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Status of rural literacy in Purulia district, West Bengal

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Abstract

For any economy, literacy and education is considered as the main pillar of development. According to Indian census "a person who can read and write a simple message in any language with understanding is considered as literate". In 2001 census the difference of rural male and female literacy is high in Purulia district. A male female differential is more prominent among the S.C and S.T population. The present paper focuses in the rural areas of the Purulia district and its 20 blocks to understand its literacy condition. This paper investigates the actual spatial pattern of general literacy along with scheduled caste and scheduled tribe literacy. The rate of literacy and its pattern vary in rural and urban areas. The paper also research on this vital issue. The changing rate of rural literacy from 2001 to 2011 also differs from block to block of this district. The paper tries to find out the reason and pattern of such disparities. The whole analyse will try to throw some light on the literacy development in the rural areas of the Purulia district covering 20 blocks on the basis of census data published by government of India.

Keywords: block wise literacy status, temporal change of literacy, scheduled caste

Introduction

By rural development we mean the process of improving the quality of life and economic well being of people living in rural areas. Literacy and Education are the key variables for economic development especially for rural areas in this country. In this paper main focus given on female education in Purulia district. If females are illiterate, then this has a direct and negative impact on rural sector. When a girl or a woman is uneducated, the entire family has to bear the consequences of her illiteracy. Education and better literacy level have a positive impact on the health parameters, higher productivity, higher income, human freedom, increased participation in community life etc. In India it has been found out that illiterate women face more deprivation in life than literates. They have high levels of fertility and also mortality. They also suffer from malnutrition and all other related health problems and these are due to lack of literacy. Different studies found out that infant mortality rate are inversely related to mother's educational level. And this will hamper the family as well as the nation's progress as a whole. Illiterate women are not aware of their rights. They know nothing about government policies taken for their welfare. It is true that women's education and employment plays an important role in empowering women. Due to different literacy development programmes of central and state government there is an increasing trend of rural literacy rate as well as rural literacy rate for both males and females in this district. Among the 19 districts the rank of the district is 17 in terms of literacy. In 2011 the literacy rate of Purulia was 65.38%. In between 2001 and 2011 there is 9.24% change in rural literacy in this district. In Purulia, female literacy is very poor condition, in 2001 it was 37.15 % and in 2011 it is 50.52%, which is 27.34% lesser than male literacy. The central theme of the paper is the change of literacy of different blocks of Purulia district form 2001 to 2011 and find out the difference of literacy and its change among the different caste and sex.

Objectives of the Study: This study has the following objectives.

- To study the spatial pattern of Rural Literacy in different blocks of Purulia district.
- To examine the changing pattern of Rural Male and Female Literacy in Purulia district.
- To analyse the literacy rates of rural scheduled caste and scheduled tribe population by sex.
- To expose the Male Female Literacy difference in Purulia district
- To find out the correlation between literacy and gender ratio in Purulia in 2011.

Study area: Our study area is at Purulia. The district is located in the western side of west Bengal. This district is between 22°42'35" and 23°42'0" north latitude and 85°49'25" and 86°54'37" east longitude. The district is bordered on the east by Bankura, Paschim Mednipur district on the north by Bhardhaman district of West Bengal state and Dhanbad district of Jharkhand state. On the west by Bokaro and Ranchi district of Jharkhand state and on the south by West Singhbhum and East Singhbhum district of Jharkhand state. The district is an integral part of Chhotonagpur plateau. The district headquarter situated in Purulia town itself, having three administrative sub division and two agricultural subdivision having headquarter one at Purulia town and another one at Raghunathpur. The total geographical area of the district is 6259 sq. kms (Census 2001). Out of which the Urban and Rural areas are 79.37 sq. kms (1.27%) (Municipalities & Non-Municipalities) and 6179.63 sq. kms (98.73 %) respectively.

Data and methodology: The paper is based on secondary data sources. Maximum data is taken from 1991, 2001 and 2011 Census Reports published by the Government of India, District Statistical Hand books published by the Bureau of Applied Economics and Statistics, Government of West Bengal. Apart from these, a number of articles published in various national and international journals have also been consulted for the purpose. The two variables that are the literacy rate and sex of Purulia has been taken for this study. The data were processed and calculated the correlation between literacy and sex ratio using spearman's correlation coefficient method.

$$R=1-(6\sum D^2/N^3-N)$$

Where, N= Number of Observations

D= Difference between Ranks

To measure the real development of literacy we use UNDP methodology of Range Equalization. To measure the progress of relative achievement of literacy rate the following formula is considered.

$$Z_i = (\text{Actual } X_i - \text{Min } X_i) / (\text{Max } X_i - \text{Min } X_i)$$

Where X_i = literacy rate of the i-th blocks for a particular time point, Z_i is an index that measures the relative position of a particular block. It may be called the achievement index of a block.

Literacy rate: According to census of 2011, the literacy rate of west Bengal is 77.08 %. Among the 29 states and 7 union territories, the rank of the state is 20th in terms of literacy. In 2011 census, the literacy rate of Purulia is 65.38% which is 11.70% less than the state. Among the 19 districts, the rank of the district is 17th in terms of literacy. In 2001, the literacy rate of Purulia was 56.14%, and only 9.24% literacy development is found during last 10 years. Female literacy is also very poor condition in this district. In 2001, it was 37.15% and in 2011 it is 50.52 %, So only 13.37% female literacy increased in last 10 years. In 2011 77.86. % of males are literates, so female literacy is 27.34% lesser than male literacy.

Spatial Variation of Literacy Rate: Following table shows block wise distribution of literacy rate of total population by sex and their changing pattern from the census year of 2001 and 2011 in Purulia district. Among the blocks Kashipur has highest literacy rate at 61.75 % in 2001 and 69.29% in 2011. Jhalda-II block has the lowest literacy rate at just 43.75% in 2001 and 54.6% in 2011. Thus, we see that the literacy rate differs from block to block. So all 20 blocks of Purulia district are divided into 3 categories as follows.

- **High Literacy Rate:** In 2011, the areas have the literacy rate above 80% are included in high literacy category. Due to large no of educational institutions, availability of educational facilities, high rate of urbanisation, development of transport facilities etc. increases literacy rate in such areas. But unfortunately there are no such blocks in Purulia district where literacy rate is 80% and above.
- **Moderately Literacy Rate:** The areas which have literacy rate in between 70% to 80% are known as moderate literacy area. Moderate literacy was found due to the lack of educational institutions and educational facilities. Among the 20 blocks of Purulia district Kashipur is the only block which was found moderate literacy.
- **Low Literacy Rate:** The area which have literacy rate below 70% are included in this category. Due to the lack of educational facilities, poverty, low student teachers ratio, all the blocks of this district have low literacy rate. (Except Kashipur)
- Changes in literacy rate in Purulia district during the decades 2001-2011 is shown in the following figure.

