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# Impact Of Excess Population On Education In Least Developed Countries



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# ABSTRACT

The study aims to analyze the impact of population explosion on Education Systems in the Least Developed Countries. Since the effects of population growth aren't immediately visible in the adult literacy rate. The study analyses the impact of Population Growth on Educational Indicators like Enrolment Ratio, Pupil Teacher Ratio, Government Expenditure, Infrastructure. The study relied on secondary data, that obtained from World Bank and United Nations reports. The findings reveal that there is a negative correlation between Government Expenditure on Education and Population Growth. Due to the prevalence of child labour, secondary enrollment is particularly low in the Least Developed Economies. In the Least Developed Economies, education quality continues to be a source of concern.

## INTRODUCTION

Since the mid-1970s, the relationship between education and population has piqued the interest of both academics and policymakers. Since the beginning of time, both the pace of population growth and the number of people living on the planet have increased dramatically. Birth rates quickly changed in the wealthiest countries to reestablish a balance between births and deaths and achieve a population growth rate of less than 1% per year. Over the course of a woman's reproductive life, the average number of children born to her has decreased from around seven to less than two in economically sophisticated societies. However, in the poorest countries, a substantial reduction in death rates has not been matched by a reduction in birth rates.

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One of the most advanced arguments against population expansion is that it lowers children's access to education. Kuznets (1973) considers this to be the most significant disadvantage of population expansion in Least Developed Countries.

As a result, the goal of this research is to give a follow-up to prior studies by examining how Least Developed Countries education system is affected by the excess population.

According to the United Nations, Least developed countries (LDCs) are low-income countries that face serious structural barriers to long-term development. These countries are extremely sensitive to economic and environmental shocks, and their human capital is limited. According to the New York Report 2020 of the United Nations. There are 47 countries classified as Least Developed (measured on December 2018).

## EDUCATION IN LEAST DEVELOPED COUNTRIES



The Least Developed Countries were quick to place education at the top of their development agendas as soon as they gained independence. Similar to the developing countries they claimed that achieving universal primary education would aid the countries' post-independence recovery from abysmal poverty. This goal soon became a reality when more children began to occupy classrooms, governments improved infrastructure, and trained teachers were brought in. The Least Developed current primary school enrolment rate is above 80% on average, with the countries recording some of the largest increases in elementary school enrolment globally in the last few decades. Despite the gains in primary school enrollment, there are still disparities and inefficiencies in this crucial sector and one of the primary causes of such discrepancies is population growth.

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According to the UNESCO Institute for Statistics (UIS), 287 million young people of primary and secondary school age (or 16 percent of the world's youthful population) reside in LDCs. In the past, population changes in less developed countries were not advantageous to educational growth. The problem of overpopulation appears to influence every sector, but it appears to have the greatest impact on education. On the least developed countries, this effect is more visible.

## IMPACT OF POPULATION GROWTH ON EDUCATION

As the global population is on the rise. All countries seem to be striving to maintain an educational system that provides proper education to every student. However, as time goes on, it appears that providing this education is becoming more difficult. As there are numerous factors that influence an economy's educational system. So, let's take a look at some of the educational indicators that have been impacted by population growth.

- **Government Expenditure on Education as a Share of Total Expenditure**

Expenditure on education as a percentage of GDP is a good indicator of how important education is to a country's budget. When it comes to putting education first, Primary education appears to be a priority in all LDCs. However, the countries fail to subsidize secondary and tertiary education. Educational Institutions rely on government funding to stay afloat. Governments that have seen population increase without economic growth may face opposition when it comes to school finance. This can result in a lack of resources and insufficient cash for the student to participate in enrichment activities

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According to the United Nation's 2020 classification, the majority of African and some Asian nations are classified as Least Developed (47 Countries). The Study has made use of Data collected from the World Bank and United Nations Report. In order to better understand the link between Government Expenditure on Education and Population Growth in these nations, a correlation test was performed. The data for the metrics were collected from World Bank.

