Original Research Paper

Educational Inequality and Its Impact on Social and Economic Opportunities in Rural India

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Abstract: Educational inequality remains a significant challenge in rural India, with disparities in access to infrastructure, teacher quality, and technology hindering equitable learning opportunities. This study examines these inequalities in two rural regions: Barwani, Madhya Pradesh, and Kalahandi, Odisha. Using a mixed-methods approach, the research combines qualitative interviews with students, teachers, and policymakers, alongside quantitative data on enrollment, infrastructure, and learning outcomes. Findings reveal that 72% of schools in Barwani lack science laboratories, while 65% of schools in Kalahandi lack digital tools, reflecting severe infrastructural gaps. High student-to-teacher ratios of 70:1 in Barwani and 60:1 in Kalahandi further strain educational quality, exacerbated by a lack of trained teachers. Poor access to technology and unreliable internet connectivity limit digital literacy, perpetuating the digital divide. The study also evaluates government interventions such as the Sarva Shiksha Abhiyan and digital education initiatives, finding implementation inconsistencies in remote areas. The findings highlight how educational inequality restricts social mobility and economic opportunities, particularly in underdeveloped regions. Future research should focus on the effectiveness of targeted policies and explore innovative, technology-driven solutions to bridge these disparities, fostering equitable educational development and sustainable growth in rural India.

Keywords: Digital Divide, Educational Inequality, Government Policies, Rural Education, Social Mobility.



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1. Introduction

Education plays a fundamental role in fostering social mobility and economic development. It serves as a tool for breaking the cycle of poverty, offering individuals the chance to improve their lives and contribute to society. Access to quality education is crucial for equipping individuals with the skills needed for personal growth, employment, and active participation in the economy. In the context of India, education is not only seen as a means of improving individual prospects but also as a key instrument for national progress. However, despite the critical importance of education, significant disparities exist within the country, particularly between urban and rural regions, where educational opportunities are limited due to infrastructure gaps, socio-economic barriers, and regional inequalities [1].

India is a country with a complex demographic and geographical landscape, where education is highly concentrated in urban areas, while rural regions often face challenges in providing quality education. Rural areas, where a large portion of the population resides, struggle with insufficient resources, lack of skilled teachers, and limited access to educational materials. This disparity is further exacerbated by socio-economic factors such as poverty, gender bias, and caste-based discrimination, all of which significantly affect educational outcomes. Despite various government efforts, these challenges continue to perpetuate a cycle of inequality, limiting the potential of rural youth and contributing to a broader socio-economic divide in the country [2].

The primary objective of this research is to explore the nature and extent of educational inequality in India, particularly focusing on rural areas. This study aims to identify the root causes of educational disparities, including the influence of socio-economic factors, regional development policies, and governmental interventions. It will also assess how these inequalities affect the social and economic opportunities available to individuals in rural areas, especially in terms of employment prospects, income distribution, and overall life outcomes. By understanding these issues, the research seeks to provide insights into the broader implications of educational inequality for India's long-term development [3].

Several research questions guide this study. First, what are the primary factors contributing to educational inequality in India? This includes examining the role of infrastructure, teacher quality, socio-economic status, and cultural factors. Second, how does educational inequality affect social and economic opportunities in rural India? This involves assessing the impact on employment, income generation, and mobility within the community. Finally, what policies has the Indian government implemented to address educational disparities, and how effective have these interventions been in reducing inequality? By addressing these questions, this study aims to fill a gap in existing literature regarding the practical outcomes of educational reforms and their impact on rural communities [4].

Understanding these aspects is vital for crafting more targeted and effective educational policies. While India has made significant strides in improving access to education through various reforms, the issue of inequality persists, particularly in rural and underdeveloped regions. Policy interventions such as the Right to Education Act and schemes aimed at improving infrastructure in rural schools have had mixed results. The complexity of the socio-economic landscape in India means that addressing educational inequality requires multifaceted approaches that go beyond just expanding access. This research will explore how such interventions can be strengthened and tailored to meet the specific needs of disadvantaged regions [5].

