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RESEARCH ARTICLE

DISPARITIES IN LITERACY RATE IN NORTH BIHAR: A CRITICAL APPROACH

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ABSTRACT

Human Resource is the most important resource of a country. Development of a country depends on the development of human resource. A number of factors affect the development of human resource like food security, safe drinking water, sanitation, health facilities, educational facilities etc. Educational attainment is the key component of human resource development. Education enables the people to understand their ability to realize their wants by increasing their productivity and potential to achieve a good living standard. The data reveals the fact that North Bihar region has been and still remains one of the most educationally deprived states in India. In this region, however, the literacy rate is rising but, still it has the lowest literacy rate in India. More importantly, district wise, the level of literacy is unevenly distributed.

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INTRODUCTION

North Bihar, the study area, covers the total geographical area of Bihar to the north of river Ganga. It is bounded by the Indo-Nepal international boundary in the north, state-boundary of Bihar-West Bengal in the east and Bihar-Uttar Pradesh in the West. From latitudinal and longitudinal point of view it stretches from 25° 15' north to 27° 31' north latitude and 83° 05' to 88° 70' east longitude. It covers an area of 52,928 square kilometers. North Bihar is a flood prone area where meandering rivers have a vital impact on the life of the people. According to 1991 census total population of this area was 40,131,333 which rose to 40,231,444 in 2011. According to 1991 census the density of population was 757 persons per Km² which rose to 1235 in 2011. The density of population indicates that it is the area of great population pressure. For administrative purposes it has been divided into twenty-one districts and six administrative divisions. Table 1 illustrates the administrative divisions of the study area:

West Champaran is the largest district in term of area which is 5,228 square kilometers and East Champaran is the largest district in term of population. Which was 39,33,636 in 1991 and 40,33,636 in 2011. The smallest district in term of both area and population is sheohar district with area – Km² and population 5,15,961 in 2011.

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Sheohar and Supaul districts have been carved out from Sitamarhi and Shahrassa districts respectively.

Objectives of the paper

- J To analyze the spatial distribution of literacy in North Bihar
- J To compare the literacy trends of North Bihar with the literacy trends of Bihar
- J To examine the district wise pattern of literacy in North Bihar
- J To determine the factors that influence the distribution of literacy rate at regional and intra- regional level.

METHODOLOGY

Methodology is the essential part of any research work as it helps to proceed in a particular direction. Collection of data and its analysis is important to determine the objectives of the paper. Data may be primary, secondary or both. In this paper mainly, secondary data has been used. Data has been collected from census of India web site, district hand books, newspapers and periodicals. Method of Simple percentage has been used for the analysis of data. The data has been shown on multiple bar diagram, Simple line graph and on Choropleth map. For comparative study line graph, cartographic technique was used to show the trend of literacy rate. This line graph and bar graph also helps in giving legitimate references to the past trends and to elucidate variation and change.

RESULTS AND DISCUSSION

North Bihar has a population of 61310385 according to census of 2011. The growth rate at is same as the national average during 2001 – 2011. the density of population is 1235 person per square kilometer as compared to 1102 for the state. North Bihar is densely populated area owing no doubt to the long occupancy and the high fertility of land. The density however varies. It is the highest is the central and western parts of the region in the districts of Vaishali, Muzaffarpur, Darbhanga and Madhubani. The population has been gradually rising in this area. The phenomenal growth of population has resulted in the extreme pressure of population on land. The growth of population is particularly high in the Central Part. The impact of agricultural development, industrial growth and flood control measures can be associated with the growth of population in this region, the high growth rate of population has been recorded in Vaishali, Samastipur and Khagaria districts followed by Sharsha, Araria and Katihar districts.

