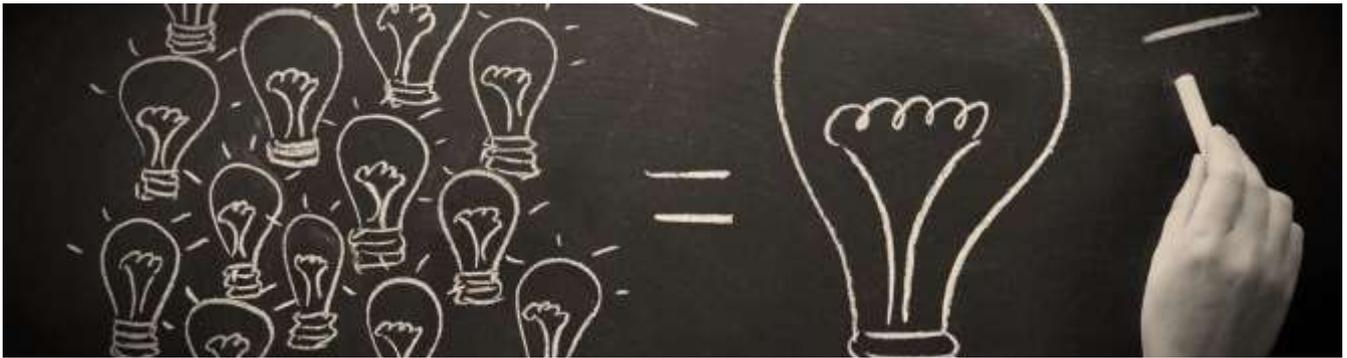


# SPATIO -TEMPORAL DYNAMICS OF POPULATION IN EAST CHAMPARAN DISTRICT OF BIHAR (INDIA)



## Original Research Article

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## ABSTRACT

In this paper Population Geography is an important branch of Geography which presents an accurate orderly and rational description and interpretation of population as well as its various attributes. Population geography is the simple description of location of population number and other attributes of population the explanation of the spatial configuration of the number and other attributes and phenomena i.e. the inter-relation among area differences in population with those in all or other elements within geographic study of an area. It is a recently developed branch of science of geography that studies about the growth, distribution, density and other spatial variation of population on the surface of the earth. It also studies the demographic features. The central theme of population study is the areal differentiation and understanding the process of spatial organization, while the population constitutes the most dynamic and pivotal elements in such process of population provides the focal point in geography. The proposed paper will apply different types of methodologies. Facts procured from the data will be described and analyzed with full concentration of study area. Even data will be represented by different cartographic method. Besides adopting the analytical methodology in presenting facts, quantitative techniques like correlation, deviation, regression etc, will also be applied for their clarification. Various types of models may be developed or already existing models may be context the facts of West Champaran district.

## Keywords :

Geography,  
 Population,  
 Spatio-Temporal,  
 Demographic,  
 Density,  
 literacy

**I. INTRODUCTION**

Population geography is recently developed branch of geography and the core of which is a man that is well established and in the light of fact. One can assess that the subject-matter of this branch must be related to different aspects of man. geography of population presents an accurate, orderly, systematic and rational description of population and its various characteristics.

Population geography doesn't study man as a phenomenon but as an area-characterizing and area-differentiating element while dealing demographic phenomena. population geography is concerned with spatio-temporal expression of various population attributes. The explanation of such spatio-temporal expression and the processes involved in the creation of these spatio-temporal expression. Glenn.T.Trewarth of the united states was perhaps the first and foremost personality to elevate population studies to the status of a systematic branch of geography. area differentiation is one of the themes of geography in general and of population in particular.

Since man is not only the utilize of physical earth but also the creator of cultural earth. population geography is the most important branch of today. This branch is concerned with the nature and man in general and their inter relationship in particular. since the evolution of geographical ideas,the concept of nature and man has developed. clarke has however defined that population geography is concerned with demonstrating how spatial variation in distribution, composition, migration and growth are related to the spatial variation in the nature of places. clarke also emphasized upon spatial aspects of population and distinguished geography from demography. this demographer is devoted to numbers and depends heavily upon statistical methods. But the population geographers related number to area and realizes upon maps, the form of spatial patterns.