Previous studies have highlighted that the educational divide in India is not only a result of economic disparity but also of a deeply entrenched social structure. Factors like gender, caste, and class continue to influence educational outcomes. Girls, for example, face additional barriers to education, including early marriage and cultural expectations, while children from lower castes may experience discrimination in schools, further limiting their educational attainment. These social factors compound the challenges faced by rural students and require focused attention in any policy response to educational inequality [6].

Moreover, educational inequality in India is not just an issue of access to schooling, but also of the quality of education. While enrollment rates have improved over the years, dropout rates remain high, particularly in rural areas. This is often due to factors such as lack of parental support, poor teaching quality, and inadequate school facilities. As a result, even those who complete their education may not be adequately prepared for the labor market, perpetuating a cycle of poverty and underdevelopment [7].

The education system in India is at a critical juncture. While access to education has increased, the quality and equality of education remain major challenges. The impact of educational inequality on social and economic outcomes, particularly in rural areas, underscores the need for more comprehensive

and inclusive policies. This research will contribute to the growing body of literature on educational inequality in India by providing a detailed analysis of the factors driving these disparities and evaluating the effectiveness of government policies aimed at addressing them [8]. The findings will have significant implications for both policymakers and educators in India, offering recommendations for more effective interventions that can bridge the educational divide and promote social and economic development in rural areas.

2. Literature Review

2.1. Social Inequality Theories

Social inequality is a multidimensional phenomenon that has been studied extensively through various theoretical frameworks. Among the most prominent theories is Karl Marx's conflict theory, which highlights class struggles as a major driver of inequality. Marx argued that the capitalist system inherently creates disparities between the bourgeoisie, who control resources, and the proletariat, who provide labor. This framework underscores how unequal access to education perpetuates class-based inequalities, particularly in developing countries where resources are scarce [9].

Another influential framework is Max Weber's theory, which expands on Marx's ideas by introducing the concepts of status and power as additional dimensions of inequality. Weber's approach suggests that education not only determines one's economic position but also influences social prestige and access to power structures. In developing nations, educational inequality often reinforces existing status hierarchies, further marginalizing disadvantaged groups [10].

The structural-functionalism perspective, represented by scholars like Émile Durkheim, views inequality as a necessary feature of society. According to this theory, education serves as a mechanism for sorting individuals into roles that best suit their abilities, contributing to the functioning of society. However, critics argue that this perspective overlooks systemic barriers that limit educational opportunities for marginalized communities, particularly in rural and underdeveloped areas [11].

Pierre Bourdieu's concept of cultural capital provides another lens to understand educational inequality. Bourdieu argued that access to education is influenced by an individual's cultural background, which includes language, social norms, and values. In the context of developing countries, students from disadvantaged backgrounds often lack the cultural capital required to excel in formal education systems, perpetuating cycles of inequality [12].

Modern theories, such as Amartya Sen's capability approach, focus on individuals' freedoms and opportunities to achieve their potential. Sen emphasizes that inequality in education is not merely an outcome but also a process that limits individuals' capabilities to lead fulfilling lives. This theory is particularly relevant to developing nations like India, where educational access varies significantly based on geographic, economic, and social factors [13].

In the global context, the Human Capital Theory highlights the role of education in enhancing productivity and economic growth. This theory posits that investment in education leads to a skilled workforce, driving national development. However, disparities in access to education undermine this potential, particularly in countries with high levels of inequality [14].

The feminist perspective on social inequality highlights how gender intersects with education to create unique challenges for women and girls. Scholars argue that educational inequality is not only a result of systemic issues but also of deeply ingrained patriarchal norms, which limit opportunities for female students in many developing countries, including India [15].

Intersectionality, a concept introduced by Kimberlé Crenshaw, provides a framework to analyze how overlapping social identities—such as caste, gender, and class—compound educational disparities. This theory is particularly useful in understanding the complexities of inequality in India, where multiple axes of identity intersect to create diverse experiences of exclusion [16].

In conclusion, theories of social inequality provide valuable insights into the systemic and structural factors that drive disparities in education. These frameworks highlight the need for targeted policies that address the root causes of inequality while considering the socio-economic and cultural contexts unique to each country [17].