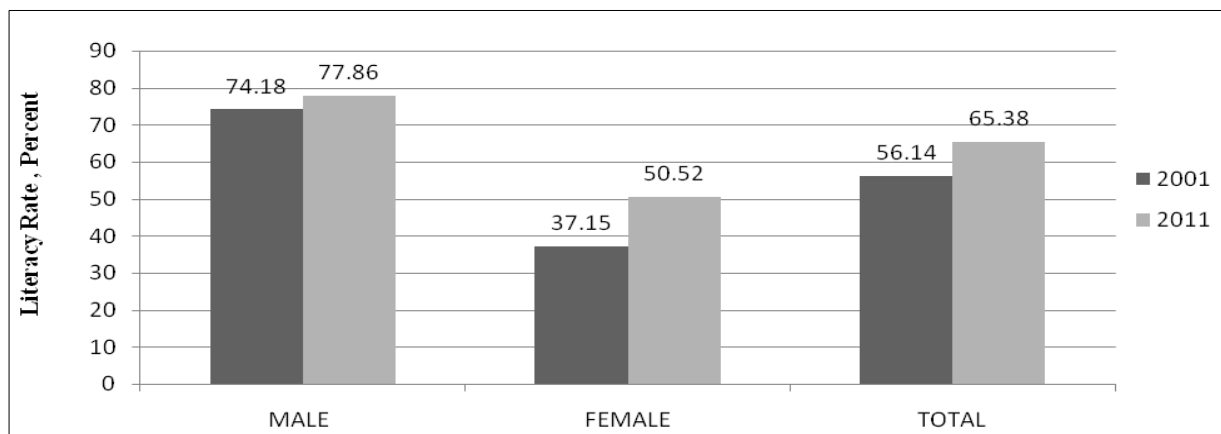


Fig 1: Changes in literacy rate in Purulia during 2001-2011

Table 1: Changing Pattern of Rural Literacy Rate (Total) from 2001 to 2011

Blocks	2001 Rural Literacy Rate			2011 Rural Literacy Rate			Difference		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Purulia – II	56.17	75.48	35.71	63.55	77.03	49.51	7.375	1.55	13.8
Hura	59.03	76.42	41.21	68.79	81.95	55.27	9.768	5.53	14.06
Purulia – I	54.4	73.84	33.47	64.58	78.24	50.13	10.18	4.41	16.66
Puncha	57.34	75.25	39.06	68.14	81.16	54.82	10.8	5.91	15.76
Manbazar– I	55.09	74	35.94	62.57	77.13	47.73	7.486	3.13	11.8
Manbazar - II	53.52	73.04	33.36	60.27	74.64	45.76	6.749	1.6	12.4
Bundwan	47.67	66.52	28.46	60.25	73.8	46.63	12.58	7.28	18.17
Jaipur	50.11	71.29	26.85	57.21	71.67	41.74	7.101	0.38	14.88
Arsha	46.02	67.43	23.6	54.78	70.36	38.75	8.765	2.93	15.15
Jhalda - I	53.76	73.72	33.18	66.66	80.6	52.14	12.9	6.88	18.97
Jhalda - II	43.75	68.01	18.37	54.6	72.53	35.97	10.84	4.52	17.6
Bagmundi	46.95	67.61	25.12	57.17	72.14	41.42	10.22	4.53	16.3
Balarampur	45.77	65.41	25.14	57.19	71.89	41.69	11.42	6.48	16.56
Barabazar	51.25	71.98	30.21	62.41	77.26	47.27	11.16	5.28	17.06
Para	55.59	74.71	35.21	65.17	79.71	49.7	9.579	5	14.48
Raghunathpur - II	54.04	71.49	35.66	66.93	80.72	52.31	12.9	9.23	16.65
Raghunathpur - I	55.29	71.08	38.58	64.18	76.48	51.03	8.894	5.4	12.45
Neturia	55.75	71.6	38.75	63.06	75.97	49.38	7.311	4.37	10.63
Santuri	56.5	72.02	39.98	65.09	77.25	52.42	8.581	5.22	12.44
Kashipur	61.75	78.48	44.42	69.29	81.84	56.33	7.534	3.35	11.91

Source: Computed by author from Census of West Bengal in 1991, 2001 and 2011

Temporal change in general literacy: From the above table we see that according to 2011 census highest literacy rate is found in Kashipur block and lowest literacy rate is found in Jhalda-II block. In Kashipur the literacy rate is 69.29 % and in Jhalda-II the literacy rate is 54.6%. The rate of change of literacy from 2001 to 2011 is low in Manbazar-II block (only 6.75%).The other neighbouring blocks like Arsha, Jaipur, Hura, Manbazar-I, Purulia-II, Kashipur, Neturia, Para, Raghunathpur-I and Santuri shows a lower

literacy rate. The rate of change of literacy of these blocks are less than 10%. The rate of change of literacy is high in the block Jhalda I. The rate is near about 13% (12.90%). The other blocks which shows higher literacy rate are Baghmundi, Balarampur, Barabazar, Bandwan, Jhalda-II, Puncha, Purulia-I and Raghunathpur–II. The rate of change of literacy in these blocks are greater than 10%. The rate of change of literacy is shown in the following figure.

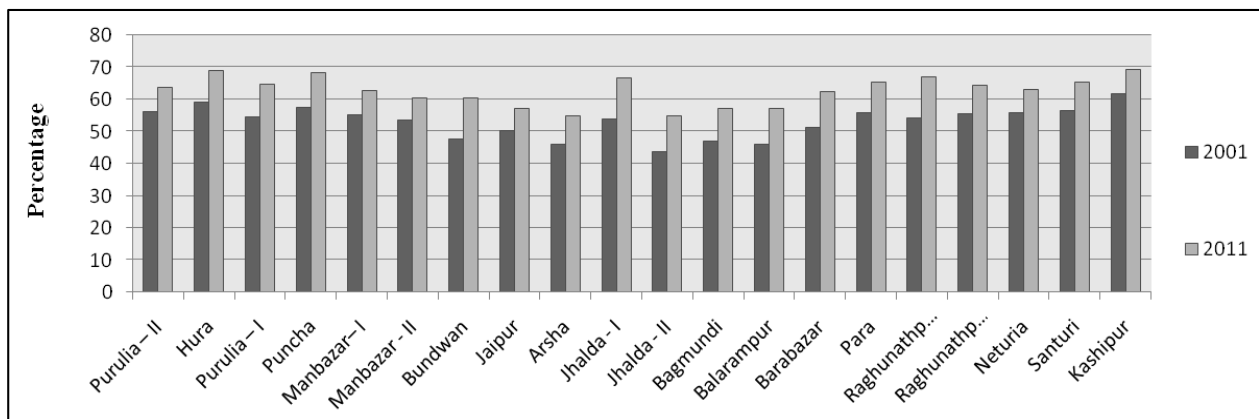


Fig 2: Rural literacy rate of Purulia district in 2001-2011

Temporal change in male literacy: When we compare male literacy rate in the year 2011 it is observed that male literacy rate in West Bengal is 81.69% whereas in the district of Purulia male literacy rate is 77.86% which is lower than the state level. In 2011, Highest male literacy rate is observed in Hura block and lowest is found in Arsha block. In Hura block male literacy rate is 81.95% whereas in

Arsha block the male literacy rate is 70.36%. In Raghunathpur-II The increase of male literacy is high during the decades 2001-2011. 9.23% male literacy is increased in this block. The rate of change of male literacy is high (above 7 percent) in the blocks of only Bandwan. Less than 7 percent male literacy is observed in rest of the blocks. The rate of change of literacy has shown in the following figure.

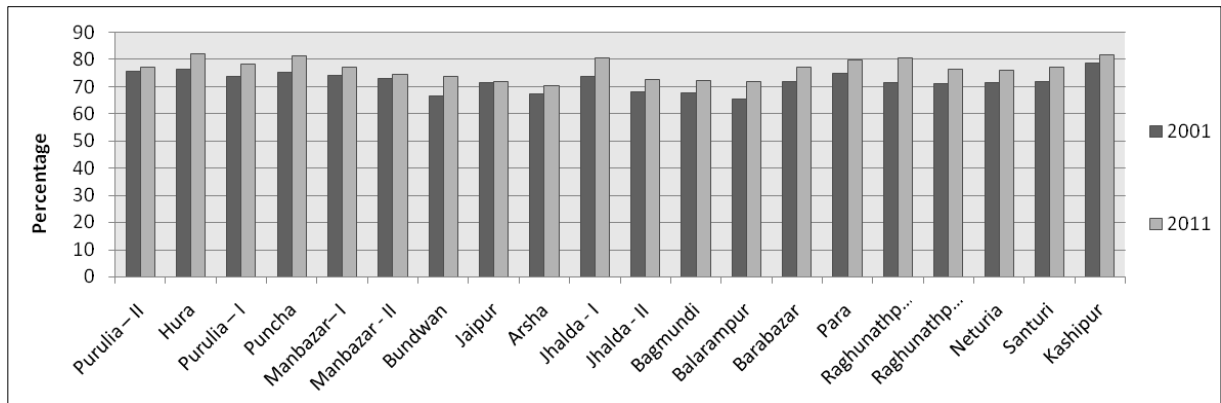


Fig 3: Rural (Male) literacy rate of Purulia in the year 2001-2011

Temporal Change in Female Literacy: In west Bengal female literacy rate in 2011 is 70.54% whereas in the district of Purulia the female literacy rate is 50.52% which is much lower than the state level. Female literacy of Purulia district is in very poor condition. Highest female literacy rate is observed in the block Kashipur and lowest is found in the block of Jhalda II. The female literacy rate of Kashipur is 56.33 % whereas the female literacy rate of Jhalda-II is 35.97%. In Jhalda-I block the increase of female literacy is

high during the decades 2001-2011. About 19% (18.96%) female literacy is increased in this block. The rate of change of female literacy is high (above 15 percent) in the blocks of Puncha, Purulia-I Arsha, Jhalda-II, Bagmundi, Balarampur, Barabazar Raghunathpur-II and bandwan. On the other hand less than 15 percent female literacy is observed in rest of the blocks of this district. The rate of change of female literacy has shown in the following figure.

