

**DISRUPTION OF AFRICA'S EDUCATION
SYSTEMS AND ECONOMIC DEVELOPMENT DUE TO
OVERPOPULATION**

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MASTER'S DEGREE IN:

TECHNOLOGY, INNOVATIONS MANAGEMENT & ENTREPRENEURSHIP

WINTER SEMESTER 2022/23

COURSE: TECHNOLOGY POLICY

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Abstract

Education lies at the foot of economic growth and human development. However, an increase in population tends to put a strain on existing education systems, especially in Africa where most countries are characterized by slow economic development, rapid population growth rates and a median age just shy of 20 years. Due to the slow rate of economic growth, many African countries lack the financial capability to provide proper education for their ever-growing populations or even already overpopulated regions, many of which have people who have reached the appropriate school-going age. This leads to a series of disruptive impacts on the education systems resulting in a people who are poorly or improperly educated, and thus are not equipped with the necessary skills required for the vast technical, professional and ever modernizing high-skill job markets such as construction, economic and technical professions, teaching occupations and so on, all of which drive economic growth and development. Therefore, we can see that rapid population growth, if left unchecked, may lead to overpopulation scenarios which could have a negative disruptive impact on education and human development, both of which are important factors necessary for economic growth.

Key words: Population, education, Africa, poverty, economy, development.

1. Introduction

A stable economy can be studied as an indicator of prosperity and quality of life in a country, and although it is not an interdependent factor, it is tied to education, health, wealth of a nation and other factors. The focus of this paper is to look at the important role of rapid population growth and education as agents of development and for this purpose the African continent will be studied.

1.1. Demographics Defined

Demography can be described as the science of studying populations and their patterns. Demographers perform studies and base their research on seeking to understand population dynamics by investigating three main demographic processes: birth, migration and age, including death rates, which influence changes in populations, including how humanity forms and develops nations, societies and culture.

Contemporary demographic concerns include the “**population explosion**”, which can be described as a sudden increase in the human population, the correlation between population and factors affecting economic development, the effects of birth control, urban congestion, illegal immigration, labor force statistics and so on.

The present understanding of demography has made it possible to project population changes several decades into the future.

1.2. Africa’s Demographics

After the Asian continent, Africa is considered to be the second most populous continent in the world. Even so, Africa has the highest growth rate worldwide, with figures rising by over two percent every year. With a high birth rate, Africa also has the youngest population worldwide, this also being as a result of a low life expectancy, all characteristics of overpopulation. (Kamer, 2022)

In Africa, Nigeria has the largest population with an estimated 206 million people in 2020, while Ethiopia comes second with a population of 115 million. Egypt has

registered as the North African country with largest population of around 102 million people.

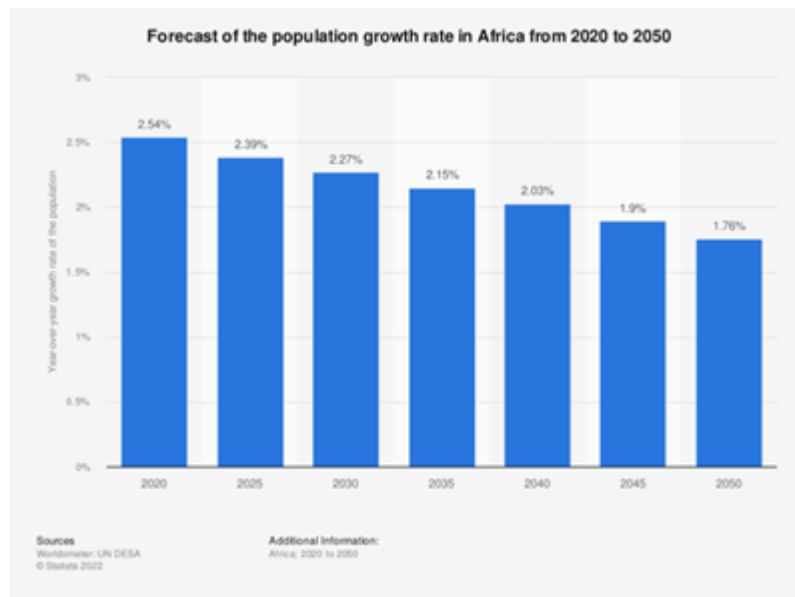


Figure 1: Worldometer. (July 15, 2022). Forecast of the population growth rate in Africa from 2020 to 2050 [Graph]. In *Statista*. Retrieved December 07, 2022, from <https://www.statista.com/statistics/1224222/forecast-of-population-growth-in-africa/>

According to the above forecast by Statistica, the Africa's population is expected to grow by 1.76 percent by 2050 compared to the previous year. The population growth rate is expected to decline in the following years. However, the number of inhabitants would significantly continue to grow. By 2050, Africa is projected to reach around 2.5 billion inhabitants, compared to the 2020 value of 1.36 billion.

