CHAPTER-I

CONCEPTUAL DESIGN

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1.1 Introduction

The study of settlement is one of the important branches of human geography. The study of habitat includes study of cultural geography and its analytical study. The habitat of a region exhibits the history and civilization of the region in a realistic way. It is the science of continuous study of practical geography. It deals with the diversity and equality of human relationship in that region. The micro study of population geography clarifies the geographical condition, balances and imbalances in the human settlement of that region. The geographic conditions of any region impacts/influences the socio and economic activities of that particular region.

The word settlement geography originates from the German word Siedling Geography; practically it may be considered as the study of developed cultural geography. The German word Ekistious has a close relationship with the science of settlement geography. The place of human settlement is recognized as the work place for human society from the ancient times.

There is huge intellectual writing on rural settlement geography. Karl Retter is called as the father of this branch of society. The study of rural human settlement began at the beginning of 20th century with Blash (1890), Demanzia (1920) and Brunce (1910). In the direction given by International Geographical Society, it is made clear that Rural Settlement Commission was established to study the various elements of rural settlements. The first research on this branch was published in 1928 and later on it become the subject of general interest. This branch was studied and discussed in the various parts of the world by the intellectuals but a common rule of study was not determined.
In the comparative study of the world there in huge geographical, social and economic diversity in India and ultimately it has resulted in diversity in the human settlement. The contemporary study of settlement geography has realized the impact of geographic conditions on the human settlement.

The Indian Census of 2011 has shown that out of total human settlement in the country 24.58% population belongs to urban settlement and 74.42% of population is found in rural settlement. As the high proportion of human settlement in India belongs to rural settlement, India is called on a country of rural settlement. Then the study of rural settlement in India is one of important branch of study in the country, so the researcher has selected this branch for his study.

It is an ancient tendency of mankind to live in a group or community. Man used to live in cave as a shelter and ate roots as the food. He got protection from heat, wind, mansoon, cyclone, cold and ice fall in these caves. To protect himself from the attacks of wild animals he choose to live in groups. Unity in the inborn tendency of mankind and it resulted into human settlement. In the course of time he learned the art of cattling. He started creating settlement where water is available. The human settlement came into existence as a result of man’s close relationship with the environment. It is the first human stage towards creating man-environment harmony. The human settlement in the result of human experience with the place and time. Dekinson (1940) has defined habitance as a group of people, group of joined agricultural land, towns etc. which are the essentials social and geographical needs of man.

The elements like fertility of land, availability of plain land have greater importance on human settlement, the other elements are sound educational, social, religion and cultural environment helps for the human habitation.

The human habitance has broadly divided into two types rural and urban habitat, these can be studied together but the features are
different, in case of rural habitat more people are engaged in primary or basic profession.

1.2 Features of Rural Settlement
i) There is lack of homes and also lack of well planned layouts, designs in the construction of houses even they are smaller in size.
ii) The density of population in the rural habitant is comparatively less.
iii) The preference in given to the primary profession as a mean to live.
iv) The rural settlement has simple living style.
v) There is lack of facilities in rural settlement like that of transportation facilities.

1.3 Introduction to the Settlement Geography
Recently the geography of habitat in considered as the soul of geography. The habitat can be studied with the help of geography of habitat. The geography of rural habitat and the geography of urban habitat are the two men branches of geography of habitat.

1.4 Definition and Meaning of Settlement
Smith (1947) defined habitat as an official human abode, it may be a single house or a group of houses beginning from a single house to the group of numerous number of houses.

Dickinson (1940) according to Dickenson, group farming, group of houses, a town etc and the regional management of essential social and geographical elements is called a habitat.

Clark (1969) according to the Longman Geographical dictionary, the habitat is defined as any type of human settlement even a single human abode may be called human habitat, but generally this word is applicable to the group of human houses.

Coham C.E. (1969) according to Coham the human habitat is a point of human settlement at the centre of appreciable roads may be a single house or a group of human settlement management. It begins from a farm house to a city or a metropolitan city.
**Trivartha**, in the opinion of Trivartha the human habitat in the human settlement med for financial purpose by a large number of population and their constructed houses for the purpose of inhabitation and constructed streets and road used by this large population for the purpose of transportation.

Thus all above definitions of habitat makes of clear that the habitat means a group of manmade houses on this earth including the lonely house, hamlets, villages to city and a metropolitan city. The rivers, lakes, hills, brooks, roads? saharas etc. both natural and manmade way be included in the design of human habitat. It is the first step taken by human beings to be harmonious with the environment. The man needs to face the obstacles to create harmony between man and nature. The man has to face several problems for the protection of habitat, for the drinking water supply, for marketing of essential goods, for the transportation of essential goods etc. The science of human habitat studies the impact of several elements like the impact of natural environment, impact of different goods, items used for the construction of houses etc.

