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**AGeographical Analysis of Central Places and Regional Development  
of Parbhani District**

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**Abstract:**

*Central places play an important role as service centers in rural development especially in economic and social life of the people in countries like India. Central places provide goods and services to the surrounding region. They are the nodes in the general fabric of settlements through which the regional development takes place.*

*Central places have central locations where the social gatherings take place. They are an outlet for various social functions. They are also centers of communication, diffusion, innovations. Central place theory provides ground for governmental, private and specialized agencies to establish the new ideas, notion, and policies, for the development. In the present work an attempt has been made to study of Central Places in Parbhani District. The entire work is related to the study of Centrality and Hierarchy of service centers. It also includes spatial distribution of Central Places in relation to physical, social and economic factors of the region.*

**Key Words:** Central Places, Distribution of Settlement, Regional Development

**Introduction:**

Central Place theory is practical theory put forth by Walter Christaller (1933) is a deterministic model of spatial pattern of human settlement, concerned with the analysis of size, spacing, distribution and complementary areas of central places, which is the main dimension to achieve regional development. It is a comprehensive theory explaining the location and inter-relationships of settlements. The theory explains both the centralization of service activities and locational characteristics of places in which these are found (Deshmukh, P. W. 1979).

The central places are the prime centers in the region irrespective of their types and functions. It has much significance to play a role in the regional development. The spatial development could be achieved by interacting with different central places reducing their distance and increasing the size. Therefore, the regional development is to be expected through the spatial development. In view of this, the present study has made an end over to focus in this paper

**Objectives of the study:**

The present study aims to deal and analyses various aspects of central places in Parbhani district with following objectives.

- 1) To study the factors affecting the spatial distribution of central places.
- 2) To know the role of central places in regional development.

**Data Base :**

The present investigation is based on both primary as well as secondary sources of information and collected the information of settlements, population and certain functional aspects

perform in the central places. The field checks and general observations were helpful in determining the approximate threshold population required for the establishment of certain lower order functions. The data collected from Block Development Offices, District Statistical office, Municipal Office and Office of the District Planning and Development Officer.

The detailed data regarding the settlements which were identified as central places are not available in the published form. The detailed information of central places has been collected through a questionnaire

**Methodology:**

To identified the central places, the functional weightages have been assigned to each and every function of the functional hierarchy based on the functions like, Primary School, Post and Telegraph office, High School, College, Dispensary, Hospital, Health Centre, Weekly Market centre etc. The centrality index has been employed and accordingly 77 central places are identified.

**Locational Extent:**

Parbhani is being the study area extends between 18° 45' North to 20°01' North latitudes and 76° 13' East to 77°26' East Longitudes with an area of 6511 sq.km. and followed by 1836086 population (2011). It has 838 of settlements with 08 urban centers. There are 25 Central places have been distributed in 08 Tehasils taken into consideration for study the spatial distribution. The density of the population is 295 per sq.km. The river Purna runs on the boundaries of Hingoli and Parbhani district and the River Godavari which runs on the boundaries of Beed and Parbhani forms a part of study region.