**Table 1:** Correlation Between Population Growth and Government Expenditure on Education

	Population	Government expenditure on education, total (% of GDP)
Population	1	
Government expenditure on education, total (% of GDP)	-0.275932255	1

**Source:** World Bank Data, United Nations Report, 2020


The Above Table shows the correlation between Population Growth and Government Expenditure. As shown in the table the population growth has a negative impact on the Government expenditure on education. The negative correlation is due to the fact that many LDC's seem to spend very less on education. While some countries, such as Malawi, appear to value education so much that they offer free tertiary education. Some countries appear to be doing exactly the opposite. Education accounts for only 0.6 percent of GDP in countries like Equatorial Guinea. The country's GDP per capita is far higher than any of its Sub-Saharan African neighbors, however their expenditure on education is exceptionally low. This is because the government is frequently chastised for questionable spending practices, and income inequality is widespread.



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Myanmar also has an extremely low education expenditure, owing to poverty which is a significant obstacle to entry into primary and secondary institutions. Government budget cuts for social reasons have resulted in an increase in the costs each family must pay for their children's education, as the primary source of funding has switched from taxes to out-of-pocket payments and charitable donations. The Central African Republic (CAR) is another country whose education system falls far short of international standards. Education spending by the government accounts for barely 1.6 percent of GDP. The CAR school system is in desperate need of renovation and better teaching and learning materials for pupils, yet repeated relocations among its inhabitants, as well as the country's deficient infrastructure and security, act as substantial roadblocks to such attempts. Many other countries, such as Haiti (1.7 %), Uganda (2.04 %), and Angola (2.1 %), continue to have poor government spending. All of this combines up to a 3.29 % of Government expenditure in the Least Developed Countries in 2018.

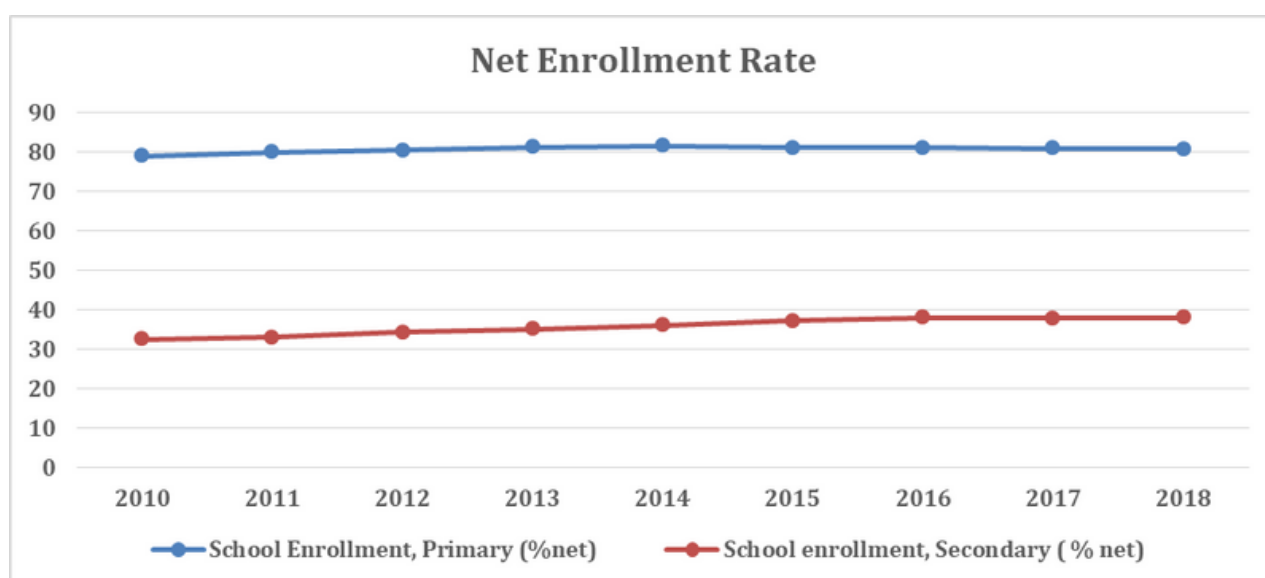
The metrics used for the Government Expenditure on Education (% of GDP) and Total Population. The de facto definition of population, which counts all residents regardless of legal status or citizenship, is used to calculate total population. The figures indicated are estimates for the middle of the year. The overall government education expenditure (percentage of GDP) was calculated using General government education expenditure (current, capital, and transfers) represented as a percentage of GDP. It covers spending that is financed by overseas transfers to the government. Local, regional, and national governments are all included in the term "general government".



