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Spatial Variation in Educational Amenities of Pratapgarh District (Raj.)

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Abstract

The educational amenities are key component of social development in any society and nation. Healthy and educated people can contribute significantly to the development and prosperity of a nation. The human development of any region depends upon educational development, but such an educational development can't take place without simultaneous development of educational amenities. Generally an amenity defines as "a set of facilities through which goods and services are provided to the public, which shows the quality of life of peoples in a region."Regional disparity is worldwide problem today, especially in the developing countries. Pratapgarh District is newest constituted district in the Rajasthan state. It is tribal dominated area. 64.36 per cent population belong to ST population, therefore economically it is a backward region. This district is quite rich in terms of natural resources but is far from education development, So present study made is an attempt to examine the spatial variation of educational amenities development in eight blocks of Pratapgarh district. To examine spatial variation of educational amenities composite index has been derived on the basis of calculation of 10 indicators.

Keywords: Amenity, Education, Disparity, Social Development, Spatial Pattern.

Introduction

Education is the mile stone of socio-economic development of a society. Education improves the productive capacity of societies and their political, economic and scientific institutions. Education is one of the key inputs and plays a primary role in its socio-economic and human development. Education is an important component, determining the status of person. It is an integral part of a country's development process. Education is a sensitive indicator of cultural advancement of an area. It develops the personality and rationality of individuals and qualities to fulfil certain economic, political and cultural functions. The existence of spatial variation is one of the basic structural characteristics of tribal dominant areas, creating problems for the planners and policy makers in determing the development process. In India, tribes have their own unique socio-economic identity and the issue of tribal education stand out as discipline requiring special treatment.

The development of any region depends upon social and economic development, which cannot be achieved without amenities development. The problem of regional disparities has become a worldwide phenomenon. Today in developing and under developing countries and especially in India-Rajasthan being the area wise largest state of the nation is well know for widespread disparities in the amenities of educational development. So, present study is an attempt to examine the spatial variation in educational amenities development in Pratapgarh District of Rajasthan. Which is at extreme backwardness because of educational amenities? Some indicators of educational development have been considered for detailed study, like number of primary, upper primary, secondary, and senior secondary schools. For balanced spatial variation an essential component of the state development strategy to ensure the minimum amenities of the region. Against this backdrop, there is a need to identify the blocks which are backward to find out the extent and nature of backwardness and to look into the dynamic of the region cover space and time. The present study is an attempt in this direction.

Study Area

Pratapgarh District is newest constituted district in the Rajasthan state. It came into existence on 26th January 2008 as 33rd district of

Rajasthan and the study area is entire Pratapgarh district, with a geographical area of 4448,9 square km and a population of 8,67,848 people is moderately endowed with natural resources. The population density is 165.72 persons per km^2. The growth of population during the period 2001 to 2011 is 22.84 per cent, a relatively high growth in comparison to the state's growth of population i.e.21.3 per cent. 89.1 per cent of the total main workers are engaged in agriculture and allied activities and only 3.9 per cent workers are engaged in manufacturing activities. Literate population of the district is 55.37 per cent and female literate population is only 41.72 per cent. It is tribal dominated area. 64.36 per cent population belong to ST population, therefore economically it is a backward region. This district is quite rich in terms of natural resources. For overall development of this area it is very essential to have an assessment of natural resources and socio economic condition at micro level. Pratapgarh district comprises five blocks– Arnod, Chhoti Sadri, Dhariyawad, Pipalkhut and Pratapgarh which are further divided into 153 Gram Panchayat.

Objectives of the Study

The present study attempts to investigate the following objectives:

1. To find out the status of educational amenities in each Block and identify the backward Block of the area.
2. To describe Spatial variation in the educational amenities of the District

Data Base and Methodology

The present study is mainly based on Secondary data obtained from census of India (2011) and Department of Education, Government of Rajasthan. This research paper aims to measure the spatial variation in the status of education amenities in the region at block level with the help of multi variables data analysing method. The presented models and methodology based on it are suitable for making spatial variation measurable through this and with the help of statistical data, the spatial variations of any territorial unit of any level can be determined. It is also analysed and presented by GIS and Cartographic methods based on statistical techniques. A number of methods have been used to study. The following ten indicators are taken to calculate to status of educational amenities.