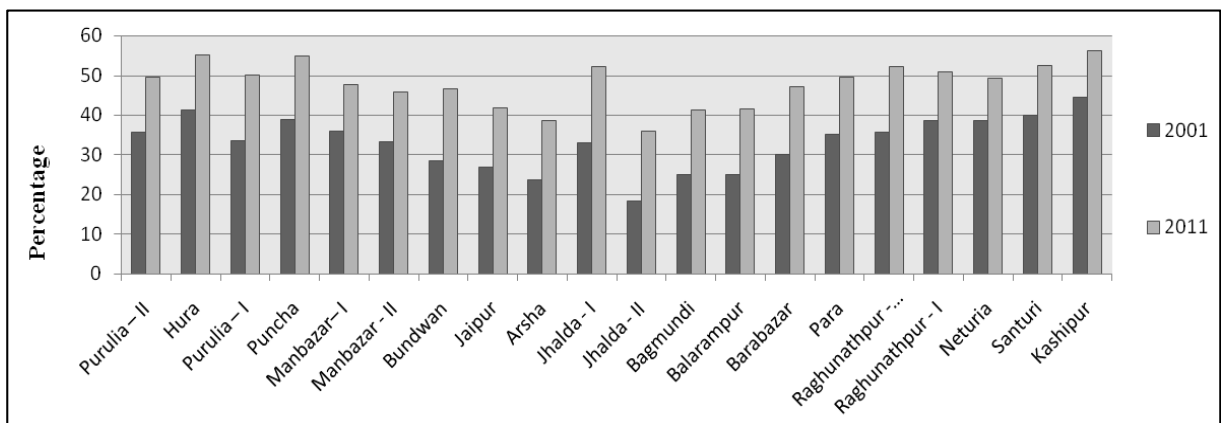


Fig 4: Rural (Female) literacy rate of Purulia in the year 2001-2011

Table 2: Male-Female Literacy Difference (Total) in the Year 2001-2011

Blocks	Male female literacy difference in 2001	Male female literacy difference in 2011	Literacy difference in 2011 and 2001
Purulia - II	39.77	27.52	12.25
Hura	35.21	26.68	8.531
Purulia – I	40.37	28.12	12.25
Puncha	36.19	26.34	9.852
Manbazar - I	38.06	29.4	8.667
Manbazar - II	39.69	28.88	10.8
Bundwan	38.07	27.18	10.89
Jaipur	44.43	29.93	14.5
Arsha	43.82	31.61	12.21
Jhalda – I	40.55	28.46	12.09
Jhalda – II	49.64	36.55	13.08
Bagmundi	42.49	30.72	11.77
Balarampur	40.27	30.2	10.08
Barabazar	41.77	30	11.78
Para	39.5	30.02	9.485
Raghunathpur - II	35.83	28.41	7.42
Raghunathpur - I	32.5	25.45	7.049
Neturia	32.85	26.58	6.265
Santuri	32.04	24.82	7.217
Kashipur	34.06	25.51	8.551

Source: Computed by author from Census of West Bengal in 1991, 2001 and 2011.

Total female literacy and its change: In Purulia female literacy rate is very low. It is 50.52% in the year 2011. The highest Female literacy is observed in Kashipur (56.32%) and lowest in Jhalda-II (35.97%). If we observed the Male-Female difference of literacy of different blocks of Purulia we see that it does not follow any zonal pattern. Male-Female literacy differential has changed significantly with

the advancement of time. For every blocks it is observed that the difference of Male and female literacy is went down from 2001 to 2011. In 2001 the male female literacy difference in Jaipur block was 44.43% whereas in 2011 the difference decreases to 29.93 %. So the difference diminishes up to 14.5 percent.

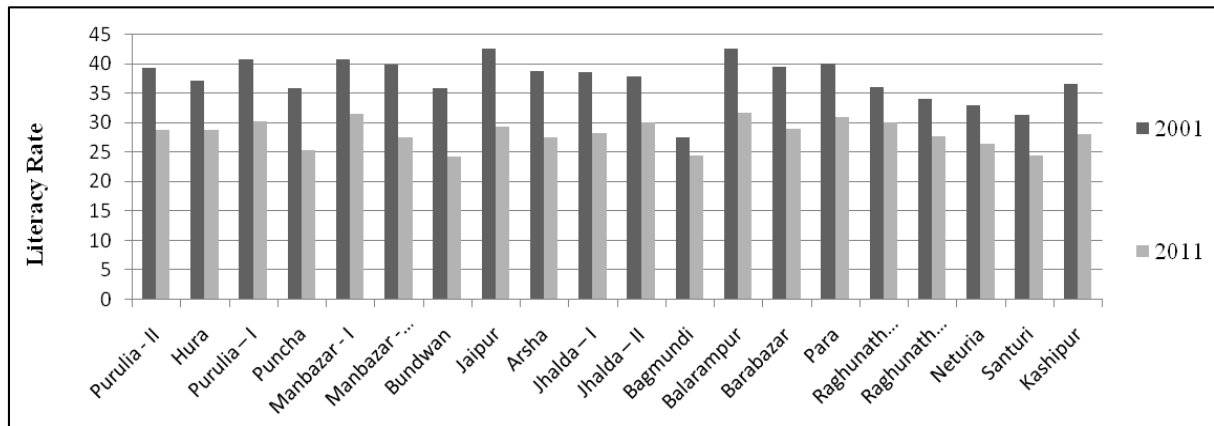


Fig 5: Male Female literacy Difference in Purulia in 2001 & 2011

On the other hand, the male female literacy difference in Neturia was 32.85% in 2001 whereas in 2011 the difference diminishes to 26.58% and the difference diminishes only 6.27%. The literacy difference decreases more than 10% in Purulia-I, Purulia-II, Arsha, Jhalda-I, Barabazar, Jhalda-II, Bagmundi Balarampur, Manbazar-II and Bandwan block. The other blocks shows that the literacy difference decreases less than 10%. From the above discussion we say that the female literacy of Purulia has increased sufficiently and Male-Female differentials also going to diminish with the time. The heterogeneity of distribution of female literacy in different blocks in 2001 and 2011 can be measured by using some measure of dispersion. The result of dispersion (S.D) shows that the distribution of Female literacy is more homogenously distributed among all the Blocks of Purulia

than the past. The S.D of 2001 and 2011 are 6.75 and 5.64 respectively and the Range of two consecutive census year are 26.05 and 20.35. Again the Coefficient of Variation (C.V) for the year 2001 is 20.38 and for the year 2011 is 11.75. No doubt it is a hopeful picture of literacy development as well as female advancement in Purulia district.

Table 3: Measures of Dispersion of Female Literacy (Total) in the Blocks of Purulia in the year 2001-2011

Year	Range	S.D	C.V
2001	26.05	6.75	20.38
2011	20.36	5.64	11.75

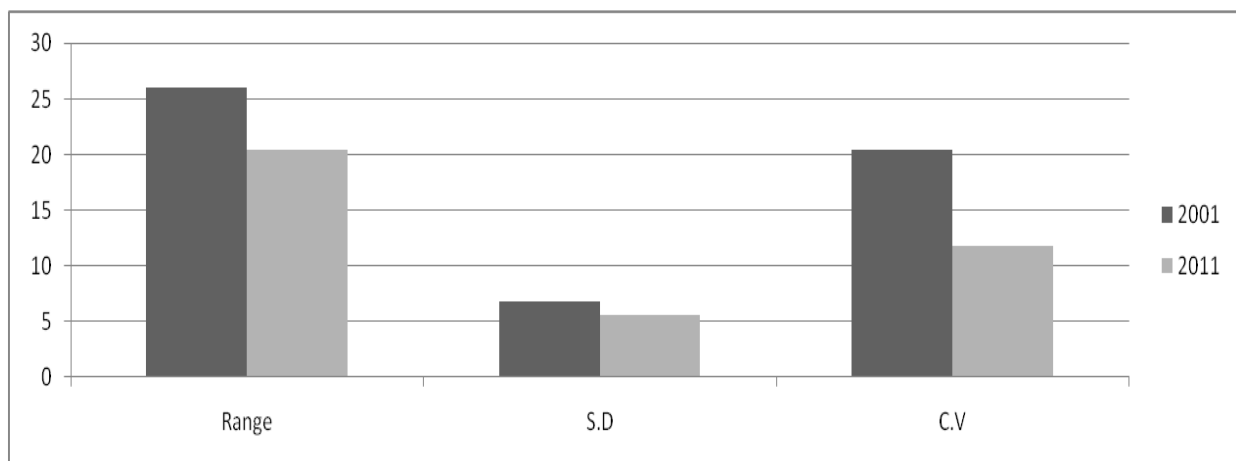


Fig 6: Measures of dispersion of female (Total) literacy in Purulia in 2001-2011

Since S.D and C.V decreases, that is the policy towards more uniform pattern of spread of education has become successful and disparity among students with respect to the

literacy rate has become decrease. It is a hopeful picture of literacy development in rural area.