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- **Enrolment Ratio**

Rapid population expansion, particularly among school-aged populations, is one reason for educational goals not being met. Korea (100 percent) and Singapore (100 percent) were the countries with the highest enrolment ratios in 1980. However, these countries benefited from low fertility, which was one of the key factors in their success (Jayasuriya 1982). In Current Scenario, while universal primary education has been achieved in the majority of Least Developed Countries. In secondary and tertiary education, the countries remain behind.



**Fig 1:** Net Enrolment Ratio in Primary and Secondary Education in LDC's **Source:** World Bank Data, United Nations Report, 2020

The Net Enrollment Ratio of Primary and Secondary Schools in Least Developed Countries is depicted in the graph above. The primary enrolment has been practically a flat line above the secondary enrollment, as illustrated in the graph. LDCs are home to 287 million young people in primary and secondary education. According to a UN estimate, around two-thirds of African youngsters are effectively excluded from secondary school. About 11 countries in Africa (Tanzania, Burundi, Madagascar, Mali, Mauritania, Burkina Faso, Malawi, Rwanda, Cote d'Ivoire, Eritrea, Sierra Leone) and Pakistan have less than 50% in secondary school enrolment. One of the The metric used in the graphs above

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(Fig1) is School Enrolment, Primary and Secondary (percentage of Net). The ratio of children of official school age who are enrolled in school to the population of the equivalent official school age is known as the net enrolment rate. Primary education teaches students fundamental reading, writing, and math abilities, as well as a rudimentary understanding of history, geography, natural science, social science, art, and music. Secondary education completes the primary-level supply of basic education and strives to create the basis for lifelong learning and human development by providing more subject- or skill-oriented training from more specialised teachers. The Enrollment Rate was obtained from World Bank Data main reasons for the low enrolment are that in many African countries, compulsory schooling ends when a child reaches the age of 13 or less. The prevalence of child labour is another reason for poor secondary and postsecondary enrolment. Child labour affects more children in Sub-Saharan Africa than the rest of the world combined. According to estimates, 70 million children aged 5-17 years were involved in child labor in the region as of 2016. Some other countries like Malaysia, A military-run dictatorship has resulted in an ineffective education system, with post-secondary education almost non-existent

