



GEOGRAPHICAL ANALYSIS OF LITERACY IN THE NASHIK DISTRICT OF MAHARASHTRA

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Abstract:

The main aim of the present paper is to examine the trends of literacy rates since 1901 to 2011 and analysis the present spatial pattern, disparity in male-female and urban-rural literacy rates in the study region. Present study is based on the secondary source of data. In Nashik district, the first census was conducted in 1901. At that time only 4.31 percent population was literate. According to 1971, total literacy of the study region was 36.30 percent, which has reached upto 82.31 percent in 2011. In tribal areas total literacy (2011 Census) is observed low. It is due to poor access of education facilities, lack of education awareness, low standard of living, social backwardness, poor transportation facilities and more population belongs to tribals. Only Nashik tahsil showed the higher literacy rate in the study region. It is due to major urban centre Nashik is located in this tahsil and it is also headquarter of the district, where educational facilities are well developed. Standard of living of people is good and level of education awareness is also good, which support to increase the literacy rate in the Nashik tahsil.

There are 11 tahsils in the study region, which have urban areas. In these areas disparity for urban-rural literacy is uneven. It is observed more in Trimbak (0.33) tahsil and less in Nashik (0.01) tahsil in 2011. The average disparity index for male-women literacy is 0.15. It is more in some tribal tahsils like Igatpuri (0.27), Trimbak (0.24), Peth (0.23) and Surgana (0.21). Still educational progress of tribal tahsils is not satisfactory in terms of literacy rates, enrolment and retention. In tribal and rural areas, enrolling the students, shortage of teachers and providing the basic facilities about education are major problems. If government takes positive steps to solve such problems then it will help to improve the level of education in these areas. To encourage the girl's education, there should be a primary school within every 4 kms. The parents must be made aware of value of education and enroll girls name in the school. Government should set up new schools and colleges as per requirement of each tahsils in the study area, because admission problems became very critical today.

Keywords: Literacy, Disparity, illiterates, educational facilities and soft skills.

1) Introduction:

Literacy is very important for overall development of the region. It improves the quality of human resources. Literacy brings about fundamental changes in socio-economic development of the society. It is good indicator to measurement of the human resource development of the study region. Literacy is a human right, a tool of personal empowerment and a means for social and human development (Shakil, 2012). Literacy is considered as any of the most important social aspects of any society development (Jadhav, 2015). Literacy increases one's knowledge and understanding against exploitation, injustice and help in decision-making and getting better employment opportunities and plays a crucial role in socio-economic well-being. The quality of population can be judged from the level of literacy. Nelson Mandela has quoted that "Education is the most powerful weapon, which you can use to change the world".

As a matter of convenience, literacy is defined as the ability to read and write one's name in one's own mother-tongue. A literate person is one who is able to both read and write (S.A. Qazi, 2016). Literacy refers to the capability of a person to read and write with understanding in at least one language. United Nation has defined literacy as "the ability of a person to read and write with understanding a short simple statements on his everyday life" (Bhende and Kanitkar, 1978).

It is well proved that overall literacy helps to improve the quality of society and region. India has made

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a steady progress in the field of literacy since 1951 with respect to spread the primary education in the country. The study area seems to have attained a respectable place in term of total literacy (82.31 Percent) but challenges to minimize the male-female disparity (12.09 Percent), urban-rural disparity (11.93 percent) and tribal-non tribal tahsils disparity (15 to 20 percent). There is also a need to improve the quality of education and provide the higher education both in urban and rural areas of the study region.

2) Objectives:

The main objectives of the present paper are as follows:

- i. To examine the trend of total literacy rateduring the decades from 1901 to 2011 in the study area.
- ii. To discuss the male and female disparity in literacy rates in the study region.
- iii. To study the present scenario of literacy rates in the study region.

3) Study Area:

Nashik District is situated in the Tapi basin and partly upper Godavari basin. It lies between 19° 33' to 20° 53' north latitude and 73° 15' to 75° 16' east Longitude (Nashik Gazetteer, 1983). Nashik is one of the most important district of Maharashtra. Nashik District has an area of 15,530 Sq.k.m. In 2011, Nashik District had population 61, 07, 187 as per the 2011 census. The Nashik district tentatively constitutes 5.04 percent area and 5.43 percent population of the Maharashtra state. The density of population recorded as 393 per.sq.k.m, which ranks seventh in the Maharashtra State. As per census 2011, the urban and rural population was 42.52 percent and 57.47 percent. The sex ratio was recorded 934 females per 1000 males in the study region in 2011.