2.2. Education and Social Development in India

Education plays a pivotal role in shaping social and economic development. In India, where stark inequalities persist, access to quality education is a critical factor in determining an individual's ability to escape poverty. Education contributes to social mobility, equipping individuals with skills that enhance their employability and economic productivity [18].

Historically, India's caste system has been a significant barrier to educational equity. Dalits and other marginalized groups have faced systemic exclusion from formal education systems. Although affirmative action policies have increased access for these groups, disparities in quality and outcomes remain prevalent [19].

Gender inequality further compounds educational disparities in India. Despite progress in enrollment rates, girls in rural areas often face additional challenges, including societal expectations, early marriage, and safety concerns. These barriers not only limit educational attainment but also restrict women's participation in the workforce, perpetuating economic dependence [20].

Regional disparities are another critical issue. States like Kerala boast high literacy rates and robust education systems, while others, such as Bihar and Uttar Pradesh, lag significantly behind. These disparities are often linked to differences in governance, infrastructure, and socio-economic conditions [21].

Education also impacts social cohesion in India. By providing a common framework for knowledge and values, education fosters a sense of national identity and unity. However, unequal access to education can exacerbate divisions, particularly in a diverse country like India where language, religion, and caste are deeply entrenched in social life [22].

The relationship between education and economic development is well-documented in India. Educated individuals are more likely to secure stable employment and higher incomes, contributing to overall economic growth. However, the unequal distribution of educational opportunities limits this potential, particularly in rural and underdeveloped regions.

India's rapid technological advancements have created a demand for skilled labor, emphasizing the importance of STEM education. Yet, access to STEM programs is often limited to urban areas, leaving rural students at a significant disadvantage. Bridging this gap is essential for ensuring equitable economic development.

Illiteracy remains a significant challenge in India, particularly among older populations in rural areas. This limits their ability to participate in decision-making processes, access healthcare, and improve their quality of life. Addressing illiteracy requires targeted adult education programs that cater to the specific needs of these populations.

Educational inequality also has intergenerational effects. Parents with limited educational attainment are less likely to prioritize education for their children, perpetuating cycles of poverty and exclusion. Breaking this cycle requires comprehensive policies that address both access and quality of education.

The role of private schools in India's education system is both an opportunity and a challenge. While private institutions often offer higher-quality education, they are inaccessible to a majority of the population due to high costs. This creates a dual system that exacerbates social inequalities.

In conclusion, education is a critical driver of social and economic development in India. Addressing educational inequality requires a multifaceted approach that considers the diverse challenges faced by different communities. By investing in inclusive and equitable education systems, India can unlock the potential of its population and foster sustainable development [24].

2.3. Educational Policies in India

India has implemented several educational policies aimed at reducing inequalities and improving access to quality education. The National Policy on Education (NPE), first introduced in 1986 and revised in 2020, serves as a cornerstone of the country's efforts to address systemic challenges in the education sector. The NPE 2020 emphasizes inclusivity, quality, and equity, with specific provisions for marginalized groups such as Scheduled Castes, Scheduled Tribes, and economically weaker sections [25].

One of the most notable initiatives under the NPE is the Right to Education Act (RTE) of 2009, which mandates free and compulsory education for children aged 6 to 14. The RTE aims to eliminate barriers such as enrollment fees and infrastructure deficiencies, particularly in rural and underdeveloped regions. However, its implementation has faced challenges, including insufficient funding and disparities in quality between urban and rural schools [26].

The Mid-Day Meal Scheme, launched in 1995, is another significant policy aimed at improving access to education. By providing free meals to schoolchildren, the program seeks to address nutritional deficiencies and increase school enrollment and retention rates, especially among disadvantaged communities. Despite its success, issues such as corruption and inadequate infrastructure occasionally hinder its effectiveness.

India has also focused on scholarship programs to reduce financial barriers to education. Initiatives such as the National Means-cum-Merit Scholarship Scheme and state-level programs provide financial assistance to students from low-income families. These scholarships have significantly increased enrollment rates among underprivileged groups, although awareness and accessibility remain challenges in remote areas.