The level of literacy is low in this region. Average literacy rate is 63% which is for below the national average of 74.08%. Literacy rate is higher in the districts like Siwan (71.59%), Saran (68.57%), Goplaganj (67.04%). Male literacy is much higher than female literacy. According to census of 2011, the average male literacy in Bihar was 71.43% whereas female literacy was 51.54%. In the recent times due to the efforts of the government and general awareness among the people, there has been good and welcome growth in literacy rate of the region. According to the census of 2011, in no district male literacy is below 60% where as in case of female literacy it is below 50% in the districts like Saharsa (42.73%), Sitamarhi (43.40%), Darbhanga (46.88%), Madhubani (48%), East Champaran (47.36%), West Champaran (46.79%), Araria (45.18%) etc. There is a lot to be done to improve this situation. Table 2 illustrates the pattern of literacy in North Bihar:

Examination of table indicates district wise variations in literacy rate. No doubt there has been improvement in literacy rate in the study area if we compare the literacy data from 1961 to 2011. The specific analysis of the data of 2011 reveals disparities in district wise literacy rate. The table indicates that only in one district the literacy rate is above 70 percent and that district is Siwan. In eight districts literacy rate is between 60 to 70 percent and in other district it is 50 to 60 percent. The lowest literacy rate has been recorded in Purnia and Katihar districts where it is 53.567 percent in each district. Social economic factors along with transportation facilities may be responsible for this type of pattern.

Literacy by Sex: There has been greater disparity in the literacy level of male and female population. Again, the literacy level of male and female population of North has also been lower in comparison to the literacy level of Bihar in ground. Table 3 makes it clear. It is crucial to analyze literacy by sex because there are wider variations in the literacy pattern of male and female population. A number of social, economic and cultural factors may be responsible for this type of pattern. It is a general trend that male literacy is higher than female literacy at the same time there are district wise disparities in male literacy trends. The following table 4 illustrates the trends of male literacy in in the study area:

Table 4 gives an idea of the distribution of male literacy in the reference census year. In 1961 nine districts had higher than the average and in 1971 also the number remained the same. However, in 1981 only seven districts reported above regional average but in 1991. Nine districts witnessed above regional average distribution. In 2001 nine districts reported higher male literacy rate than the regional average. In 2011 eight districts have shown higher male literacy rate there had been above 90% literacy during the first two census decades. It was only in 1981 that Saran reported above 40% literacy and in 1999 only two districts reported above 40% literacy rate. In 2001 no districts reported was really a big achievement. In 2011 no district has below 60% male literacy rate.

This has been possible due to steps taken by the government like appointment of teacher. up gradation of schools, distribution of cycles, dress, books and better implementation of mid-day meal programme and decentralization of educational management to ensure greater participation of locals in educational implementation. Female literacy is an important component of human resource development. Since the female population constitutes fifty percent of the population of any area it becomes essential to promote female literacy. It is said that a family can't be educated if the mother is illiterate because primarily the education of a child begins at home in which mothers have a greater role. In this context is crucial to analyze female literacy trends in the study area. Table 3.13 explains the female literacy pattern of the region. It is lower in comparison to male literacy due to number of factors. Table 5 explain the trends of female literacy in the study area:

Subsistence economy, early marriage, dowry system, low social status to female child, poverty. Orthodoxism etc. are some of the cause of low female literacy in North Bihar. There has been an increase in female literacy rate but no district has been able to achieve more than 20% literacy rate till 1991. In the census report of 1961 all districts had below 10% female literacy rate which continuous up to 1971 census. The female literacy rate was above 10% in nine districts in the census report of 1981. During 1991 Vaishali district reported the high female literacy rate which was 18.90% followed by Begusarai 18.47% and Saran 18.18%. In 2001 census report the highest literacy rate was reported in Siwan (36.88%) followed by Vaishali (36.58%) and Begusarai (35.64%), the lowest literacy rate was reported in Kishanganj which was 18.63%. In 2011 census report in no district the female literacy rate is below 40% and the average female literacy rate of the region is 51.54%. The highest female literacy rate has been reported in Siwan (60.35%) followed by Vaishali (59.10%) and Saran 56.89%. There has been remarkable growth in the female literacy rate of the region during the last decade which is basically due to the steps taken by the government like opening new schools, upgradation of existing schools, appointment of teachers especially of female teachers at primary and middle school level, Cycle for the girls of class nine and dress for the girls of class seven. Socio-economic changes and shift in the mentality of the people may also the cause for the same.

Rural Urban Literacy Trends: It is general trend that urban literacy level has been high not only from rural literacy level but also from general literacy level. The following table 6 signifies this trend.

