

Unlocking Potential: A Global Analysis of Women’s Secondary Education—History, Challenges, and Developmental Impact

Dr. Claire Lefevre¹ and Dr. Elodie Marchand^{2*}

¹*Department of Comparative Education and Gender Studies, Faculty of Social Sciences, Université de Lille, France*

²*Institute for Gender and Education Policy, Université Lumière Lyon 2, Lyon, France*

¹*claire.lefevre@univ-lille.edu.fr*, ²*elodie.marchand@univ-lyon2.edu.fr*

Abstract

Women's secondary education plays a crucial role in promoting individual empowerment, gender equality, and broader socio-economic development. Despite significant progress over recent decades, millions of girls around the world—particularly in low- and middle-income countries—continue to face persistent barriers to accessing and completing secondary education. This study provides a comprehensive global analysis of the historical evolution, current status, barriers, policy interventions, and socio-economic impacts of women's secondary education. Drawing on recent international data, field research, and policy evaluations, the paper highlights how structural factors such as poverty, early marriage, cultural norms, gender-based violence, and institutional limitations continue to disproportionately hinder girls' educational trajectories. Through comparative case analyses and synthesized global data, the research identifies effective policy interventions, including conditional cash transfers, legal reforms, gender-sensitive school environments, and community-based advocacy programs. These interventions have demonstrated measurable success in improving enrollment, retention, and completion rates. Additionally, the paper examines the far-reaching impacts of girls' secondary education, including delayed marriage and childbirth, improved health outcomes, increased labor force participation, and enhanced national economic growth. Using a conceptual framework, the study illustrates the interconnected pathways linking barriers, interventions, and developmental outcomes. While global efforts have yielded important gains, the findings underscore the need for sustained, context-specific strategies that address both demand- and supply-side constraints. The paper concludes with evidence-based recommendations for policymakers, educators, and international stakeholders to accelerate progress toward universal secondary education for girls. Overall, the research affirms that investing in women's secondary education is not only a matter of human rights but also a strategic imperative for sustainable development worldwide.

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*corresponding author

1. Introduction

Education has long been recognized as a cornerstone of human development, essential not only for individual empowerment but also for economic growth, public health, and social cohesion. In recent decades, increasing global attention has been paid to the education of girls and women as a critical driver of sustainable development and gender equity. Educating women and girls yields widespread benefits, including reduced poverty rates, improved health outcomes, and enhanced civic engagement [1]. However, despite the well-documented advantages, gender disparities in education—particularly at the secondary level—remain pervasive across many regions of the world.

Secondary education serves as a critical juncture in a young person's educational journey, offering opportunities for academic advancement, vocational training, and social development. For girls, this stage of education is especially consequential. Completion of secondary education is associated with delayed marriage, reduced fertility rates, increased labor force participation, and higher lifetime earnings [2]. Yet millions of girls around the globe are unable to complete or even access secondary education due to a variety of structural, economic, and cultural barriers. According to the United Nations Girls' Education Initiative [3], nearly 129 million girls were out of school worldwide in 2020, with a significant proportion being of secondary school age.

Historical inequalities, societal norms, poverty, conflict, and weak policy implementation continue to hinder progress toward universal secondary education for girls. While global initiatives, such as the Sustainable Development Goals (SDGs)—particularly Goals 4 on quality education and five on gender equality—have catalyzed necessary reforms, progress has been uneven and often insufficient. For instance, in sub-Saharan Africa and South Asia, girls are still significantly less likely than boys to transition from primary to secondary education and to complete their secondary schooling [4].

This paper examines the global status of women's secondary education from a multifaceted perspective, encompassing its historical development, ongoing challenges, key policy initiatives, and broader socio-economic implications. The central thesis is that despite measurable progress in some regions, systemic barriers continue to obstruct the full realization of secondary education for girls, necessitating targeted, intersectional, and sustained global efforts. By synthesizing current data and scholarly research, this study argues that expanding access to and improving the quality of secondary education for girls is not only a moral imperative but also a strategic investment in the future of global development.

2. Historical context of women's secondary education

The history of women's education is marked by a gradual progression from systemic exclusion to increasing inclusion, although this progress has varied widely across regions and periods. For much of recorded history, formal education was a privilege reserved for elite males, with girls confined mainly to domestic instruction or excluded entirely from institutional learning. It was not until the 19th and early 20th centuries that formal schooling for girls began to gain traction, primarily in industrialized nations. Even then, secondary education for girls often emphasized moral training and domestic skills rather than academic or vocational development [5].

