

SPATIAL DISTRIBUTION AND TYPES OF RURAL SETTLEMENTS OF NADBAI TEHSIL

(A Geographical Study)

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ABSTRACT

The Geography of rural settlements is a recent sprout of the vulnerable trunk of Geography science. Although the scientific methodology on various aspects of habitations analyses was not developed until the present century. Its antecedents may be traced in important writings which developed gradually increasing attention to human habitations from the geography first began its modern moorings in the 18th and 19th century. The study area is a great producer of the cash crop mustard, there is a great scope of the growth of oil based industries. This will decrease the unemployment in the area and the pressure on the land will also be less and the backwardness of area will end. This will make the all round development of the area a distinct possibility. This paper focuses on the morphological differences, spatial pattern and distribution of rural settlements of Nadbai Tehsil of Bharatpur district of Rajasthan.

KEY WORDS

Rural settlements, spatial distribution, terrestrial space, flood prone area, human habitations, hamlets, topography.

INTRODUCTION

Rajasthan is a land of diverse characteristics. Its physiography consists of 'Maru', 'Meru', 'Mal' and 'Maidan' (plain). Nadbai Tehsil of Bharatpur district is a part of eastern 'Maidan'. Culturally, it is a part of holi land Brij Bhumi of the south-western Uttar Pradesh and is important socially. Rajasthan is the home of variable social groups. Prior to independence, it was divided into small kingdoms of various Rajput clan, except the kingdoms of Bharatpur and Dholpur which were being ruled by Jats, since mid eighteenth century. Nadbai Tehsil is an important part of former Bharatpur state, where Raja Badan Singh laid the foundation of Jat state. This region lies in the catchment area of the river Banganga a tributary of river Yamuna. It consists of fertile land, and irrigated by Banganga river. The area under study has been selected keeping in view special characteristics which differentiated the region from other parts of Rajasthan. It is the eastern gateway of Rajasthan. Its highly productive land is having densely populated villages of various social groups. It has a typical rural-pastoral economy. Primary aim of the proposed research work is to analyze of this culturally rich area in terms of space and time from the points of settlement geography. Administratively the area under proposed investigation is in Nadbai Tehsil of Bharatpur district. From the point of view of the convenience of data collection and compilation, this study has been confined to Nadbai Tehsil of Bharatpur district, which is a part of 'Brij' culture and physically a part of Banganga plains. Jat population of this area played a major role in the shaping of socio-economic and culture landscape of the plain, and therefore, it would be worth while to concentrate on their responses to environment to access geographically and historically the land and the people.

OBJECTIONS OF THE STUDY

- the aim and objectives of this study include;
- to examine the spatial distribution pattern of the settlements in the context of geographical environment of this area.
- To analyses social and cultural patterns as developed by the people.
- To examine the contribution of jat rulers in developing the socioeconomic and ethno-culture pattern under the contemporary geographical conditions of the area.
- To examine the areal differentiation in rural areas in the context of village morphology.
- To find out the relationship between caste and primary occupation, field system, innovation, etc.
- To find out relationship between social groups and rural settlements and house types, and
- To review and suggest the prospects of development of the habitat and society as found in the area.

METHODOLOGY

The present work on “spatial distribution and types of rural settlement of Nadbai Tehsil” has been planned to be completed in various stages. In the first stage basic material available on this subject in and outside India has been studied to form concepts and hypothesis in these aspect of geography. A detailed bibliography has been prepared on theme of investigation and some relevant literature was sorted out to become familiar with the rural settlement characteristics of the area under study. Another important step taken to complete the project is the collection and data both the primary and secondary, but for the deep study of geographical background of the area, secondary data has also been collected from various government and quasi government agencies in whatever from published or unpublished. Since after 1931 census, caste wise enumeration of population has been given up due to several socio-political reasons, and there is no other way but to depend on 1931 census data for study of caste and its various parameters at national scale. We know very well that various major changes including the major political event of partition of the country took place between years 1931 and 2011. This has resulted in a lot of population movement from one region to another region. Primary data necessary for analyzing cases and identifying prospective places of social activities has been collected through questionnaire. The sampling method of enquiry has been used by the investigator. The work is mainly based on the field trips and visits to most of the places (selected by random and stratified sampling) of Nadbai Tehsil. The present work can humbly claim originally in the limited sense because the theme has so far not been attempted by any geographer and that the analysis and interpretation provided herein will further open new vistas in this sphere of knowledge.