Another prominent American geographer, Edward ackerman assigned the distinctive role of geography in population research while delimiting the problems of population geography at various levels. Melezin puts the soviet concept of population geography as the study of population distribution and productive relationship existing within various population groups, the settlement network and its fitness, usefulness and effectiveness for productive goals of society. thus, population geography does not study man as a phenomenon in itself but as an area-characterizing and area differentiating element population geography, while dealing with demographic phenomena, it is concerned with the temporal-spatial expressions of various population attributes: the explanations of such temporal-spatial expression and the processes involved in the creation of these temporal-spatial expressions.

**II. OBJECTIVES**

To evaluate the various characteristics of population in the contest of purbi champaran district. this has influenced the overall socio-economic structure. The most important amongst all the resources mobile,usable and useful for themselves, but the human resources is neither evenly distributed nor equally beneficial everywhere.

**III. METHODOLOGY AND CARTOGRAPHY APPLIED**

The methodology largely depends upon the conceptualization of the discipline itself. it implies that as the philosophy of a discipline changes with time, its research techniques also undergo a change so as to meet the requirements of the widened subject matter. Methodology refer to a system of

methods and principles in a discipline, the techniques refer to the mode of executing such method or to the practical and mechanical skills used for executing that methodology. In a way, methodology refers to the theoretical part and the techniques to the practical part of the methods and principles of a discipline. various types of models have been constructed as per the nature of facts.

Maps, diagrams and graphs have been used in this study. choropleths and isopleths were preferred to other in order to show the spatial variation of population distribution or pattern of literacy etc. maps of various types and diagrams of various dimensions are the main tools which have been applied. Scientific principles of cartographic origin were thus observed while preparing maps, attempts were made as far as possible to make illustration accurate and meaningful.

**IV. LOCATION AND EXTENT:-**

The selection of area for the present research study regarding the recent trends in population change is newly formed district of purbi champaran .the present purbi champaran district lies between 26°18'15" N.Lat.to 27°0'0"N.latitudes and 84°30'55"E long. To 85°16'15"E Longitude. Purba champaran district that formed a part of old champaran district, at present is delimited by Nepal from the north and the districts of muzaffarpur, saran and gopalganj from the south, sitamarhi and sheohar delimit the districts from the east. The river Gandak and Paschimi champaran delimits the district from the west and south-west.

**V. ADMINISTRATIVE SET-UP**

To the view of administration, purbi champaran district has been divided into following twenty seven blocks which is listed as below:

S.N Block	Rural	Urban	Total	Rural%	Urban%	Total%
1.Adapur	153.18	0.00	153.18	100.00	0.00	3.86
2.Raxaul	125.55	5.82	131.37	95.57	4.43	3.31
3.Ramgarhwa	167.66	0.00	167.66	100.00	0.00	4.23
4.Sugauli	148.00	19.25	167.25	88.49	11.51	4.21
5.Banjaria	139.35	0.00	139.35	100.00	0.00	3.51
6.Paharpur	154.66	0.00	154.66	100.00	0.00	3.90
7.Areraj	175.77	13.70	189.47	92.77	7.23	4.77
8.Harsidih	190.10	0.00	190.10	100.00	0.00	4.79
9.Sangrampur	147.66	0.00	147.66	100.00	0.00	3.72
10.Kotwa	152.03	0.00	152.03	100.00	0.00	3.83
11.Kesaria	188.25	0.00	188.25	100.00	0.00	4.74
12.Kalyanpur	238.11	0.00	238.11	100.00	0.00	6.00
13.Chakia	167.12	6.23	173.35	96.41	3.59	4.37
14.Mehsi	121.68	0.00	121.68	100.00	0.00	3.07
15.Tetaria	84.35	0.00	84.35	100.00	0.00	2.13
16.Madhuban	121.50	0.00	121.50	100.00	0.00	3.06
17.Pakridayal	116.55	0.00	116.55	100.00	0.00	2.94
18.Piprakothe	48.82	0.00	48.82	100.00	0.00	1.23
19.Phenhara	57.59	0.00	57.59	100.00	0.00	1.45
20.Patahi	118.49	0.00	118.49	100.00	0.00	2.99
21.Dhaka	156.13	12.93	169.06	92.35	7.65	4.26
22.Chiraia	205.33	0.00	205.33	100.00	0.00	5.17
23.Ghorasahan	119.01	0.00	119.01	100.00	0.00	3.00
24.Bankatwa	90.59	0.00	90.59	100.00	0.00	2.28
25.Narkatia	134.90	0.00	134.90	100.00	0.00	3.40
26.Motihari	235.20	16.38	251.58	93.49	6.51	6.34
27.Turkaulia	136.11	0.00	136.11	100.00	0.00	3.43