Table 4: Changing Pattern of Rural S.C Literacy Rate from 2001 to 2011

Blocks	2001 Rural S.C Literacy Rate			2011 Rural S.C Literacy Rate			Difference		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Purulia – II	43.73	62.77	23.5	53.03	67.01	38.29	9.3	4.24	14.78
Hura	47.73	65.87	28.89	60.53	74.57	45.84	12.8	8.71	16.95
Purulia – I	44.07	63.62	22.89	54.97	69.71	39.51	10.9	6.09	16.61
Puncha	42.32	59.94	24.21	56.04	68.62	43.32	13.72	8.68	19.11
Manbazar–I	42.29	62.51	21.77	52.71	68.25	36.88	10.42	5.74	15.11
Manbazar - II	53.52	73.35	33.52	61.22	74.97	47.47	7.706	1.63	13.95
Bandwan	54.65	72.29	36.44	69.89	81.7	57.52	15.25	9.41	21.09
Jaipur	41.97	62.39	19.95	50.15	64.21	34.94	8.18	1.82	14.99
Arsha	43.19	61.97	23.2	49.56	62.89	35.45	6.363	0.92	12.25
Jhalda - I	41.14	59.68	21.24	52.2	65.77	37.65	11.06	6.08	16.41
Jhalda - II	30.84	49.18	11.43	41.61	56.18	26.23	10.77	7	14.8
Bagmundi	25.81	39.38	11.83	37.02	48.97	24.51	11.21	9.59	12.68
Balarampur	46.53	67.34	24.79	55.93	71.02	39.35	9.405	3.68	14.56
Barabazar	38.02	57.21	17.83	52.72	66.98	38.11	14.7	9.77	20.28
Para	42.99	62.4	22.48	54.77	69.84	38.86	11.77	7.44	16.38
Raghunathpur - II	40.76	58.29	22.28	58.94	73.52	43.55	18.18	15.2	21.26
Raghunathpur - I	42.84	59.31	25.27	53.02	66.38	38.72	10.18	7.07	13.46
Neturia	49.82	65.67	32.74	59.96	72.72	46.29	10.15	7.05	13.54
Santuri	48	63.22	31.97	58.34	70.17	45.86	10.33	6.95	13.89
Kashipur	55.44	73.25	36.66	63.62	77.33	49.23	8.181	4.08	12.58

Source: Computed by author from Census of West Bengal in 1991, 2001 and 2011.

Temporal Change in Scheduled Caste (S.C.) General Literacy: From the above table we see that according to 2011 census highest S.C literacy rate is found in Bandwan block and lowest S.C literacy rate is found in Baghmundi block. In Bandwan the S.C literacy rate is 69.89% and in Baghmundi the literacy rate is 37.02%. It is interesting to note that the rate of change of S.C literacy from 2001 to 2011 is low in Arsha block (6.3%).The other neighbouring blocks like Purulia-II, Manbazar II, Jaypur, balarampur, and

Kashipur, shows a lower literacy rate. The rate of change of literacy of these blocks are less than 10%.The rate of change of S.C literacy rate is high in Raghunathpur-II. The rate is near about 18% (18.20%).The other blocks which shows higher literacy rate are Puncha, Barabazar and Bandwan. the rate of change of S.C literacy in these blocks are greater than 13%. The rate of change of S.C literacy is shown in the following figure.

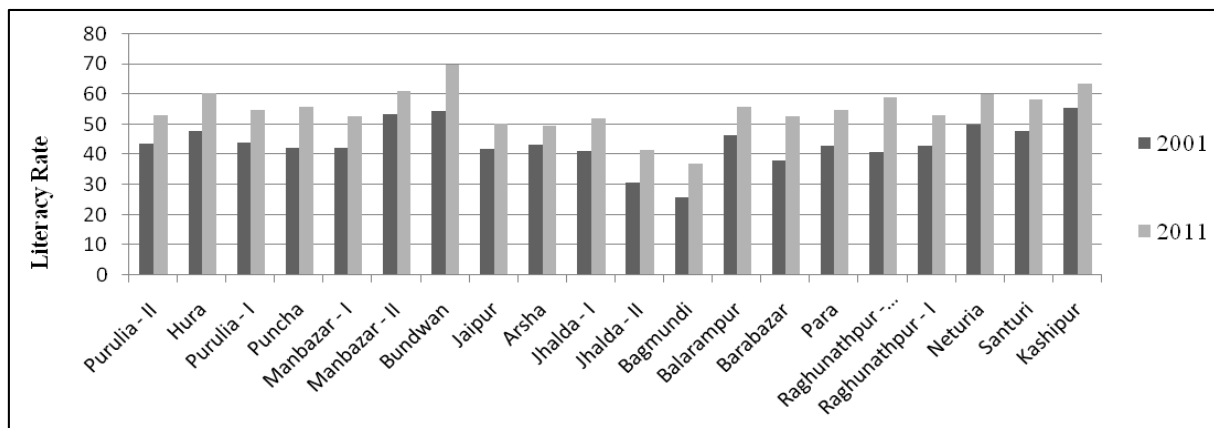


Fig 7: Rural S.C literacy rate of Purulia in 2001-2011

Scheduled Caste (S.C) Male Literacy: When we compare S.C male literacy rate we see that in west Bengal S.C literacy rate is 69.43% in the year 2011 and S.C male literacy rate is 77.22% whereas in the district of Purulia the literacy rate is 56.07% and S.C male literacy rate is 69.82% which is lower than the state level. So, Scheduled Caste (S.C) male literacy of Purulia district is very poor condition. In 2011, Highest S.C male literacy rate is observed in Bandwan block and lowest is found in Baghmundi block. In Bandwan block S.C male literacy

rate is 81.70% whereas in Baghmundi block the S.C male literacy rate is 48.97%. In Raghunathpu-II the increase of S.C male literacy is high during the the decades 2001-2011. About 15% S.C male literacy is increased in this block. The rate of change of male literacy is comparatively high (above 8 percent) in the blocks of Hura, Puncha, Baghmundi, Barabazar, and Bandwan. Less than 8 percent S.C male literacy is observed in rest of the blocks of this district. The rate of change of S.C literacy is shown in the following figure.