It is observed that the life of rural habitat is highly harmonious with the elements around it. Majority of the settlement of the rural habitat are busy in agriculture. In general there is inclusion of shops, temples, churches, hospitals etc. in the rural habitat. The small rural habitat does not care the facilities like hospitals and post office. In an urban setting like that of the place off tahsils and district places do generally find the facilities like roads and train tracks with a well connectivity and frequency for better transportation.

A small rural habitat is to be in connection with a central market place in the vicinity. Agricultural farming is the backbone of rural habitat, in addition to farming the other financial supports of rural habitat are fishing, mining, foresting etc. then the rural habitant reflects the agricultural farming in its establishment and expansion. More is the area occupied by rural habitat more the expansion of the habitat. The expansion is measured in terms of the area occupied. The
expansion of the rural habitat in changing with the charge in time, and it’s dependent on social and financial environment of the region.

The rural habitat close to the cities are partially urbanized or known as the suburban of the city. The people for the urban settlement settles in such region and helps to its urbanization and to turn them into cities. The natural and cultural elements have an impact on the expansion of rural habitat.

1.5 Definition of Settlement Geography

The geography of habitat is one of the important branches of Geography, this branch studies the human habitat. This branch has turned vital in the recent times. The geography of habitat is also studied in other disciplines by the historians, geographers and sociologists. The geography of habitat studies the place, function, features and material used for the establishment. It also helps to find out the sources, places and the ways of establishment of the human habitat.

The famous French Geographist **Vidal-de-la-Blache (1911)** defines the geography of habitat as it is the human settlement stable or unstable, lonely or in group used for the purpose of human inhabitation. A developed human habitat on the earth provides all the facilities to fulfil the basic human needs. The habitat is an unavoidable element of human life, so it embodies the human culture.

**Jean Brunhes (1952),** a geographical expert has included human habitat into the productive elements of human life. He believed the houses and approaching roads to the houses as the basic essential facilities for the establishment of human settlement.

The experts have done complete and critical study of geography of habitat and came forward with some of the definition of geography of habitat described below.

**Ghosal (1972)** is of opinion that the geography of habitat includes the study of the process of settlement and the diversity in establishment of in settlement.
Jorden (1966) defined the geography of settlement as the study of the design of cultural landscape.

Stone (1965) Geography of habitat is a systematic analysis of the process of distribution of houses which brings chooser relationship between man and land.

Ramlochan Singh (1961) is of the opinion that the geography of habitat is the study of manmade facilities like homes and roads in group.

Chatterji (1961) has exported that the geography of habitat includes the design and shape of human settlement and its historic development.

Sharma (1969) defined geography of settlement as the study of the purpose of geography of settlement, its size and function and the study of its distribution and development concerned to the regional relationship.

1.6 Nature and Scope of Settlement Geography

The geography of habitat is the basic branch of knowledge. There is a close relationship between human settlement and the geographical elements there is interrelation between these two elements of geography. Thus the geography of habitat is the logical study of the geographical elements influencing the human habitat.

The geography of habitat is the study of inter relationship between the human elements and geographical elements. The geographical elements and human elements play an important role in the establishment of human settlement. The study of inter relationship between man and geography in relation to place and time in the geography of settlement.

In the beginning settlement use to very small in size, one to two houses or little group of houses. In the course of time, the interaction between man and environment and the geographical and reaction between in two human beings an settlement of the same settlement helped for the design, function and a cohesion nature of the human
settlement, and in the course of time the settlement reaches to a well organized form.

The scope of the geography of settlement can be discussed below.

1) Before the study of settlement it is very important to go for the study of the evolution of settlement, thus the evolution of settlement in an unavoidable part of the study of settlement. The human settlement in very ancient in the history of mankind, settlement came into existence with the existence of human race on the earth. The human being at the primitive stage was a tribal. Nature herself was his shelter. He choose the caves and large trees for shelter. The beginning of the farmity gave birth to human settlement in the huts, for a long time there were only rural settlements but in the course of time these rural settlement took the form of urban settlements. The origin and development of human settlement can be studied only with the help of the geography of settlement.