In addition to access-focused policies, efforts to improve the quality of education are crucial. The Rashtriya Madhyamik Shiksha Abhiyan (RMSA), launched in 2009, aims to enhance secondary education by providing better infrastructure, teacher training, and learning materials. However, disparities in resource allocation often limit its impact in the most underdeveloped regions.

Digital education initiatives have gained prominence in recent years, especially during the COVID-19 pandemic. Programs like Digital India and e-Vidya aim to bridge the digital divide by providing online learning resources and digital infrastructure in rural areas. While these initiatives have improved access to education for many, the lack of internet connectivity and digital literacy in remote regions remains a significant barrier [27].

The government has also implemented targeted policies to improve education for girls, such as the Beti Bachao Beti Padhao (BBBP) campaign. This program seeks to address gender disparities by promoting awareness, improving school infrastructure, and offering financial incentives for girls' education. While the initiative has raised awareness, its long-term impact is still being evaluated.

Recognizing the role of vocational education in economic development, India has introduced policies to integrate skill development into the education system. The Skill India initiative and programs like the National Skill Development Mission aim to equip students with job-oriented skills, particularly in rural areas. These efforts address unemployment while enhancing the relevance of education in socioeconomic development [28].

The National Education Policy 2020 also emphasizes the importance of early childhood education and foundational literacy. Programs such as Samagra Shiksha focus on integrating pre-primary education into the formal education system, ensuring a strong foundation for lifelong learning. However, challenges in implementation persist, especially in states with weaker governance structures.

Public-private partnerships (PPPs) have emerged as a strategy to improve education quality and reach underserved communities. These partnerships enable the sharing of resources and expertise, contributing to improved infrastructure and innovative teaching methodologies. However, critics argue that PPPs risk commercializing education and widening disparities between private and public schools [29].

Despite these efforts, the effectiveness of India's educational policies is often hampered by systemic challenges, including corruption, inadequate funding, and regional disparities. Addressing these issues requires a holistic approach that combines policy reforms with grassroots-level implementation and community involvement [30].

In conclusion, India's educational policies reflect a strong commitment to reducing inequalities and improving access to quality education. However, sustained efforts are needed to address persistent challenges and ensure that these policies translate into tangible outcomes for all sections of society.

3. Methodology

This study employs a mixed-methods approach, integrating both qualitative and quantitative methodologies to comprehensively analyze educational inequality in rural India. The design facilitates an in-depth understanding of systemic issues while providing a robust statistical framework for generalization.

3.1. Research Design

The research design combines case studies with broader quantitative analysis. Case studies provide nuanced insights into the lived experiences of communities, while statistical data offer a macro perspective of the educational disparities. This dual approach ensures a holistic understanding of the issue, focusing on factors contributing to inequality and its impact on socio-economic opportunities.

3.2. Sample and Research Locations

The study focuses on two distinct rural regions in India: Barwani District, Madhya Pradesh, and Kalahandi District, Odisha. These areas were selected due to their high levels of educational disparity, limited access to infrastructure, and low literacy rates, based on reports from the Indian Census 2011 and the National Sample Survey Office (NSSO).

- 1) Barwani District, Madhya Pradesh: A predominantly tribal region with a literacy rate of 49.08%, where socio-economic challenges hinder educational development.
- 2) Kalahandi District, Odisha: Known for its persistent poverty and low Human Development Index (HDI), with a literacy rate of 59.22%, Kalahandi reflects the struggles of underdeveloped regions.

The sample consists of 250 respondents, divided into two groups of 125 per location. Respondents are further categorized as follows:

- 1) Students (100): Aged 10–18 years, enrolled in government and private schools, representing different socio-economic backgrounds.
- 2) Teachers (50): Primarily from government schools, with a minimum of 5 years of teaching experience in rural areas.
- 3) School Administrators (30): Principals or headmasters responsible for managing schools in the selected districts.
- 4) Parents (40): Parents of school-going children, representing diverse socio-economic strata, including tribal, scheduled caste, and economically backward families.
- 5) Government Officials (30): Policymakers and education officers involved in implementing educational schemes and policies in the selected regions.

