

A SPATIO-TEMPORAL STUDY OF OFFENCES IN GOA - SOME OBSERVATIONS

Dr C. P. HIREMATH.

ASSO - PROFESSOR IN GEOGRAPHY

SHREE MALLIKARJUN AND C M D COLLEGE

CANACONA SOUTH GOA, GOA.

ABSTRACT

The evolution of offence in the society though present rather obscure, it was gradual, ever since the dawn of civilization. It has been recognized that if people are to co-exist harmoniously, they must have some common rules of conduct covering their relationship with one another. The need for a set of rules to govern such a relation between different individuals was inescapable in the interest of the community throughout the ages. Communities have taken pains and make efforts to formulate a code of laws and system of enforcements acceptable to society. The smart changes in our society at varying intervals had laid down code and instruments used to enforce.

Study on the spatial pattern of offences in goa is an attempt to know about the prevailing status of offences, measures taken to contain the offences and their spatial aspects. The police personal does focus on the details pertaining to offences, designated geographical area of the concerned police station, nature of offences in the locality, period and pattern of reported cases, cases of serious nature (cognizable) etc. Similar efforts undoubtedly made to address the issues related with offences. The prominent indicators viz, police stations, police station geographic boundary, police station - population ratio, population - police staff ratio, etc are some of the common and needed to measure the status and standards of safety in the administrative region or state. Same could be used to measure the infrastructure to create, enforcement of law and order, balanced distribution of population-based police services etc. The results reveal the inequalities in the safety measures within and between the taluks of the study area over the period. Some of the taluks were better placed against other. On the whole coastal towns or taluks have noticed greater concentration of offences against rest.

(Key words- Offence's parameters ratios spatial pattern temporal variation)

INTRODUCTION

Offence, a violation or breach of law, custom, rule or any public wrong, need to be prevented. The spurt in offences need to be seen in total, either of cognizable or non - cognizable. The police personal may make some needed checks to prevent the offences, with specific objectives, The agencies do make efforts to maintain public order and enforcement of Law in the designated geographic space (2). Study on the pattern of offences in the spatial context may help to check the incidences, to maintain Law and order, to have offence free society, keeping some of the spatio functional aspects in the mind.

MEANING AND CONCEPTS

Offence an act of a fault, crime, unlawful, causing displeasure etc. by a single or group of individuals in a place, which affects the sensibility and displeasure among the people, may lead to outrage among the citizens of the locality. Offences are divided into two categories Cognizable and non-cognizable offences. Cognizable offence (serious matter) where in police has the authority to make an arrest without a warrant. The police may initiate investigation with or without the permission of a court (2). Non cognizable offence, does not have the authority to arrest without a warrant or an investigation and cannot initiate step.

SELECTION OF THE TOPIC

The study area known for its distinct identities in its socio-cultural aspects apart from physical. Many of the human activities in the state get congregated in a small geographic space more so beaches and towns, that too with seasonal nature (Tourism). The general observation by a person itself makes him/her get motivated to explore further. In this regard we geographers tend to explore the spatial disparities of geographic aspects. The selection of the topic was based on the facts (Table) to know the status of offences, types, spatial disparities in the study area (1995-2010) based on available data.

HYPOTHESIS

- 1) The study area has uniform number of non-cognizable and cognizable offences.
- 2) police station and its designated geographical area to monitor is uniform 1995 – 2010.
- 3) Concentration of number of offences are in the coastal taluks than interior talukas 1995 to 2010.

OBJECTIVES

- 1) To know the spatial pattern of offences in the state.
- 2) To know the status of offences over the years (1995 – 2010).
- 3) To find out the number of offences and its variations in the state.

DATA AND METHODOLOGY

The present study on spatial pattern of offences in goa has been carried out on the bases of data and information from published and unpublished sources. The economic survey govt of Goa, Goa at a glance, unpublished information of ministry of home govt of Goa. The obtained data had been classified and considered for the process to obtain needed results. Simple statistical tools have been used to derive the results for the study period 1995-2010.