The post-World War II era marked a turning point, as education became a central pillar of global development agendas. The 1948 Universal Declaration of Human Rights (Article 26) declared education a fundamental right for all, laying the groundwork for more inclusive educational policies. The latter half of the 20th century witnessed a global expansion of

primary education, but secondary education remained unevenly accessible, particularly for girls in low- and middle-income countries [6]. During this period, deeply rooted gender norms and structural inequalities continued to limit girls' participation in post-primary schooling.

The 1990 World Conference on Education for All in Jomtien, Thailand, followed by the 2000 Dakar Framework for Action, marked a significant shift in global commitment to universal education, with an explicit emphasis on gender equality. These frameworks were further reinforced by the Millennium Development Goals (MDGs), which aimed to eliminate gender disparities in education by 2015. While notable improvements were made in primary education, secondary education goals remained elusive in many regions due to underinvestment, socio-cultural resistance, and weak policy enforcement [7].

In 2015, the adoption of the Sustainable Development Goals (SDGs) renewed international focus on inclusive and equitable quality education, particularly under SDG 4. The goal not only advocates for free, quality secondary education for all children but also highlights the intersection of gender with other forms of disadvantage, such as poverty and geographic location [8]. Although enrollment rates for girls in secondary education have improved globally, disparities remain stark in sub-Saharan Africa, South Asia, and parts of the Middle East, where fewer than half of adolescent girls complete lower secondary school [9].

In recent years, global movements such as “Let Girls Learn” and advocacy from organizations like the Malala Fund have further amplified attention to the barriers girls face in accessing secondary education. These movements have also contributed to a shift in discourse—from viewing girls as passive recipients of education to recognizing them as active agents of social change [10].

Overall, the historical trajectory of women's secondary education reflects both progress and persistent inequality. Understanding this evolution is essential for contextualizing current challenges and developing informed, practical strategies to ensure that every girl has the opportunity to complete a quality secondary education.

3. Current global landscape of women’s secondary education

Despite global progress in expanding educational access, disparities in secondary school enrollment remain stark across regions. As shown in Table 1, gender gaps persist in several low- and middle-income regions, with Sub-Saharan Africa reporting the lowest female enrollment rate at just 43.2%, compared to 48.5% for males. This reflects a Gender Parity Index (GPI) of 0.89, far below the threshold of equality. South Asia has made commendable improvements, reaching a GPI of 0.94 in 2023—up from 0.87 in 2010—primarily due to targeted investments in girls' education [8].

In contrast, regions such as Latin America, Europe, and North America have not only reached parity but, in some cases, girls now outnumber boys in secondary education. For instance, Latin America shows a GPI of 1.05, indicating that female enrollment exceeds male enrollment, a trend increasingly observed in urbanized and middle-income settings [11].

The global average Gender Parity Index currently stands at 0.97, indicating overall improvement but still highlighting significant regional disparities. These figures highlight the urgent need for context-specific interventions, particularly in Sub-Saharan Africa and parts of the Middle East, where economic, cultural, and infrastructural barriers continue to undermine girls' access to secondary education.

According to the UNESCO Institute for Statistics, global secondary school enrollment rates for girls have risen steadily, reaching approximately 77% in lower secondary education

and 56% in upper secondary education [4]. While this marks a significant improvement compared to two decades ago, regional disparities remain stark. In sub-Saharan Africa, only 43% of girls enroll in lower secondary education, and only 33% progress to upper secondary school. South Asia reports similarly troubling statistics, with approximately 65% enrollment in lower secondary education and fewer than 50% in upper secondary education [11].

Completion rates further highlight systemic challenges. Worldwide, only 61% of girls complete lower secondary education, and just 39% complete upper secondary education [1]. Dropout rates among girls are often exacerbated by early marriage, child labor, pregnancy, and safety concerns during school commutes or within school environments. In regions affected by conflict or humanitarian crises, such as Afghanistan, Ethiopia, and Yemen, girls are twice as likely to be out of school as boys [9].

The digital divide has also introduced new challenges in the post-COVID-19 landscape. Although remote learning was widely implemented during school closures, unequal access to digital devices and the internet severely limited girls' participation in secondary education. A report by the Malala Fund 2022 found that more than 20 million secondary school-aged girls were at risk of not returning to school following the pandemic, with the most affected regions being sub-Saharan Africa, South Asia, and Latin America [10].

Quality of education remains another critical issue. In many countries, gender-insensitive curricula, poorly trained teachers, and a lack of safe learning environments contribute to lower educational outcomes for girls. Additionally, menstrual hygiene management continues to be a significant barrier; in some countries, one in ten school-aged girls misses school during menstruation due to inadequate facilities or stigma [1].