According to 2011 census the total working population in the Nashik district was 27.63 Lakh, which is 45.25 percent of the total population of the district. Location of the study area is showed in Fig. No.1. There are 15 tahsils included in the Nashik District. Out of these 15 tahsils, 8 tahsils are tribal. It includes Peth, Surgana, Igatpuri, Kalwan, Satana (Baglan), Dindori, Trambak and Nashik. The main system of hills is the sahyadries, which run north- south in the western portion of the district. In the extreme north is selbari range, which approximately forms and boundary between Nashik and Dhule district. Next is the Satmala range which runs right across district. Kalsubai range is located in the south part of the district.

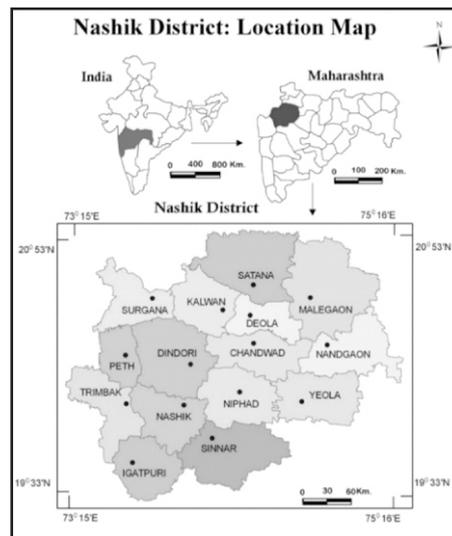


Fig No.1

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The district has two main rivers the Girna and the Godavari. Wheat, Rice, Sugarcane, Onions, Grapes, Pomegranate, Jowar, Bajra and Vegetables are the dominant crops of the study region.

1)Data and Methodology:

Present study is based on the secondary source of data. It is obtained from socio-economic abstract of the Nashik district (1965-66, 1983-84, 2004-05 and 2014), District census handbook & Nashik District Gazetteers. Literacy is calculated by calculating the ratio of total literate population and total population of a place, which is expressed in percentage.

The urban-rural literacy differential index is calculated by using the formula which is given by Krishna & Shyam (1978) and same is used for calculating male-female differential index. Just instead of urban-rural literacy, male-female literacy percentage are used. Both formulas are given below:

1.Index of Urban-Rural Differential(IDUR):

$$\text{IDUR} = \frac{\text{Urban Literacy Rate} - \text{Rural Literacy Rate}}{\text{Total Literacy Rate}}$$

2.Index of Male-Female Differential(IDMF):

$$\text{IDMF} = \frac{\text{Male Literacy Rate} - \text{Female Literacy Rate}}{\text{Total Literacy Rate}}$$

The tahsil has been taken as a unit for analysis. Statistical tools like percentage, average etc. have been used in the study. The data have been summarized, processed and represented with the Bar graph, Line Graph & Choropleth map by using GIS software. MS-Excel was also applied to process and analyze the census data.

2)Results and Discussion:

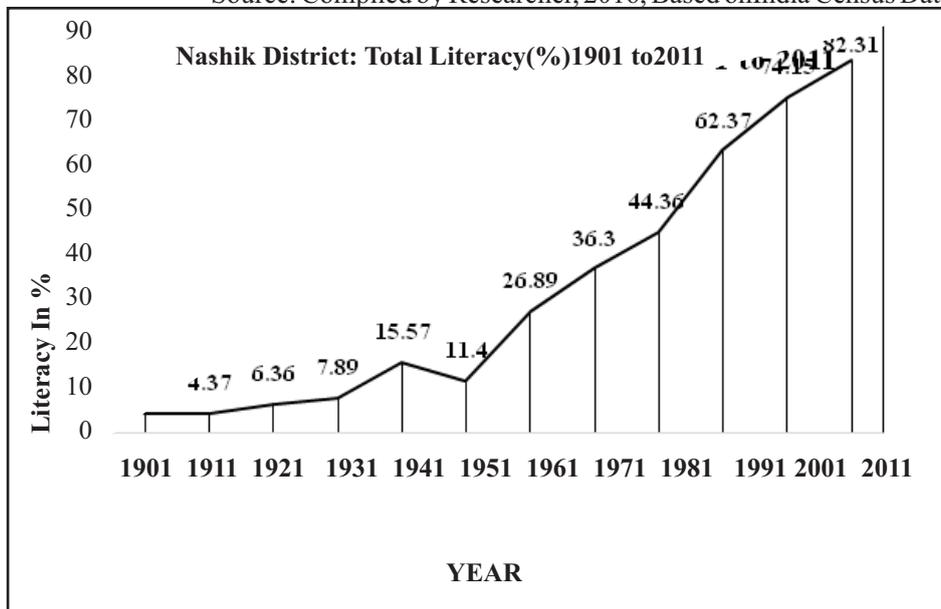
Trends of Literacy Development (1901 to 2011):