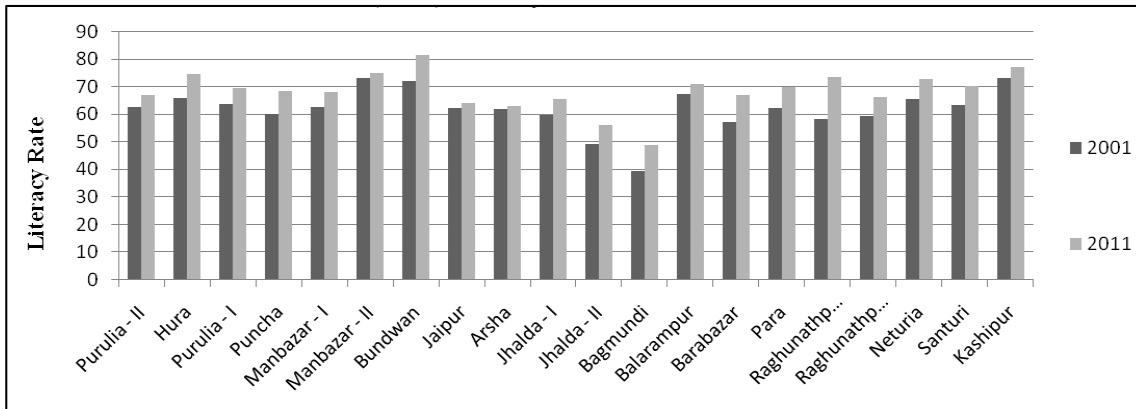


Fig 8: Rural S.C (male) literacy rate of Purulia in 2001-2011

Scheduled Caste (S.C.) Female Literacy: In west Bengal S.C literacy rate is 69.43% in the year 2011 and S.C female literacy rate is 61.23% whereas in the Purulia district the S.C literacy rate is 56.07% and S.C female literacy rate is 41.63%, which is much lower than the state level. So, Scheduled Caste (S.C) female literacy of Purulia district is very poor condition. Highest S.C female literacy rate is observed in the block Bandwan and lowest is found in the block of Bagmundi. The female literacy rate of Bandwan is

57.52% whereas the female literacy rate of Bagmundi is 24.51%. In Raghunathpur-II block The increase of S.C female literacy is high during the decades 2001-2011. About 21% S.C female literacy is increased in this block. The rate of change of S.C female literacy is high (above 17 percent) in the blocks of Puncha, Barabazar, and Bandowan. On the other hand less than 17 percent S.C female literacy is observed in rest of the blocks of this district. The rate of change of S.C literacy is shown in the following figure.

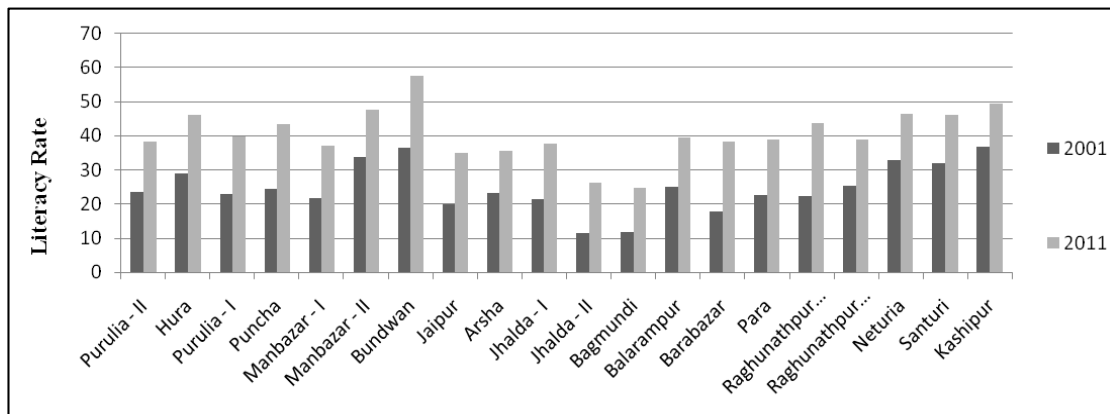


Fig 9: Rural S.C (Female) literacy rate of Purulia in 2001-2011

Table 5: Male-Female S.C Literacy Difference in the Year 2001-2011

Blocks	Male female literacy difference in 2001	Male female literacy difference in 2011	Literacy difference in 2011 and 2001
Purulia - II	39.26	28.72	10.54
Hura	36.98	28.73	8.245
Purulia - I	40.72	30.2	10.52
Puncha	35.73	25.3	10.43
Manbazar - I	40.74	31.37	9.367
Manbazar - II	39.83	27.5	12.33
Bundwan	35.85	24.18	11.67
Jaipur	42.44	29.28	13.16
Arsha	38.77	27.44	11.32
Jhalda - I	38.44	28.12	10.32
Jhalda - II	37.75	29.95	7.795
Bagmundi	27.55	24.46	3.09
Balarampur	42.55	31.67	10.88
Barabazar	39.38	28.87	10.51
Para	39.92	30.97	8.943
Raghunathpur - II	36.01	29.97	6.035
Raghunathpur - I	34.04	27.66	6.383
Neturia	32.93	26.43	6.497
Santuri	31.25	24.31	6.938
Kashipur	36.59	28.09	8.496

Source: Computed by author from Census of West Bengal in 1991, 2001 and 2011.

Total female literacy and its change: In Purulia S.C female literacy rate is very low. It is 41.63% in the year 2011. The highest Female literacy is observed in Bundwan (57.52%) and lowest in Bagmundi (24.51%). If we observed the Male-Female difference of literacy of different blocks of Purulia we see that it does not follow any zonal pattern. Male-Female literacy differential has changed significantly

with the advancement of time. For every blocks it is observed that the difference of Male and female literacy is went down from 2001 to 2011. In 2001 the male female literacy difference in Jaipur block was 42.44% whereas in 2011 the difference decreases to 29.27 %. So the difference diminishes up to 13.16 percent.

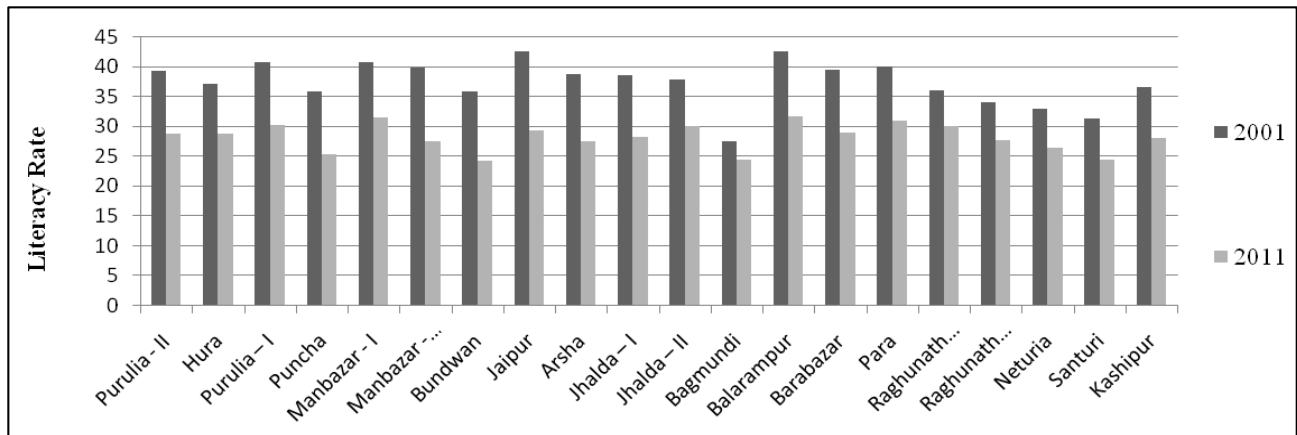


Fig 10: male female literacy difference in Purulia in 2001 & 2011

On the other hand, the male female literacy difference in Bagmundi was 27.55% in 2001 whereas in 2011 the difference diminishes to 24.46% and the difference diminishes only 3.09%. The literacy difference decreases more than 10% in Purulia-I, Purulia-II, Pancha, Jaipur, Arsha, Jhalda-I, Barabazar, Balarampur, Manbazar-II and Bandwan block. The other blocks shows that the literacy difference decreases less than 10%. Form the above discussion we say that the female literacy of Purulia has increased sufficiently and Male-Female differentials also going to diminish with the time. The heterogeneity of distribution of female literacy in different blocks in 2001 and 2011 can be measured by using some measure of dispersion. The result of dispersion (S.D) shows that the

distribution of Female literacy is more homogenously distributed among all the Blocks of Purulia than the past. The S.D of 2001 and 2011 are 7.05 and 7.53 respectively and the Range of two consecutive census year are 25.22 and 33.01. Again the Coefficient of Variation (C.V) for the year 2001 is 28.59 and for the year 2011 is 18.65.

