

Challenges and Solutions in Advancing Sierra Leone's Education System for Human Development

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Abstract: *The primary objective of this study is to examine the various obstacles encountered by Sierra Leone, a developing nation in West Africa, in its pursuit of attaining high-quality education. This report presents a thorough analysis of Sierra Leone's education system by integrating literature research and data analysis. The importance of education in promoting economic progress and societal development in rising nations, such as Sierra Leone, cannot be overstated. The acquisition of knowledge and skills through formal education has been a crucial factor in shaping Sierra Leone's development priorities. Nevertheless, the nation encounters numerous obstacles in its endeavours to attain extensive accessibility to education of superior quality. The challenges encompass a lack of adequate enrollment rates, disparities in educational opportunities between genders, and the enduring repercussions of a tumultuous civil conflict on the educational framework. A significant influence from the World Bank and IMF may also be seen in Sierra Leone's classrooms. The goal of this study is to examine the current situation of education in Sierra Leone, identify contributing factors, and propose solutions to the problems it reveals.*

Keywords: Sierra Leone, education system, development challenges, gender disparities, World Bank influence

1. Introduction

This research explores the many dimensions of developing nations using the 2019 United Nations Human Development Index (HDI) as a framework for their characterization. The primary emphasis is placed on nations that are categorized as belonging to the Medium to Low development category, which has been determined by assessing their Human Development Index (HDI) and related indicators. Sierra Leone has been chosen as the focal point of our investigation due to a number of compelling factors. Sierra Leone conforms to the criteria outlined in the study as it falls in the Low Human Development category. Furthermore, it is noteworthy that this country occupies a position of considerable insignificance on the United Nations Human Development Index (HDI) list, precisely placing sixth from the bottom (M. Fayiah & Fayiah, 2022). The inclusion of this option enhances the scope of the study, as it allows an examination of the unique attributes and difficulties encountered by nations exhibiting very low Human Development Index (HDI) rankings (Wilson, 2022). Finally, Sierra Leone was selected based on its enduring connection to poverty and diverse challenges, providing a chance to conduct a more comprehensive examination of the intricacies and circumstances prevailing in the nation. The objective of this paper is to give a thorough analysis of Sierra Leone's educational environment and provide policy suggestions for its advancement.

2. Literature Review

Country United Nations Human Development Index statistics

Sierra Leone is classified inside the Low human development category based on the criteria of the United Nations Human Development Index (HDI) since its HDI falls significantly below the threshold of 0.504. Sierra Leone's Human Development Index (HDI) is precisely measured at 0.419, placing it at the 184th place on the Human Development Index according to the United Nations

Development Program in 2019. This article expands its study beyond the Human Development Index (HDI) score by examining the individual component scores outlined in the United Nations HDI evaluation for Sierra Leone (M. Fayiah & Fayiah, 2022). This study used a comparative methodology to juxtapose the data from Sierra Leone with that of a nation categorized in the Highest development group, a country in the Middle development group, and the least developed country. This research used Norway and the Philippines as the comparator nations. The components being analyzed are life expectancy at birth, predicted years of education, mean years of schooling, Gross National Income (GNI), GNI per capita rank minus HDI rank, and HDI rank. This comparative evaluation provides insight into the discrepancies and distinct obstacles encountered by Sierra Leone in its endeavour to achieve human development.

Birth life expectancy

Sierra Leone's life expectancy is 52.2 years, highlighting its significant obstacles to improving the population's well-being. Lower life expectancy may be due to infectious illnesses and higher maternal and infant mortality. Additionally, socioeconomic socioeconomic variables like poverty and lack of access to clean water and healthcare strongly influence these results. The healthcare infrastructure and general health metrics of Sierra Leone have been significantly affected by its historical context, notably the brutal civil war. However, there are continuous endeavours undertaken by the government, as well as several international and non-governmental organizations, with the objective of tackling these obstacles, enhancing the accessibility of healthcare, and eventually increasing life expectancy (Alam & Murad, 2020). These initiatives represent the nation's ambitions for a future characterized by improved health and more prosperity.