Table 1. Administrative divisions of North Bihar

Sl. No	Administrative Divisions	Districts	District Headquarters
1	Saran	Saran, Siwan Gopalganj	Chapra Siwan Gopalganj
2	Tirhut	West Champaran East Champaran Sitamarhi Muzaffarpur Vaishali Sheohar	Betiah Motihari Sitamarhi Muzaffarpur Hajipur Sheohar
3.	Darbhanga	Darbhanga Madhubani Samastipur	Darbhanga Madhubani Samastipur
4	Kosi	Saharsa Madhepura Supaul	Saharsa Madhepura Supaul
5	Purnia	Purnia Katihar Kishanganj Araria	Purnia Katihar Kishanganj Araria
6.	Munger	Begusarai Khagaria	Begusarai Khagaria

Table 2. Pattern of literacy in North Bihar

S. N.	District	Literacy in Percentage					
		1961	71	81	91	2001	2011
1.	Saran	20.56	21.99	27.28	32.84	51.80	65.57
2.	Siwan	17.80	18.31	23.71	30.66	51.65	71.59
3.	Gopalganj	15.12	16.11	21.37	27.59	47.48	67.04
4.	West Champaran	12.73	13.98	18.79	22.21	38.93	58.06
5.	East Champaran	13.50	14.30	19.33	21.83	37.54	58.26
6.	Sitamarhi	13.98	14.27	19.57	22.46	38.46	53.53
7.	Muzaffarpur	18.20	18.34	24.26	28.84	47.95	65.68
8.	Vaishali	19.58	19.47	25.56	31.96	50.49	68.56
9.	Begusarai	18.66	18.97	26.06	29.24	47.98	66.23
10.	Samastipur	18.10	18.96	24.86	28.72	45.13	63.81
11.	Darbhanga	16.46	18.21	23.94	27.7	44.33	58.26
12.	Madhubani	15.75	17.03	21.75	26.59	41.97	60.90
13.	Saharsa	12.30	15.20	20.58	22.96	39.08	54.57
14.	Madhepura	13.73	16.06	19.60	21.92	36.07	52.78
15.	Purnia	15.51	16.14	20.01	22.38	35.10	53.56
16.	Katihar	17.01	16.74	21.03	22.37	35.09	53.56
17.	Khagaria	20.14	17.12	20.02	25.50	41.35	60.87
18.	Araria	15.77	15.14	19.61	20.48	35.01	55.10
19.	Kishanganj	16.20	14.01	17.31	17.49	31.09	57.04
20.	Supaul	NA	NA	NA	NA	35.27	56.00
21.	Sheohar	NA	NA	NA	NA	35.27	56.00
North Bihar-		16.31	17.00	22.18	25.10	41.45	62.04
Bihar-		18.40	19.9	26.20	30.56	47.00	63.82

Table 3. Decadal Literacy Growth Trends in North Bihar

Census Year	Literacy%(Bihar)		Literacy% (North Bihar)	
	Male	Female	Male	Female
1961	29.80	6.90	27.16	5.70
1971	30.60	8.70	26.89	6.78
1981	38.11	13.62	33.08	10.82
1991	47.96	18.50	36.55	14.35
2001	59.68	33.12	55.05	27.75
2011	73.39	53.30	71.93	51.54

It is clear from the above table that the urban literacy level was 38.44 percent in 1961. While the rural literacy level has not been able to achieve that level even in 1991 when the reported rural literacy level was only 24.09%. Urban literacy distribution is broadly divided into five categories.

Rural Urban Pattern of literacy in North-Bihar: It is very important to compare the rural and urban pattern of literacy for any Geographical Studies. It is essential to know the variation in literacy rate in rural and urban areas which is the outcome of social economic growth and availability of educational