1. X_1 - Number of Primary Schools per 10 Square Kilometres
2. X_2 - Number of Upper Primary Schools per 50 Square Kilometres
3. X_3- Number of Secondary Schools per 100 Square Kilometres
4. X_4 - Number of Senior Secondary Schools per 200 Square Kilometres
5. X_5 - Number of College per 1000 Square Kilometres
6. X_6 - Number of Primary Schools per 1000 persons
7. X_7 - Number of Upper Primary Schools per 5000 persons
8. X_8- Number of Secondary Schools per 10000 persons
9. X_9- Number of Senior Secondary Schools per 20000 persons
10. X_{10} - Number of College per 100000 persons

The above indicators are taken to calculate the indices, on the basis of each blocks of the Pratapgarh District. The level of amenities have been divided are the five categories like High, Moderate High, Moderate, Low and Very Low disparities in educational amenities development.

To determine the level of development composite index method has been used. Following steps are involved to calculate the composite index.

1. First of all mean of each indicator has been identified.

a) Arithmetic mean of indices- $\bar{x}=\sum\frac{x}{N}$

Where= $\sum x$ = sum of indices, N= number of indices

2. Standard deviation (S) of each indicator has been calculated.

b) Standard deviation of indices $\sigma = \sqrt{\sum d^2}/N$

Where- d=$\bar{x}$-x – deviation from actual mean

3. Standard values has been calculated by using the following formula

c) Standard Score Zij = (X-X) / Sj

Where X= Mean of the jth indicators, Sj= STDEV of jth indicator

4. Gross values of each blocks has been calculated by adding the standardized value of all indicators found in that blocks

d) G.V. = Sum of total indicators

5. At the last composite index has been identified

e) Composite index = G.V/ N

Where G.V. = Gross Value, N = Number of Indicators

Indicators of Educational Amenities Development in Pratapgarh District

Based on 10 indicators which are shown in Table no 1 the levels of educational development have been calculated.

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Table 1: Indicators of Educational Amenities Development in Pratapgarh District

Blocks Name	Number of Centres Per Sq. KMs					Number of Centres Per Persons				
	10	50	100	200	1000	1000	5000	10000	20000	100000
	PS	UPS	SS	SrSS	Coll	PS	UPS	SS	SrSS	Coll
	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10
Arnod	2.78	5.99	1.84	5.68	0.00	1.28	2.77	0.85	5.25	0.00
Chhoti Sadari	1.98	4.16	1.53	4.30	2.77	1.07	2.24	0.82	4.62	1.49
Dhariyawad	2.26	4.82	2.06	4.12	5.42	1.10	2.34	1.00	4.00	2.63
Pipalkhut	2.89	6.22	1.55	3.95	2.39	1.57	3.38	0.84	4.28	1.30
Pratapgarh	2.06	4.36	2.12	4.55	5.31	1.09	2.31	1.13	4.82	2.81
Min	1.98	4.16	1.53	3.95	0.00	1.07	2.24	0.82	4.00	0.00
Max	2.89	6.22	2.12	5.68	5.42	1.57	3.38	1.13	5.25	2.81
Mean	2.39	5.11	1.82	4.52	3.18	1.22	2.61	0.93	4.59	1.65
STDEV	0.42	0.94	0.28	0.69	2.26	0.21	0.48	0.13	0.48	1.14

Spatial Pattern of Educational Development

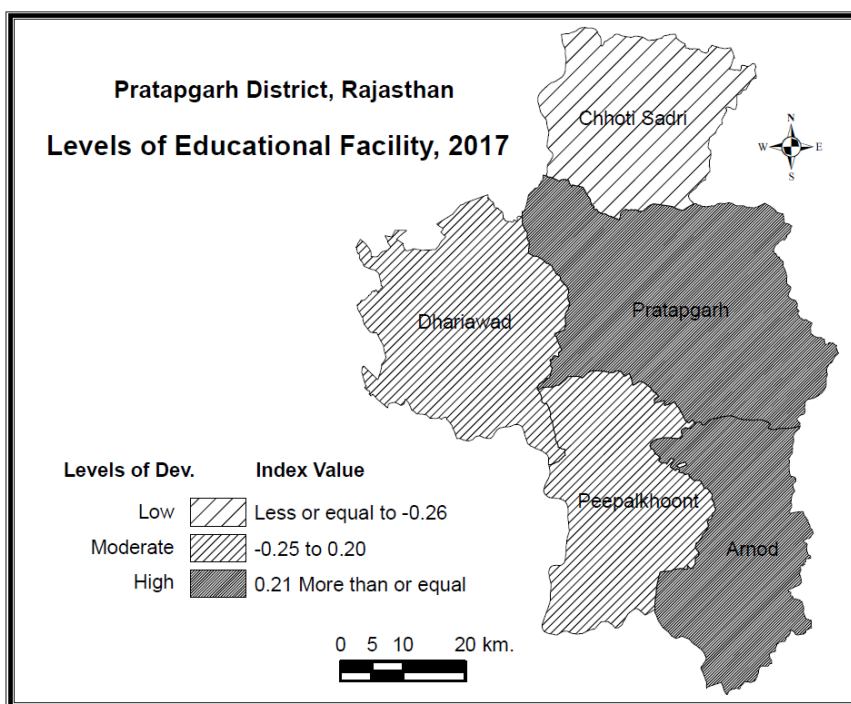As a result of composite index regional disparities found in the spatial pattern of educational development of various block of the district are shown in table no 2. On the basis of composite index value blocks are divided into three category of level of educational development.