3.3. Data Collection Methods

The data collection methods as follows:

1) Qualitative Data Collection

Qualitative data is gathered through semi-structured interviews and focus group discussions (FGDs):

- Semi-Structured Interviews: Conducted with all categories of respondents, focusing on their experiences, challenges, and perceptions of educational inequality. Example questions include:
 - "What are the primary challenges faced by students in accessing education?"
 - "How do government policies address or fail to address these challenges?"
- Focus Group Discussions: Organized with groups of parents and teachers to explore community-level challenges and collective insights on improving educational access.

2) Quantitative Data Collection

Quantitative data is collected from secondary sources, including reports by government agencies such as the Ministry of Education and NGOs like Pratham (Annual Status of Education Report, ASER). Key data points include:

- Enrollment rates in primary and secondary education.
- Dropout rates and gender disparities.
- Availability of school infrastructure, such as libraries, toilets, and digital resources.

Additionally, primary data is collected through structured surveys distributed among students and teachers. These surveys cover aspects such as:

- o Accessibility of schools and transportation.
- o Availability of textbooks and learning materials.
- o Impact of economic barriers on school attendance.

4. Finding and Discussion

4.1. Educational Inequality in Rural Areas

The findings reveal significant disparities in educational outcomes between urban and rural areas in the studied districts of Barwani, Madhya Pradesh, and Kalahandi, Odisha.

There are few points:

1) Infrastructure Deficiencies: Rural schools in both districts lack basic facilities such as functioning toilets, libraries, and adequate classrooms. In Kalahandi, 65% of the surveyed schools had no access to digital learning tools, while in Barwani, 72% reported an absence of science laboratories.

- 2) Teacher Shortages and Quality: Both regions face acute shortages of qualified teachers, with some schools in Barwani having a student-to-teacher ratio as high as 70:1. Moreover, 40% of teachers surveyed in Kalahandi reported a lack of subject specialization, leading to gaps in delivering quality education.
- 3) Technological Access: A significant factor contributing to educational inequality is the limited access to technology. Only 15% of students surveyed in Kalahandi had access to computers, compared to 85% in urban centers like Bhubaneswar. Similarly, internet connectivity in Barwani is sporadic, further hindering digital learning opportunities.

These disparities underscore the systemic neglect of rural education, perpetuating an enduring gap between rural and urban educational achievements.

Policy/Program	Barwani, Madhya Pradesh	Kalahandi, Odisha
Infrastructure	72% of schools lack science labs; no libraries in 50%	65% of schools lack digital tools; only 30% have functional toilets
Teacher-Student Ratio	70:1 in government schools	60:1 in rural schools
Teacher Quality	40% of teachers lack subject specialization	35% of teachers are untrained
Access to Technology	20% of schools with computer access	15% of schools with computer access
Internet Connectivity	Sporadic and unreliable	Very limited in remote

villages

Table 2. Impact of Educational Inequality on Social and Economic Opportunities

4.2. Impact of Inequality on Social and Economic Opportunities

Educational inequality in rural areas directly influences the socio-economic mobility of individuals and communities in Barwani and Kalahandi.

There are few points:

1) Infrastructure

In Barwani, Madhya Pradesh, a significant proportion of schools lack basic academic facilities, with 72% missing science laboratories and 50% operating without libraries. These gaps limit students' ability to engage in practical learning and access educational resources. In contrast, in Kalahandi, Odisha, 65% of schools lack digital tools, reflecting an emphasis on modern technological deficits. Moreover, only 30% of schools have functional toilets, indicating poor sanitation infrastructure, which can adversely impact attendance, particularly for female students.

2) Teacher-Student Ratio

Both regions exhibit an alarmingly high student-to-teacher ratio, which directly affects the quality of education. In Barwani, government schools report a ratio of 70:1, while in Kalahandi, it is slightly lower at 60:1. These figures far exceed the recommended norms of 30:1, leading to overcrowded classrooms where teachers struggle to provide individualized attention to students.

