Gender Disparities in School Education in Keralam: Challenges and Pathways to Sustainable Development

[1]Veena. P. S & [2]Prof. (Dr.) Sreekala. S

[1]Research Scholar, NSS Training College Ottapalam, University of Calicut

[2]Professor, NSS Training College Ottapalam, University of Calicut

DOI: https://doi.org/10.47772/IJRISS.2026.102000042

Received: 15 October 2026; Accepted: 20 October 2026; Published: 19 November 2026

ABSTRACT

Modern schooling isn't just about getting kids into classrooms anymore. It is about equity and making sure the learning actually matters. In this century, we expect schools to build up critical thinking, digital skills, and creativity so students can handle jobs or just be decent citizens later on. Even though Keralam has great literacy rates and boys and girls are enrolled almost equally, there are still these weird gaps. You see it in the subjects they pick, how they use digital tools, and who gets to be a leader in school. These gaps make hitting sustainable development goals a bit harder than it should be. This study looks at what those gender gaps look like in Keralam and tries to figure out how we can fix them. I used document analysis and looked at existing theories for this. The findings show that while everyone is in school, girls tend to do better with grades, but boys and girls are still split when it comes to STEM subjects or taking part in leadership roles. We need a curriculum that actually responds to these gender issues. If we want to hit those SDG goals, especially the ones about quality education and gender equality, we have to bridge these divides. By giving both boys and girls the right skills, the NEP 2020 can help us create a society that is actually ready for the future.

Keywords: Gender Disparities, school Education, Keralam, challenges, pathways, sustainable development.

INTRODUCTION

Education is widely regarded as a cornerstone of social equality, economic well-being and sustainable development. Despite the considerable expansion of access to schooling, gender gaps continue to shape how students enter schools, what they experience inside classrooms, and the opportunities that open to them after schooling. The United Nations Sustainable Development Goals, particularly SDG 4 (Quality Education) and SDG 5 (Gender Equality), call for education systems that are fair to all learners regardless of gender.

Keralam occupies a distinctive place in this debate. The state is celebrated in discussions of the Kerala Model of Development for near-universal literacy, a sex ratio that compares favourably with the rest of India, and gender parity in school enrolment, even though its income levels have been relatively modest. Female literacy stands above 92 per cent, and UDISE+ data show enrolment close to 99 per cent at the secondary level. Yet beneath these figures, subtler forms of inequality persist: in the subjects boys and girls choose, in who takes up leadership roles in school, in access to and use of digital tools, and in the continuing pressure of traditional social norms.

This study therefore asks what gender disparities in school education in Keralam look like today, why they persist, and what they mean for the state's development. It examines the nature, causes and consequences of these disparities, and draws on the evidence to suggest pathways towards gender equity in line with SDG 4 and SDG 5. The paper first reviews related literature, explains the need and significance of the study, states the objectives and methodology, and then presents the analysis, findings and discussion before closing with suggestions, educational implications and a conclusion.

Review of Related Literature

Existing scholarship on Keralam points to a recurring gap between educational attainment and the empowerment of women. The studies reviewed here fall into three broad strands: those that locate the problem in family structure and the labour market, those that examine institutions and schooling processes, and those that trace the consequences for women's well-being.

Eapen and Kodoth (2002) studied family structure and women's work in Kerala, showing how culture mediates the benefits of education. As matrilineal systems declined and dowry became the dominant practice, women lost much of their control over property and money. Schools thus work within a social system that continues to steer women towards the home rather than towards leadership, which limits the extent to which education can act as an agent of change. Sivaraman (2013), writing on women in the Kerala Model of Development, reaches a similar conclusion. He points out that Kerala has a large population of highly educated women, yet its female Labour Force Participation Rate remains low. In his account, the separation between domestic life and public work never disappeared despite early educational investment, and schooling is often valued as a route to a better marriage proposal rather than as a means to independence or earning power.

Husain (2011) examined gender gaps in completing school education across India, with attention to the role of state spending and institutions. He found that southern states such as Kerala closed the gap at the primary and secondary levels through welfare expenditure, although regional and household factors continue to produce less visible differences in the quality of education children receive and in what families expect from them. Narendran (2024), in a qualitative study of adolescent sexuality in all-girls secondary schools in Kerala, examined how schools construct "normal" femininity. Although textbooks and lessons appear progressive, the schools themselves often operate as spaces of control and surveillance, so that bringing girls into classrooms does not by itself empower them when the environment reinforces older stereotypes.