Table.2: Composite index of educational amenities in Pratapgarh District Standardized Values

Block Name	Number of Centres Per Sq. KMs					Number of Centres Per Persons					Gross Values	C.I. Values	Rank
	10	50	100	200	1000	500	1000	5000	10000	20000			
	PS	UPS	SS	SrSS	Coll	PS	UPS	SS	SrSS	Coll			
	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10			
Arnod	0.93	0.93	0.07	1.69	-1.41	0.27	0.34	-0.58	1.36	-1.45	2.16	0.22	2.0
Chhoti Sadari	-0.99	-1.01	-1.05	-0.32	-0.18	-0.72	-0.77	-0.81	0.05	-0.14	-5.93	-0.59	5.0
Dhariyawad	-0.32	-0.31	0.87	-0.58	0.99	-0.58	-0.56	0.54	-1.23	0.86	-0.31	-0.03	4.0
Pipalkhut	1.19	1.18	-0.98	-0.83	-0.35	1.64	1.61	-0.66	-0.65	-0.30	1.85	0.18	3.0
Pratapgarh	-0.80	-0.80	1.09	0.04	0.94	-0.62	-0.62	1.51	0.47	1.02	2.23	0.22	1.0

Source: Calculate By the Authors
Source: Department of Education and Calculate By the Authors

Pratapgarh District, Rajasthan

Levels of Educational Facility, 2017

Chhoti Sadri

Dhariawad

Pratapgarh

Peepalkhoont

Arnod

Levels of Dev.   **Index Value**

Low   Less or equal to -0.26

Moderate   -0.25 to 0.20

High   0.21 More than or equal

0 5 10   20 km.

PS: Primary School, UPS: Upper Primary School, SS: Secondary School, SrSS: Senior Secondary School, C.I. Value: Composite Index Value.

The higher values of composite index relating to the blocks score shows high level of educational development and lower value of the index show low level of educational development. On this basis Pratapgarh district has been divided in three category of level of educational development. The study found that the High development of educational amenities is in Pratapgarh and Arnod block, Medium Development is in Dhariyawad and Pipalkhut and lowest is in Chhoti Sadari block. Regional disparities in the level of educational amenities in the district are varying in all blocks of Pratapgarh District. The detailed explanation of level of disparities is given below.

High Level

The High level amenities consist of two blocks namely Pratapgarh and Arnod respectively with having a range 0.21+ >. This block has high level educational amenities in all indicators and better conditions of education amenities.

Moderate Level

The moderate high level educational amenities consist of two blocks namely Dhariyawad and Pipalkhut respectively with having a range from -.25 to +.20. These blocks have moderate level educational amenities in all indicators and good conditions for educational institutions.

Low Level

The very low level educational amenities are found in 1 block namely Chhoti Sadari respectively having a range < -0.25 this is due to the reason that all these blocks have poor condition of institutions in all categories.

Conclusion

From the proceeding discussions it may be concluded that the pattern of educational amenities development is not uniform and equally distributed in all the blocks of Pratapgarh district. It has been clearly shown from Map no. 1 that in eastern area educational amenities are more developed than western part of the district. Most of rural areas and population are facing lack of educational facilities development in the district. It is also found that the Pratapgarh and Arnod block have comparatively high educational development than Chhoti Sadri block. It may be concluded that there is a very high regional disparity and backwardness in the level of health and educational facilities in rural areas of Pratapgarh district, so government should not only focus on amenities development but also focus on equivalent development of all blocks of the district. Therefore the blocks with low level of development should be given top priority so that they may come to the level of developed areas and the concept of planning with social justice sustainable development may be fulfilled.

Suggestions

1. Government should be established in all block headquarters of district.
2. Number of educational institute should be increase according to area and population in Chhoti Sadri and Dhariyawad block.
3. Better Facilities should be provided to students in those schools, which are located in highly developed areas.
4. There is a not any technical educational institute in district, so should be established in all block headquarters of district.

5. Distribution of educational institutions should be uniform according to population and area in district.
6. Availability of upper primary schools in all villages of district should be increased.

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