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A Temporal Disparity in Male Female Literacy in Rural Part of

Solapur District: A Geographical Analysis

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Abstract:

Literacy is a one of the basic parameter of Human Development Index (HDI). The progress of a nation is measured in terms of level of education and literacy rate of its population. An overall development of any nation is associated with education. The present research paper focus on the Level of literacy and fluctuation occurs in it with the passage of time. The major stress laid on actual situation of literacy in rural part of Solapur district. The Research work is based on secondary data which is collected from District Census Handbook of Solapur District. The data of population from year 2001 to 2011 was taken into consideration. For the computation of disparity in literacy rate Kundu and Rao's method is used which is modification of Sopher's Disparity Index (1974). The composite index is also calculated. The study assumes that there is disparity in level of literacy in the study region.

Keywords: HDI, Literacy, Disparity Index

Introduction:

Literacy is a most important indicator which plays a central role in human development that impact on overall socio-economic development. The meaning and concept of literacy is varies from country to country. It is generally refers to the minimum level of skills varies from ability to communicate orally to make a check of variety of difficult arithmetical computations. According to Indian Census, "A person aged seven years and above who can read and write in any language is treated as Literate."

Literate population plays a significant role in the socio-economic development of an area. Literacy rate important for any region because it act as indispensable for social reconstruction, improves the quality of life and preparation of individual for rapid development. On the other hand illiteracy will act as a hurdle in the development process. If levels of literacy and education is higher then economic goals are easily achieved. The Socio-economic goals like population control, empowerment, raising of health and nutritional status of the people are also achieved only through the improving educational level and literacy rate among both male and female. In the present contest there is literacy gap observed in India between the social classes and in different sex i.e. Male and Female. Indian Society is Male oriented where females are deprived from education in many part of the country. Even in urban areas female literacy rate is lower than that of male, in rural areas this picture is worst. So by considering all these things, the subject Literacy rate in rural areas of Solapur District is selected for study.

The Study Region:

Solapur district is one of the populated district of Maharashtra state having 43,17,756 Population. It lies between $17^0 10'$ N to $18^0 32'$ North latitude and $74^0 42'$ E to $76^0 15'$ East longitude. The district is having 14,895.00 sq km area and it is a 4th largest district in state. The Solapur District is part of Eastern Maharashtra Plateau and it is situated in the southern Maharashtra. The river Bhima draining the central parts of the district is a most important river of the District. The River Bhima and its tributaries drain the district and plays significant contribution in economic development of region.

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Objectives:
1. To Study the Male- Female literacy distribution in the rural areas of the study region.
2. To Study disparity in Male- Female literacy level in the rural part of Solapur District.

Database And Methodology:

This research paper is based on secondary data of literacy, which is collected from District Census Had Book of Solapur District. The District Census Hand Book of 2001 and 2011 is used for this purpose. The collected data is analysed using proper statistical methods.

As per the definition of Census of India, literacy rate has been computed for the population above Six years. For the measurement of disparity in Male- Female Literacy level Kundu and Rao's Disparity Index is used, which is modification of Sopher's Disparity Index (1974).

The modified disparity index formulae of Kundu and Rao's is as follows:

$$Ds = \log(x2/x1) + \log\{(200-x1)/(200-x2)\}$$

Where, Ds- Disparity Index

x1 – Female Literacy

x2 – Male Literacy

Discussion And Results:

According to 2011 Census, the total population of District is 4,317,756 containing 2,227,852 males and 2,089,904 females. In this decade (2001-2011) there is an addition of 468,213 persons in total population. An examination of rural-urban distribution of population reveals that 2,918,665 person (67.60%) are living in rural areas while 1,399,091 people (32.40%) are living in urban areas of the district; this uneven distribution of population in rural-urban areas impact on literacy rate.

Table No.1: Distribution of Population in Solapur District.

Sr. No.	Tehsil	2001			2011		
		Total	Male	Female	Total	Male	Female
1	Karmala	233316	121195	112121	254489	132700	121789
2	Madha	292611	152272	140339	324027	169430	154597
3	Barshi	340831	176709	164122	372711	193777	178934
4	Solapur North	960803	490620	470183	1057352	536331	521021
5	Mohol	252526	131493	121033	276920	144299	132621
6	Pandharpur	402707	210123	192584	442368	230359	212009
7	Malshiras	422600	219762	202838	485645	251528	234117
8	Sangola	272077	140548	131529	322845	166754	156091
9	Mangalvedha	171261	89338	81923	205932	107154	98778
10	Solapur South	210774	109625	101749	260897	134206	126691
11	Akkalkot	290037	148538	141499	314570	161314	153256
	Total	3849543	1989623	1859920	4317756	2227852	2089904

Table No. 1 Shows that as per 2011 Census data, the share of Male and Female population to the total population is 51.6 and 48.4 respectively. North Solapur, Malshiras and Pandharpur are the leading tehsil in terms of population; these three Tehsil constitutes roughly 50% of total population of district. Mangalwedha is smallest Tehsil in district in terms of population carries only 4.7% population of the district.