**Distribution of Central Places in Different Size Group:**

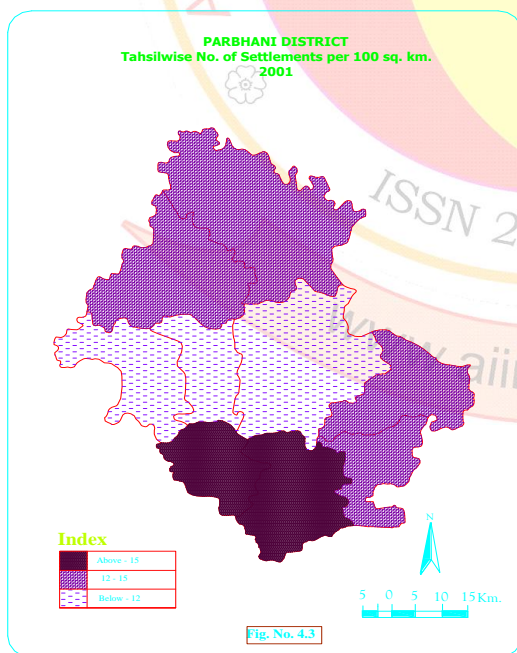
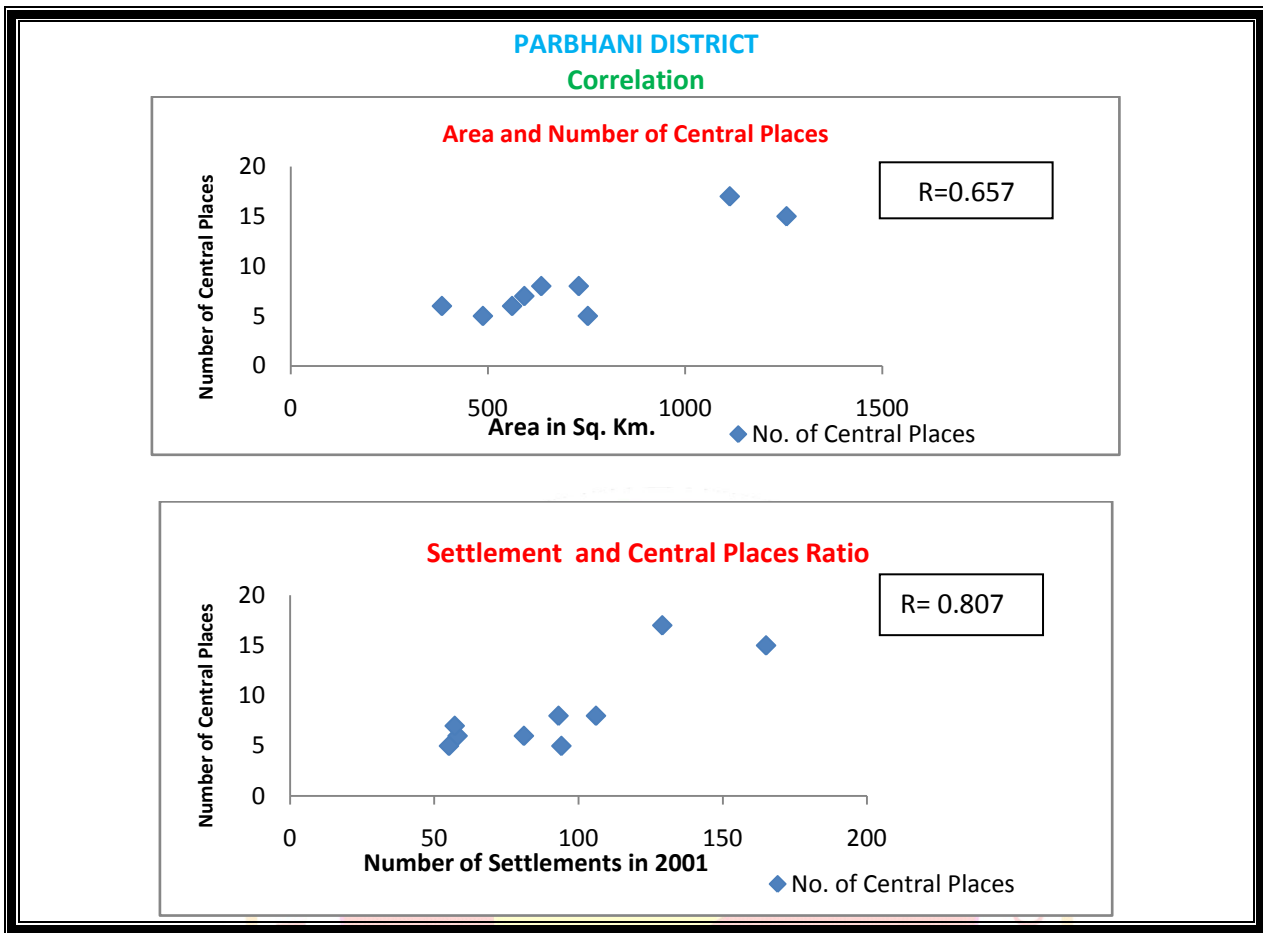
The distribution of central places in different size group's fig.no.1.2 shows a concentration in small size groups. The small size central places show a very high frequency. Nearly 87.01 percent of the central places have a population less than 10,000 persons (Table No. 1.1).

There is a large concentration of central places in the first four population groups, which together account for 87.01 percent of the total central places and about 33.81 percent of their population.

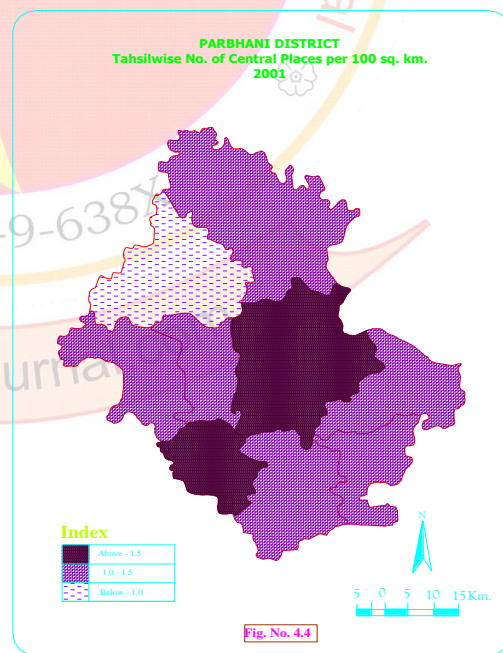
Eighty seven percent central places have a population between 3000 and 10000. Central places with a population of over 10000 are less in number and normally they are tahsil headquarters. The largest numbers of central places occur in below 3000 population group. These are the large villages with agricultural base. In these central places there is accumulation of less important central functions to serve the adjacent village to get their goods and services from these central places.