Despite these challenges, there are signs of progress. Countries such as Bangladesh, Ethiopia, and Rwanda have made significant strides through targeted scholarship programs, conditional cash transfers, and community awareness campaigns to keep girls in school. Moreover, global efforts, such as the gender at the Centre Initiative (GCI) and GPE's Girls' Education Accelerator, are working to integrate gender equality into national education systems and policies [12].

In summary, while global enrollment numbers suggest encouraging trends, the reality for many girls—particularly in marginalized and rural communities—is far more complex. Comprehensive, context-specific strategies are needed to address the interconnected barriers that continue to hinder girls' progress through secondary education.

Table 1. Global secondary school enrollment rates by gender (2023)

Region	Female enrollment (%)	Male enrollment (%)	Gender Parity Index (GPI)	Trend Compared to 2010
Sub-Saharan Africa	43.2	48.5	0.89	Gradual improvement, but slow
South Asia	71.4	76.3	0.94	Significant gains since 2010
East Asia and the Pacific	88.1	89.9	0.98	Near parity, steady progress
Latin America & Caribbean	89.9	85.1	1.05	Parity achieved and improving
Middle East & North Africa	78.5	81.2	0.97	Narrowing the gender gap
Europe & Central Asia	93.7	91.2	1.03	Stable parity
North America	92.3	89.6	1.03	High parity, consistent since 2010
Global Average	77.3	80.1	0.97	Gradual upward trend

4. Barriers to women’s secondary education

Girls face a multifaceted array of barriers that hinder their ability to access and complete secondary education. As outlined in Table 2, these obstacles span economic, cultural, institutional, and legal domains. Financial constraints remain a primary factor, especially in low-income households where the costs of tuition, uniforms, and school supplies are prohibitive. In Uganda, for instance, many adolescent girls leave school to contribute to family income or manage household duties [2].

Cultural and social norms also play a significant role. In conservative regions such as Afghanistan and northern Nigeria, restrictive gender norms, early marriage, and parental attitudes often result in girls being withdrawn from school once they reach puberty [13]. Institutional factors—such as inadequate school infrastructure, lack of trained female teachers, and limited enforcement of inclusive education policies—further exacerbate gender disparities [12].

Moreover, safety and hygiene concerns significantly impact attendance. Many girls report feeling unsafe on their journey to school or within school grounds due to harassment or gender-based violence. A lack of menstrual hygiene facilities also forces millions of girls to miss school during menstruation, with one in ten African girls reportedly skipping school during their periods [1].

Legal and policy frameworks, though improved in some countries, often lack effective enforcement. Weak implementation of compulsory education laws and the persistence of child marriage—despite bans—undermine progress (Girls Not Brides, 2022). These barriers are intensified in contexts of conflict and displacement, where education systems collapse, and families prioritize survival over schooling [9]. Addressing these challenges requires coordinated, gender-responsive policy interventions that target both systemic and cultural drivers of exclusion.

Table 2. Common barriers to girls’ secondary education

Barrier Type	Specific Challenges	Examples or Case Evidence	Source
Economic	Tuition fees, cost of uniforms, transport, opportunity cost of labor at home	In rural Uganda, girls drop out to help with household labor	World Bank, 2022
Cultural and Social	Early/forced marriage, gender norms, religious conservatism, son preference	In Afghanistan, girls are pulled out after puberty	Plan International, 2022
Institutional	Shortage of female teachers, overcrowded schools, and a lack of gender-sensitive policies	Only 30% of secondary teachers in Sub-Saharan Africa are female	GPE, 2023
Safety and Security	Gender-based violence, long travel distances, and harassment during the commute	Girls in Kenya cite harassment as a reason for non-attendance	UN Women, 2023
Health and Hygiene	Lack of menstrual hygiene products and private sanitation facilities	1 in 10 African girls miss school during menstruation	UNESCO, 2023
Legal and Policy	Inadequate legal enforcement of compulsory education, weak child marriage laws	In Niger, child marriage persists despite legal bans	Girls Not Brides, 2022
Conflict and Crisis	Displacement, school destruction, recruitment by armed groups, and economic instability	Over 20 million girls are out of school due to conflict and displacement	UNICEF, 2023

4.1. Socio-cultural norms and gender roles

Traditional gender norms remain one of the most persistent barriers to girls' secondary education, especially in patriarchal societies. In many countries, early marriage and childbearing are still prevalent, with girls being removed from school to assume domestic roles or marry at a young age. According to UNICEF, 12 million girls are married before the age of 18 each year, many of whom subsequently drop out of school [14]. Field studies in rural Ethiopia and Bangladesh reveal that social expectations surrounding a girl's role in the family often override her educational aspirations, resulting in low secondary school retention rates [15][16].

