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## SPATIAL DISPARITIES IN SC/ST EDUCATION: A KOLHAPUR DISTRICT CASE STUDY

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### **ABSTRACT:**

*This research investigates the spatial distribution, literacy rates, and educational attainment of the Scheduled Caste (SC) and Scheduled Tribe (ST) populations in the Kolhapur district of Maharashtra, India. Utilizing a combination of Census data (2001–2011) and primary fieldwork (2014–2015) spanning 12 sample villages, the study highlights the demographic and educational disparities within these marginalized communities. Findings reveal an uneven population distribution largely dictated by topography, with sparse populations in the hilly western terrain and denser concentrations in the eastern river basins.*

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**Keywords:** *Disparities, Literacy, Kolhapur District, Scheduled Population (SC/ST)*

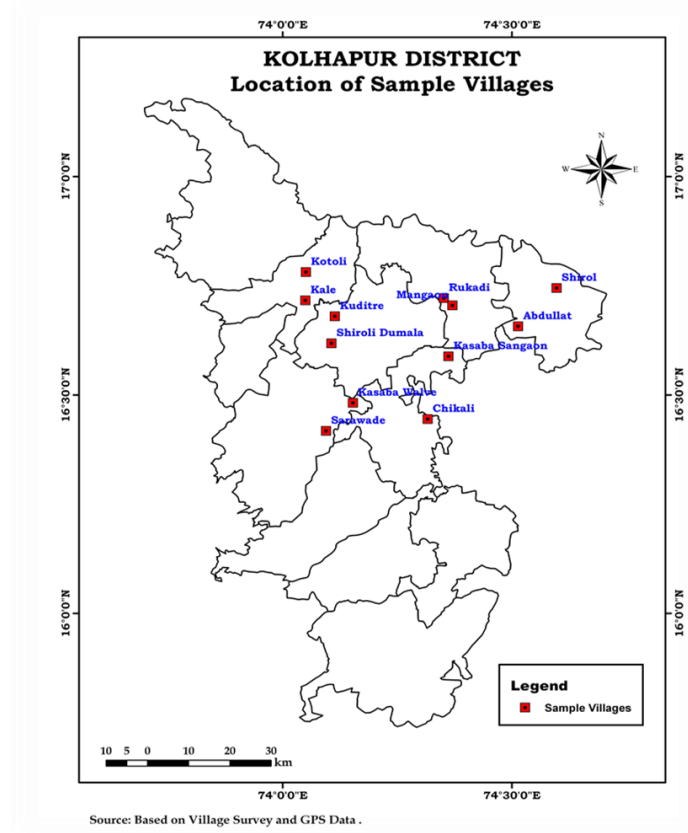
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### **INTRODUCTION:**

The decadal growth indicates a higher influx of ST populations (29.19%) into urban centers like Karveer due to employment opportunities, compared to a modest SC growth rate (10.86%). At the micro-level, the sample villages exhibit an average literacy rate of 75.00%, with a distinct male-female disparity index of 0.136. While elementary education (up to 7th standard) sees strong participation (34.41%), the study identifies a severe dropout rate at higher educational tiers, with graduation and post-graduation attainment plunging to 5.36% and 0.90%, respectively. The paper concludes that geographical isolation and economic barriers significantly hinder higher educational pursuits, underscoring the urgent need for targeted employment and educational accessibility interventions for Below Poverty Line (BPL) families in these lagging regions.

**STUDY AREA:**

The study area is geographically situated in the Kolhapur District, located in the southern part of Maharashtra State, India. The district presents a distinct topographical divide that heavily influences population distribution. The western portion consists of rugged, hilly terrain where the SC and ST populations are sparse and geographically isolated. Conversely, the eastern and south-eastern parts of the district feature fertile, plain river basins that support denser demographics, particularly in rapidly developing tehsils like Shirol, Hatkanagale, and Karveer. For a micro-level analysis, 12 sample villages were purposively selected across the district: Shirol, Abdul Lat, Rukadi, Mangaon, Shirol, Kuditre, Kale, Kotoli, Sangaon, Chikali, Sarawade, and Walawe. These villages serve as representative geographical units to measure localized literacy trends, gender disparities, and varying levels of educational attainment among the Below Poverty Line (BPL) Scheduled Populations. The selected sample encompasses both high-performing villages (e.g., Kotoli, with an 84.44% literacy rate) and lagging areas (e.g., Abdul Lat, with a 63.13% literacy rate), providing a comprehensive spatial view of the district's educational landscape.

*Fig. No.1*

**OBJECTIVES:**

1. To measure the male-female literacy disparity among the Scheduled Population.
2. To assess the levels of educational attainment among the sample villages.
3. Based on the provided text and data tables, here is a structured outline of the

**DATABASE:**

The research relies on a mixed-methods approach, utilizing both primary and secondary data sources to construct a comprehensive demographic and educational profile.