Rahna et al. (2024), in a systematic review and meta-analysis of gender disparity in mental health in Kerala, found that women remain at higher risk of mental health problems despite the state's strong literacy and health indicators. Their argument is that education alone cannot shield women from patriarchal pressures and that structural reforms in schools and social policy are needed.

Taken together, these studies show that the Keralam school system has reached a turning point. The problem is no longer that girls cannot enter school. It lies in how they are socialised once inside, and in how that socialisation later pushes them out of the workforce. Three gaps follow from the literature. First, most studies concentrate on family, labour market or health outcomes, and far fewer connect these to what happens inside schools. Second, the literature seldom brings access, curriculum, school environment and digital participation together in a single frame. Third, it rarely links these dimensions to SDG 4 and SDG 5. The present study addresses these gaps by examining the nature, causes and consequences of gender disparities within one analytical framework.

Need and Significance of the Study

The need for this study arises from a paradox in contemporary Keralam. The state has remarkable education indicators, yet a wide gap remains between completing school and being empowered as a woman. UDISE+ data indicate that gender parity in enrolment has effectively been reached, with enrolment near 99 per cent at the secondary level. At the same time, women's labour force participation remains low and girls are steered away from STEM and technical fields. Schools therefore need to be examined not only as producers of good statistics but also as places where invisible barriers and the hidden curriculum shape how children imagine their futures long before they enter work.

The study is also timely because the policy landscape is shifting. The Kerala Women's Policy promotes gender audits and new norms in schools, and it is important to ask whether such top-down measures work on the ground. State-level statistics tend to smooth over inequalities, so an intersectional reading is needed to see how gender interacts with caste and geography, especially for Dalit and tribal communities. As Kerala moves towards smart classrooms, the digital divide and problems such as cyber-harassment, which affect girls'

continuation in school, also require attention. Without a critical look at these newer concerns, the system may reproduce older inequalities while its headline numbers look satisfactory.

Academically, the study contributes to the Kerala Model debate by shifting attention from the number of years spent in school to the agency that schooling provides. By reading gender alongside caste, class and geography, it offers a framework for understanding sub-national variation in education. Practically, it links SDG 4 and SDG 5 and can serve as a reference point for local governments and the State Gender Monitoring Committee when they prepare budgets or plan new approaches to teaching. Rather than relying on superficial measures such as gender-neutral uniforms, it draws attention to the structural bottlenecks that students face in moving from education to the workforce.

Objectives of the Study

The overall objective of the study is to examine the nature, causes and consequences of gender disparities in school education in Keralam and to suggest pathways for achieving gender equity in line with the Sustainable Development Goals. This is pursued through the following specific objectives:

- To describe how gender disparities appear in school education in Keralam in access, retention, academic performance, subject choice, leadership and digital participation.
- To identify the social, cultural, institutional and pedagogical factors that sustain these disparities.
- To analyse the consequences of these disparities for learners, for women's participation in work and for progress towards SDG 4 and SDG 5.
- To suggest policy, curricular and school-level measures for achieving gender equity.

METHODOLOGY

Design of the study

The study follows a qualitative design based on document analysis and a theoretical review of literature. It does not collect primary field data. Instead, it examines existing scholarly, statistical and policy documents to build an interpretive picture of gender disparities in school education in Keralam. This design suits the aim of the study, which is to explain how and why disparities persist behind favourable headline indicators rather than to measure their size in a sample.

Sources of evidence

Three kinds of sources were used: (a) peer-reviewed studies and working papers on gender, education and development in Kerala, namely Eapen and Kodoth (2002), Husain (2011), Narendran (2024), Rahna et al. (2024) and Sivaraman (2013); (b) statistical and institutional sources, including UDISE+ data and material from the Kerala government data portal, UNDP, UNICEF and UNESCO; and (c) policy frameworks, namely NEP 2020, the Kerala Women's Policy and the targets of SDG 4 and SDG 5.

The documents were read closely and the relevant statements, indicators and explanations were extracted and organised under three analytical dimensions that correspond to the first three objectives. Each dimension was examined with a distinct question and a set of indicators, as summarised in Table 1.