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The above mentioned table shows the area of the district along with its block-wise distribution. The total area of the district is 3968sq.km of which 98.13% area comprising 3893.69sq.km. Is rural area and only 1.87% area comprising 74.31sq.km. is urban area.

## VI. GROWTH OF POPULATION

The concept of population growth of population is often used to can not the change in the number of inhabitants of a territory during a specific period of time, irrespective of the fact whether the change is negative or positive. Growth or decline of population of a region during a certain period is the sum or natural replacements which has taken place plus net migration into a region during the period under study. The population growth is not a unitary phenomena but a combination of four major components i.e. fertility, mortality, emigration and immigration.

This natural rate of growth of population is obtained by dividing the difference between the births and deaths by population at the beginning of the period and multiplying it with hundred. It implies that while in case of natural growth rate only the births and deaths are taken into account; in case of actual growth rate the factor of migration is also taken into consideration. Both actual and natural rate of population growth have been subjected to spatial portrayal and interpretation by the population geographers.

Such a change can be measured both in terms of absolute and in terms of percentage. While it is easy to determine the change in absolute numbers by subtracting the number of inhabitants at an earlier point in terms from that of at a large point in time, the measurements of percentage change poses a little problem. The growth of population in terms of percentages is generally calculated by dividing the absolute changes by the population at an earlier date and multiplying it by hundred.

Recent decades have witnessed growing interest of social scientist including population geographers in the ever increasing demographics dynamism, especially in the less developed areas. Consequently, the number of studies exploring the trends in population changes which have recorded a conspicuous spurt in the recent part. For a population geographer, however the phenomenon a population growth is of special significance. He value it as a vital index of a region's economics development, social awakening historical and cultural background and political ideology. Population growth is, thus, pivotal to the region's demographic dynamism. It is the attribute with which all other characteristics of population are intimately related and from which they derive their significance, thus the understanding of entire demographic structure of the area.

## VII. SUMMARY AND CONCLUSIONS

The study area is a part of the Gandak plain which has been traversed by its tributaries and the land as well as the human activities presents interesting features. The area provide good ground for the analysis of fluvial geomorphology, pedology, settlement geography etc. the geographical area of Purbi Champaran is dotted with mounds and innumerable materials of antiquarian interests. The region under study can be divided into following three physiographic units: northern or north-western higher land, intermediate flat plain track and south and south-eastern low land. The district of Purbi Champaran is delimited by Nepal ni the north, Gandak river and the districts of Gopalganj, Saran and Muzaffarpur in the south. The western boundary of the delimited by Sitamarhi and Sheohar districts. The district has twenty seven blocks and 1348 inhabited villages.

The study of relief or surface configuration of the district is of prime importance for the study of land use and agricultural characteristics particularly in the distribution and production of agro-products in the district. The physiographic features or surface configuration determines the nature and kinds of a land of a region, plain region etc.

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