2) The rural and urban settlements established and developed at the specific places with the specific surroundings. The two important factors for the establishment of settlements are the source of water and the source of means for survival. The sources of water were brooks, lakes, rivers and big water reservoirs, these sources led a possibility of establishment of human settlement. The human being with the opportunity for agricultural farming, mining, fishing, animal husbandry and scope for textile industry selected such places for human settlement. In the study of human settlement the role of availability of goods and the natural environment is very important.

3) The geographical conditions have a greater impact on human settlement, the size and density of human settlement is also dependent on the above two factors. The human settlements have different shapes and sizes, these shapes, sizes and design
of human settlement is also dependent on the geographical condition of the region. This all can be studied in the geography of human settlement.

4) The enterprising of any human settlement, it may be small or large in size, it may rural or urban settlement is dependent on the geographical condition of the land, where the settlements have established. The purpose and importance of any settlement can be derived from the enterprising of that settlement. The function of rural settlements are religion, historical, financial and social administration of the settlement, even the settlements are recognized on the basis of the function of settlement.

1.7 Importance of Settlement Geography

1) It provides knowledge about the origin of settlement, purpose of settlement and the process of formation of settlement.

2) It provides knowledge about human work division.

3) The study of geography of settlement helps for the planning of settlement.

4) It provides knowledge about the need of modernization of the settlement.

5) It provides knowledge about the availability of resources necessary for water management, irrigation for agriculture and transportation facility.

6) It helps to search good environment and health facilities necessary.

7) It provides knowledge about the construction of homes and cultural background of the settlements.

8) It provides knowledge about the basic necessary resources for business.

9) The study of geography of settlement helps to provide knowledge about the interrelationships between two settlements.
The study of geography of settlement helps to collect information about the social, cultural and financial background of the settlement of the settlement.

1.8 Selection of the Study Area

For the present study of rural settlement, I have selected Akola district of Maharashtra state, as the area for study. The title of the present research work is ‘A Geographical Study of Rural Settlements in Akola District’. There is no such research work carried out in the past. The is huge diversity in geographical, cultural and economic condition in Akola district. The southern part of the district is occupied by the hills of Ajantha and the northern region of the district in full of Galjigarh hills. The central part of the district is plane/ of lower height, where the river Purna flows from east to the west. The other rivers of the central part of district are Morana, Katepurna, Maan and Yaan. This geographical diversity in the district has greater impact on the distribution of human settlement in the district. I have selected this area of study to have the detailed study of geographical diversity, cultural diversity and its impact on the settlement. I have studied the development of settlement, it’s background. The design and the changes that took place in the design of the settlement with the changing time.

1.9 Objectives

1) To study the impact of natural elements on the origin of rural settlement and its development.

2) To study social, cultural and economic factors influencing the rural settlement.

3) To study the regional distribution of rural settlement.

4) To study the features of rural settlements

5) To study the internal structure, pattern and types of rural settlements.

6) To study the building materials generally used for the construction of houses in rural settlement.

7) To study the service centres in rural settlements.
1.10 **Hypothesis**

1) The origin of rural settlement is based upon the available natural resources of the place.

2) The size and design of rural settlements are changing.

3) Natural and cultural elements of the place have always an impact on the development of rural settlement.

4) The structure and types of rural settlement is changing according to the place of it’s location.

5) The distribution of rural service centre is not always similar.

1.11 **Collection of Data**

The data have been gathered from various sources and includes both published (secondary data) and field investigation (primary data). Primary data have generated through questionnaire and field observation. In the study area 18 sample villages have been selected and surveyed. The village selected from different physiographic zones to study their pattern, house types, dominant material used for construction, roof types, data also collected regarding social, economic and cultural background of rural settlements. Secondary data have been obtained from various sources like Agriculture University, District Census Handbook, Socio-economic review, Collector Office, Zilla Parishad, Panchayat Samiti and from Gram Sevak.

1.12 **Research Methodology**

Various data from both primary and secondary sources have been collected and are tabulated systematically. Different statistical and quantitative techniques have been applied to analyse and interpret the results and cartographic techniques are also used to for better understanding of the results. Following are the few quantitative technique applied during the course of study.

1) To calculate distance between two rural settlements the following formula is used

   \[ D = \sqrt{\frac{A}{N}} \]

   \( D \) = Average Distance
   \( A \) = Total Area
N = Number of rural settlements

2) To calculate the average population the formulae used in

\[ S = \frac{P}{N} \]

S = Average Rural Population
P = Rural Population
N = Number of Rural Settlements

3) To determine Rn value the formulae derived by Clark and Evan’s were used

\[ Rn = \sqrt{\frac{N}{A}} \]

Rn = Close neighbouring Analysis
d = Average distance between two close points selected for study
N = Number of Rural Settlements
A = Total Area of the Selected Tahsil

4) To Identify the type of rural settlement the following formulas were used.