Table 1. Analytical framework used in the study

Dimension	Guiding question	Aspects examined	Evidence drawn on
Nature	What forms do gender disparities take in Keralam's schools?	Access and enrolment; retention and dropout; academic performance; subject streams; leadership roles; digital access	UDISE+ and state data; Husain (2011); institutional reports

Causes	Why do these disparities persist?	Family structure, property and dowry; gender socialisation; curriculum and textbooks; teacher attitudes; school infrastructure and safety; implementation of policy	Eapen and Kodoth (2002); Narendran (2024); Sivaraman (2013); policy documents
Consequences	What follows from these disparities?	Labour force participation; representation in STEM and technical fields; mental well-being; progress towards SDG 4 and SDG 5	Sivaraman (2013); Rahna et al. (2024); SDG framework

To examine the nature of the disparities, enrolment, retention, performance, subject choice, leadership and digital access were compared between girls and boys, and, where the sources permitted, across social groups such as tribal, coastal and economically disadvantaged communities and across rural and urban settings. Comparing parity in access with differences in subject choice, leadership and digital participation made it possible to distinguish gaps in participation from gaps in opportunity.

To examine the causes, the explanations offered in the documents were grouped by the level at which they operate: the household and wider society (family structure, property relations, dowry, expectations of marriage and domestic roles), the school (curriculum, textbooks, teachers' attitudes, the hidden curriculum, infrastructure and safety) and the policy system (design, implementation and monitoring of programmes). A cause was treated as established only where it was supported by more than one source or by a source and an official indicator.

To examine the consequences, outcomes linked to the identified disparities were traced, namely women's labour force participation, the concentration of girls and boys in particular academic streams, mental well-being, and the implications for sustainable development. These outcomes were then read against the targets of SDG 4 and SDG 5.

Findings were drawn by comparing the sources and looking for points of convergence and divergence, and were interpreted against the objectives of the study and the SDG framework. Because the study relies on secondary sources, its findings describe patterns and explanations rather than statistical generalisations. Primary evidence from classrooms, teachers and students would be needed to test them further.

Analysis and Interpretation

The analysis follows the three dimensions of the framework in Table 1: first the nature of the disparities, then their causes, and finally their consequences.

Nature of gender disparities

Access, retention and academic performance. Getting children into school is largely a success story in Keralam, and girls even outperform boys in test scores. Beneath this, however, children from tribal, coastal and economically poor backgrounds still drop out at high rates, so that retention remains a persistent problem for the most disadvantaged students.

Subject streams and leadership. Girls tend to move into Humanities and Commerce, while boys dominate Science and Technology streams. This divide limits the careers each group can later consider. Even when girls excel in class, they rarely hold leading roles in student government, and both girls and boys are expected to play the parts that society assigns them.

Digital literacy and access. The digital divide is also real. After the pandemic, not every girl has equal access to a laptop or reliable internet, which affects her prospects in STEM fields.

Causes of gender disparities

Household and social norms. The literature shows that parents' expectations and local norms strongly influence the choices open to girls and boys. The decline of matrilineal systems, the spread of dowry and the view of schooling as preparation for marriage (Eapen & Kodoth, 2002; Sivaraman, 2013) mean that educational investment in girls does not automatically translate into independence.

Curriculum, pedagogy and teacher attitudes. Textbooks still carry traditional stereotypes, and many teachers have never received training on gender bias. They may therefore steer students towards conventional paths without realising it, so that classroom bias persists even when it is quiet. Narendran (2024) shows that schools can also reinforce gendered control even where the curriculum is progressive.

School infrastructure and safe learning environment. Where a school lacks basic menstrual hygiene facilities or safe travel, girls stop attending. The problem is more severe in rural areas, where the gap between advantaged and disadvantaged families is wide.

Policy implementation. Policies such as NEP 2020 contain sound ideas, but implementation is uneven. Programmes exist, yet monitoring is not consistent enough to bring about real change.

Consequences of gender disparities

Education–employment gap. Highly educated women in Keralam have low labour force participation (Sivaraman, 2013). Because subject choice and career guidance channel girls away from STEM and technical fields, education does not translate into economic power to the extent the enrolment figures suggest.

Well-being and agency. Rahna et al. (2024) report that women in Kerala face higher risk of mental health problems despite strong literacy, and Narendran (2024) shows how school environments can reinforce restrictive norms. Education alone does not protect girls from the pressures of the surrounding society.

Link to the Sustainable Development Goals. Addressing gender disparities is essential to achieve SDG 4: Quality Education and SDG 5: Gender Equality. Gender equity in schools strengthens human capital and supports Kerala's sustainable development model, while unaddressed disparities leave both goals only partly met.

Findings of the Study

The analysis supports the following findings, which are grouped by the objectives of the study.