Gross National Income (GNI) and Ranking Metrics

GNI per capita is a crucial metric of a nation's total income divided by its population. Sierra Leone's \$1,240 GNI per capita highlights its economic problems. The Philippines and

Norway have greater GNI per capita at \$9,154 and \$68,012, respectively (Wilson, 2022). The large differences in GNI per capita indicate economic inequalities and wealth discrepancies between these countries. A country's GNI per capita rank minus the Human Development Index (HDI) rank shows its GNI rating relative to HDI (Conceição, 2023). Sierra Leone has a -2 correlation, implying a higher GNI-based ranking. This discrepancy may not matter, but it shows the gap between economic and human development metrics. It is important to note that all comparison nations'

GNI-based and HDI rankings are similar, demonstrating consistency. The Human Development Index ranks countries on life expectancy, education, and level of living. Sierra Leone ranks 184th on this ranking, highlighting its healthcare, education, and economic issues. According to the United Nations (2021), Norway is rated 1st on the HDI index and has high living, education, and health standards, demonstrating its strong human development. Different HDI rankings represent different levels of development and multi-dimensional human well-being in certain nations.

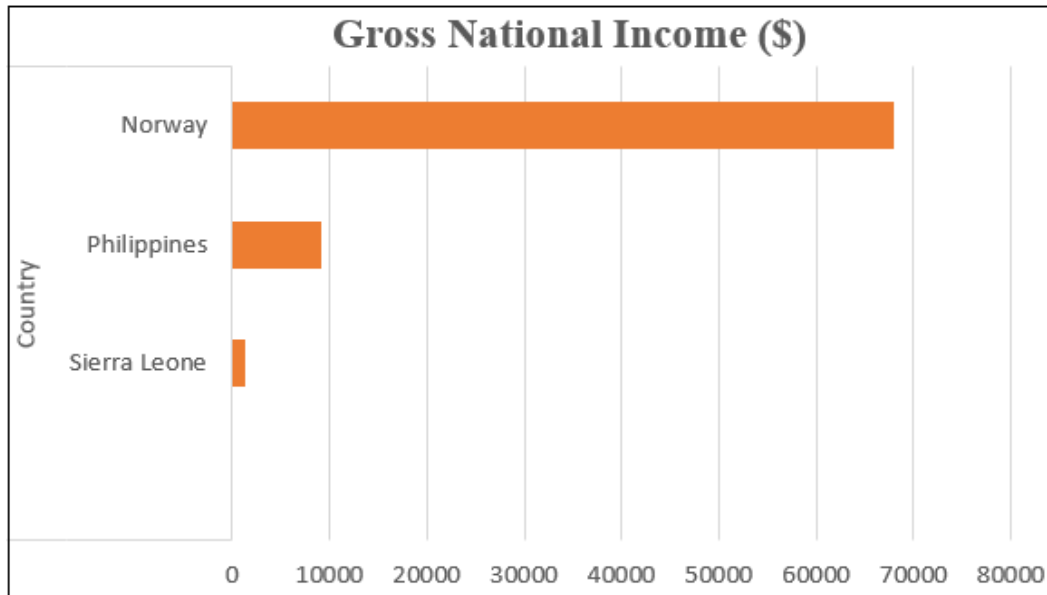


Figure 1: Gross National Income
(World Bank, 2021)

Expected Years of Schooling

Another essential aspect of human growth to take into account is the anticipated duration of formal education, often known as "years of schooling." The measure presented in this statement pertains to the anticipated length of education for a kid who enters school at the appropriate age. It is based on the assumption that the existing rates of enrollment per age group will persist throughout the individual's lifetime. Furthermore, the metric provides a gender-specific breakdown of this predicted duration of education (Bond, 2022). UNDP provided this data in 2019. Sierra Leoneans average 9.8 years of schooling, according to UN Human Development Reports. In 2022, the UN Development Program indicated that the number was much lower than Norway's 17.9 years and the Philippines' 12.6 years. Educational possibilities and formal education program duration may explain the diversity in years of schooling among countries.