In Nashik district, the first census was conducted in 1901. At that time only 4.31 percent population was literate. After that upto 1931, literacy increased only by 3.58 percent and it reached upto 7.89 percent. During the year 1941 to 1951 very little change was recorded. Due to Second World War and partition of the country, very little could be done on this front during the decade 1941-51 (Sawant and Athawale, 1994). Table No.1 and Fig No.2 indicates that since 1961 there has been a considerable growth of literacy in the Nashik district because education gained some momentum. This is due to the introduction of compulsory education by the Government and after independence good efforts were also made by local government to spread education in the study area. Of the total population 26.89 percent were literate in 1961.

Table No.1: Nashik District, Maharashtra & India Literacy (%) -1901 to 2011

Sr. No.	Year	Nashik District	Maharashtra Sate	India	Nashik Dist. Change
1	1901	04.31	--	05.35	---
2	1911	04.37	--	05.91	+00.06
3	1921	06.36	--	07.16	+01.99
4	1931	07.89	--	09.50	+01.53
5	1941	15.57	--	16.10	+07.68
6	1951	11.40	--	18.53	-04.17
7	1961	26.89	29.8	28.30	+15.49
8	1971	36.3 0	41.0	34.45	+24.9 0
9	1981	44.36	55.8	43.57	+08.06
10	1991	62.37	64.9	52.19	+18.01
11	2001	74.15	76.9	64.80	+11.78
12	2011	82.31	82.9	74.04	+08.16

Source: Compiled by Researcher, 2016, Based on India Census Data



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Fig No.2

According to 1971, census total literacy of the study region was 36.30 percent, which reached upto 82.31 percent in 2011. It means during the last four decades it increased by 46.01 percent in the study region. During last few decades literacy rate (82.31 percent) of the study area has remained higher than the average literacy rate of the country (74.04 percent) and very close to Maharashtra state average literacy (82.9 percent). It is possible due to collective efforts made by local, state and central government in the study region.

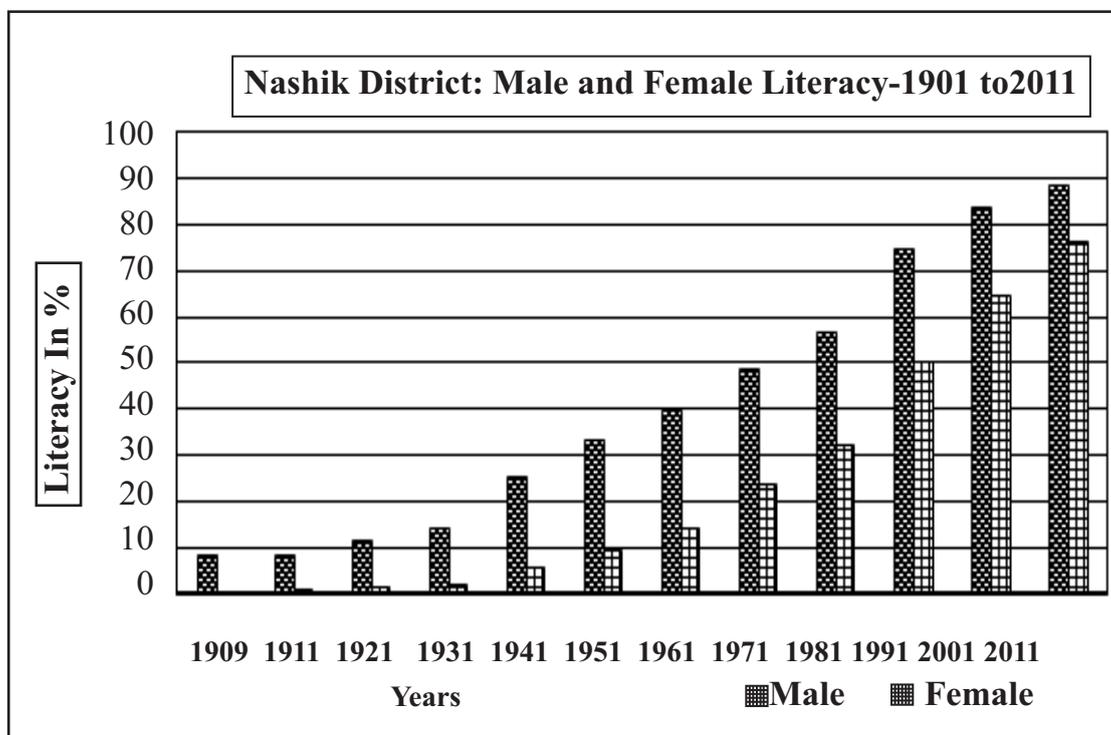
Disparity in Male-Female Literacy (1901 to 2011):