STUDY AREA

Goa, small 25th state of India located on the central part of western coast. In the North bordered by Sindhudurg district of Maharashtra state and in the East and South bordered by Belgaum and Uttara Kannada districts of Karnataka. The extent extends from 14° 53'54'' - 15° 40'00'' North latitude to 73° 40' 33'' - 74° 20' 13'' of East longitude. It has a length of 105 km from north to south and 60 km in width west to east. It covers the total geographical area of 3702 sq. km. The state comprises 11 taluks in two districts with towns viz Margao, Panjim, Mapusa, Vasco and Ponda. The state stands 16th position at national level with regard to density (394) of population with higher sex ratio (national average 940). Goa stands at 4th position in literacy (88.70 %) in the country. North Goa district has higher urban population (4,93,081, 54.38 %) than south Goa district (4,13,733. 45.62 %) nearly 5,77,248 persons (39.58 %) were working population to the total in the state. (1)

ESSENTIAL PARAMETERS TO IDENTIFY THE STATUS IN THE STUDY AREA

TALUKS	GEOG AREA	POPULATION TOTAL	NO OF POLICE STN	POPULATION PER P STN	POLICE STAFF TOT	POLICE STAFF PER POL STATION	POPULATION PER POLICE STAFF	GEOG AREA PER POL STN
TIS	214	160091	3	53363	325	108	493	71.33
BARZ	264	227695	3	75898	301	100	756	88
PER	252	71999	1	71999	76	76	947	252
BICH	239	90734	1	90734	134	134	677	239
SATTR	496	58613	1	58613	68	68	862	496
PON	293	149441	1	149441	216	216	692	293
SNG	824	64080	1	64080	53	53	1232	824
CAN	352	43997	1	43997	64	64	687	352
QPM	318	74034	2	37017	105	53	705	159
SALCT	293	262035	4	65508	416	104	630	73.25
MURM	109	144949	4	36237	291	73	495	27.25
TOTAL	3702	1169793	24	48741	2049	85	571	134

The average values of state/taluka wise distribution of expected ratios with regard to population – police station (46,741), population – per police staff (571), police staff – police station ratio (85), population - average serving geographical area (134 Sq. Km) indicates wide variations within the taluks. Nearly (73% - 82%) of the taluks have more than the average expected figures of the state some taluks have extreme number than the average. Only 2 – 3 viz Murmagao Sanguem and Canacona (18% - 27%) taluks were within the expected figures of population-based ratios, display inequalities among the taluks in the state. In the absence of the specified yardstick in each indicator some of the taluks fail to fulfil the requirements which forced them to continue with the inadequate support. The police station and the cases of cognizable offences ratio in each taluk ranging from 77% (Sanguem 1995) to 24.83% (Ponda 2004). Rest of the talukas display contrasting figures viz Bicholim Quepem and Canacona.

SPATIO TEMPORAL ANALYSIS OF OFFENCES OF NON-COGNIZABLE

The spatial analysis of cognizable and non-cognizable offences reported in the respective taluks of goa from 1995 – 2010 had been considered to analyse. The variations in the total number of offences 14201 (2007) 20679 (1995) over the years shows table no 1 a sign of decrease among the eleven taluks, may be seen as the areas of concentration. The composition of non-cognizable offences were more than the cognizable offences in the state.