Table 6: Measures of Dispersion of Female Literacy (S.C) in the Blocks of Purulia in the year 2001-2011

Year	Range	S.D	C.V
2001	25.22	7.05	28.59
2011	33.01	7.53	19.14

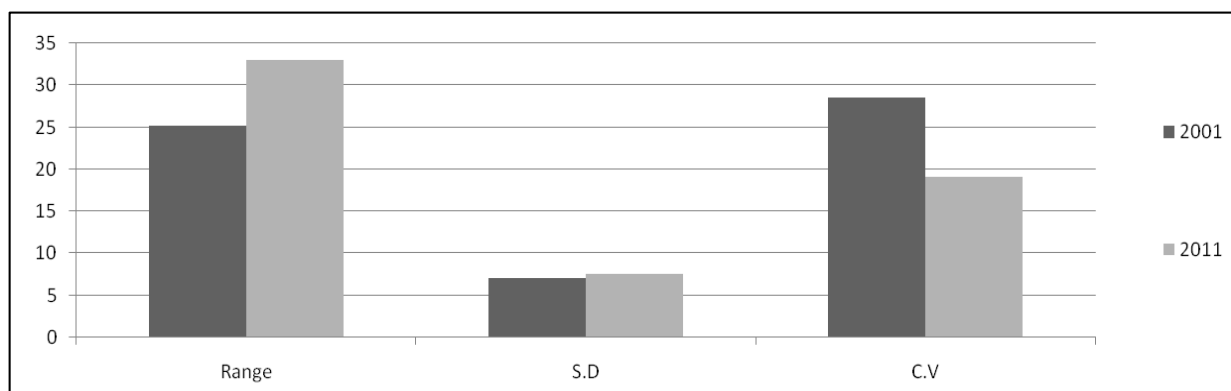


Fig 11: measures of dispersion of female literacy in 2001-2011

Here C.V decreases implying that the policy worked in favour of more generalised spread of education and disparity among students with respect to the literacy rate has decreased. Representing rural development through female

advancement. No doubt it is a hopeful picture of literacy development as well as female advancement in Purulia district.

Table 7: Changing Pattern of S.T Literacy Rate from 2001 to 2011

Blocks	2001 Rural S.T Literacy Rate			2011 Rural S.T Literacy Rate			Difference		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Purulia - II	44.48	63.31	24.79	51.5	63.95	38.86	7.023	0.64	14.07
Hura	48.99	66.85	31.2	60.21	74.32	46.37	11.22	7.47	15.17
Purulia - I	40.24	58.14	21.3	54.87	68.23	41.02	14.63	10.1	19.71
Puncha	43.99	62.32	25.35	58.81	72.92	44.85	14.82	10.6	19.5
Manbazar - I	47.21	67.53	26.33	56.72	71.71	41.58	9.511	4.17	15.25
Manbazar - II	47.64	67.69	26.93	54.51	69.59	39.46	6.865	1.9	12.53
Bundwan	39.03	57.99	19.77	53.73	67.44	40.23	14.71	9.45	20.45
Jaipur	38.98	59.69	16.33	48.02	61.27	34.01	9.043	1.58	17.67
Arsha	35.72	53.22	17.43	45.48	59.22	31.8	9.763	6	14.37
Jhalda - I	44.31	64.65	22.77	57.43	71.13	43.22	13.11	6.48	20.45
Jhalda - II	31.33	49.34	12.02	45.83	60.07	31.12	14.5	10.7	19.11
Bagmundi	35.38	54.84	15.12	47.18	61.23	32.82	11.8	6.39	17.7
Balarampur	35.97	54	16.91	47.08	61.18	32.62	11.12	7.17	15.71
Barabazar	39.89	60.45	19.16	52.59	68.04	36.86	12.7	7.58	17.7
Para	47.79	68.1	25.84	60.6	75.51	44.78	12.82	7.42	18.94
Raghunathpur - II	41.19	58.77	23.05	56.73	71.45	41.5	15.54	12.7	18.45
Raghunathpur - I	41.32	57.69	24.45	50.32	63.06	37.44	8.994	5.36	12.98
Neturia	40.57	57.25	23.08	52.32	65.8	38.48	11.74	8.56	15.4
Santuri	44.2	61.31	26.16	54.95	68.26	41.68	10.75	6.95	15.52
Kashipur	49.53	67.86	31.02	60.88	74.13	47.73	11.35	6.27	16.71

Source: Computed by author from Census of West Bengal in 1991, 2001 and 2011.

Temporal change in scheduled tribe (S.T.) general literacy: From the table we see that according to 2011 census highest S.T literacy rate is found in Para block and lowest S.T literacy rate is found in Arsha block. In Para, the S.T literacy rate is 60.60% and in Arsha the literacy rate is 45.48%. It is interesting to note that the rate of change of tribal literacy from 2001 to 2011 is low in Manbazar-II block (6.87%) and other neighbouring blocks like Purulia-II, Jaypur, Raghunathpur-I, Arsha and Manbazar-I and

kashipur. The rate of change of literacy of these blocks are less than 10%. The rate of change of tribal literacy is high in Raghunathpur-II. The rate is near about 16% (15.54%). The other blocks which shows higher literacy rate are Purulia-I, Puncha, Jhalda-I, Jhalda-II and Bandowan. The rate of change of tribal literacy in these blocks are greater than 13%. The rate of change of tribal literacy has shown in the following figure.

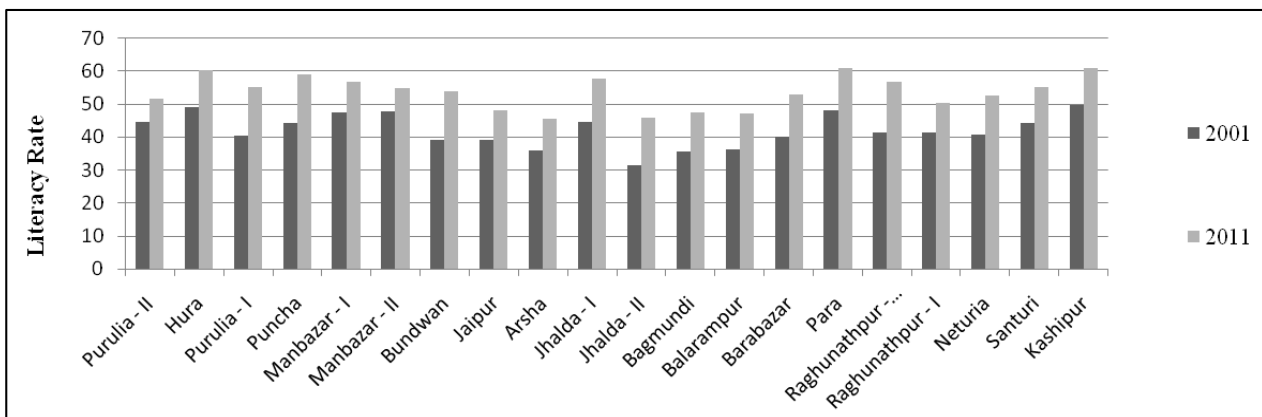


Fig 12: Rural literacy rates (s.t) of Purulia in 2001-2011

Temporal change in scheduled tribe (S.T.) male literacy: When we compare S.T male literacy rate we see that in west Bengal tribal literacy rate is 57.92% in the year 2011 and tribal male literacy rate is 68.16% whereas in the district of Purulia the literacy rate is 53.86% and tribal male literacy rate is 67.84%, which is lower than the state level. Highest S.T male literacy rate is observed in Para block and lowest is found in Puncha block. In Para block S.T male literacy rate is 75.51% whereas in Puncha block the S.T male

literacy rate is 45.47%. In Raghunathpu-II The increase of tribal male literacy is high during the last decade (2001-2011). Near about 13 % (12.68%) Percent tribal male literacy is increased in this block. The rate of change of male literacy is high (above 10 percent) in the blocks of Purulia-I, Jhalda-II and Puncha. Less than 10 percent tribal male literacy is observed in rest of the blocks. The rate of change of tribal literacy has shown in the following figure.