The both male and female literacy rates of the study region are continuously increased but female literacy rate was slower than male literacy rate. Therefore disparity in both rates has increased upto 25.65 percent in 1961. After that it again starts decreasing and as per 2011 census it was 12.09 percent.

Table No.2. Nashik District: Male & Female (%) -1901-2011

Sr. No	Year	Male	Female	Male -Female Disparity
1	1901	08.13	00.39	07.74
2	1911	08.08	00.60	07.48
3	1921	11.22	01.31	09.91
4	1931	13.79	01.77	12.02
5	1941	25.07	05.70	19.37
6	1951	33.20	09.10	24.10
7	1961	39.36	13.71	25.65
8	1971	48.45	23.37	25.08
9	1981	56.09	31.85	24.24
10	1991	74.07	49.89	24.18
11	2001	83.37	64.16	19.21
12	2011	88.17	76.08	12.09

Source: Compiled by Researcher, 2016, Based on Census Data 2011



Data in Table No.2 shows a comparison of rate of literacy among male and women since the year 1901. A lot of factors are responsible for low rate of literacy among the women in the study region. One of the important factor is the persistence of gender based inequality.

Present Scenario and Spatial Pattern of Literacy (2011):

The latest census of 2011 has revealed that the Nashik district has attained good literacy level (82.31 percent). There are five tahsils that shows higher percentages of literacy rates than average literacy of the study region, which is shown in the Table No.3. These tahsils are Nashik (88.98 percent), Malegaon (83.39 percent), Niphad (83.63), Yeola (82.71) and Sinnar (82.68 percent). For the study of spatial pattern of literacy of the study region all tahsils are divided into three categories e.g. Low, medium and high literacy.

Low Literacy: The tahsils having less than 80 percent literacy are included in low literacy group. There are seven tahsils included in the category. These are Surgana, Trambak, Peth, Baglan, Igatpuri, Dindori and Kalwan. The literacy rate is less as compared to other tahsils of the study region. It is due to poor access of education facilities (Table No.4), lack of education awareness, low standard of living, social backwardness, poor transportation facilities and more population belongs to tribal population. Fig No.4 reveals that mostly western parts of the study region have low literacy rate which is hilly and less developed.

Table No.3.Nashik District: Spatial pattern & level of Total Literacy-2011

Sr. No.	Total Literacy in %	Level of Literacy	Names of Tahsils
1	Less than 80	Low	Surgana, Trambak, Peth, Baglan Igatpuri , Dindori & Kalwan
2	80 -85	Medium	Chandwad, Deola, Nandgaon , Malegaon Yeola , Niphad & Sinner.
3	More than 85	High	Nashik

Source:Compiled by researcher, 2016.

Medium Literacy: The tahsils, which recorded the literacy rate between 80 to 85 percentages are included in this category. The seven tahsils are included in this category namely Chandwad, Deola, Nandgaon, Malegaon Yeola, Niphad & Sinner. In all these tahsils one or two small urban centres are located and they have good educational facilities. But in most rural parts of the each tahsils don't have adequate educational infrastructure and most population is engaged agriculture therefore it is not developed as literacy is concerned. These all tahsils are located in eastern and central parts of the study region.