In some regions, negative perceptions of female education are reinforced by religious or cultural beliefs. A multi-country qualitative study by Plan International found that in specific communities in West Africa and South Asia, girls are perceived as less intellectually capable than boys, and their education is not considered a worthwhile investment [13].

4.2. Economic constraints and opportunity costs

Poverty is a significant deterrent to girls' education. Families with limited financial resources often prioritize their sons' education over their daughters', viewing boys as future breadwinners. Even where secondary education is formally free, associated costs—such as uniforms, textbooks, transportation, and exam fees—can be prohibitive [2]. The opportunity cost of educating girls can also be high, especially when their labor is needed at home or in informal sectors of the economy.

Evidence from Kenya and Malawi shows that cash transfer programs significantly increased girls' secondary school enrollment and reduced dropout rates [17]. However, such programs require consistent funding and integration into broader social safety nets to be sustainable.

4.3. Safety and infrastructure issues

Safety concerns and inadequate infrastructure also play a critical role in discouraging girls from attending school. Long travel distances, lack of reliable transportation, and the risk of harassment or assault on the way to school are especially problematic in rural areas. A report by Human Rights Watch found that in Nigeria and Mozambique, parents often kept girls out of school due to fears of sexual violence and abduction [18].

School environments themselves may lack basic facilities, particularly those related to menstrual hygiene. A survey by UNESCO revealed that in sub-Saharan Africa, fewer than 50% of schools have gender-segregated toilets, and many girls miss school during menstruation due to embarrassment or lack of sanitary materials [1].

4.4. Policy gaps and weak implementation

Although many countries have adopted policies promoting gender equality in education, weak enforcement and poor implementation undermine their effectiveness. For instance, while several African and South Asian nations have enacted laws prohibiting child marriage and guaranteeing free secondary education, these laws are often not enforced at the local level due to a lack of political will, insufficient funding, or community resistance [6]. Furthermore, education systems frequently lack gender-responsive curricula and teacher training. A World Bank policy analysis found that without active efforts to challenge stereotypes and promote inclusive pedagogy, school environments can inadvertently reinforce

gender biases, deterring girls from fully engaging in subjects such as science, mathematics, and technology [11].

5. Policy interventions and global efforts

Various national and international initiatives have demonstrated success in advancing girls' secondary education. Table 3 provides a comparative overview of selected policy interventions and their measurable impacts. For instance, Bangladesh's Female Secondary School Assistance Program, one of the earliest large-scale conditional cash transfer programs targeting girls, has significantly increased enrollment and delayed early marriage [19].

In Rwanda, a strong focus on gender mainstreaming, including teacher training and inclusive curricula, has led to nearly equal enrollment rates between boys and girls by 2022 [20]. Similarly, India's Beti Bachao, Beti Padhao initiative combines media advocacy with scholarship schemes to promote gender equality in education, showing positive trends in female literacy and retention [21].

Countries such as Kenya and Ghana have taken a more systemic approach by removing financial barriers altogether. Kenya's Elimu Scholarship Program and Ghana's Free SHS Policy have notably narrowed gender gaps and improved completion rates in underserved regions [22].

Evidence from Pakistan and Ethiopia also demonstrates the importance of localized, context-specific interventions. In Pakistan's Punjab province, girls' school attendance improved significantly through the provision of monthly stipends, while in Ethiopia, holistic measures such as menstrual hygiene support and gender-sensitive school environments have effectively reduced dropout rates [1].

These programs affirm that when designed inclusively and supported with sustained funding and monitoring, policy interventions can overcome entrenched gender barriers in secondary education.