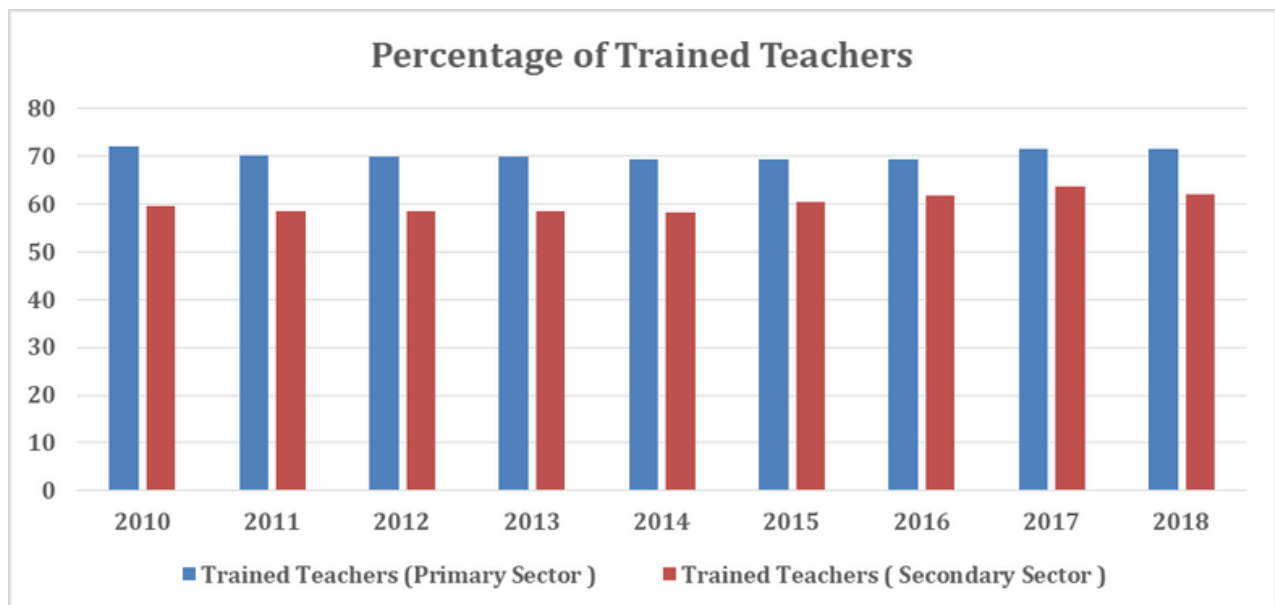
- **Quality of Education**

In Least Developed Countries, poor quality education leads to poor learning outcomes, ultimately forcing children out of the educational system and leaving them exposed to child labour, abuse, and violence. Teacher-centered rote learning, corporal punishment, and inequality continue to be prevalent in many classrooms. The two significant elements that influence quality of education are the Pupil Teacher Ratio and Number of Qualified Teachers in the Primary and Secondary Sectors. However, both these factors are highly influenced by population growth.

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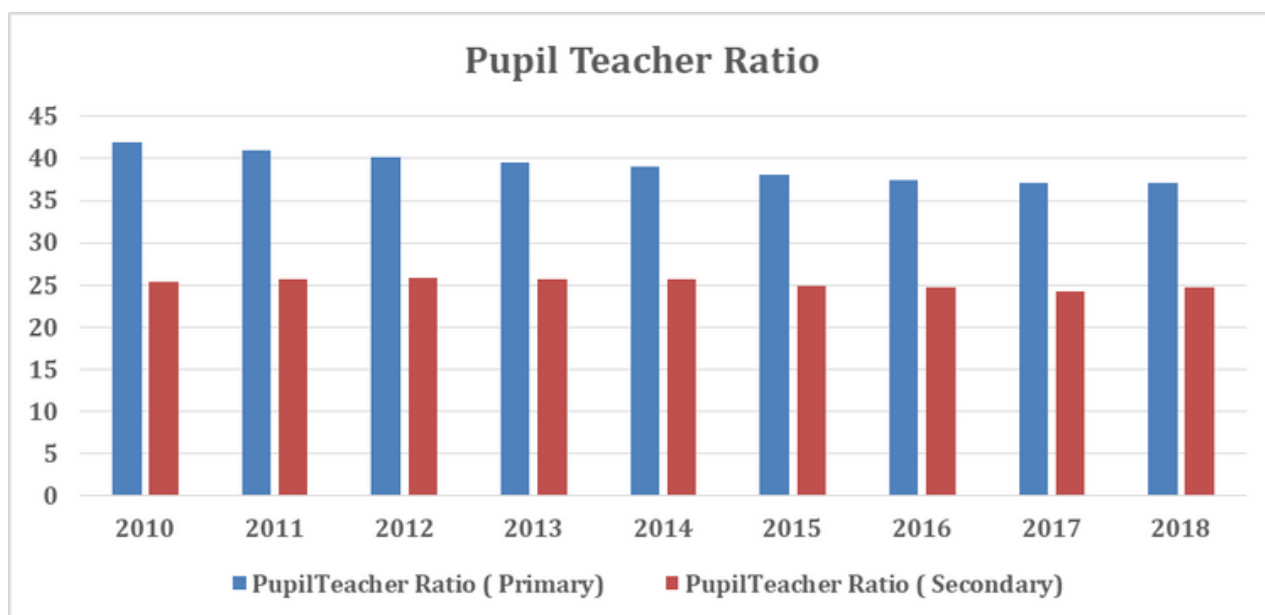


The greater the number of school-aged children in a society, the more teachers are required to educate them. This can put a load on a system that is already overburdened. However, as the population grows, several challenges emerge, including the issue of education. As a result, funding for the education sector is reduced.



**Fig 2:** Percentage of Trained Teachers in Primary and Secondary Sector in LDC's **Source:** World Bank Data, United Nations Report, 2020

The graph above depicts the number of qualified teachers in Africa's primary and secondary education sectors. The graph demonstrates that the primary school sector has more qualified teachers than the secondary school sector. Even if the Least Developed Economies cover the majority of education costs, these countries will require external financial assistance to cover essential non-salary costs such as initial teacher training and continuous professional development, blended learning preparation, access to ICT, and improved working conditions. For example, Burkina Faso's initiatives to provide teacher training and other interventions for the years 2021–2025 face a financial shortage of US\$97 million. In countries like Uganda, low wages have led in a shortage of qualified teachers in secondary schools, resulting in a decline in educational quality.