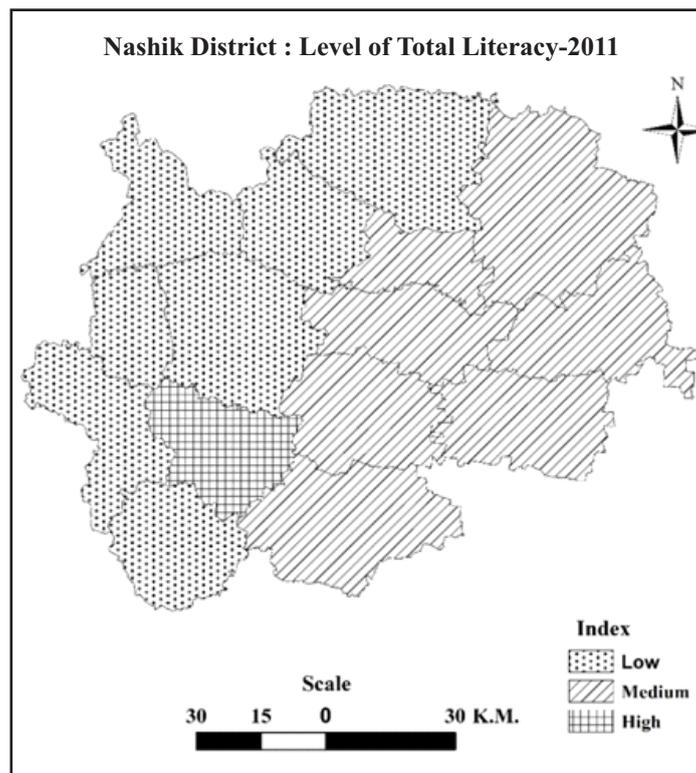


Fig No.4

Table No.4. Nashik District: Educational Facilities-2013-14

Sr. No	Tahsil	No. of Primary School	No. of High-School	No. of Junior College	No. of Senior College	No. of Tech. School	Tot. No. of Education Units	% of Education facilities
1	Surgana	394	42	16	02	00	454	06.67
2	Kalwan	274	44	16	05	01	340	04.99
3	Deola	167	40	04	02	00	213	03.13
4	Baglan	429	82	23	04	02	540	07.93
5	Malegaon	611	127	43	18	03	802	11.78
6	Nandgaon	338	56	15	04	04	417	06.13
7	Chandwad	264	58	12	02	03	339	04.98
8	Dindori	311	68	15	05	03	402	05.91
9	Peth	226	30	05	02	00	263	03.86
10	Trimbak	314	36	08	03	03	364	05.35
11	Nashik	681	206	54	44	23	1008	14.81
12	Igatpuri	312	65	14	02	03	396	05.82
13	Sinnar	310	68	20	07	03	408	05.99
14	Niphad	356	76	34	11	05	482	07.08
15	Yeola	308	46	13	06	06	379	05.57
	District	5295	1044	292	117	59	6807	100

Source: Compiled by Author, 2016, Based on Nashik District Socio-Eco.Abstract-2014

High Literacy: The tahsils, which have more than 85 percent literacy rate are included in this category. Only Nashik tahsil showed the higher literacy rate in the study region. It is due to major urban centre Nashik is located in this tahsil and it is also headquarter of the district, where educational facilities (Table No.4) are well developed. Standard of living of people is good and level of education awareness is also good, which supports in increasing the literacy rate in the Nashik tahsil.

Disparity in Male-Female and Urban-Rural Literacy (2011):

Table No.5 displaying the disparity index for male-female and urban-rural literacy rates in the study region as per 2011 census data. The average disparity index for male-women is 0.15. It is more in some tribal tahsils like Igatpuri (0.27), Trimbak (0.24), Peth (0.23) and Surgana (0.21). Whereas it is less than average of study area in those tahsils where urbanized population is more. It includes Nashik (0.09) and Malegaon (0.12) tahsils. In other tahsils it is ranging from 0.13 to 0.20.