In a wider sense, the term settlement denotes the humanization of the natural landscape by man, in a restricted sense of settlement geography. It is defined as cluster of houses including the surrounding lands usually grouped at a convenient site and generally without any formal plan it is manmade habitat on the earth’s surface, “representing an organized colony of human beings including the building in which they live or work or store or use them otherwise and the tracks and streets over which their movements take place. The building along with the streets are relatively permanent and visible elements of the landscape and these two together constitute the two fundamental features in settlements geography. The rural settlement is, as compared to its urban counter-part, a relatively small and simple agglomeration of such building at a favourable and convenient site. They are spread over a given rural landscape in different patterns. The nature of distributions depends upon the scale with which they are observed. “Areal variance in distribution, spatial difference in occupancy, pattern, intensity and density are the characteristics of almost all distributions in terrestrial space. Although every settlement has its individuality and wears a personality of its own, yet, by and large, the distribution, pattern and types of rural settlement are governed by interacting attractive and restrictive forces of both natural and cultural phenomenon. In the selection of settlement sites, man is usually guided by both the attractive and restrictive forces of physical setting. In initial stages, settlement is primarily influenced by the environmental of factors and further by the stage of social-economic development and culture of human groups.

It is necessary to point out a clear-cut distinction between a village and a hamlet and to see if there exists any difference between the two in the study region. Though the village has been an important form of the settlement fabric yet no precise and readily acceptable definition has been proposed. It is generally assumed that a hamlet is smaller and less compact than a village and that it lacks some of its amenities, just as a village, in turn, is less built-up than a town and is without some of the facilities a Town provides. The term, 'village', in India context, is generally used as a "group of land holding, with (usually) a central and in many a case scattered aggregate of residences, the inhabitants of which have certain relations and some kind of union or bond of common Government". Thus, by village we mean a human aggregation bearing distinctive place name and usually surround by agricultural levels associated with its territory. Census of India defines villages as an Administrative unit and remarks that it "represents a patience of land, the boundaries of which are defined and settled by a revenue survey. It may be, but need not always necessarily be, a single house-cluster with a local name, making its distinctive as residential". Thus, through the term 'village' usually stands for a mauza or a revenue unit, yet it is also a unit of human settlement within the mauza territory in most parts of the country; some of the village territories or mauzas, however, are bechiragi (na-chiragi i.e, without light, uninhabited deserted). In the study area, a village includes a clusters. The largest inhabited site is known as 'main village' while it may have one, two or sometimes more additional hamlets distinguished by different names, generally suffixed or prefixed by some words like Pura, Tola, Toil etc. These hamlets generally form small clusters of homesteads in the village territory situated at a distance from the main settlement site, mostly traditionally occupied by mixed or depressed castes or untouchables etc. There are some examples of hamlets inhabited by higher castes also in which different groups live more independently. These units may be considered as settlement cells or sub-villages.