Distribution of Rural Literacy (2001-2011)

The above table (table-2) shows the male and female rural literacy rate in 2001 and 2011 in Solapur District. As far as Literacy is concern 2,910,676 persons are literate in district they contain 77.02 % share of population (excluding 0-6 age group). In Solapur District literacy rate of urban areas is much higher than rural areas. In 2001 total literacy was 71.3%, it is 68.3 % in rural areas while

77.5% in Urban areas. In 2011 similar trend is observed where total literacy was 77.02%, in rural areas 74.06% and in urban areas 83.10%. There is positive change occurs in literacy level among both Male and Female in the study region.

According to 2011 census, the rural literacy in Solapur district is 74.06 % compared to 68.3 % in 2001. The highest literacy rate i.e. 76.32 % observed in Madha Tehsil and lowest literacy rate 68.68 % in Akkalkot Tehsil. Karmala, Madha, Barshi, North Solapur, Mohol, Pandharpur, Malshiras are the Tehsil having more than average Tehsil of the District while Sangola, Mangalwedha, South Solapur and Akkalkot Tehsil having less than district average literacy.

Distribution of Rural Male Literacy (2001-2011)

Table No. 2: Distribution of Literacy and Population in the District

Tehsil	2001						2011					
	No. Of Population			Literacy Rate			No. Of Population			Literacy Rate		
	Total	Male	Female	Total %	% Male Literacy	% Female	Total	Male	Female	Total %	% Male Literacy	% Female
Karmala	120486	72639	47847	67.2	78.3	55.4	150944	87527	63417	74.37	82.99	65.04
Madha	158058	94367	63691	69	79.4	57.7	201747	115605	86142	76.32	84.01	67.97
Barshi	144269	86579	57690	70.8	82.2	58.6	169947	98589	71358	75.72	84.34	66.35
Solapur North	52091	31127	20964	69.4	80.1	57.9	69492	40087	29405	75.37	83.44	66.59
Mohol	147971	88444	59527	69.5	80	58.2	182851	105204	77647	75.77	84	66.9
Pandharpur	172557	105393	67164	66.4	77.7	54	223409	129546	93863	75.03	83.38	65.92
Malshiras	256507	151947	104560	71.7	82	60.6	276908	158400	118508	75.48	83.48	66.91
Sangola	133783	82096	51687	64.9	77.5	51.5	178924	104338	74586	71.67	81.27	61.5
Mangalwedha	82355	51072	31283	65.1	77.4	51.6	113278	66770	46508	71.09	80.67	60.74
Solapur South	119903	73276	46627	67.4	79.7	54.2	165980	96353	69627	73.42	82.92	63.38
Akkalkot	128342	78066	50276	66.7	79.1	53.6	149308	88666	60642	68.68	79.33	57.41
Total	1516322	915006	601316	68.3	79.6	56.1	1882788	1091085	791703	74.06	82.82	64.64

The distribution of male literacy slightly changes from 2001 to 2011. In 2001 an average rural male literacy was 79.6%. Barshi, N. Solapur, Mohol, Malshiras and S. Solapur Tehsil having more than District average literacy while Akkalkot, Karmala, Pandharpur, Sangola, Madha and Mangalwedha showing below district average literacy rate. In Barshi highest literacy rate (82.2%) has observed while in Mangalwedha (77.4%) lowest literacy rate has observed in 2001.

In 2011 an average male literacy is 82.82% which is 3.2% higher than the previous census. In Sangola, Mangalwedha and Akkalkot Tehsil below the district average literacy rate is observed while