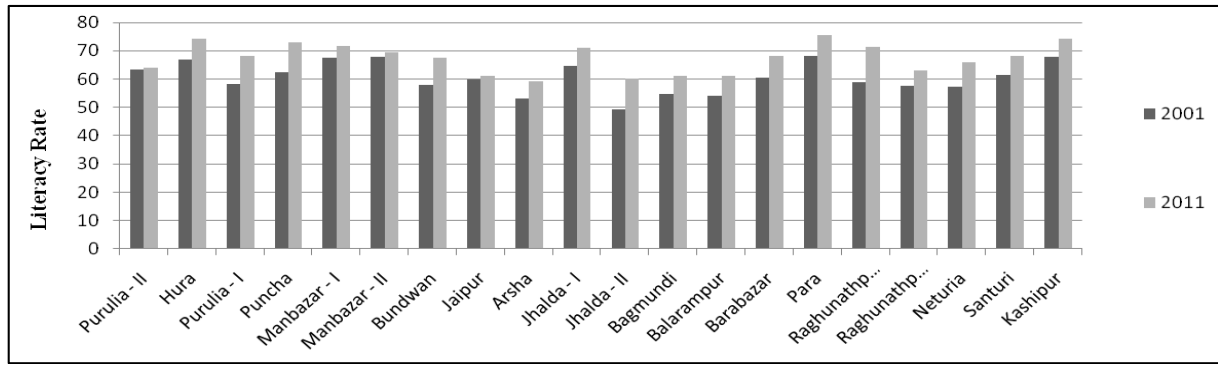


Fig 13: Rural s.t literacy rate (male) of Purulia in 2001-2011

Temporal change in scheduled tribe (S.T.) female literacy: In West Bengal tribal literacy rate is 57.92% in the year 2011 and tribal female literacy rate is 47.71% whereas in the district of Purulia the literacy rate is 53.86% and tribal female literacy rate is 39.77% which is much lower than the state level. So, in this district the S.T female literacy rate is very poor. Highest S.T female literacy rate is observed in the block Hura and lowest is found in the block of Jhalda-II. The female literacy rate of Hura is 46.37 % whereas the female literacy rate of Jhalda-II is 31.12%. In Bandwoan block the increase of tribal female literacy is high during the

decades 2001-2011. Near about 21 (20.46%) Percent tribal female literacy rate is increased in this block. The rate of change of tribal female literacy is high in the blocks of Jaipur, Para, Raghunathpur-II, Purulia-I, Puncha, Jhalda-I, Jhalda-II, Bagmundi and Barabazar. In these blocks the rate of change of tribal literacy is above 17%. On the other hand less than 17 percent tribal literacy is observed in rest of the blocks of this district. Govt. initiative and different policies relating to S.C and S.T development rapidly increase the tribal literacy rate. The rate of change of tribal literacy has shown in the following figure.

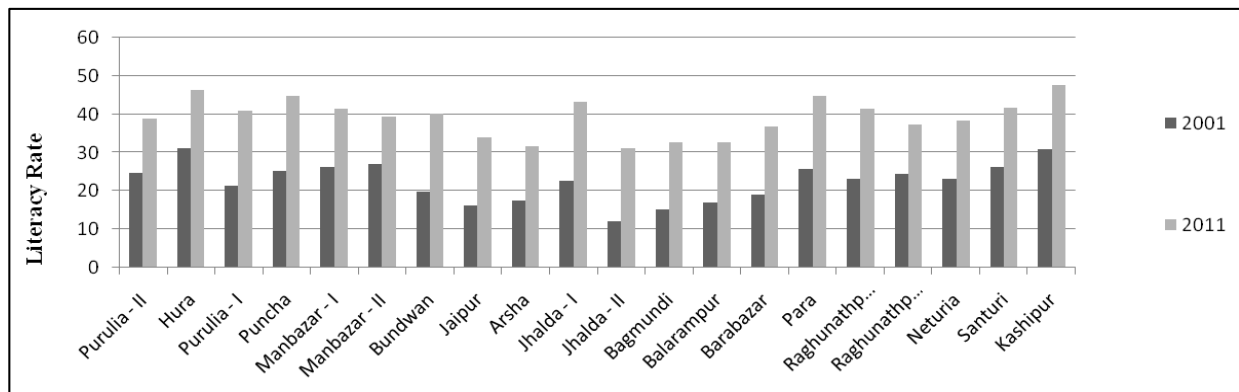


Fig 14: Rural S.T literacy rate (female) of Purulia in 2001-2011

Table 8: Male-Female S.C Literacy Difference in the Year 2001-2011

Blocks	Male female literacy difference in 2001	Male female literacy difference in 2011	Literacy difference in 2011 and 2001
Purulia - II	38.52	25.09	13.43
Hura	35.65	27.95	7.704
Purulia - I	36.84	27.21	9.627
Puncha	36.97	28.07	8.902
Manbazar - I	41.2	30.12	11.08
Manbazar - II	40.76	30.13	10.63
Bundwan	38.22	27.21	11
Jaipur	43.36	27.26	16.1
Arsha	35.79	27.42	8.367
Jhalda - I	41.88	27.91	13.97
Jhalda - II	37.32	28.95	8.37
Bagmundi	39.72	28.41	11.31
Balarampur	37.1	28.56	8.533
Barabazar	41.29	31.18	10.12
Para	42.26	30.74	11.52
Raghunathpur - II	35.72	29.95	5.778
Raghunathpur - I	33.24	25.62	7.621
Neturia	34.16	27.32	6.844
Santuri	35.15	26.58	8.564
Kashipur	36.84	26.4	10.44

Source: Computed by author from Census of West Bengal in 1991, 2001 and 2011.

Total Female Literacy and its Change: In Purulia S.T female literacy rate is very low. It is 39.77% in the year 2011. The highest Female literacy is observed in Hura (46.37%) and lowest in Jhalda-II (31.12%). If we observed the Male-Female difference of literacy of different blocks of Purulia we see that it does not follow any zonal pattern. Male-Female literacy differential has changed significantly

with the advancement of time. For every blocks it is observed that the difference of Male and female literacy is went down from 2001 to 2011. In 2001 the male female literacy difference in Jhalda-I block was 41.48% whereas in 2011 the difference decreases to 27.91 %. So the difference diminishes up to 13.97 percent.

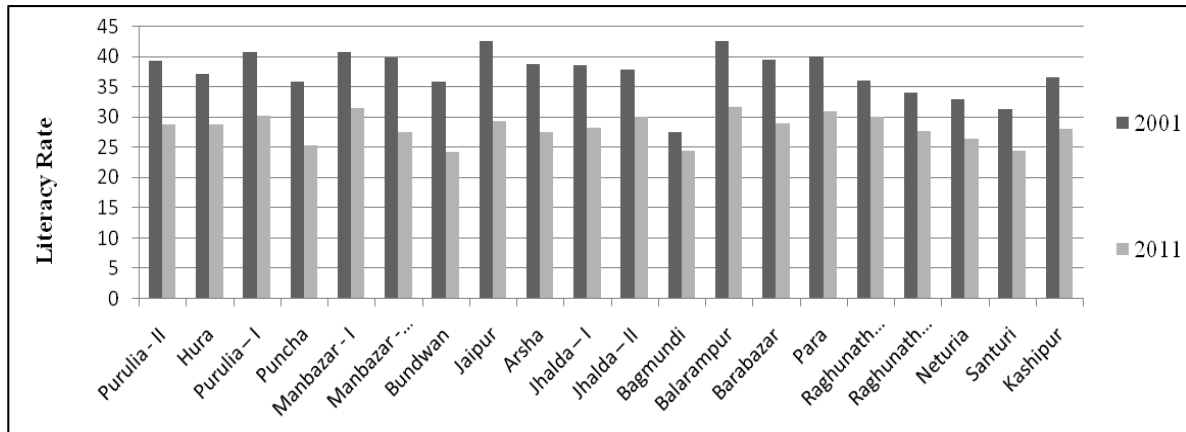


Fig 15: male female literacy difference in Purulia in 2001-2011

On the other hand, the male female literacy difference in Raghunathpur-II was 35.72% in 2001 whereas in 2011 the difference diminishes to 29.95% and the difference diminishes only 5.77%. The literacy difference decreases more than 10% in Purulia-II, Barabazar, Balarampur, Manbazar-II, Manbazar-I, Jaipur, Bagmundi, Para Kashipur and Bandwan block. The other blocks shows that the literacy difference decreases less than 10%. Form the above discussion we say that the S.T female literacy of Purulia has increased sufficiently and Male-Female differentials also going to diminish with the time. The heterogeneity of distribution of female literacy in different blocks in 2001 and 2011 can be measured by using some measure of dispersion. The result of dispersion (S.D) shows that the distribution of Female literacy is more homogenously distributed among all the Blocks of Purulia than the past.

The S.D of 2001 and 2011 are 5.15 and 4.95 respectively and the Range of two consecutive census year are 19.18 and 16.61. Again the Coefficient of Variation (C.V) for the year 2001 is 22.93 and for 2011 is 12.58. Here S.D and C.V decreases, that is the policy towards more uniform pattern of spread of education has become successful and disparity among students with respect to the literacy rate has become decrease.