Challenges in Education

Sierra Leone encounters a multitude of obstacles within its education system, which impede the provision of fair and high-quality education. The significant obstacle that arises is the low rates of enrollment, which may be attributed to several factors such as economic limitations, differences in geographic locations, and adherence to cultural norms. Gender gaps continue to exist as females encounter obstacles arising from societal standards, early marriages, and adolescent pregnancies (Ulutaş, 2022). The quality of education is compromised by instructors who need more

training, overcrowded classrooms, and insufficient availability of resources (Bond, 2022). The learning environment is adversely affected by infrastructure deficits, particularly in rural regions, where schools are deprived of fundamental utilities. The resolution of these concerns has significant importance in enhancing the accessibility and quality of education in Sierra Leone.

Government Corruption and its Impact on Education

Corruption in the government has a very negative impact on the educational system in Sierra Leone. The allocation of resources gets distorted because of this; teachers are not appointed properly, infrastructure development is affected, and the overall functioning of the institutions is also impacted. The problem of corruption seriously impedes the equitable distribution of educational resources, making it harder for students to obtain equal opportunities and access. Schools and learning materials wouldn't improve if funds designated for educational enhancement were diverted through corrupt practices. The process of selecting and appointing teachers may be affected by nepotism and bribery, consequently impacting the overall quality of education. Moreover, corruption can cause impediments to the proper growth and improvement of educational infrastructure. As a result of improper administration of funds that were intended for construction or renovation, the buildings and facilities are poorly constructed and not up to the mark. Corruption has a big effect on the way government works, and schools don't get regulated properly because of it, which makes the system less transparent and responsible.

It is very important to address corruption in order to plan out the effective changes necessary in our country. Anti-corruption measures are really important and necessary. It is very important we study how to prevent corruption and how things work in schools.

Role of International Organizations

The provision of vital aid to Sierra Leone's education system has been facilitated by the World Bank and the International Monetary Fund (IMF). The provision of crucial financial and technical support has been extended to tackle the educational obstacles faced by the nation effectively. The contributions of the World Bank span several areas, such as infrastructure development, teacher training, and curriculum refinement, all of which have resulted in notable improvements in the quality of education (Ulutaş, 2022). Concurrently, the International Monetary Fund's (IMF) provision of financial assistance has effectively stabilized the economy of the country, indirectly facilitating the continuity of expenditures in education. These organizations not only provide financial resources but also contribute significant experience and best practices to assist Sierra Leone in tackling its education difficulties.

3. Data and Methodology

3.1 Data

A variety of data sources are needed to examine Sierra Leone's education system. Nationwide databases, Ministry of Education records, World Bank and IMF publications, and Sierra Leone surveys are these sources. The vast dataset enables an in-depth examination of education, economic development, and other important aspects. The primary factors that are integral to our research are enrollment rates, differences in gender, teacher training, and the development of infrastructure. Education's foundational components and their impact on society's development are at the heart of the debate. Our goal is to better comprehend the complexity and opportunities of Sierra Leone's educational landscape by a thorough examination of these aspects.

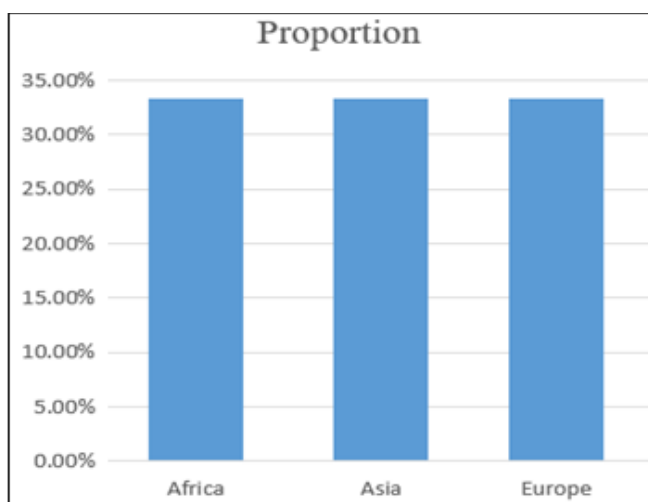


Figure 1: Continental distribution of the three sampled countries

(Ellafi et al, 2021)