DISTRIBUTION AND SITING OF RURAL SETTLEMENT

The study area shows a remarkable variability in forms and distributional patterns of rural settlement which are closely related to their sitting, Shape and size. The distributional pattern has been guided on one hand, by the physical environment factors such as relief, source of water supply, drainage, soil, conditions, and other local ecological phenomena, and related to various socio-economic conditions such as land use, land tenure, crop association, means of transportation and communication and density of population on the other. Such a situation as the 'Usar' infested lands, bad drainage the flooded-prone areas are the main restrictive forces for the uniform distribution of settlement on the Banganga plain while the stony waste, forest lands and Inadequate or difficult means of water supply have greatly restricted the choice of settlement sites over the more or less up land in the region. The rivers have played an important role in the selection of sites for human habitations and the settlement seem to have followed the swing of the rivers in many cases, particularly in the ravine areas. The cultural factors such as markets, highways, and railways seem to have had traditionally little direct influence on the general distributional aspects of rural settlement, as the setting process in general had ended before the railways or modern road transport system. As a response to the modern development of transport and communication, however, some advantageously located village and hamlets have added their function as small market centers along the roads, e.g. Aroda ,Hantra, Dahera, Lulhara along the Highway road No.-11 and Bailara, Budhwari Kalan, Budhwari Khurd, Negla Khatoli Nadbai to Dahera Mod Road, Luhasa, Bharamda, Manjhi etc. Nadbai to Kumher, Khangri, Bhausinga, Jharkai, Gudabli, Peeli are on Nadbai to Halena Road. Akhaigrah, Eekroo, Baroli Chhar, Katra, Isapur, Nadbai to Kherligaanj (Alwar), Bhadeera, Roneeja etc. Nadbai to Nagar, some hamlets along the road have grown up into large compact villages, e.g. Roneeja, Bhadara, Kawai, Budbari Kalan, Budbari Khurd.

The well-marked bluffs (Natural levees) of the Bangana river have provided suitable and expansive sites for the growth of large compact villages, taking advantages of the large fertile tracts behind the bluffs for agricultural occupation. Mai, Lakanpur, Gobra, Hontra Nagla, Mai and Jhanghirpur clearly exemplify such bluff site development of villagers, with streets lying parallel to the course of the river. It is remarkable to find some contact point settlements in the south of the study area of the Highway No-11 where the routes meet plain below. These contact points have supported large compact villages, e.g. Dahera, Aroda, Hantra, Lulhara, Budbari Kalan, Budbari Khurd, Bailara, etc. In the lowlying flood-prone areas, which have fertile, unusually siltloadern soils an expansive areas to support their large population, but which

lack suitable and safe and large sites to accommodate large population, have grown up with the erection of massive protective embankments which have provided facilities to settle compact village, e.g. Dahra, Lulhara, Utarda, Lalpur, Khatoli, Sahaipur, Raina, Binua, Milkipura etc. These examples show valley villages the river forms one of the boundaries of the strip or wedge-shaped revenue villages (mauza) providing them a valley frontage as well as a share in the wet and fertile valley bottom” the shelving banks are liable to be affected by annual floods of the Banganga river. On such shelving sides, settlements lie at a distance of few furlongsw from the bank, but on the opposite, high banks which are not sub-merged under ordinary floods, settlements hug the bank, e.g. Enchera, user, Ganroli, Herera, Sirsai, Roneeja, Kailoori etc.

Tank-site settlements are the important and in Bharatpur District. In these areas, tanks have provided facilities for the growth of compact villages. The High water table as well as the level fertile plain has favoured evenly distributed and small compact settlements with some hamlets. In the mustard producing area, topography and water supply have played a great role in determining the sites of compact villages. The mustard producing area in Khadar and Bangar areas is characterized by an even distribution of compact settlements. The dispersed types of settlements are very few and limited in space coverage. The dispersed settlement in the low line (bund) are distributed to the lower land capabilities as only rabi (winter) crop can be grown in these which largely remain submerged under water in the rainy season and no Kharif or Bhadaï crops can be raised.

SIZE OF VILLAGES

Though the study area is a small one yet it displays several size groups in its limited area. For instance Enchera, Kaloori, Roneeja and Bhadeera villages with the lowest density of village 20, 30, 29 and 32 per 100 km square have the highest areal size of villages of 5.76 to 3.71 per km square respectively. On the other hand bachhamadi, pingora, Atari and tohila villages enjoying the highest density of 80 to 100 have the lowest areal size of 1.2.4 to 1.60. in the remaining villages also, there is negative correlation between the density and areal size of villages, that is the higher the density of villages per unit area, the lower the areal size of the villages in that area and vice versa. The study region is a land of small villages, about 65% of the total villages of the Tehsil, as compared to over 83% in the state of Rajasthan as whole, are small in size i.e.<1000 population. The incidence of medium size village (500-1999) is higher both in number (54.40%) proportion (45.30%) than that of the state. The percentage of large sizevillage(2000-4999) is low (14.97) than very low 3.40 in the state.