TALUKA WISE DISTRIBUTION OF NON-COGNIZABLE OFFENCES IN GOA IN GOA 1995-2010 (figs in number) TAB NO 1

YEAR	TISW	BRDZ	PERN	BICH	SATT	PON	SNG	CAN	QPM	SAL	MRM	TOTL
1995	2197	3136	776	1069	652	1734	561	728	1526	6527	1773	20679
1996	2698	3984	831	955	669	1464	900	642	1233	4744	2468	20588
1997	2222	3798	729	969	693	1571	951	715	1238	4854	1655	19395
1998	2353	4097	612	967	831	1570	1030	685	1075	4129	1645	19294
1999	2353	4097	612	967	831	1570	1030	685	1075	4129	1645	19292
2000	1718	3865	788	362	655	1382	478	611	1081	4043	1816	16799
2001	2295	4024	749	888	620	1176	894	623	964	5230	1806	19269
2002	2285	4159	682	960	537	1463	437	562	1062	4540	1988	18675
2003	2032	4256	568	836	532	1117	806	553	835	4386	1891	17812
2004	1972	4531	574	1307	670	1510	769	552	926	4134	1661	18626
2005	2210	3947	714	945	564	1370	601	526	1024	1330	1239	16470
2006	2210	3947	714	945	564	1370	601	526	1024	1330	1239	16470
2007	1966	4584	708	1131	540	1673	697	412	727	3399	1394	14201
2008	1567	3960	743	1004	570	1408	617	541	680	3434	1222	15746
2009	2047	3984	672	846	492	1153	600	479	816	3745	1245	16079
2010	1909	3788	614	708	460	1174	559	477	770	3462	1130	15141

The figures of table no 1 comprises taluka wise distribution of offences of non-cognizable nature from 1995 – 2010. The high concentration (65%) of the reported cases in 25% of the taluks viz Bardez Salcete and Tiswadi. Rest (75%) of the taluks comprises (35%) of the registered offences against the interior taluks viz Satteri Sanguem and Canacona. Similar result register in case of year wise reported cases. The numbers of non-cognizable offences are ranging from Canacona (412, 2007) to Salcete (6527, 1995). The figure in the respective taluks reveal many taluks were of north goa district in comparison to the taluks of south goa district. The taluks of Quepem Ponda Murmagoa were placed in the range of 1526 – 2468 reported offences. The figures in the respective taluks over the years reveal the unusual scene of offences of non-cognizable nature. (2) (5)

SPATIO TEMPORAL ANALYSIS OF OFFENCES OF COGNIZABLE

The study on cognizable offences has significance because of its serious nature of offence, though the number of offences were less compared to non-cognizable offences. The total number of offences, their spatial concentration (taluks and year wise) in the state was too discrete over the years 2176 (2004) 7649 (2007) Table no 2. The spatial and periodic distribution of number of cognizable offences were 1/4th of the total reported cases, against 3/4th of the reported offences of the non-cognizable nature. Among the taluks the highest number of reported cases were in Salcete Tiswadi and Bardez, compared to rest of the taluks.

TALUKA WISE DISTRIBUTION OF NUMBER OF COGNIZABLE OFFENCES IN GOA 1995-2010 (FIGURES IN NUMBERS) TAB NO 2

YEAR	TIS	BARZ	PER	BICH	SATT	PND	SNG	CAN	QPM	SAL	MUR	TOT
1995	623	697	103	326	99	343	60	41	122	732	299	3445
1996	471	728	95	249	119	344	101	98	103	603	411	3322
1997	315	544	51	194	110	236	99	88	111	628	351	2784
1998	400	648	71	179	101	282	126	77	101	769	358	3112
1999	400	648	71	179	101	282	126	77	101	769	358	3112

2000	412	447	74	95	58	209	59	72	129	846	429	2840
2001	401	445	62	97	53	169	96	45	114	631	303	2416
2002	372	395	56	123	48	213	21	80	135	961	371	2775
2003	374	574	81	124	48	215	81	37	83	567	254	2411
2004	315	487	101	62	41	226	89	29	107	513	206	2176
2005	395	420	86	116	54	167	109	39	123	475	200	2176
2006	395	420	86	116	54	167	109	39	123	325	200	2176
2007	336	404	109	126	43	147	81	58	97	454	330	7649
2008	376	524	114	139	42	204	97	62	116	611	360	2645
2009	431	533	117	125	50	183	119	89	114	700	251	2712
2010	520	700	155	165	69	238	96	105	101	864	290	3303

Taluka wise variation of cognizable offences, been considered to identify the area. The table no 2 show the taluka wise distribution of cognizable offence 1995 to 2010. The cases ranging from 21 cases 2002 Sanguem to 864 2010 Salcete, The highest number of registered cases from 1995 – 2010 were In coastal tourism activities based The given table show the ratio of police station and cognizable offences of the talukas in the state show high variations In both table no 1 and table no 2 shows 60% of the offences confined to these taluks rest of the 75% of taluks composed of 25% of the offences. Which reveals the presence of hot spots of offences might have bearing link with tourism and urban based activities. The recurrences of the similar results are to be addressed in detail to explain the concentration of cases. (5) (6) (7)