3) Teacher Quality

Teacher shortages are exacerbated by a lack of qualified educators. In Barwani, 40% of teachers lack subject specialization, meaning they may not have the training required to teach critical subjects effectively. Similarly, in Kalahandi, 35% of teachers are untrained, impacting their ability to deliver curriculum content proficiently. This deficiency contributes to poor student performance and limits their ability to compete academically.

4) Access to Technology

Technology access remains a critical challenge in both regions, with only 20% of schools in Barwani and 15% in Kalahandi having computer access. This gap restricts students from

acquiring digital literacy, a skill increasingly necessary for higher education and employment. The absence of technological tools creates a digital divide, further marginalizing rural students compared to their urban peers.

5) Internet Connectivity

Reliable internet connectivity is crucial for integrating technology into education. However, in Barwani, internet access is sporadic and unreliable, with schools reporting frequent interruptions in service. In Kalahandi, the situation is even more dire, with very limited connectivity in remote villages, leaving students unable to access online learning platforms or digital resources.

The data highlights severe deficiencies in educational infrastructure and resources across both Barwani and Kalahandi, with variations in their focus on traditional versus digital shortcomings. These issues collectively hinder the ability of rural students to receive quality education, perpetuating systemic inequalities. Addressing these challenges requires targeted interventions, including infrastructure upgrades, teacher training programs, and initiatives to expand digital and internet access in rural schools.

These findings highlight how educational disparities limit the ability of rural communities to break the cycle of poverty, stifling local economic development.

4.3. Role of Government Policies and Interventions

The study also evaluates the effectiveness of government policies and programs aimed at reducing educational inequality in rural areas like Barwani and Kalahandi.

There are few points:

1) Educational Outreach Programs

Programs such as the Sarva Shiksha Abhiyan (SSA) and Mid-Day Meal Scheme have been implemented in both regions. While the SSA has increased enrollment rates, its impact is limited by insufficient infrastructure and teacher shortages. For example, in Barwani, schools under SSA recorded a 20% dropout rate in secondary education, primarily due to inadequate resources.

2) Scholarship Distribution

The Pre-Matric Scholarship for SC/ST Students has benefited marginalized groups, particularly in Kalahandi, where 40% of respondents reported receiving financial aid. However, delays in fund disbursement and lack of awareness hinder the program's effectiveness.

3) Infrastructure Development

Government initiatives like the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) aim to improve school facilities in rural areas. While these efforts have led to modest improvements in infrastructure, the progress is uneven. In Kalahandi, 30% of schools have seen infrastructure upgrades, but similar progress is yet to be observed in Barwani.

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Lable 3	Role of	Ctovernment	Policies	and In	terventions

Policy/Program	Barwani, Madhya Pradesh	Kalahandi, Odisha
Sarva Shiksha	20% dropout rate due to	Increased enrollment but
Abhiyan (SSA)	poor resources	limited infrastructure
Mid-Day Meal	Improved attendance,	Increased enrollment but
Scheme	especially among SC/ST children	implementation gaps
Pre-Matric	Low awareness among rural	40% benefited, but delays in
Scholarship Program	students	fund disbursement
Rashtriya	Limited infrastructure	30% of schools upgraded
Madhyamik Shiksha	improvement in schools	facilities
Abhiyan (RMSA)		
Digital Education	Limited penetration due to	10% of schools with
Programs	lack of internet	functional digital tools

The findings from Barwani and Kalahandi demonstrate that educational inequality is deeply rooted in systemic issues such as infrastructure deficits, insufficient teacher quality, and limited access to technology. These disparities significantly impact the socio-economic prospects of rural populations, limiting opportunities for social mobility and regional development. While government policies have shown potential, there is a pressing need for more targeted and inclusive strategies to bridge the rural-urban educational divide effectively.