Table 9: Measures of Dispersion of Female Literacy in the Blocks of Purulia in the year 2001-2011

Year	Range	S.D	C.V
2001	19.18	5.15	22.93
2011	16.61	4.95	12.58

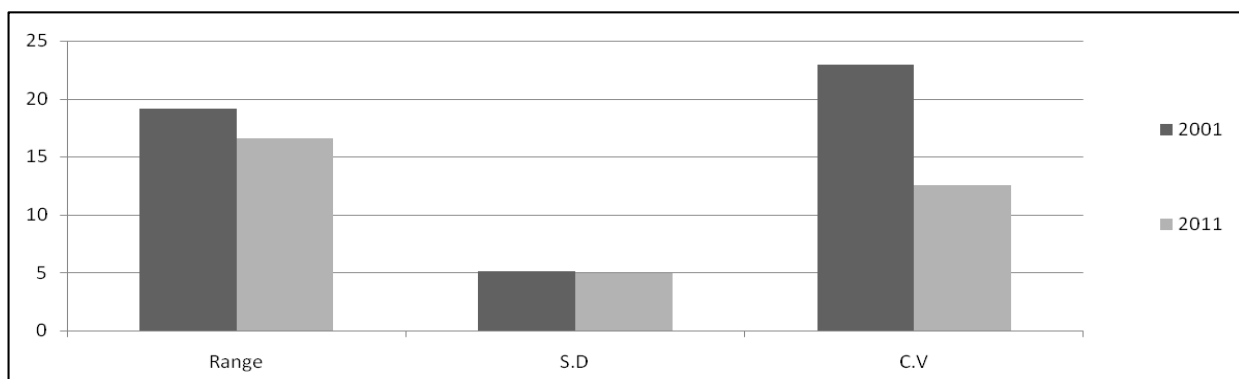


Fig 16: measures of dispersion of female literacy in Purulia in 2001-2011

S.D and C.V decreases, that is the policy towards more uniform pattern of spread of education has become successful and disparity among students with respect to the

literacy rate has become decrease. It is a hopeful picture of literacy development in rural area. It is a hopeful picture of literacy development in rural area.

Table 10: Development of Literacy among the Total S.C and S.T in West Bengal

Blocks	Total change of literacy rate	Change of S.C literacy rate	Change of S.T literacy rate	Blocks	Total change of literacy rate	Change of S.C literacy rate	Change of S.T literacy rate
Purulia II	7.38	9.3	7.02	Jhalda - II	10.8	10.8	14.5
Hura	9.77	12.8	11.2	Bagmundi	10.2	11.2	11.8
Purulia - I	10.2	10.9	14.6	Balarampur	11.4	9.41	11.1
Puncha	10.8	13.7	14.8	Barabazar	11.2	14.7	12.7
Manbazar - I	7.49	10.4	9.51	Para	9.58	11.8	12.8
Manbazar - II	6.75	7.71	6.87	Raghunathpur - II	12.9	18.2	15.5
Bundwan	12.6	15.2	14.7	Raghunathpur - I	8.89	10.2	8.99
Jaipur	7.1	8.18	9.04	Neturia	7.31	10.1	11.7
Arsha	8.76	6.36	9.76	Santuri	8.58	10.3	10.7
Jhalda - I	12.9	11.1	13.1	Kashipur	7.53	8.18	11.4
				Purulia	9.24	10.92	11.22

Development of Total Literacy Rate: The development of total literacy rate is highest in Raghunathpur –II block. There is 12.9 % increase in literacy rate during the year 2001-2011. On the other hand lowest literacy development is found in Manbazar -II, and there is 6.75% literacy development during the decades 2001-2011. Development of literacy is better than district average is observed in the blocks Hura, Purulia- I, Puncha, Bundwan, Jhalda- I, Jhalda-II, Bagmundi, Balarampur, Barabazar and Para.

Development of Scheduled Caste literacy Rate: Again the development of scheduled caste literacy rate is highest in Raghunathpur –II block. There is 18.2 % increase in literacy rate during the decades 2001-2011. On the other hand, lowest literacy development is found in Manbazar -II, and

there is 7.71% literacy development during the year 2001-2011. Development of literacy rate is better than district average is observed in the blocks Hura, Puncha, Bundwan, Jhalda- I, Bagmundi, Barabazar and Para.

Development of Scheduled Tribe literacy Rate: From the year 2001 to 2011 the development of scheduled tribe literacy is highest in Raghunathpur -II, in this block there is 15.5 % increase in literacy rate during the year 2001-2011. On the other hand lowest literacy development is found in Manbazar -II, and there is 6.87% literacy development during the year 2001-2011. Development of literacy is better than district average is observed in the blocks Purulia- I, Puncha, Bundwan, Jhalda- I, Jhalda-II, Bagmundi, Barabazar and Para.

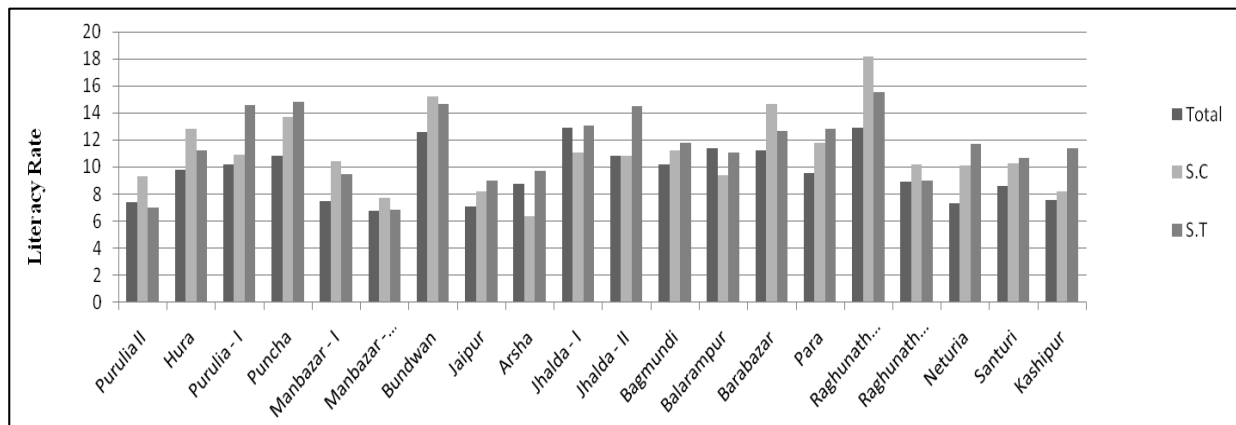


Fig 17: development of literacy among the total, S.C and S.T literacy rate in Purulia in 2001-2011

To measure the overall development of literacy in the district we use UNDP Range Equilisation Method to calculate the value of Goal Post Index where the blocks are

ranked according to their level of rural female literacy development.

Table 11: Goal Post Index

Blocks	Index	Blocks	Index
Kashipur	1.00	Neturia	0.66
Hura	0.95	Manbazar - I	0.58
Puncha	0.92	Barabazar	0.56
Santuri	0.81	Bundwan	0.52
Raghunathpur - II	0.80	Manbazar - II	0.48
Jhalda - I	0.79	Jaipur	0.28
Raghunathpur - I	0.74	Balarampur	0.28
Purulia - I	0.70	Bagmundi	0.27
Para	0.67	Arsha	0.14
Purulia - II	0.66	Jhalda - II	0.00

From the table it is Observed that Kashipur is the block where rural female literacy development is high followed by Hura, Pancha and other blocks. Lowest literacy development is found in Jhalda II.

Summary and Conclusion

The main findings of the study may be summarised as follows:

- In 2011 census, literacy rate of W.B is 77.08% and literacy rate of Purulia district is 65.38%, which is less than state level. Whereas in 2001, literacy rate of Purulia district was 56.14%. Hence 9.24% literacy development is found in last 10 years in the district of Purulia.
- The backward category, S.T has shown maximum improvement in last 10 years. S.T female literacy increases near about 70% which is more than S.C (58%) and total (36%) female literacy.
- Kashipur, Raghunathpur-II, Jhalda-I and Bandwan has shown maximum improvement in female literacy including S.C and S.T category in terms of higher changing pattern of literacy rate, diminishing male-female difference, real development and range equalisation method result.
- Gender inequality gap in terms of education decreases through diminishing male female literacy difference. Difference fall near about 13%.

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