SPACING OF VILLAGES

It is obvious that a country as vast and varied in its spatial character would displayed an equally striking variation in spacing of rural settlement. This is effectively revealed in the range of variation from a minimum of 1.18 km. in Arunachal Pradesh in NE India. For India as whole, the spacing of rural settlements comes to about 2.68.km. while that in the study area is 1.98 which is little less than that of the state(2.46). within the region kawai and pinghora areas have the largest value of the size of villages of 3655 and 2647 persons with the largest spacing value of 2.07and 2.59 km. respectively. On the other hand, areas enjoying the lowest values of sizeof villages like Talchhera, Baroli Ran and Utarda with 1598, 1461 and 1410 persons have the lost lowest spacing value of 1.20, 1.74 and 1.42km. respectively. As such the spacing and size do not reveal an inverse correlation, rather they appear to be directly correlated.

LOW SPACING (<1.50KM.) :

Low spacing is obtained in Akhaigarh, Baroli char, Baroli Ran, Telchhera, Utarda, Noytha,Piprau, Khangri, Katara, Nayawas, Karoli and Gagwana covering an area of 35.9% of the total area. It displays a variation of spacing from a minium of 1.20km. in Talchhera to a maximum of 1.49km. in Akhaigarh. It is characterized by the less spacing value than state average of 1.80km. the size of the villages varies from a minimum of 1218 persons in nadbai Tehsil. With in the study area Talchhera has small-sized villages and 100 spacing value but small-sized villages and low spacing value but moderate rural density (513). The incidence of net sown area to the total area is 91% Nadbai rural area enjoys the highest rural density figure(296 per km) with moderate size of village due to such facilitative factors as availability of water supply for agriculture and domestic needs, soil fertility, protective sites offered by the Banganga and better articulation of

the means of transportation and provision of various social amenities and urbanizing influences of fast expanding Town of Nadbai. Nayawas, Utarda, Baroli Ran, Kareeli and Baroli Chhar contain the spacing values 2.1, 1.42, 1.46, 1.43, and 1.48km. have population size of villages of 1156, 1410, 2290, 2615 and 3229 respectively.

MODERATE SPACING (1.50-2.00KM.)

The value of moderate spacing ranges between 1.51 (Baharamda) and 1.99 (Raisees), other denoting figures in between Bachhamdi (1.59), Dahera (1.65), Gadauli (1.76), Gangroli (1.55), Jahangirpur (1.70), Hantra (1.55), Jharkai (1.57), Luhasa (1.70), Manjhi (1.65), Nam (1.60), Pahersar (1.80), and Unch (1.69). High spacing is obtained in more than Half area of the Tehsil (54%). The density of village ranges between 29 (Raisees) and 50 Baharamda and the rural density varies from 435 (Atari) to 705 (Karhi). The size of villages has also greater range of variation from a minimum of 1201 (Atari) to maximum of 2886 in Hantra.

HIGH SPACING (2.00- 2.20KM.)

Kawai and Roneeja with spacing values of 2.59 and 2.07 km and population size of values of 3655 and 2142 respectively are included in this category. It covers about 6% of the total area. Within the study area Kawai has the highest size of village but moderate spacing due to mainly protective embankments, the availability of water supply and fertile level land. This gram panchyat shares about 48% of net sown area to the total area. The rural density varies from 360 to 572 per Km.²

VERY HIGH SPACING (>2.50 KM.)

Pingora gram panchyat area has the highest spacing value (2.59km) in the study region, denoting more than the state average and something less than the country average. It has the lowest rural density (303) with the fifth largest size value (92647). It is clear from figure that there is inverse correlation between the spacing and the size of rural settlements. It is characterized by sparsely populated villages with hamleted structure and villages being widely spaced due to almost regular incidence of floods. Most part of this Gram Panchyat remains submerged during rainy season, which restricts agriculture productivity by taking one growing season off and thus curtailing the supporting capability of the land.