**Fig 3:** Pupil Teacher Ratio in Primary and Secondary Sector in LDC's

**Source:** World Bank Data, United Nations Report, 2020

The Pupil-Teacher ratio in the Primary and Secondary sectors is depicted in the graph above. In 2018, the Pupil Teacher ratio in the Secondary sector was 24:1 and the Pupil Teacher ratio in the Primary sector was 37:1. When it comes to primary education, Rwanda had the highest Pupil-Teacher ratio of 59:1 in 2018. Malawi, Mozambique, Tanzania, Afghanistan, Cameroon, and Pakistan are among the other countries with a high pupil teacher ratio.

In the graphs above, the metric used is (Fig2) Trained primary school teachers (% of total teachers) and Trained secondary school teachers (% of total teachers). Primary and secondary school teachers are trained by attending a course. The percentage of Primary/Secondary school teachers who have obtained the minimal organised teacher training (pre-service or in-service) required for teaching in a given country are known as trained teachers in primary/secondary education.

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Mozambique's condition is concerning, with a Pupil Teacher Ratio of 61.27. When the number of students outnumbers the number of teachers, the quality of education suffers. Tanzania has a population of over 58 million people, making it one of East Africa's most populous countries. More over 44% of Tanzania's population is under the age of 15. With this information, it is evident that the number of students is quite large. Because there aren't enough teachers to reach every kid, the teacher-to-pupil ratio is set at 50:1. This has resulted in a drop in educational standards in this country. The other countries like Pakistan, Uganda, Malawi suffer high Pupil Teacher Ratio because of the low salary and bad working conditions in this country, teaching is not a rewarding vocation for most young people.

The decline in enrolment in secondary education in Least Developed Countries has improved the Pupil Teacher ratio in the Secondary sector. While secondary education is undertaken by only a few pupils in the least developed countries the highest pupil teacher is 72:1 in Malawi in 2018.

- **Infrastructure and Gender Parity Index**

As the country's population rises, it loses sight of education as a major priority. As a result, most educational institutions lack infrastructural facilities. This leads to an ultimate concern with poor environmental quality (e.g., overcrowding, sanitation, violence). When it comes to providing accessible and high-quality services like water, power, transportation, and energy, some of this load is shared with the private sector. Governments, on the other hand, are responsible for establishing schools, providing teacher training, and developing national curriculums and exams to track progress. However, due to a lack of funding, Sub-Saharan Africa and South Asia countries are unable to do so.

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The Gender Parity Index is another major concern for Least Developed Countries. Despite advances over the last decade, 67 million children around the world, over 53 percent of whom are females, lack access to basic education. More than two-thirds of nations have achieved gender parity in primary school enrolment, but girls are more likely to be disadvantaged than boys in countries that have not achieved parity, particularly in Africa, the Middle East, and South Asia.

In the graphs above, the metric used is (Fig3) Pupil Teacher Ratio of Primary and Pupil Teacher Ratio of Secondary. The data is obtained from World Bank. The Pupil Teacher Ratio for Primary is the average number of students per teacher in primary school. The average number of students per teacher in secondary school is the secondary school pupil-teacher ratio.

For example, the GPI values in Chad and Pakistan are 0.78 and 0.84, respectively, implying that for every 100 males in Chad, 78 girls and 84 girls are enrolled in primary school. Child marriage, which is very common in African countries, is one of the main causes of such disparities.

Finally, the ultimate problem of population explosion in the Least Developed Countries are less Savings and Income. As the population rises, many individuals are pushed to poverty resulting in lack of income and savings. Even when Primary Education is free in most countries. Many under developed countries do not provide subsidised secondary education. The general public is likewise unable to cover the direct costs (e.g., fees, clothing, books). This eventually results in a decrease in secondary enrolment.

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## CONCLUSION

Overall, the study found that population expansion has an impact on educational indicators in Least Developed Economies. Even if primary education does not appear to be a major issue in LDCs. Government Education Spending, Gender Disparities, Infrastructure, Pupil Teacher Ratio, and Trained Teacher Ratio are all issues. Furthermore, issues such as child marriage and child labour have been identified as important impediments to secondary schooling in these countries. The education system in the LDC is plagued by decaying facilities, overcrowding, and poor educational outcomes, as well as gender inequities. Investing in SME's, which can lead to job opportunities, is one viable answer to this problem. This will drive the economy's revenue and savings. Another way to address gender inequities is to encourage women to pursue higher education. Women with a greater level of education are more likely to have low fertility. Ultimately, lessening the population pressure on education.

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