Table 3. Selected national policy interventions and their outcomes

Country	Policy/Program	Key Features	Outcomes	Source
Bangladesh	Female Secondary School Assistance Program	Conditional cash transfers for girls' education	Increased female enrollment by 30%; delayed average age of marriage	Khandker et al., 2019
Rwanda	Gender Mainstreaming in Education	Quotas for female teachers, gender-sensitive curricula	Achieved near gender parity by 2022	MINEDUC, 2022
India	Beti Bachao, Beti Padhao	Media campaigns, community mobilization, and scholarships	Increased awareness and retention in targeted districts	Government of India, 2023
Kenya	Elimu Scholarship Program	Merit- and need-based secondary school scholarships	Improved retention and academic performance of girls	World Bank, 2023
Ghana	Free Senior High School Policy	Removal of fees and costs at the secondary level	The gender gap in enrollment has narrowed by 15% since 2017	MoE Ghana, 2022
Pakistan	Girls' Stipend Program	Monthly cash incentives in rural districts	Boosted female attendance in Punjab by nine percentage points	Cheema et al., 2020
Ethiopia	General Education Quality Improvement Program	Gender clubs, sanitary kits, and female teacher recruitment	Reduction in dropout due to menstruation-related absenteeism	UNESCO, 2023

5.1. Global frameworks and initiatives

International agreements such as the Sustainable Development Goals (SDGs) have provided a unifying framework for advancing girls' education globally. SDG 4 calls for inclusive and equitable quality education, promoting lifelong learning opportunities for all, with a focus on eliminating gender disparities by 2030. Supporting this goal, UNESCO's Gender Equality Strategy in Education emphasizes implementing gender-sensitive policies, creating safe learning environments, and dismantling socio-cultural barriers [8].

The Global Partnership for Education (GPE), a central multilateral funding platform, has invested over \$5 billion in education systems across more than 70 countries. Its Girls' Education Accelerator program targets the most disadvantaged girls by funding evidence-based approaches such as female teacher recruitment, gender-responsive pedagogy, and community awareness campaigns [12].

The Malala Fund also plays a pivotal role in shaping the global agenda through research, advocacy, and direct investment. Its Girls' Education Champions Network supports grassroots organizations in more than 10 countries, addressing local barriers through policy influence and community engagement [10].

5.2. National-level interventions

At the national level, several countries have developed innovative policies and programs to improve girls' secondary education outcomes:

- Bangladesh has implemented the Female Secondary School Assistance Program (FSSAP), which provides stipends and tuition waivers to girls attending secondary school. Evaluations show the program significantly increased girls' enrollment and delayed marriage [19].
- Rwanda has mainstreamed gender equality across its education sector through curriculum reforms, leadership training for female teachers, and the establishment of girls' clubs in schools. These efforts have helped close the gender gap in secondary education, with nearly equal enrollment rates for boys and girls as of 2022 [20].
- India's Beti Bachao, Beti Padhao (Save the Daughter, Educate the Daughter) campaign addresses declining female literacy rates and promotes gender equity in education through scholarships, awareness drives, and improvements to school infrastructure [21].
- In Kenya, the Elimu Scholarship Program, funded through public-private partnerships, provides comprehensive support to girls from low-income households, including school fees, uniforms, and mentorship. Early assessments show promising increases in female secondary school retention and academic performance [22].

5.3. Policy gaps and implementation challenges

Despite the success of some interventions, many policies fall short due to weak implementation, lack of coordination, and inadequate funding. In several countries, gender equality policies exist on paper but are poorly enforced, especially in rural or marginalized areas. A review by Aragonés-González et al. highlighted the importance of monitoring and accountability mechanisms in ensuring policy effectiveness. Additionally, interventions often

overlook intersectional barriers such as disability, ethnicity, or displacement, which disproportionately affect girls' educational opportunities [6].

Moreover, while financial incentives and infrastructure improvements are essential, long-term success depends on shifting societal attitudes. Gender-transformative approaches—those that actively challenge discriminatory norms and engage boys and men as allies—are increasingly recognized as essential components of sustainable education reform [13].

6. Social and economic impacts of women’s secondary education

The far-reaching social and economic benefits of women's secondary education are well documented and span multiple development domains. Table 4 summarizes key outcomes drawn from global data and longitudinal studies. Economically, secondary education is associated with significant increases in women's earnings, labor force participation, and entrepreneurial activity [22][23]. These benefits contribute to poverty alleviation and enhance national productivity.

In terms of health, educated women are better informed about reproductive choices and maternal care. Studies from Bangladesh and Sub-Saharan Africa show that women with secondary education are significantly more likely to utilize prenatal services, vaccinate their children, and adopt family planning measures [24][25]. Socially, education empowers women to challenge patriarchal norms and participate in civic and political life, reinforcing gender equity and inclusive governance [26].

Perhaps most notably, closing the gender education gap is associated with substantial macroeconomic benefits. A report by McKinsey Global Institute estimates that global GDP could increase by up to \$12 trillion if women were educated on par with men by 2030 [27]. These findings underscore the urgency of expanding access to quality secondary education for girls as a strategic investment in sustainable development.