Table 4. Male Literacy in North Bihar

S. N.	District	% Literacy					
		1961	71	81	91	2001	2011
1.	Saran	36.73	36.41	42.83	47.27	67.30	79.71
2.	Siwan	31.61	31.07	37.66	44.72	67.26	82.77
3.	Gopalganj	27.04	27.40	34.33	40.70	62.96	78.38
4.	West Champaran	20.58	21.79	27.79	31.80	51.08	68.16
5.	East Champaran	22.34	22.27	29.15	31.62	49.31	68.02
6.	Sitamarhi	23.06	22.42	28.77	13.56	49.36	62.56
7.	Muzaffarpur	29.48	28.37	34.88	38.88	59.10	73.61
8.	Vaishali	33.21	31.47	38.32	43.99	63.23	77.00
9.	Begusarai	30.26	28.71	36.38	38.90	59.13	74.36
10.	Samastipur	30.26	29.68	36.62	39.87	57.59	73.09
11.	Darbhanga	27.43	28.39	35.00	38.63	56.92	68.58
12.	Madhubani	27.37	24.40	31.20	33.15	51.66	65.22
13.	Saharsa	23.70	24.40	31.20	33.15	51.66	65.22
14.	Madhepura	22.74	25.07	29.33	31.32	48.80	63.82
15.	Purnia	24.79	24.43	29.03	30.80	45.63	61.99
16.	Katihar	26.19	25.37	30.03	30.88	45.31	60.99
17.	Khagaria	20.14	17.12	20.02	25.50	41.35	60.87
18.	Araria	15.77	15.14	19.61	20.48	35.01	55.10
19.	Kishanganj	16.20	14.01	17.31	17.49	31.09	57.04
20.	Supaul	NA	NA	NA	NA	35.27	56.00
21.	Sheohar	NA	NA	NA	NA	35.27	56.00
North Bihar-		16.31	17.00	22.18	25.10	41.44	62.04
Bihar-		18.40	19.9	26.20	30.56	47.00	63.82

Table 5. Female Literacy in North Bihar

S. N.	District	% Literacy					
		1961	71	81	91	2001	2011
1.	Saran	6.97	8.29	12.03	18.88	35.82	56.89
2.	Siwan	5.95	6.45	10.68	16.80	36.88	60.35
3.	Gopalganj	4.26	5.01	8.48	14.12	32.16	56.03
4.	West Champaran	4.40	5.41	8.94	11.28	25.23	46.79
5.	East Champaran	4.71	5.83	8.72	10.73	24.27	47.36
6.	Sitamarhi	5.17	5.80	9.71	12.14	26.13	43.40
7.	Muzaffarpur	7.46	8.24	13.23	17.73	35.81	56.82
8.	Vaishali	6.83	7.68	12.67	18.90	36.58	56.82
9.	Begusarai	7.32	8.61	15.14	18.47	35.64	57.10
10.	Samastipur	6.40	7.87	12.77	16.68	31.67	53.22
11.	Darbhanga	6.36	7.94	12.63	15.87	30.78	46.88
12.	Madhubani	4.75	6.29	9.44	13.36	26.25	48.30
13.	Saharsa	4.17	5.28	9.22	11.58	25.27	42.73
14.	Madhepura	4.02	6.07	9.02	11.29	22.11	42.75
15.	Purnia	5.52	7.06	10.24	13.06	23.42	43.19
16.	Katihar	7.15	7.42	11.34	13.02	23.80	45.37
17.	Khagaria	5.26	7.52	9.01	15.42	29.35	52.16
18.	Araria	5.43	5.61	9.54	10.82	22.37	45.18
19.	Kishanganj	5.18	4.75	7.52	8.11	18.63	47.98
20.	Supaul	NA	NA	NA	NA	23.86	47.25
21.	Sheohar	NA	NA	NA	NA	20.81	46.63
North Bihar-		5.7	6.78	10.82	14.35	27.75	51.54
Bihar-		6.9	8.70	13.62	18.05	33.12	53.33

Table 6 (% of Literacy)

Literacy Categories	1961	71	81	91	2001	2011
General	16.31	17.00	22.18	25.70	41.44	62.04
Urban	38.44	37.98	43.60	49.35	60.70	73.77
Rural	15.19	15.77	19.10	24.09	39.17	60.39

infrastructure. Table 7 shows the pattern of rural and urban literacy rate in North Bihar:

The minute observation of the table and figures reveal that there is large scale variation in rural and urban literacy pattern. In case of rural literacy rate there are disparities in male and female literacy.

The maximum rural male literacy has been recorded in Siwan district where it is 82.35 percent whereas the minimum rural male literacy has been recorded in Katihar district where it is 58.55 percent. As many as four districts have above 75 percent rural male literacy. In five districts rural male literacy rate is between 70 and 75 percent These districts are Supaul, Samastipur, Begusarai, Madhubani and Muzaffarpur.