Nature of the disparities (Objective 1)

- **Parity in access coexists with inequality in experience.** Enrolment is near parity and girls often perform better academically, but retention among tribal, coastal and economically poor children, subject-stream choices, leadership roles and digital access still differ along gender lines.
- **Disparities are patterned by stream and role.** Girls are concentrated in Humanities and Commerce and boys in Science and Technology, and girls rarely occupy student leadership positions.

Causes of the disparities (Objective 2)

Household and social norms are a primary cause. Changes in family structure, dowry practices and the view of schooling as preparation for marriage limit what education achieves for girls.

School processes reproduce these norms. Stereotyped textbooks, untrained teachers, unsafe or poorly equipped school environments and unequal monitoring of policy keep disparities in place.

Consequences of the disparities (Objective 3)

Education does not fully convert into economic and social empowerment. Low labour force participation, under-representation in STEM and higher mental health risk are reported among educated women.

Progress on SDG 4 and SDG 5 is only partial. High literacy and enrolment figures hide gaps in quality, retention and opportunity that prevent the goals from being fully met.

DISCUSSION

The findings need to be read against the purpose of the study, which was to understand the nature, causes and consequences of gender disparities in school education in Keralam and to point to pathways for equity. Taken together, they suggest that the central issue in the state has moved from access to the quality and meaning of schooling.

Nature: parity is not equity. Relating to the first objective, the findings show that parity in enrolment is an incomplete measure of gender equity. When girls are present in equal numbers and perform well, but are concentrated in particular streams, remain outside leadership roles and have unequal digital access, the inequality is located in the kind of education they receive rather than in whether they receive it. This agrees with Husain (2011), who found that welfare spending closed completion gaps while less visible differences persisted. The implication is that indicators such as enrolment and literacy need to be supplemented by indicators of subject choice, participation and agency if the state is to monitor progress honestly.

Causes: schools reproduce what society expects. Relating to the second objective, the findings indicate that the causes lie both outside and inside the school. Family structure, dowry and ideas about marriage (Eapen & Kodoth, 2002; Sivaraman, 2013) set the expectations that children carry into classrooms, and the school then reinforces them through textbooks, teacher attitudes and the hidden curriculum (Narendran, 2024). This matters for gender issues more broadly: it means that schools cannot be treated as neutral institutions that only need more resources. They are sites where gender norms are either reproduced or challenged, so gender-transformative teaching and teacher sensitisation become central to reform rather than optional additions.

Consequences: from attainment to agency. Relating to the third objective, the findings point to a bottleneck between education and the economy. If girls are steered away from STEM and technical fields and expected to place domestic roles first, high attainment does not become labour market participation or economic independence, and the state's investment in girls' education yields smaller returns than it should. The higher mental health risk reported by Rahna et al. (2024) adds a further cost that is borne by women themselves. The Kerala Model, which is often treated as a success, therefore faces a test of sustainability at what may be called the last mile: turning educational attainment into agency.

Gender issues beyond girls. Gender equity is not only a concern for girls. The same stereotypes that discourage girls from science also discourage boys from humanities, care professions and other fields regarded as feminine. A gender-sensitive school system should widen the choices available to all learners, and gender audits and career counselling should be designed with this in mind.

Intersections and policy. The findings also show that gender inequality does not operate alone. Dropout is concentrated among tribal, coastal and economically poor students, and rural girls are affected more by infrastructure gaps. This supports the intersectional approach set out in the study's rationale and suggests that state-level averages, however favourable, are poor guides for targeting policy. Programmes such as NEP 2020 and the Kerala Women's Policy will only deliver on SDG 4 and SDG 5 if they are accompanied by consistent monitoring and attention to the most disadvantaged groups.

Overall, the study meets its objectives by showing what the disparities are, why they continue and what they cost. It also shows that the pathways to equity must work at three levels at once: the policy system, the school and the community. These are taken up in the suggestions that follow.

Suggestions and Educational Implications of the Study

The findings and discussion lead to the following suggestions, which respond to the fourth objective of the study.

Policy and administration. Implementation of NEP 2020 should be aligned with SDG 4 and SDG 5 through concrete, gender-focused action plans with regular monitoring. Special scholarships, free transport and hostel facilities for girls from Scheduled Caste, Scheduled Tribe and other disadvantaged communities would help to prevent dropout. Teachers and school administrators should undergo compulsory gender sensitisation training.

Curriculum and pedagogy. The curriculum should be revised to remove gender stereotypes, and role models of all genders should be presented in subjects such as science and sports. Schools should provide neutral career counselling so that children choose paths according to their interests rather than social expectations. Girls should be encouraged to take up science and technology, and boys should be able to choose humanities or care professions without stigma.