Dispersal Index = \( \frac{\text{Average Size of Population of Rural Settlement}}{\text{Average Distance Between Settlement}} \)

\[ \text{A)} \quad \text{Size of Average Population} = \frac{\text{Total Rural Population}}{\text{Total No. of Settlements}} \]

\[ \text{B)} \quad \text{Average Distance} = \sqrt{\frac{\text{Total Area in Sq. Km. Meters}}{\text{Total No. of Settlements}}} \]

5) By using formula of village-town schedule the villages & towns were identified by the researcher

Village-town schedule = PC
PC = Total Population of the Centre
TW = Total Population engaged in third type of Profession
TW = Total Population engaged in different profession

6) To Find out the efficiency of service facilities the researcher has used following formula.

\[ Xie = \frac{P_i}{mP} \]

Xi = Expected no. of service facilities in the tahsil
\[ Pi = \text{Total rural population of the tahsil} \]
\[ mP = \text{No. of population dependent on a single service facility in the district} \]
\[ mP = \frac{P}{Fi} \]
\[ P = \text{Total population of the district} \]
\[ Fi = \text{Total no. of service facilities available in the district of each type} \]
\[ Xio = \text{Total no. of service facilities actually present in the district (on observed by the researcher)} \]

1.14 Review of Literature

Human settlement is the embodiment of human culture the diverse factors of human settlement are interdependent and active. Sample (1914) is of the opinion that, human being is an active element of settlement and settlement is the symbol of human culture. The geographical identity of the Earth is unstable, thus the human settlement also changes with the charge of time and place. The human settlement being the land of culture provides promulgation to the entire land. The development of human settlement leads to the development of region. Hudson calls human settlement a live entity. The human settlement are studied from a longer time at global and national level. This study of human settlement can be briefed as below.

Boylund’s (1956) research study and observation show that the rural areas have been established on the good surface of land. In ‘Rural population management’. Shri Akhaso M. studied the rural areas different structure.

Khadbarg S. (1957) did research study of rural areas, the distribution of rural areas is not fixed upon natural factors. But other factors are affected on the distribution rural societies/areas.

Mr. Singh S.C. and Singh S.B. (1975) have studied the human settlement in the hilly area of Shimla. They have studied the development of settlement in the hilly areas in relation to the
geographical features of the region. In the research thesis they have studied the development of settlement in the geographical condition of dire slope land at height. The human settlement on such geographical area in comparatively less developed than the settlement in plain. It was concluded in the study that the development of settlement in directly related with the geographical condition of the region.

**Shri Gopal Krishnan (1977)** had studied school, ration shop, post offices, dispensary and veterinary through rural service centres.

In Akola district, while studying the rural societies its creativity, growth, development, emergent there things are related to the land. The natural structures of the land, historical preservation and the different structure of rural societies are related to explain the research study.

**Kankure K.B. (1986)** had studied rural and urban societies research from Marathwada area. In this research, societies emergent from the beginning to 1986, the analysis has been done. The seasonal in balance is developed in Marathwadas society.

**Mr. Brutons** has analysed the settlement geographically. **Kumbhar A.R. (1997)** has studied settlement located in the basins of the river Neera.

**Shiva Muni Yadav (1997)** has studied Prakirna distribution and the interrelationship between human settlement in the district of Vaishali.

**Mr. Sawant S.B.** has studied rural settlement in the village Khadki of Pune district in concerned to the development and charges in the human settlement. He has reviewed the charges that took place in Khadki village in the last forty years. He has critically studied social and economic development and charges that took place in the human settlement of Khadki village.

**Mr. Gutam Bhattacharya** and Arjana P. Desai has studied the problems with the development of human settlement in coastal Gujrat. They have also analysed the environmental problems in relation to the development of settlement. These two scholars have
worked hard with the research micro study in the development plant of human settlement in coastal Gujrat.

**Mr. Varat T.M.** has studied the settlement in the basins of river Pravara. He has analysed the evolution of settlement basins of river Pravara. He has studied the distribution pattern of human settlement in that particular rural settlements in the basins of river Pravara. He has done critical study of rural settlement and its development in the basins of river Pravara.

**Shri Pawar N.N.** is completed rural societies physical analysis. Through this research he has also done the structures of physical and cultural factors which are affected in the study.
References


14) District Socio-Economic Abstract Akola District 2013-14

15) Indian Topographic Map