Table 4. Social and economic benefits of women’s secondary education

Impact Domain	Specific Benefits	Supporting Evidence
Economic Empowerment	15–25% increase in individual earnings per additional year of secondary education	World Bank (2022)
	Greater access to formal employment and financial services	Montenegro & Patrinos (2022)
	Increased entrepreneurship and business ownership among women	Ganimian et al. (2023)
Health and Fertility	40% reduction in child stunting and 25% higher immunization coverage	Huq & Tasnim (2019)
	Increased use of family planning and lower maternal mortality	WHO (2023)
	Delayed age of marriage and first childbirth	UNESCO (2023); Plan International (2022)
Civic Participation	Higher voter turnout and engagement in community decision-making	OECD (2021)
	Increased representation in political leadership	Barro & Lee (2021)
Gender Norms and Rights	Decreased tolerance for gender-based violence, child marriage, and FGM	Plan International (2022)
	Strengthened self-efficacy and negotiation power within households	UN Women (2023)
Environmental Sustainability	Increased climate awareness and environmentally sustainable practices	World Bank (2023)
Macroeconomic Growth	Up to \$12 trillion global GDP increase if the gender gap in education is closed by 2030	McKinsey Global Institute (2022)

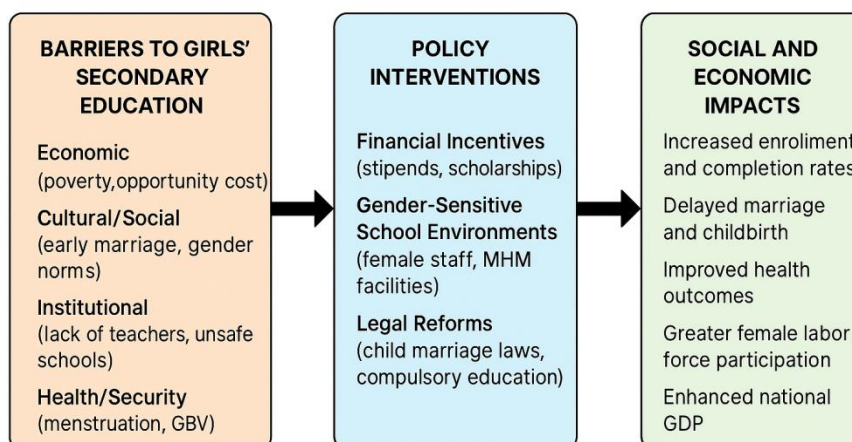


Figure 1. Integrated framework for advancing girls’ secondary education

[Figure 1] illustrates how intersecting social, economic, and institutional barriers hinder girls' access to secondary education, and how multi-tiered policy interventions can catalyze long-term social and economic impacts at both individual and national levels.

6.1. Economic empowerment and poverty reduction

One of the most direct and measurable outcomes of women's secondary education is increased economic participation. Completing secondary education significantly enhances women's employability, wage potential, and entrepreneurial capabilities. According to the World Bank [28], each additional year of secondary education can increase a woman’s earnings by 15–25%, depending on the country and economic sector. Educated women are also more likely to participate in the formal labor market, access financial services, and attain leadership positions in both private and public sectors [29].

Furthermore, secondary education has been shown to reduce intergenerational poverty transmission. Educated mothers are more likely to invest in their children's education and health, creating a multiplier effect across generations [23]. In rural India and sub-Saharan Africa, research has shown that families in which mothers complete secondary education are significantly less likely to live in extreme poverty [8].

6.2. Health and wellbeing

Women with secondary education tend to make more informed health decisions, resulting in lower maternal and infant mortality rates, improved nutrition, and increased use of family planning. Data from WHO (2023) shows that women with at least a secondary education are twice as likely to use modern contraception compared to those with no education, reducing the risk of early and unwanted pregnancies [25].

Moreover, women with a secondary education are more likely to access prenatal and postnatal care, vaccinate their children, and adopt hygienic practices—all of which contribute to improved family health outcomes. A longitudinal study in Bangladesh found that secondary education among mothers was associated with a 40% reduction in child stunting and a 25% increase in immunization coverage [24].

6.3. Civic participation and social equity

Education fosters agency and empowers women to participate in civic and political life. Women who complete secondary education are more likely to vote, engage in community decision-making, and advocate for gender equality and public accountability. Countries with higher levels of female education also tend to exhibit greater gender equity in governance and lower corruption rates [30].