Central places with population above 10000 are in less number as they are only tahsil and district headquarters. It is essential to note that the village Bori is the only central place which is neither tahsil place nor a district place has a population above 10000. It is a very important central place located in Jintur tahsil. From the planning point of view, it acts as a growth centre in the study area.

The concentration of central places is measured in terms of seven population groups. The higher concentrations of small central places are observed as compared to large size central places (Fig, No. 1.3).

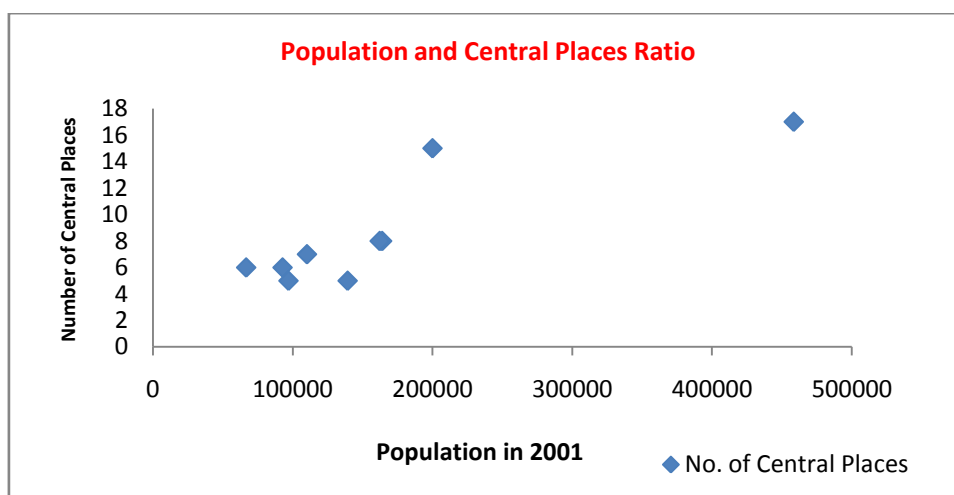


Source : District Census Handbook, Parbhani District, 2001.



Source : District Census Handbook, Parbhani District, 2001.





**Fig.No.1.2**

**Table No. 1.1**

**Parbhani District: Tahsilwise Distribution of Central Places**

Sr. No.	Tahsil	Area in sq.km.	No. of Settlements R+U=T	No. of Central places R+U=T	No. of Settlements per 100sq.km	No. of Central Places per 100 sq. km.
1	Parbhani	1113	128+1=129	16+1=17	11.59	1.52
2	Gangakhed	635	105+1=106	07+1=08	16.69	1.26
3	Palam	561	81+0=81	6+00=06	14.44	1.07
4	Sonpeth	383	57+1=58	05+1=06	15.14	1.56
5	Purna	730	92+1=93	07+1=08	12.74	1.09
6	Pathri	592	56+1=57	06+1=7	9.63	1.18
7	Manwat	487	54+1=55	04+1=05	11.30	1.02
8	Sailu	753	93+1=94	04+1=05	12.48	0.66
9	Jintur	1257	164+1=165	14+1=15	13.12	1.19
<b>District</b>		<b>6511</b>	<b>830+8=838</b>	<b>69+8=77</b>	<b>12.87</b>	<b>1.18</b>

**R = Rural, U= Urban, T = Total.**Source: - District Census Handbook Parbhani District -2011

The percentage of central places also exceeds the percentage of population of central places. In the first four groups of population classes, the trend is reversed in central places, with population over 10000. In this category a few central places command a relatively larger population of central place population. In fact seven central places with a population over 20000 command 61.46 percentage of the total population of central places.

**Conclusions:**

There is not uniformity in natural resources in the entire study region for the growth and development of central places. The northern and southern part of the study area consists of Ajanta ranges and Balaghat ranges respectively. It is less developed because of physiographic conditions. The remaining parts of the study region endowed with plain topography and it is well developed in transportation network. The total population of the study region is 1,835,982 (2011 census); the

total area is 6511 sq.km. and 830 inhabited villages are located. It is observed that the characteristics of transport, demographic and economic are responsible for the developing nature of the area.

Distribution of central places is influenced by relief, agricultural development, urbanization, industrialization, accessibility, settlement and population density and levels of economic development. The nearest neighbor analysis indicates that the central places are of regular pattern random manner where the degree of regularness is 1.317. Most of the central places in the study region are in the regular pattern random manner having the range of 1.00 to 1.50. High correlation is observed among industrialization transportation, development of agriculture, population density and distribution of central places. It is observed that, the value, coefficient of correlation between percentage of village approach by pucca road and percentage of central places to total settlements is  $r = 0.59$  which is considerably high. It is also observed that co-efficient of correlation values for the relationship between settlement density and central place density  $r=0.65$  and population density and central place density  $r = 0.75$  are also high. The frequency of functions is enhanced in the central palceses no doubt it will serve not only the larger population but also the area, which is another dimension of the regional development.

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