NATURE OF DISPERSION

The rural population (127668) of the area lives in 114 inhabited and 1 uninhabited (be –chiragi) villages which gives an average unit area of 2.39 Km². for one village. This results in average inter-villages distance of approximately 1.10 km. which is lower than that of the state (2.3km²) and the country (2.6Km²) due to its location in the fertile alluvial region of Banganga valley, uniformity in rural settlements distribution, and high density of population. This distance between house clusters represents a balance between the two socio-economic forces, i.e., ‘socio-economic condensation’ – arising from a tendency to cluster in large communities for various reasons, sustaining social and cultural cohesion and also safety and security together; ‘economic evaporation’, originating from the greater efficiency due to the proximity to the agricultural land. However, the latter tendency could not have had full economic play in the past. This inter village distance or the degree of dispersion is a product of various factors too, that some times work in harmony and sometime in conflict among themselves. Though the agrarian set up, land tenure and human influences have played a major role of modification and transformation, yet the forces determining the present rural settlement pattern have been mainly physical-ecological in character with their direct and indirect influence on the early setting process.

Various statistical indices have been developed to measure the degree of dispersion and concentration, but there is no precise connotation. In fact, significance level varies from region to region due to physio-cultural disparity. An attempt has been made here to measure the degree of dispersion taking the basis of observed mean of nearest inter-village straight line distance (r1), density of village (d) and expected distance (re), the method being termed as ‘nearest neighbor distance approximation analysis’. In this analysis it is assumed that points are distributed randomly. Where it is supposed that each location has an equal chance of containing a point, while in the real world situation “Settlements are not always evenly spaced, nor on the other hand they are spaced in strictly random pattern”⁵. Thus, dispersion indicates ‘the degree of deviation of a set of point from random relative to some delimited area’. The index of randomness (R1) is computed by using the formula developed by plant ecologists, Clark and Evans.

This R_1 value reveals a measure of the degree to which the distributional pattern of the actual inter village distance deviates from rE is made about the hypothesis of poisson probability on the basis of standard error (σrE), which is given as (Ibid):-

where, n indicates the number of total villages in a real unit and d represents density of village per km^2 the upper and lower limits of random matching at the 95 % probability level will be computed with the help of σrE (singh)⁷.

this shows the range of random matching at the 95 % probability level and reveals that three blocks or areas in the study region come into the random range , i.e. Nadbai rural. The width of the range of randomness depends upon the number of points (villages). The range will be small and if the number of points is small, the range will be large.

The dispersion pattern of villages may be classified into four categories on the basis of R_1 value;(i) low dispersion (<1.00), (ii) high dispersion (1.00-1.50), (iii) moderately high dispersion (1.50-2.00) and (iv) very high dispersion (>2.00).

LOW DISPERSION (<1.00)

It lies in only two gram panchayats, i.e. Katara Rural (R_1 0.88) and Nayabas (0.90) covering an area (4.38%) of Tehsil. The observed inter village distance is 0.70 km. while the village density (per 100 km^2) is relatively low (<65).

MODERATE DISPERSION (1.00-1.50)

It spreads over the Gram Panchayats of manner. (R_1 1.16),Kawai(1.38), Atari, (1.48), Bachhamdi, (1.18), Bhadeera, (1.37), Gadoli, (1.15), Khatauti, (1.40) Mai, (1.47) Nam, (1.15) Raises and (1.34) Unch.it covers an area of 1862.2 km^2 (3.5%). the village density is low (<50). The observed inter-village distance varies from a minimum of .15 km in Raises Panchayat to a maximum of 1.48 km in Bachamdi panchyat.