5. Conclusion

This study underscores the persistent educational inequalities in rural areas of India, with findings highlighting significant disparities in infrastructure, teacher quality, access to technology, and internet connectivity. In Barwani, Madhya Pradesh, a lack of science labs, libraries, and trained teachers hampers educational progress, while Kalahandi, Odisha, faces challenges such as poor sanitation facilities and inadequate digital tools. These deficiencies exacerbate the digital divide and limit students' ability to access quality education, which is vital for their social mobility and economic opportunities. The high student-to-teacher ratios and untrained educators further diminish the learning experience, leaving rural students ill-equipped to compete with their urban counterparts. Despite government policies and interventions, such as the Sarva Shiksha Abhiyan, Mid-Day Meal Scheme, and digital education initiatives, their impact has been uneven, with implementation gaps in remote regions continuing to hinder progress.

Future research should explore the long-term effectiveness of targeted policies in bridging educational disparities, particularly by evaluating their impact on student outcomes and social mobility. Emphasis should also be placed on identifying innovative solutions, such as leveraging AI and digital learning platforms, to enhance accessibility in underserved areas. Comparative studies across different states could provide insights into best practices, while focusing on community participation and localized strategies can help address unique regional challenges. By addressing these gaps, future research can contribute to developing a more equitable and sustainable education system in India, fostering greater social and economic development in rural areas.

References

- [1] SM. K. Garg, P. Chowdhury, and S. K. M. I. Kanchan, "An overview of educational inequality in India: The role of social and demographic factors," *Front. Educ.*, vol. 7, 2022.
- [2] C. Barone and G. Assirelli, "Gender segregation in higher education: An empirical test of seven explanations," *Higher Educ.*, vol. 79, pp. 55–78, 2020
- [3] CRY Child Rights and You, "Education in rural India," [Online]. Available: https://www.cry.org/blog/education-in-rural-india/. [Accessed: Aug. 11, 2024].
- [4] The Hindu, "What are the challenges of education in rural India and how technology can help overcome them," *The Hindu*, Jul. 13, 2021. [Online]. Available: https://www.thehindu.com/education/what-are-the-challenges-of-education-in-rural-india-and-how-technology-can-help-overcome-them/article35316970.ece. [Accessed: Aug. 11, 2024].
- [5] Z. Wang, "Research on rural compulsory education in the context of rural revitalization," *J. Educ., Teach. Soc. Stud.*, vol. 5, p. 12, Jun. 2023.
- [6] Ideas for India, "The role of caste and gender in determining science education in India," [Online]. Available: https://www.ideasforindia.in/topics/human-development/the-role-of-caste-and-gender-in-determining-science-education-in-india.html. [Accessed: Aug. 11, 2024].
- [7] S. Mahalanabis and S. Acharya, "Socio-economic origins of school dropouts in rural India," *Indian Journal of Political Science and Law*, [Online]. Available: https://ijpsl.in/wp-content/uploads/2021/03/Socio-Economic-Origins-of-School-Dropouts-in-Rural-India_Sukanya-Mahalanabis-Sreejita-Acharya.pdf. [Accessed: Aug. 11, 2024].
- [8] M. Nakajima, Y. Kijima, and K. Otsuka, "Is the learning crisis responsible for school dropout? A longitudinal study of Andhra Pradesh, India," *Int. J. Educ. Dev.*, vol. 62, pp. 245–253, 2018.
- [9] T. Nesbit, "Class analysis in adult education," in *International Encyclopedia of Education (Third Edition)*, P. Peterson, E. Baker, and B. McGaw, Eds. Elsevier, 2010
- [10] A. G. Abo-Khalil, "Integrating sustainability into higher education: Challenges and opportunities for universities worldwide," *Heliyon*, vol. 10, no. 9, 2024.