COMPERATIVE ANALYSIS OF OFFENCES

In this the attempt was to explore the relative variations within the offences of cognizable and non-cognizable cases over the years (1995 – 2010). Though the total number of offences 17391 (2008), 24124 (1995) remain same, the number of cognizable offences 2176 (2003) 7649 (2007) have increased against the non-cognizable cases. The pattern of offences 17391 (2008) 24124 (1995) appeared unstable against the decreasing non cognizable offences.

The variations in the number of offence cases over the years reveal (table no 1,2, and 3) the presence of concentric hot spots/taluks in the study area. some of the taluks to report a greater number of offences of diverse nature. The average number of cases handled by each police station varies from 717 (2005) to 1049 (1995) followed by rest of the years. The concentration of offences in the taluks too have diversities among the types of offences.

NUMBER OF COGNIZABLE AND NON-COGNIZABLE OFFENCES AND AVERAGE RATIO IN GOA 1995 – 2010 (FIG IN NUMBERS) TAB NO 3

YEAR	NON COGNIGNABLE CASES	COGNEGIBLE CASES	TOTAL CASES	CASES PER POLICE STATION
1995	20679	3445	24124	1049
1996	20588	3322	23910	1040
1997	19395	2784	22179	964
1998	19294	3112	22406	934
1999	19294	3112	22406	934
2000	16799	2840	19639	818
2001	19269	2416	21685	867
2002	18675	2775	21450	894
2003	17812	2411	20232	778
2004	18626	2176	20802	800
2005	16470	2176	18646	717
2006	16470	2176	18646	717
2007	14201	7649	21850	840
2008	14746	2645	17391	669
2009	16079	2712	18791	783
2010	15141	3303	18444	769

SUMMARY

the study on spatial patter of offences in goa consists of both cognizable and non-cognizable caeses in which non cognizable cases show decrease against cognizable offences from 1995 to 2010 more number of cases reported in the taluks of north goa district as

compared to south goa district. The numbers of cognizable cases ranging from 21 sanguem to 961 salcete other taluks too have descreet values over the years

The police station and the total offences ratio is also low in 717 2005 high in 1049 1995 .the Spatio temporal distribution of police stations in the state over the period of 1995 to 2010 improved in terms of population against the geographical area to be served taluka wise variation of police station, population ratio, total population per police staff, have been considered identify area .The above table represent the police station and population ratio from the year 1995 to 2010 shows the variation in the police station and population ratio over the years. The high fluctuations in police station and population are found in Ponda, Sanguem, Marmagao, Salcete, Tiswadi etc. The police station and population ratio is ranging from 37017 (Quepem) to 149441 (Ponda) taluka shows highest police station population ratio followed by Bicholim (90734) rest of the taluks have high values than the state average ratios 45741 than the taluks of Murmagao Quwpem and Canacona (below average ratios) in the state. The concept of people police personal ratio reveals a contrast scene and may not be the suitable in case of goa a tourist destination. The reported cases of offences were high in the taluks of Salcete Bardez and Tiswadi (Tourist's hub) against the interior taluks. The people - police personal ratio (table no 4) was low in the talukas of coastal belt against the talukas of interior. The population per police staff ratio shows high variations among the talukas Sanguem (1232) followed by Pernem (947) and Sattari (862) against the rest of the taluks Tiswadi 493 Salcete 630 Bardez (756).

CONCLUSION

The observations and analysis reveal that the number of police stations, police station - population and geographical limit ratio, population - police staff ratio shows contrasting results. among the 11 talukas of two districts south goa district was in a better placed against north goa district. On the whole coastal towns/taluks have noticed greater concentration as well as attention against the rest. There is a need to add more police stations with police personals according to the designated geographical area followed by population served under each police station. The cognizable offences ratio in the state need attention than the non-cognizable offences to minimise the disparities in the police services in the state. The present parameters are not enough, further in-depth study is needed to contain offences and to achieve offence free society.

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