver technique for the functional classification of cities in India (Kaur, Satwant, 1974). Ashok Mitra in his classic work, *Internal Migration and Urbanization in India* adopted the technique of Triangulation for the combination of Indian Cities based on the function(Mitra, Asok, 1967).

#### **Material and Method**

The primary data was collected from the field survey using personal observation and group discussion with the expert in the field. The secondary data was collected from the police station, books, journals, and available literature. The data has been compared, polished, and mapped with the relevant statistical technique.

The selected crime variable and the assign coded for the crime has been given. M=Murder, C=Ch not amounting for murder, A= Attempt to commit murder, Ra=Rape, K=Kidnap and Abduction, D=Dacoity, P=Preparation and Assemble for Dacoity, R= Robbery, B=Burglary and T=Theft respectively.

The method that has been used in the study is the combination technique developed by Thomas. The combination technique is a powerful statistical technique that helps us combine phenomena in space. Phenomena include social, agricultural, demographic, industrial and social crime element. The technique was develop by Thomas (Thomas, D, 1963) is given below.

$$\sigma^{2}=(Xi-\overline{X})^2$$

Where,  $\overline{X}$  is the theoretical percentage, Xi is actual percentage The theoretical percentage of Thomas method is obtained by,  $\sum_{n=1}^{10} 100/n$ 

#### Result

In 1981, the crime combination in the Manipur central valley was 5 crimes, followed by 3 crimes in 1991, increased to 4 crimes in 2011, then 3 crimes in 2011, and lastly 1 crime in 2021.

The index for the crime combination was highest in 2011 (1200), followed by 1981 (879), 2021 (783), 2001 (522), and 1991 (342), respectively.

The dominant crimes of the Manipur central district for the past decade were robbery and rape in 1981; kidnapping and abduction; dacoity in 1991; dacoity and theft in 2001; theft and Ch not amounting for murder in 2011; and lastly, theft in 2021.

The crime in the Manipur Central Valley is influenced by many factors, such as racial diversity in the racial composition and religion, changes in the social structure because of the rapid urbanisation in the valley, an increase in the population, overcrowding in C.B.D district, migration, poverty, inequality in the distribution of income, and lastly, cultural change. The spatio-temporal changes of the crime combination have been given in Table 1.

**Table.1. Manipur Central Valley: Crime Combination (1981-2021)** 

Year	Crime combined	Thomas index	Combined state
1981	5 crime region	879	R+Ra+P+D+B
1991	3-crime region	342	K+D+M
2001	4 crime region	522.9	D+T+M+Ch
2011	3 crime region	1200	T+Ch+K
2021	1 crime region	783	T



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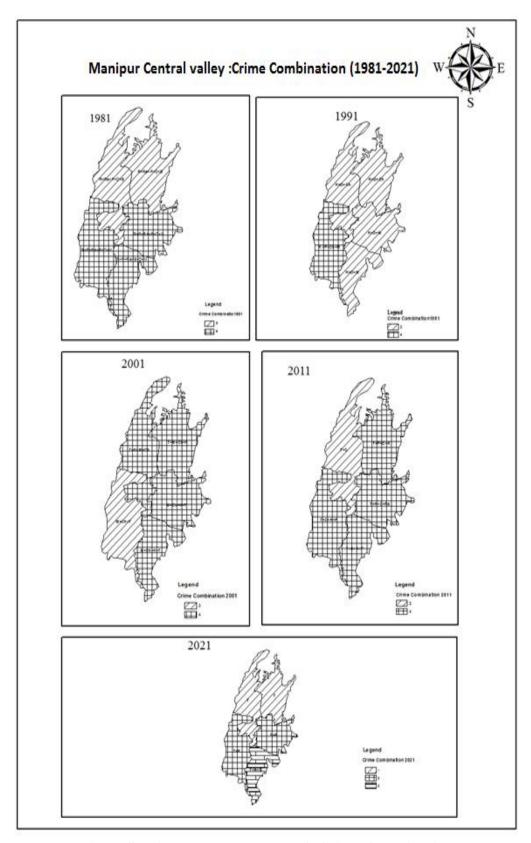


Fig.1. Spatio-temporal pattern of Crime Combination

The district-wise combination of the Manipur Central Valley has been given in Fig. 2. From the fig., we can see that, in 1981, the Imphal region had five 5 combination of crimes, with robbery being the



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dominant crime with an index of 727, whereas for other districts such as Bishnupur and Thoubal, the index was 1062, with robbery being the dominant crime.

In 1991, the crime combination in Bishnupur was 4, followed by Thoubal and Imphal. The most dominant crime was kidnapping and abduction. Thoubal had the highest combination index (3009.9), and the Imphal region had the lowest (214).

In 2001, the combination of the three districts, namely Imphal East, Imphal West, and Thoubal, had four crime combinations with an index of 323,1199.8 and 209, respectively. Bishnupur was the only district that had a 3-crime combination with a 562 index. Overall, the dominant crime was theft and murder.

In 2011, Imphal East, Bishnupur, and Thoubal had 4 crime combinations, and Imphal West had 2. The index for the combination was 351 for Imphal East, 509 for Bishnupur, 390 for Bishnupur, and 1512 for Imphal West, respectively. The dominant crime was theft, not amounting to murder, preparation, and assembly for dacoity, and kidnapping and abduction.

In 2021, Imphal West and Imphal East had 1 crime combination, Thoubal and Bishnupur had 2 crime combinations, and lastly, Kakching had 3 crime combinations. The index was 463 for Imphal West, 504 for Imphal East, 1128 for Thoubal, 1842 for Bishnupur, and 888 for Kakching. Overall, theft, kidnapping, and abduction were the dominant crimes.

#### Conclusion

Society is a complex of forms of processes, each of which is living and growing through interaction with others. Central Valley had many social groups and a population of 18 lakh in 2021, and changes in the social system in the decade had resulted in the cause of social crime. Crime is dysfunctional for society. The spatio-temporal analysis of crime over the past few years indicated that crime is correlated with time and space. The dominant crime is quite dynamic in nature and is a manifestation of the cultural, social, and political ecology of the urban and central valley regions.

In the past decade, the crime was quite diversified (a combination of five crimes) but gradually, as society changed, the crime was in a state of one combination. The dominant crimes were robbery in 1981; kidnapping and abduction in 1991; dacoity in 2001; and theft in 2011 and 2021.

In Manipur's central valley, theft is increasingly emerging as the most prevalent social crime. The intentional taking of any movable property from another person's ownership without that person's consent by means of a deceptive act of moving that item is known as theft Theft is punishable by any type of imprisonment for a time that can go up to three years, a fine, or both.

Theft is considered an economic crime. Unemployment and unplanned population growth in urban areas such as Imphal may be contributing to increased crime. In addition, assessing the diversity's intensity is necessary to gain a spatial picture of social crime in the valley.

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