School environment. Schools should offer safe and inclusive environments, including separate toilets, better menstrual hygiene facilities and effective mechanisms to prevent bullying. Equitable access to digital devices and connectivity should be ensured, together with measures against cyber-harassment.

Community and partnerships. Workshops for parents and the neighbourhood can help change attitudes about girls' education and about boys attempting activities that are considered "unsuitable" for them. PTAs, local governments and NGOs should work together on campaigns for equal opportunity, and digital media can be used to share examples of Kerala schools that are doing this well.

Implications for stakeholders. For policymakers, the study provides evidence to act on the gaps that remain behind high literacy. Teachers and principals can use it to recognise their own hidden biases and move towards more inclusive teaching. For SCERT, it is a basis for developing textbooks from the primary stage that do not cater to one gender. For the wider community, it indicates that education should not be gendered at all.

CONCLUSION

This study set out to examine the nature, causes and consequences of gender disparities in school education in Keralam and to suggest pathways towards gender equity in line with SDG 4 and SDG 5. Its central conclusion is that Keralam has achieved parity of access, but not yet equity in the experience and outcomes of schooling.

With regard to nature, the analysis showed that enrolment is near parity and girls often outperform boys, yet dropout among tribal, coastal and economically poor children, the concentration of girls in Humanities and Commerce and boys in Science and Technology, girls' limited access to leadership roles and unequal digital access reveal gaps that headline figures such as 92 per cent female literacy and 99 per cent secondary enrolment do not capture. With regard to causes, the study found that these gaps are sustained by family structure, dowry and marriage-oriented expectations, and are reinforced inside schools by stereotyped textbooks, untrained teachers, inadequate facilities and uneven monitoring of policy. With regard to consequences, they appear in low labour force participation among educated women, under-representation in STEM and greater mental health risk, which keeps Kerala from fully meeting SDG 4 and SDG 5.

These findings address the objectives of the study directly. They describe the disparities, explain why they persist, show what they cost, and point to measures at the level of policy, curriculum, school environment and community that can reduce them. They also show that equity in Keralam depends less on adding more resources to schools than on changing what schools teach, how they treat students and how policy is monitored. If every child, whatever their gender, caste or place of residence, is to learn and grow, the state will have to move beyond reliance on its familiar statistics, and doing so is necessary if the Kerala Model is

to remain sustainable. Because this study is based on secondary sources, future research using field data from classrooms, teachers and students would help to test and deepen these conclusions.

REFERENCE

1. Eapen, M., & Kodoth, P. (2002). Family structure, women's education and work: Re-examining the high status of women in Kerala (Working Paper No. 341). Centre for Development Studies.
2. Husain, Z. (2011). Gender disparities in completing school education in India: Explaining geographical variations. Journal of Population Research, 28(4), 325–352. https://doi.org/10.1007/s12546-011-9070-5
3. Narendran, S. (2024). Constructing adolescent sexuality through schooling: Analysis on gender socialisation in all-girls schools at the secondary level in Kerala. Indian Journal of Gender Studies, 31(2), 200–223. https://doi.org/10.1177/09715215241235376
4. Rahna, K., Shamim, M. A., Valappil, H. C., Subramanian, J., Sharma, G. A., & Padhi, B. K. (2024). Gender disparity in prevalence of mental health issues in Kerala: A systematic review and meta-analysis. International Journal for Equity in Health, 23(1), Article 220. https://doi.org/10.1186/s12939-024-02275-4
5. Sivaraman, A. (2013). Women in the Kerala model of development. Jindal School of Government and Public Policy.

Website

1. https://www.undp.org/india/publications/kerala
2. https://www.unicef.org/india/children-kerala
3. https://datahub.kerala.gov.in/charts/eyJpdiI6ImxjSElHOWdiSDg3REhBNXJsNWhPOHc9PSIsInZhbHVlIjoiWGR4blVURlBneVFnNWpDK0RMZ0VJZz09IiwibWFjIjoiMTc5NmY5ZWQ2MjEyNzRkYmY4YjU5NDY3MzE5MjFlYzM2NzdmMTlkN2U3YzA3NGI5MDhlNjkyY2UyYWFjZjQwMCIsInRhZyI6IiJ9
4. https://www.unesco.org/en/gender-equality/education
5. https://www.unicef.org/education/girls-education?utm_source=chatgpt.com