Table 7. District wise percentage of literacy in North Bihar for rural and urban areas 2011

S.No.	Districts	Percentage of Literacy					
		Rural			Urban		
		Total	Male	Female	Total	Male	Female
1.	Saran	67.66	79.26	55.57	77.53	84.05	70.36
2.	Siwan	70.96	82.35	59.55	82.17	89.48	74.21
3.	Gopalganj	66.39	77.93	55.23	76.48	84.58	69.06
4.	West Champaran	56.33	66.87	44.60	72.74	79.09	65.57
5.	East Champaran	56.94	66.98	45.74	73.21	79.56	65.96
6.	Sitamarhi	52.24	61.45	41.93	74.43	80.54	67.46
7.	Muzaffarpur	63.75	72.09	54.44	82.44	86.73	77.60
8.	Vaishali	67.98	76.59	58.35	76.47	82.56	69.52
9.	Begusarai	63.97	72.59	54.29	75.59	81.68	68.72
10.	Samastipur	63.10	72.53	52.66	82.37	87.76	76.37
11.	Darbhanga	56.13	66.86	44.30	77.28	83.86	69.95
12.	Madhubani	60.41	72.19	47.68	73.28	81.22	66.70
13.	Saharsa	52.40	63.41	40.19	77.66	84.11	70.27
14.	Madhepura	52.74	62.93	41.57	75.04	81.71	67.47
15.	Purnia	49.81	58.79	40.15	74.14	79.30	68.33
16.	Katihar	50.92	58.55	42.52	78.63	83.91	72.68
17.	Khagaria	59.83	67.63	50.93	78.54	83.05	73.27
18.	Araria	53.88	63.11	43.78	73.22	79.32	66.33
19.	Kishanganj	55.20	63.99	45.90	73.29	79.32	66.70
20.	Supaul	58.89	71.08	45.68	74.42	82.46	65.31
21.	Sheohar	55.59	63.29	46.86	65.10	73.19	55.87
	North Bihar	60.39	70.44	49.85	73.77	81.33	66.78
	Bihar	61.83	71.90	50.82	73.39	84.42	72.36

In other districts rural male literacy rate is between 60 and 70 percent except for Katihar and Purnia districts where it is 58.55 and 58.79 percent respectively. In case of rural female literacy, the maximum literacy rate has been recorded in Siwan district where it is 59.55 percent and the minimum literacy rate is in Purnia. The analysis of urban literacy pattern gives an impression that male literacy is much higher than female literacy. In case of urban male literacy, the maximum literacy rate has been recorded in Siwan district (89.48 percent) whereas the minimum literacy rate has been recorded in Sheohar district (73.19 percent). In other districts the urban male literacy rate is above 80 percent except for Paschim Champaran (79.09), East Champaran (79.56), Purnia (79.30), Araria (79.32), Kishanganj (97.32) and Sheohar (73.19). The analysis of urban female literacy rate exposes the maximum literacy rate is in Muzaffarpur district where it is 77.60 percent whereas the minimum literacy rate is in Sheohar district where it is 55.87 percent. In no district the urban female literacy rate is above 75 percent. Lack of educational institutions at local level, poor economic status of the people, lack of transportation facilities, social customs, and lack of awareness may be the cause of such pattern.

Conclusion

North Bihar covers an area of 52,928 km² which is 29.5% of the total area of Bihar. The region is inhabited by 65,398,660 persons which is 63.01 percent of the total population of Bihar. It is basically a plain area except a small patch of Siwalik Hills in Paschim Champaran district. Presently it has twenty districts. It is a district-based research work where 21 districts have been taken for investigation. In the light of discussions, it may be concluded that over all literacy rate of North Bihar shows an increasing trend from 16.31 per cent in 1961 to 62.04 per cent in 2011. If we compare it with the national literacy rate it is considerably behind. What further confounds the picture is the considerable disparity between educational achievements within districts, between rural and urban areas and between

social groups. The data on women and girls in Bihar reveal certain facts that ought to be of great concern to educationists, planners and policy makers. While the female literacy may have exhibited the decadal increase, but it still remains, considerably lower than male literacy rate. The social fabric not only segregates community into strong like of caste system but also has effect on the livelihood pattern at large. As elsewhere, much of the gaps in education of the state can be attributed to caste status, gender, poverty, lack of educational infrastructure and old-fashioned thinking of the people. In the recent years there has been considerable change in the scenario due to the steps taken by the government like cycle scheme, upgradation of schools, poshak scheme, large scale appointment of teachers etc. Still a lot has to be done.

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