- [11] D. Galan-Casado, A. Moraleda, M. L. Martínez-Martí, and M. Á. Pérez-Nieto, "Sustainable environments in education: Results on the effects of the new environments in learning processes of university students," *Sustainability*, vol. 12, no. 7, 2020.
- [12] F. Caputo, L. Ligorio, and S. Pizzi, "The contribution of higher education institutions to the SDGs-An evaluation of sustainability reporting practices," *Administrative Sciences*, vol. 11, no. 3, 2021.
- [13] F. de Moll, A. L. Grecu, and A. Hadjar, "Students' academic habitus and its relation to family capital: A latent class approach to inequalities among secondary school students," *Sociological Inquiry*, vol. 94, no. 1, pp. 190–220, 2024.
- [14] O. Rocha, D. Kamphambale, C. MacMahon, J. H. Coetzer, and L. Morales, "The power of education in a globalised world: Challenging geoeconomic inequalities," *Peace Review*, vol. 35, no. 4, pp. 708–723, 2023.
- [15] A. MacKenzie and T.-H. Chiang, "The human development and capability approach: A counter theory to human capital discourse in promoting low SES students' agency in education," *International Journal of Educational Research*, vol. 117, 2023.
- [16] P. K. Choudhury, R. Joshi, and A. Kumar, "Regional and socioeconomic inequalities in access to pre-primary education in India: evidence from a recent household survey," *ICEP*, vol. 17, no. 13, 2023
- [17] B. Alcott, M. Banerji, S. Bhattacharjea, M. Nanda, and P. Ramanujan, "One step forward, two steps back: transitions between home, pre-primary and primary education in rural India," *Compare: Journal of Comparative and International Education*, vol. 50, no. 4, pp. 482–499, 2020.
- [18] M. M. Abdurakhmonova, M. A. Mirzayev, U. U. Karimov, and G. Y. Karimova, "Information culture and ethical education in the globalization century," *The American Journal of Social Science and Education Innovations*, vol. 3, no. 3, pp. 384-388, 2021.
- [19] S. Khanal, S. R. Pokhrel, and R. Dewey, "Propagation of inequality: an analysis of capability development opportunities of Dalits in higher education on the Indian subcontinent," *Compare: A Journal of Comparative and International Education*, pp. 1–16, 2023
- [20] W. Tierney, N. Sabharwal, and C. M. Malish, "Inequitable Structures: Class and Caste in Indian Higher Education," *Qualitative Inquiry*, vol. 25, 2018.
- [21] K. Swargiary, "State-Wise Literacy Rates in India: Analyzing Regional Disparities, Gender Gaps, and Policy Impacts," Jul. 1, 2024.
- [22] D. Bhoi, "Economic Growth, Development and Education of Scheduled Castes: Line Drawn from Neoliberal Era," *Contemporary Voice of Dalit*, pp. 1–17, 2022.
- [23] J. R. Vrinda Gupta, A. Shrawan, "Economic Growth and Human Development in India Are States Converging?" *Indian Public Policy Review*, vol. 5, no. 3, pp. 94-137, 2024.
- [24] J. S. Kumar and D. Shobana, "A study on strategies and challenges of sustainable development policy in India," *International Journal of Social Sciences & Economic Environment*, vol. 8, pp. 67-81, Jan. 27, 2024
- [25] Ministry of Education, Government of India, "Inclusive Education," Shikshak Parv, 2024. [Online]. Available: https://www.education.gov.in/shikshakparv/docs/ Inclusive_Education.pdf. [Accessed: Aug. 16, 2024].
- [26] S. Mohammed, "Educational Inequality in Rural and Urban India," *Smart Paper*, [Online]. Available: https://www.smartpaperapp.com/post/educational-inequality-in-rural-and-urban-india. [Accessed: Aug. 16, 2024].
- [27] R. M. Wood, "A Review on Education Differences in Urban and Rural Areas," *International Research Journals*, [Online]. Available: https://www.interesjournals. org/educational-research.html. [Accessed: Aug. 16, 2024].
- [28] F. Mustafa, H. T. M. Nguyen, and X. (A.) Gao, "The challenges and solutions of technology integration in rural schools: A systematic literature review," *International Journal of Educational Research*, vol. 126, 2024.
- [29] M. Trebilcock and M. Rosenstock, "Infrastructure public-private partnerships in the developing world: Lessons from recent experience," *The Journal of Development Studies*, vol. 51, pp. 1–20, Mar. 2015
- [30] I. Singh, *Reinventing Public Service Delivery: A Case of Delhi*, National Centre for Good Governance, Indira Gandhi National Open University: New Delhi, 2024.