HIGH DISPERSION (1.50-2.00)

It is scattered over Akhaigarh(1.76), Baharamada (1.62),Baroli Ean (1.52), Baroli chhar (1.67), Dahra (1.59), Gagwana (1.67), Gangrali (1.60), Hantra (1.59), Jhangeerpur (1.60), Jharkai (1.71), Kareeli (1.69), Karahi (1.61), Khangri (1.76), Kheridevisingh (1.59), Lakanpur (1.54), Luhasa (1.56), Nyotha (1.90), Paharsar (1.55), Paraswara (1.63), Pipru (1.89), Talchhara (1.87) and Utarda (1.82). it occupies an area of 52.23 percent. The village density ranges between 48 (Hantra) and 52 (Akhaigarh). The observed inter village distance varies from a minimum of 1.02 (Khangri) to a maximum of 1.33km (Gangwana).

VERY HIGH DISPERSION (>2.00)KM.

Within the entire area, Enchera, Pingora and Ronerja have the highest R^1 value of 2.25, 2.12 and 2.03 respectively. They have also the highest observed inter-village distance ranging between 1.92 km and 2.42km. it covers an area of 8.49 percent.

In the present study, the deviation index of nearest neighbor statistics has been tested by the use of normalized index of random disturbance which is always less than 1. The intensity of random disturbance is measured by the normalized index (D_1) formulate (Dacey)⁸ as :

SETTLEMENT TYPES

The present classification of settlement is based on the distribution of occupance units and the number and nature of their nucleation in a village which incorporates physical as well as cultural factors. In the actual distribution of rural settlements two characteristic types with many intermediate stages are generally distinguished as compact and dispersed settlements. In the former type, theoretically speaking, all dwellings are closely knit together with the narrow streets or lanes separating them, while in the latter all peasant houses are located and scattered in their respective forms. In the study area, none of these extreme type is common. Both the physical and cultural factors have combined to create variations in the two extreme forms in the study region. Four main types of settlements may be distinguished in the area (i) Compact, (ii) Semi-compact, (iii) Hamleted and (iv) Dispersed.

COMPACT SETTLEMENTS

Compact settlements have been chiefly the characteristic of the fertile plains since ancient times. The homogeneous stretch of the alluvial plains of the Ganga like those of the Hwang-ho and the Yangtsee in China has produced one of the world's largest concentration of rural settlements. It has been truly remarked that the cluster village is indigenous in districts where the arable area is continuous admitting of uniform and extensive exploitation (Blache)⁹ With growing population such plains allow intensive farming which is also conducive to the concentration of rural settlements. Compact settlements are limited to mainly two areas in the study area, the lower parts (natural levee) of the Banganga valley plain and the central flood prone area. The former area covering the southern parts of Nadbai Tehsil, Mai, Jahangeerpur, Pingora, Bachhamadi, Lakhanpur, Dehra, Shahpur, Bharkhau, Hantra, Aroda, Paraswara, Panchyat has a well developed system of compact settlements giving linear pattern. In this area physical and cultural factors e.g. even flat surface of close settled villages as the population grew and the present farm technology improved to sustain and absorb population increases in the same land, provided better conditions for the growth of compact villages within short distance with each other. The latter area cover Kawai, Raisees, Luhasa, Kareeli, and Bhadeera Panchyats. About 35 to 36% of the total arable land of this area falls under wheat and mustered cultivation, demanding and sustaining more labour and hence clustered settlements are common everywhere.

In the early Jat period defence factor and demands of politico-social organization led the corporate groups to cluster in a village under influenced the organization and expansion of settlements in eastern part grown up under the leadership of Jats, who organized large pools of agricultural and Jajmani system. The joint system bounded together several Jat families into compact settlements, which were enclosed by mud walls or round a fort during the early period. The Hindu ritual and economic ties among various castes and sub castes also forced the people diverse professions skills and resources to live in agglomeration settlements. The rectangular plan of land division system (i.e. bigha system) evolved in the middle Banganga valley during the ancient days has also contributed to the growth of compactness. The open field system and strip cultivation exercise additional centripetal forces towards the concentration of rural settlements.