**Primary Data:** The core micro-level data regarding literacy and educational attainment was collected through primary fieldwork conducted during the year 2020-2021. This data was gathered specifically from the Scheduled Population (SC and ST) living Below the Poverty Line (BPL) across 12 selected sample villages in the Kolhapur district.

**Secondary Data:** Macro-level demographic data was sourced from the Census of India (2001 and 2011). This secondary data was utilized to analyze the total population distribution, tehsil-wise concentrations, decadal population growth rates (2001–2011), and comparative literacy statistics at the district, state (Maharashtra), and national levels.

**RESEARCH METHODOLOGY:**

The study employs an empirical, descriptive, and spatial-analytical research design. The methodology can be broken down into the following key components:

**A. Sampling Strategy: Study Area Selection:** The Kolhapur district was chosen for its geographical diversity, featuring both sparsely populated hilly terrains in the West and densely populated plain river basins in the East/South-East. **Micro-Level Sampling:** 12 sample villages (Shirol, Abdul Lat, Rukadi, Mangaon, Shirol, Kuditre, Kale, Kotoli, Sangaon, Chikali, Sarawade, and Walawe) were strategically selected to represent different geographical and

socio-economic settings within the district. Target Population: The survey specifically targeted marginalized communities, focusing on BPL families within the SC and ST categories.

**B. Data Collection & Categorization: Educational Stratification:** During the fieldwork, educational attainment was measured and categorized into six distinct tiers to track drop-out trends: up to 4th standard, 7th standard, 10th standard, 12th standard, Graduation, and Post-Graduation. Gender Segregation: Data was strictly segregated by gender to identify specific educational bottlenecks affecting male and female populations differently.

**C. Statistical and Analytical Tools: Male-Female Disparity Index:** A specific statistical index was calculated to measure the gap between male and female literacy rates across the 12 sample villages (averaging at 0.136). This tool highlights regional gender inequalities (e.g., highest disparity in Kuditre at 0.45, lowest in Chikali at -0.08). Descriptive Statistics: Percentages, averages, and proportions were widely used to tabulate and interpret the fieldwork data (e.g., tracking the decline in educational attainment from 34.41% at the 7th-standard level down to 0.90% at the Post-Graduation level). Decadal Growth Rate Analysis: The study calculated the percentage change in population from 2001 to 2011 to identify demographic shifts, such as the high influx (29.19% growth) of ST populations into urbanizing tehsils like Karveer for employment. Spatial Analysis: A geographical lens was applied to correlate educational outcomes and population density with local topography, contrasting the socio-economic development of the fertile eastern plains (e.g., Shirol, Hatkanagale) against the isolated western hilly regions (e.g., Chandgad, Bhudargad).

### **LITERACY RATE OF SCHEDULED POPULATION: A SAMPLE VILLAGE:**

The Scheduled population constitutes when SC and ST population are put together and both are scheduled in the Constitution of India. The literacy of Scheduled population has also been measured in 12 sample villages of the study area. The total literacy rate of the Kolhapur district has observed about 75.00 per cent and the out of this Male literates were 82.35 per cent while Female

literate population was 67.74 per cent, so disparity index of the male and female literacy rate was 0.136.

#### MALE- FEMALE LITERACY DISPARITY OF SAMPLE VILLAGES:

The Kotoli village was identified with a high literacy rate of 84.44 per cent, which was followed by the Shirol (80.45%), Sarawade (80.00%) respectively while low literacy rate was found in Abdul Lat village at 63.13 per cent. The high male literacy rate was found in Kuditre village with 95.00 per cent, even in Rukadi, Shirol, Kotoli villages were having above 90 per cent Male literacy rate. The lowest Male literacy rate was found in the village of Shirol with 64.29 per cent and the Male literacy rate was 82.35 per cent.

**Table 1:**

#### **Kolhapur District: Literacy Rate of Scheduled Population: A Sample Village**

Sr. No.	Name of Tehsil	Scheduled Population (BPL) Literacy Rate			Male-Female Disparity Index
		Total	Male	Female	
1	Shirol	66.88	64.29	70	-0.056
2	Abdul Lat	63.13	77.57	49.09	0.29
3	Rukadi	79.1	90.59	68.48	0.201
4	Mangaon	67.78	77.78	57.78	0.195
5	Shirol	80.45	90.9	70	0.288
6	Kuditre	73.33	95	48.57	0.45
7	Kale	78.62	81.48	75	0.059
8	Kotoli	84.44	91.67	86.49	0.046
9	Sangaon	77.78	80	75	0.046
10	Chikali	75.57	72.73	81.4	-0.08
11	Sarawade	80	81.08	79.25	0.017
12	Walawe	78.21	79.59	75.86	0.034
Kolhapur District		75	82.35	67.74	0.136

*Source: Based on the Fieldwork 2020-21*

The Female literacy rate is highly recorded in the Kotoli village with 86.49 per cent which is followed by Chikali village 81.40 per cent while the low female literacy rate was in the Abdul Lat village (49.09%). The total female literacy

rate of the scheduled population is 67.74 per cent. The male-female Disparity index was quite high in Kuditre village with 0.450 and the lowest male-female disparity was in Shirol (-0.056) and Chikali village (-0.080). The male-female disparity index of the all sample village of the scheduled population was 0.136.