3.2 Methodology

A regression model is used to examine the correlation between relevant factors and academic performance in schools within Sierra Leone. This statistical methodology enhances our comprehension of the manner in which alterations in these variables impact the overall calibre and efficacy of teaching. The following depicts the regression model used in this study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where Y is the education result, a combined indicator of the quality and efficacy of education in Sierra Leone, the variable X denotes enrollment rates, which indicate the degree of involvement of children and adolescents in educational initiatives. Gender inequalities are represented by X₂, which takes into consideration how gender-related problems affect educational achievements and access. X₃ stands for infrastructure development, which is a reflection of the advancements made in the construction and upkeep of educational institutions. The error component, denoted by ϵ , accounts for changes in educational performance that cannot be explained. The regression model facilitates the evaluation of the relevance and size of the influence of each variable on the overall quality of education in Sierra Leone. Through the examination of the coefficients, it is possible to ascertain the elements that have the greatest influence and, therefore, provide valuable insights that may inform prospective policy suggestions.

4. Results

This study article presents the results of a comprehensive data analysis, which has revealed numerous significant discoveries that contribute to our understanding of the educational landscape in Sierra Leone. The conclusions mentioned above are of utmost importance in comprehending the intricacies and difficulties encountered by the education system of the nation. The findings of the research provide valuable insights into the interconnections and impacts of many factors and variables on the quality and efficacy of schooling.

Low Enrollment Rates

One significant discovery in the investigation highlights the inverse relationship between low rates of enrollment and educational results in Sierra Leone. This underscores the need to augment enrollment figures in order to bolster the general quality of education. Economic obstacles are a substantial impediment since expenses such as the purchase of uniforms and textbooks discourage families from enrolling their children in educational institutions. Geographical inequalities, particularly in rural regions, provide further barriers to educational accessibility. Cultural norms, including those that pertain to females, also influence enrollment rates. In order to effectively tackle these challenges, it is imperative to implement specific policies that aim to alleviate budgetary constraints, enhance infrastructure, and foster gender parity within the realm of education.

Gender Disparities

The data analysis unambiguously reveals significant gender discrepancies within Sierra Leone's education system, which have a detrimental effect on educational achievements. Females have substantial barriers when it comes to attaining educational opportunities, leading to a discernible disparity between genders (Aslan, 2022). The existence of these discrepancies may be attributed to sociocultural norms that exhibit a preference for males, the prevalence of early marriages and adolescent pregnancies, as well as the restricted availability of educational resources. In order to attain gender equality, it is imperative to implement transformative activities that challenge existing conventions. The implementation of programs aimed at assisting girls throughout significant life events such as early weddings or pregnancy is crucial for ensuring the continuation of their education. The promotion of safe and inclusive learning settings serves to mitigate gender differences in the field of education effectively.

Quality of Education

The report highlights the deterioration of educational quality as a critical issue in Sierra Leone. The presence of excessively large class sizes and teachers with the necessary qualifications have a positive impact on the educational progress of students. The current availability of educational materials needs to be increased in terms of both number and quality. Addressing the issues at hand necessitates prioritizing investments in teachers' professional development, implementing strategies to decrease class sizes, and guaranteeing equitable access to educational materials such as books and other resources. The likelihood of education being beneficial and effective increases when

the curriculum is periodically updated to align with evolving labour market demands and cultural standards. In order to achieve improved learning outcomes, it is essential to enhance the quality of education offered.

Infrastructure

Data research shows a favourable association between infrastructure and educational results, making its development vital in improving the quality of education in Sierra Leone. Inadequate funding has been a major barrier to providing high-quality education, particularly in rural areas. Education quality and student retention suffer when basic school infrastructure is lacking. In order to combat this issue, policies and expenditures must be made in areas such as infrastructure development and maintenance, water and sanitation access, and the fair allocation of educational resources. This expenditure is critical to establishing conditions that promote higher-quality teaching and more fruitful student learning.