Educated women are more inclined to challenge traditional gender roles, delay marriage, and reject harmful practices such as child marriage and female genital mutilation (FGM). A comparative study across West African nations revealed that secondary-educated women were 60% less likely to condone FGM or domestic violence compared to women with no education [31].

6.4 Community and National Development

At a macro level, closing the gender gap in secondary education contributes to higher GDP growth and greater national resilience. A 2022 McKinsey Global Institute report estimated that achieving gender parity in education could add up to \$12 trillion to global GDP by 2030. In fragile and conflict-affected states, women's education has also been linked to enhanced peacebuilding and reduced vulnerability to extremism [32].

Furthermore, women's education plays a pivotal role in addressing climate change and sustainability. Educated women are more likely to adopt environmentally friendly practices and participate in local environmental governance [22].

7. Conclusion and recommendations

7.1. Conclusion

Women's secondary education is both a critical human right and a powerful driver of social, economic, and political development. Over the past century, global efforts have made significant strides in narrowing the gender gap in education. Yet, millions of girls—particularly in low- and middle-income countries—continue to face systemic barriers to secondary schooling.

This paper has shown that historical legacies of patriarchy, colonization, and socio-economic inequality have had long-lasting impacts on girls' educational opportunities. Although substantial progress has been made through global commitments, such as the Sustainable Development Goals, and targeted policy interventions, challenges remain. Poverty, child marriage, cultural norms, and lack of safe, inclusive school environments still hinder millions of girls from completing secondary education.

Yet, the benefits of overcoming these barriers are clear. Educated women are more likely to participate in the workforce, raise healthier families, advocate for social justice, and contribute to sustainable development. Their empowerment is not only transformative on an individual level but also essential for collective progress in global health, economic growth, and democratic governance.

As the international community approaches the 2030 deadline for achieving SDG 4, it is imperative to adopt more holistic, intersectional, and gender-transformative approaches to education reform.

7.2. Recommendations

Based on the evidence presented, the following recommendations are proposed for governments, international organizations, and civil society actors:

1. Strengthen Gender-Responsive Policies

Governments must enact and enforce education policies that are sensitive to the specific needs of girls, particularly during adolescence. This includes addressing issues such as menstrual hygiene, sexual and reproductive health education, school-based gender violence, and safe transportation [8].

2. Increase Investment in Education Infrastructure

Greater investment is needed in rural and under-resourced regions to build schools, train female teachers, and ensure adequate sanitation facilities. These structural improvements play a key role in reducing dropout rates and improving learning outcomes for girls [12].

3. Expand Conditional Cash Transfers and Scholarship Programs

Financial barriers remain one of the most significant obstacles to girls' education. Programs like Bangladesh's Female Secondary School Assistance Program demonstrate the effectiveness of targeted financial incentives in increasing enrollment and retention [19].

4. Promote Community Engagement and Norm Change

Interventions should involve parents, local leaders, and male allies in challenging harmful gender norms and supporting girls' education. Community dialogues, mentorship programs, and media campaigns can shift attitudes and create more supportive environments [13].

5. Integrate Gender Equality across Curricula

School curricula should promote gender equality, critical thinking, and leadership development among all students, fostering a more inclusive and equitable learning environment. This includes revising textbooks, training teachers in gender-sensitive pedagogy, and creating inclusive classroom dynamics [32].

6. Enhance Monitoring and Evaluation

Effective policies require robust data systems to track gender disparities, identify populations at risk, and evaluate the impact of interventions. Disaggregated data by gender, location, disability, and socio-economic status are essential for targeted policymaking.

References

- [1] UNESCO, "Global education monitoring report 2023: Technology in education," United Nations Educational, Scientific, and Cultural Organization, (2023). Available: <https://www.unesco.org/gem-report>
- [2] World Bank, "Girls' education: A lifeline to development," (2022). Available: <https://www.worldbank.org/en/topic/girlseducation>
- [3] United Nations Girls' Education Initiative (UNGEI), "Transforming education for girls: A call to action," (2021). Available: <https://www.ungei.org>
- [4] UNESCO Institute for Statistics, "Education and gender parity statistics," (2022). Available: <http://uis.unesco.org>
- [5] I. Padavic, R. J. Ely, and E. M. Reid, "Explaining the persistence of gender inequality: The work–family narrative as a social defense against the 24/7 work culture," *Administrative Science Quarterly*, (2020), DOI: 10.1177/0001839219832310
- [6] M. Aragonés-González, A. Rosser-Limiñana, and D. Gil-González, "Coeducation and gender equality in education systems: A scoping review," *Children and Youth Services Review*, vol.111, pp.1–7, (2020), DOI: 10.1016/j.chilyouth.2020.104837
- [7] UNESCO, *Education for all 2000–2015: Achievements and challenges*, United Nations Educational, Scientific, and Cultural Organization, (2015)