SEMI – COMPACT SETTLEMENTS

These settlements are a product of interactions of both centripetal and centrifugal forces operating freely and leading to the development of human settlements. It is characterized by the presence of a main large village along with one or more hamlets which are mostly younger in age than the main village. These settlements are more frequent and form a characteristic of the wheat mustered producing areas. The attached hamlets represent either an outgrowth from the central nucleus or the establishments of the newer immigrants, mainly in the form of agricultural labourers related to the superior tenants or zamindars. Sometimes those hamlets may belong to the newly opened market place occupying the newly built railway stations or roads. These settlements are concentrated in major part of the study area. This area represent less crop cultivation intensity of wheat and mustard than the area of compact settlements.

HAMLETED SETTLEMENTS

These settlements are characterized by the presence of small group of rural dwellings which are widely scattered over the cultivated land. Which the tradition of hamlet founding system (Purwa – basana system) by Jat Zamindars, land grants used to be made to establish separate purwa or Nagla, specially for lower castes under the agricultural labour Jajmani service system. Sometimes each hamlet is often settled exclusively by a single caste after which it is commonly named and sometimes even the whole village is named after the first settled caste. Such villages names as Malipra (after mail or gardner or vegetable growing community), isapur (after Isa, sub caste of Muslim) Nagla kurwaria (Kurwaria sub community of Jats, Vary hard working. "Son of Soil" agricultural people love to be near their farms they operate the number of hamlets varies from region to region but generally it ranges between 4 to 10. The region represents less accessibility, mostly lying beyond the distance of 10 K.M. from nearest railway station.

DISPERSED SETTLEMENTS

These settlements occupy a very limited area, specially Kankar lands, Reh or Usar, Where scattered huts form the common settlement type. In the flood affected area, especially, utarda, Nyotha, Jharkai, Khari Davisingh and Nam gram Panchyats. This types of settlements is common. Agricultural activity is mostly seasonal and only rabi (winter) crops are grown in this area. The inhabitants of these seasonal settlements have to leave their sites before the advent of the

rainy seasons. i.e. flood period. Presents generally live on their individual farmsteads to take care of their crops. In the rainy season they go back to their main villages, sited on flood safe sites in the higher grounds.

CONCLUSION

In short the rural settlement geography is concerned with the orderly description and interpretation of process, patterning, functions and spatial organization of human occupancy with rural environment over the earth surface. It has been felt that despite the work done in this direction by eminent geographers, there is still paucity of the geographical material of applied nature in analyzing rural settlements. For that matter the area under investigation attracted my attention and it has been felt that there is a need to analyse the spatial pattern of rural settlements of Nadbai Tehsil of Bharatpur District of Rajasthan with reference to its environment. This work may be of some help to the others working in this field of actively. Broadly the aim of the present study is to examine the spatial patterns of settlements, to analyse social and cultural patterns, to examine the contribution of Jat rulers in developing the socio-economics culture, to find and the relationship between caste and primary occupation and to review and suggest the prospects of development in the aforesaid area. The physiographical impact can be seen on the growth of the settlements and distribution of population too has been affected by this towards the flow of river, there are compact settlements of the higher ridges and small & scattered settlement can be found in the USAR (Barren) land. The limited irrigational facilities and fertility of land has directly affected the distribution and growth of settlements and density of population. The suitability of irrigation and fertility of land attracts the compact settlements where as its unsuitability has adversely affected the growth of settlements. The rise and growth of various powers had had direct impact on the origin and growth of settlements. The rapid growth of settlements took place during the period of Jat kingdom as the Jat rulers directly contributed in safety of the settlements and growth of agriculture. The Jats (who are in majority in the area) being the born cultivators have directly contributed in making the agricultural growth touch the and to new height but due to lack of education and technical knowledge has compelled them to lag behind in trade and industry. Physiographical, economics and social factors have determined the size of the settlements. The technical and cultural factors have determined the spacing, dispersion and types. The model of the village has been influenced by physiographical and cultural factors. For example the settlements on banks are their extension running along the river in the shape of parallel line but settlement around say a temple are rectangular or circular in shape.

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