Role of International Organizations

The World Bank and IMF helped Sierra Leone's education system improve. Providing financial and technical assistance has helped address the nation's educational issues. Education has been greatly improved because of World Bank efforts that focus on both physical and human resources. Indirectly, the IMF's financial backing has helped promote investments in education. In addition to providing financial support, these groups have also contributed significantly by sharing their knowledge and best practices, all of which have benefited the educational system in Sierra Leone (Aslan, 2022).

Table 1: Description of Main Variables

Variable	Description
Human Development Index (HDI)	A composite measure of life expectancy, education, and per capita income.
GNI per Capita	Gross National Income per capita.
Life Expectancy at Birth	The average number of years a person can expect to live.
Predicted Years of Education	The anticipated years of education for a child who enters school at the appropriate age.
Mean Years of Schooling	The average number of years of schooling for adults aged 25 and older.
Enrollment Rates	The percentage of children and youth participating in educational programs.
Gender Disparities	Gender-related issues affecting education access and outcomes.
Infrastructure Development	Progress in building and maintaining educational facilities.

5. Conclusions and Policy Implications

Sierra Leone understands the importance of education as a means to both social and economic advancement. This study paper analyzes the many obstacles that the nation must overcome on its path to improving its educational system. Low enrollment, gender inequality, poor teaching, and outdated facilities all play a role in a broken education system that needs systemic changes to improve.

5.1 Conclusions

The historical context of Sierra Leone, which includes colonial legacies and the lingering impacts of a civil war, has influenced the country's educational system. Particularly concerning is the fact that many children are denied an education due to the poor enrollment rates that exist in rural areas. Gender inequalities in educational achievement remain due to social and cultural norms, early marriage and

motherhood, and other factors. The lack of qualified educators, excessive class sizes, and limited funding are all contributing to a deterioration in Sierra Leone's educational system. Education is facilitated by the need for more infrastructure, particularly in rural regions. Help from the World Bank and the International Monetary Fund has improved education in Sierra Leone. These organizations have provided money and expertise to rebuild the education system, raising student and teacher standards.

5.2 Policy Implications

In order to effectively tackle the obstacles present in Sierra Leone's education system and facilitate progress, it is advised to consider the following policy implications:

Enhancing Access and Enrollment: Policies need to prioritize the eradication of economic impediments to education via the implementation of financial aid programs and scholarships and the elimination of fees associated with fundamental education. The need to mitigate geographical inequities necessitates the implementation of infrastructure development initiatives to provide equitable access in rural and distant regions. Community-based programs and awareness campaigns can also challenge social conventions that limit access, especially for women.

Promoting Gender Equality: To promote gender equality in education, comprehensive measures are needed. These programs include strategies aimed at postponing early marriages and mitigating teenage pregnancies, providing assistance to adolescent females who assume the role of motherhood, and establishing educational settings that are secure and inclusive. The active engagement of families, communities, and religious leaders is crucial in effecting transformative shifts in deeply ingrained traditions.

Improving Quality of Education: In order to boost the quality of education, it is essential to allocate resources towards investments in teacher training programs, the reduction of class sizes, and the provision of adequate learning materials. The primary emphasis of curriculum reform should be directed toward ensuring relevance and alignment with the demands of the job market and social requirements.

Infrastructure Development: Infrastructure investments, especially in rural areas, are crucial to creating a learning environment. The implementation of initiatives such as constructing new educational institutions, renovating existing ones, and guaranteeing access to hygienic water and sanitation amenities has the potential to enhance the standard of education greatly.

Sustainable Partnerships: Sierra Leone should continue working with the World Bank and IMF for financial and technical assistance. These collaborations can maintain education funding and assure policy execution.

In summary, the education system in Sierra Leone encounters several obstacles; yet, with the implementation of smart plans and persistent endeavours, advancements may be achieved. Education plays a pivotal role in fostering

growth, and it is imperative to tackle these obstacles in order to unleash the potential of the nation's young population and propel economic and social progress. Sierra Leone may strive towards a more promising educational future for its inhabitants by enacting inclusive policies that acknowledge the interrelated nature of these concerns.

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