in remaining all Tehsil literacy rate is more than the district average. Barshi (84.34%) is having highest literacy rate while Akkalkot (79.33%) Tehsil having lowest literacy rate is observed in the current census. Pandharpur Tehsil is showing highest progress in literacy rate which is 5.68% more than previous census. In Akkalkot there is only 0.23% growth in male literacy level during the decade.
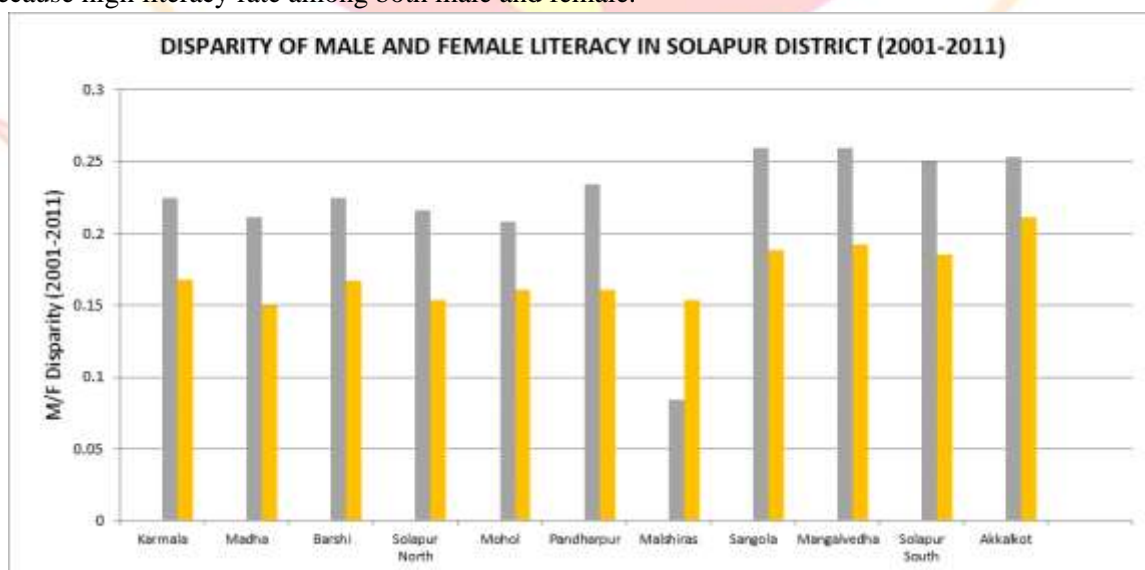
Distribution of Rural Female Literacy (2001-2011)

There is huge change in distribution of Female literacy in the study region during the decade (2001 to 2011). In 2001 an average rural female literacy was 56.1%. Malshiras, Barshi, Mohol, North Solapur and Madha Tehsil having more than District average literacy while Karmala, South Solapur, Pandharpur, Akkalkot, Mangalwedha and Sangola Tehsil showing below district average literacy rate. In Malshiras Tehsil highest female literacy rate (60.60%) has observed while in Sangola (51.5%) lowest literacy rate has observed in 2001.

In 2011 an average female literacy is 64.64 % which is 8.5% higher literacy rate than the previous census. With 67.97% Madha is highest female literacy while in Akkalkot there is only 57.41% females are literate. Madha, Malshiras, Mohol, North Solapur, Barshi, Pandharpur and Karmala having more than average female literacy of the district while in South Solapur, Sangola, Mangalwedha and Akkalkot there is less than average female literacy. Highest growth (11.92%) in female literacy is observed in Pandharpur Tehsil and lowest growth is observed in Akkalkot (3.81%) Tehsil.

Disparity in Male / Female Literacy:

In Solapur District according 2011 census literacy rate is 74.06% where as in 2001 it is 68.3%. The male–female disparity was decreased 0.231 in 2001, to 0.171 in 2011. The literacy rate in the study area varied from a minimum of 68.68 % in Akkalkot Tehsil to a maximum of 75.77 % in Mohol Tehsil of Solapur district. In the study area the male literacy was 82.82% and for female was 64.64 % in 2011. It shows a wide gap of 18.18 % literacy from male to female. It is observed that minimum male literacy was in Akkalkot Tehsil i.e. 79.33 % and maximum in Barshi Tehsil 84.34 % in Solapur district. Minimum female literacy was 57.41 % in Akkalkot Tehsil and a maximum of 67.97 % in Madha Tehsil. There is a wide disparity from the male–female literacy rates. As compared to 2001 disparity of literacy decreased by 0.06 % in 2011, because of increased literacy rate. Highest disparity is observed in Akkalkot Tehsil (0.211) followed by Mangalwedha Tehsil (0.192), because of wide gap from male to female literacy. Lower disparity of literacy in male and female observed in Madha (0.150), North Solapur (0.154%) and Malshiras Tehsil (0.154) because high literacy rate among both male and female.