- [8] UNESCO, Gender equality in education: Strategy for 2022–2029, (2023). Available: <https://unesco.org>
- [9] UNICEF, Girls' education and gender equality, United Nations Children's Fund, (2023). Available: <https://www.unicef.org/education/girls-education>
- [10] Malala Fund, Full force: Why the world works better when girls go to school, (2022). Available: <https://fullforce.malala.org/>
- [11] World Bank, Education data and statistics, (2023). Available: <https://datatopics.worldbank.org/education>
- [12] Global Partnership for Education (GPE), Girls' education accelerator: Unlocking girls' potential, (2023). Available: <https://www.globalpartnership.org>
- [13] Plan International, Barriers to girls' education: Voices from the field, (2022). Available: <https://plan-international.org>
- [14] UNICEF, Every child learns: UNICEF education strategy 2019–2030, (2023). Available: <https://www.unicef.org/education>
- [15] K. Pincock, W. Yadete, D. Girma, and N. Jones, "Comprehensive sexuality education for the most disadvantaged young people: Findings from formative research in Ethiopia," *Sexual and Reproductive Health Matters*, vol.31, no.2, (2023), DOI: 10.1080/26410397.2023.2195140
- [16] M. M. C. Shohel, "Childhood poverty and education in Bangladesh: Policy implications for disadvantaged children," Office of Research Working Paper, no.2012-1, UNICEF Office of Research, Florence, (2012)
- [17] S. Baird, F. H. G. Ferreira, B. Özler, and M. Woolcock, "Conditional, unconditional and everything in between: A systematic review of the effects of cash transfer programmes on schooling outcomes," *Journal of Development Effectiveness*, vol.6, no.1, pp.1–43, (2014), DOI: 10.1080/19439342.2014.890362
- [18] Human Rights Watch, "They betrayed us": Abuse of girls in Nigerian schools, (2021). Available: <https://www.hrw.org>
- [19] S. R. Khandker, Z. Bakht, and G. B. Koolwal, "The impact of female stipends on poverty in secondary schools: Evidence from Bangladesh," Policy Research Working Paper, no.8758, World Bank, (2019). Available: <https://documents.worldbank.org>
- [20] MINEDUC, Rwanda education statistics yearbook 2022, Ministry of Education, Rwanda, (2022). Available: <https://mineduc.gov.rw>
- [21] Government of India, Beti Bachao, Beti Padhao scheme: Annual progress report, (2023). Available: <https://www.ibef.org/government-schemes/beti-bachao-beti-padhao>
- [22] World Bank, Kenya's Elimu Scholarship Program: An early impact review, (2023). Available: <https://www.worldbank.org>
- [23] C. E. Montenegro and H. A. Patrinos, "Returns to schooling around the world: Evidence from 146 countries," *World Development*, vol.151, 105774, (2022)
- [24] M. N. Huq and T. Tasnim, "Maternal education and child healthcare in Bangladesh," *Maternal and Child Health Journal*, vol.12, no.1, pp.43–51, (2008), DOI: 10.1007/s10995-007-0303-3
- [25] World Health Organization (WHO), Education and reproductive health: Intersections and outcomes, (2023). Available: <https://www.who.int>
- [26] OECD, Gender equality and civic engagement, (2021). Available: <https://www.oecd.org/gender>
- [27] McKinsey Global Institute, The power of parity: How advancing women's equality can add to global growth, (2022). Available: <https://www.mckinsey.com/mgi>
- [28] World Bank, The economic returns of investing in girls' education, (2022). Available: <https://www.worldbank.org>
- [29] A. J. Ganimian, E. Vegas, and F. Hess, Global education reform: Lessons from evidence-based policy, Brookings Institution, (2023). Available: <https://www.brookings.edu>
- [30] R. J. Barro and J. W. Lee, "A new data set of educational attainment in the world, 1950–2010," *Journal of Development Economics*, vol.104, pp.184–198, (2013), DOI: 10.1016/j.jdeveco.2012.10.001
- [31] Plan International, Girls' education and social justice: Regional analysis report, (2022). Available: <https://plan-international.org>

- [32] D. Agbajobi, "The role of women in conflict resolution and peacebuilding," in R. Bowd and A. B. Chikwanha, *Understanding Africa's Contemporary Conflicts*, African Human Security Initiative, pp.233–254, (2010)