### THE EDUCATIONAL ATTAINMENT OF THE SCHEDULED POPULATION IN SAMPLE VILLAGE:

The educational attainment of the scheduled population has been measured from 4<sup>th</sup> standard to Post-graduation level. In the 12 has been attempted measuring educational attainment of the scheduled population. It is found that the average 16.12 per cent population having up to 4<sup>th</sup> standard education, up to 7<sup>th</sup> standard (34.41%) up to 10<sup>th</sup> standard (27.46 %), up to 12<sup>th</sup> standard (15.75%), up to graduation level (5.36) and with post graduation (0.90%) respectively. As we move from lower to a higher level of education the proportion of population goes on declining due to the compelling situation of drop out.

**Table 2**

#### **Kolhapur District: The Educational Attainment of the Scheduled Population: A Sample Villages**

Sr. No.	Name of The Village	Education Level					
		4 <sup>th</sup>	7 <sup>th</sup>	10 <sup>th</sup>	12 <sup>th</sup>	U.G.	P.G
1	Shirol	15.89	30.84	35.51	16.82	0	0.93
2	Abdul Lat	24.32	34.46	22.97	12.16	5.41	0.68
3	Rukadi	19.85	30.53	27.48	16.03	4.58	1.53
4	Mangaon	12.07	43.1	22.41	10.34	8.62	3.45
5	Shiroli	12.9	38.71	27.42	16.13	4.84	0
6	Kuditre	15.91	20.45	38.64	25	0	0
7	Kotoli	18.18	22.73	33.33	18.18	6.06	1.52
8	Kale	21.82	30.91	24.55	15.45	7.27	0
9	Sangaon	9.84	45.9	22.95	13.11	8.2	0
10	Chikali	21.21	30.3	29.29	10.1	8.08	1.01
11	Sarawade	10	44	22	16	8	0
12	Walawe	11.48	40.98	22.95	19.67	3.28	1.64
Average		16.12	34.41	27.46	15.75	5.36	0.9

*Source: Based on the Fieldwork 2020-21*

There in the Abdul Lat village, high proportion of scheduled population up to 4<sup>th</sup> standard was 24.32 per cent while it was as low as 9.84 per cent in the Sangaon village. The range up to 7<sup>th</sup> standard was high found in Sangaon village (45.90%) while low in the Kuditre village (20.45%). The educational attainment up to 10<sup>th</sup> standard was high in Shirol village (35.51%) and low in the Sarawade village (22.00%). The proportion of the population with educational attainment of the 12<sup>th</sup> standard was high in Kuditre village (25.00%) while low in the Chikali village (10.10%). The high level of scheduled population with Graduation was found in the Mangaon village (8.62%), which is followed by Sangaon, Chikali, Sarawade village with above 8 per cent. The proportion of the population with post-graduation was high in Mangaon village (3.45%) while in villages like Shirol, Kuditre, kale Sangaon, Sarawade no one was found with graduation. It shows that geographical as well as the economic accessibility is out of their range. It is generally found that higher is the standard of living. It is suggested that in such lagging villages or areas not only the spatial but also the economic accessibility has to be established by making provision employment opportunities to the BPL families of the SC and ST communities in the study area.

#### **CONCLUSION:**

The study conclusively demonstrates that while the Scheduled Population in Kolhapur District has achieved a commendable average literacy rate of 75.00%, severe spatial and gender disparities heavily undermine educational equity. Micro-level analysis reveals stark regional contrasts, with high-performing villages like Kotoli (84.44%) juxtaposed against lagging areas like Abdul Lat (63.13%). Furthermore, a persistent gender gap is evident, highlighted by an overall male-female disparity index of 0.136, which spikes as high as 0.450 in Kuditre. Crucially, the educational attainment data exposes a drastic dropout crisis within these marginalized BPL communities. Although foundational schooling up to the 7<sup>th</sup> standard shows strong participation (34.41%), transition to higher education plunges dramatically, with graduation (5.36%) and post-graduation (0.90%) rates remaining alarmingly low. This steep educational

decline is primarily driven by geographical isolation in the western hilly terrains and deep-rooted economic constraints. Ultimately, to bridge these divides, policymakers must look beyond basic literacy and implement targeted interventions that enhance economic accessibility, generate local employment, and facilitate higher education retention for SC/ST communities in lagging regions.

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