Composite Index:

Composite Index of Disparity is calculated by using the following formulae:

Composite Index = (Disparity of Literacy 2001 + Disparity of Literacy 2011) / 2

On the basis of composite Index tehsils in Solapur Districts are categorised into Three Categories. Which are,

A. High Composite Index (Above 0.200)

In Solapur District average composite Index is 0.171. There is large gap from high to low composite index in study region. In Akkalkot Tehsil 0.232 composite index observed which is highest in the district followed by Mangalwedha (0.226), Sangola (0.224) and South Solapur (0.218) tehsils. These tehsils shows high composite index due to large gap between male and female literacy.
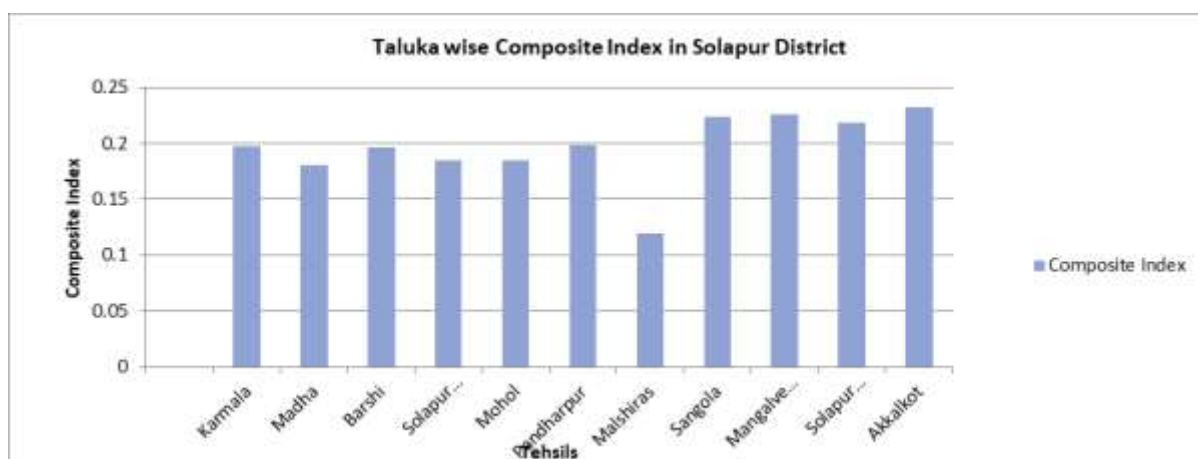
B. Moderate Composite Index (170-200)

The moderate composite index i.e between 170 to 200 are observed in Karmala (0.197), Madha (0.181), Barshi (0.196), N. Solapur (0.185), Mohol (0.185), Pandharpur (0.198) tehsils. Out of 11 tehsils 6 are lies in this category. Here the gap between male and female literacy is low.

C. Low Composite Index (Below 170)

Only Malshiras Tehsil lies in this category where composite index is 0.119. In this tehsil there is very low gap between male and female literacy as compared other tehsils in the district.

Name of Tehsil	Literacy 2001		Disparity in M/F Literacy	Literacy 2011		Disparity in M/F Literacy	Composite Index
	Male	Female		Male	Female		
Karmala	78.3	55.4	0.225	82.99	65.04	0.168	0.197
Madha	79.4	57.7	0.211	84.01	67.97	0.150	0.181
Barshi	82.2	58.6	0.225	84.34	66.35	0.167	0.196
Solapur North	80.1	57.9	0.216	83.44	66.59	0.154	0.185
Mohol	80	58.2	0.208	84	66.9	0.161	0.185
Pandharpur	77.7	54	0.234	83.38	65.92	0.161	0.198
Malshiras	82	60.6	0.084	83.48	66.91	0.154	0.119
Sangola	77.5	51.5	0.259	81.27	61.5	0.188	0.224
Mangalvedha	77.4	51.6	0.259	80.67	60.74	0.192	0.226
Solapur South	79.7	54.2	0.25	82.92	63.38	0.185	0.218
Akkalkot	79.1	53.6	0.253	79.33	57.41	0.211	0.232
Total	79.6	56.10	0.231	82.82	64.64	0.231	0.171

Taluka wise Composite Index in Solapur District

Finding And Conclusion:

Among 11 tehsils of Solapur District Akkalkot tehsils having lowest literacy among female due to lower level of socio-economic development Here in 2001 literacy among female is only 53.6 against district average 56.1 and in 2011, 57.41% against 64.64% district average.

In 2001, Sangola, Mangalwedha and South Solapur tehsils all are characterised by huge gap between male-female literacy. Due to The National Mission and the Sarvashiksha Abhiyan literacy among female is increased in these tehsils and reaches the mark of 60% in 2011, with 10% decadal growth. Except Akkalkot all the tehsils in the district showing positive growth in female literacy. Malshiras is on the top in case of female literacy in both census year. Here high female literacy due to wide spread of educational institutes in tehsils and high socio-economic development.

There is also a large educational gap between male and female not only in case of literacy rate but also in the level of Education. Government policies make positive impact but there is a need of effective implications of these schemes and social awareness among people.

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