Table No.5. Nashik District: Disparity Index for Male-Female and Urban-Rural Literacy-2011

Sr. No.	Tahsil	Total	Male	Female	IDME	Rural	Urban	IDUR
1.	Surgana	68.15	75.34	61.01	0.21	67.45	86.35	0.28
2	Kalwan	68.50	75.39	61.41	0.20	68.50	N.UA.	--
3	Deola	81.96	88.19	72.25	0.19	81.96	N.UA.	--
4	Baglan	77.45	83.51	71.07	0.16	76.03	89.73	0.18
5	Malegaon	83.39	88.08	78.48	0.12	77.46	87.18	0.12
6	Nandgaon	80.91	88.01	73.34	0.18	75.86	89.59	0.17
7	Chandwad	82.09	88.93	81.95	0.09	81.36	88.12	0.08
8	Dindori	77.52	85.08	69.68	0.20	77.52	N.UA.	--
9	Peth	71.03	79.01	62.94	0.23	71.03	N.UA.	--
10	Trimbak	68.91	77.23	60.37	0.24	67.21	89.61	0.33
11	Nashik	88.98	92.97	84.59	0.09	88.98	89.80	0.01
12	Igatpuri	77.43	84.53	63.98	0.27	74.39	87.93	0.17
13	Sinnar	82.68	89.56	73.15	0.20	81.59	89.56	0.10
14	Niphad	83.63	89.85	77.08	0.15	82.51	89.92	0.09
15	Yeola	82.71	89.60	75.44	0.17	80.85	88.54	0.09
	District	82.31	88.17	76.08	0.15	77.19	89.12	0.14

Source: Compiled by Researcher, 2016, Based on Nashik District Census Data 2011

N.B.:N.UA=Not Urban Area, IDME= Index of Male-Female Differential

IDUR= Index of Urban-Rural Differential

There are 11 tahsils, which have urban area. In these area disparity for urban-rural literacy is uneven. It is observed more in Trimbak (0.33) tahsil and less in Nashik (0.01) tahsil. In other tahsils disparity index is less than 0.18. There are many causes for observed the disparity in rural area. Most of people (40.42 %) in rural area live below poverty lines and cannot afford to go to other places to get education. It effects on overall literacy rate in rural area. In economy of rural areas is predominately depends upon primary sector and does not prescribe any formal level of literacy skills for entry into workforce. Unlike this, the urban economy largely depends upon secondary and tertiary activities necessitates a minimum level of literacy and education skills for entry into workforce (Hassan, 2005). Therefore these two factors are also responsible to create disparity in urban-rural literacy rate in the study area.

1) Conclusion and Recommendations:

The above discussion reveals that there is significant increase in total rate of literacy in the study region. It has increased from 4.31 percent to 82.31 percent during the year 1901 to 2011. The rate of literacy is comparatively higher among male than female. During the year 2011, the highest literacy rate is found in Nashik tahsil (88.98 %), whereas the lowest rate of literacy observed in Surgana (68.20 %) tahsil in the study region. Latest census also indicates that there is a significant difference in male-female (12.09 %) and urban-rural (11.93 %) literacy rates in the study region.

The most alarming aspect of primary education in India has been its awful poor quality (Majumdar P.K, 2013). The government needs to spend more on primary and secondary education to fulfill their commitment to have a primary school in every village and improve the skill quality of students. The central government started 'Pradhan Mantri Kaushal Vikas Yojana' programme for youth. Same type of programme, as per primary and high student's requirement can be possible to improve the quality of soft skills of pupils. One important problem is observed in both school and college students that is drop-out rate. It is observed especially in tribal, rural and slums. Government doing some efforts to minimize it but not too much succeed. It require positive supports from the parents and other related factors. Media too can play an important role in the awareness of women's education (Jindal Asha, 2011). Such works helps to increase the female literacy. Education is the only sustainable route for achieving empowerment of women.

Still educational progress of tribal tahsils is not satisfactory in terms of literacy rates, enrolment and retention. In tribal and rural area, enrolling the students, shortage of teachers and providing the basic facilities about education are major problems. If government takes positive steps to solve such problems then it will helps to improve the level of education in these areas. Therefore there is urgent need to increasing their enrolment, improving physical facilities in the schools, maintaining teacher pupil ratio as per requirement is important. Until these measures are effectively taken, the problem of the sluggish growth rate of literacy level will persist and the gap will remain same. To encourage the girl education, there should be a primary school within every 4 kms. The state government started Sarva Sikhsa Abhiyan and it helps to improve literacy in the study area but it was not too much, which it was expected. So same programme should conduct only in tribal areas, where literacy rate is very less as compare the other part of the study area. It will help to minimize the disparity which observed in literacy rates. The parents must be made aware of value of education and enrolled girls name in the school. Government should set up new schools and colleges as per requirement of each tahsils in the study area, because admission problems became very critical today.

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