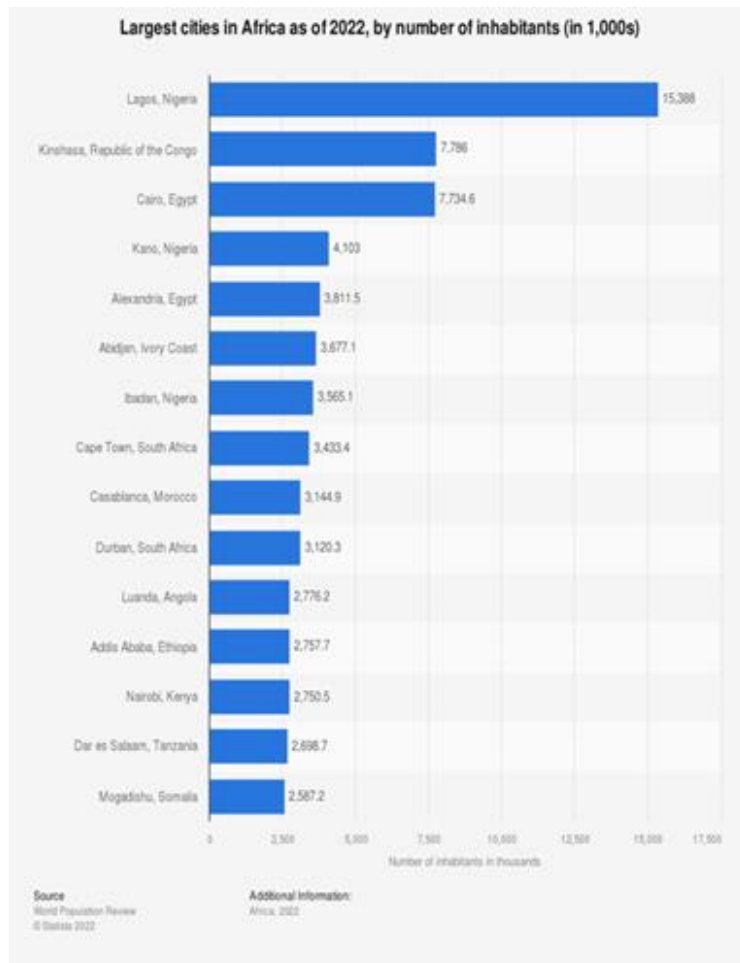


Figure 2: World Population Review. (May 13, 2022). Largest cities in Africa as of 2022, by number of inhabitants (in 1,000s) [Graph]. In *Statista*. Retrieved December 07, 2022, from <https://www.statista.com/statistics/1218259/largest-cities-in-africa/>

According to the review shown above, African cities are currently growing at larger rates compared to other major cities worldwide. Most of the fastest-growing cities in the world are located in Sub-Saharan Africa. Lagos in Nigeria, according to the graph shown above, is ranked as the most populated city in Africa as of 2022, with an estimated population of roughly 15.4 million people. Kinshasa in Congo and Cairo in Egypt follow with some 7.8 million and 7.7 million people respectively.

2. Factors affecting development in Africa

There are several factors that could affect the growth and development of any region. These factors vary in relevance and level of influential impact from region to region. Some of the factors considered highly influential in affecting the growth and development in the various regions across Africa are:

- o **Population demographics**
- o Natural resources
- o Availability of livable land
- o Fauna and Flora
- o Earliest civilization and cultures
- o Young population
- o Agronomic potential
- o **Education**
- o Social factors
- o High crime rates
- o Governance
- o Technology etc
- o War

3. Focus

Our focus points for this research paper are to figure out the main problem areas affecting the education systems in Africa and to find the cause-effect chain link resulting in disruptive progress on African development. The focus points considered are:

- o Overpopulation
- o Economic development
- o Poverty

3.1. Research question

How are Africa's education systems affected by Africa's exponential population growth and what is its resulting impact or strain on Africa's economic development?

4. Resulting Impacts

4.1. Impacts of Overpopulation in Africa

High number of births, rising population density and size, rapid population growth, and an increasing 's instability all put more pressure on African governments to engage in productive activities, which in turn worsens issues with underemployment, unemployment, persistent poverty, urban slums, and political unrest and crime.

Unemployment: A fast-growing population has serious effects on the capacity to create jobs that are effective. Because high population expansion is typically followed by a proportionate increase in the labor force supply, the rate of job creation must correspond to this increase in labor force supply. That is not the case for Africa that has outpaced the rate of job creation, where unemployment rates have been rising quickly. The number of people looking for work grows faster than the number of openings.

Underemployment: this is a serious problem for Africa's society where there is increasing of number of workers in African countries that is not accepted in the modern economic sectors, the workers may go back into the traditional sector, which has poor productivity and low wage levels, or into unproductive service employment. Due to the large supply of cheap labor, industrialization is slowed by mass poverty and slow the economy of the country.

Urban Slums: The growth rate of the urban population is a serious major effect of Africa's rapid population increase. Africa's urban population has increased from levels of 377 million from 2000 and is expected to reach 1,271 million in 2025 because of a growth in the continent's overall population. If suitable housing facilities aren't

provided, the quickly expanding cities' urban slums will become overcrowded and have poor housing, which could lead to additional social issues.

Poverty: The goal of progressively decreasing population increase became a challenge due to higher births. There is an issue with kids that become parents at an early age. To meet the needs of a population that is expanding quickly, food supply and agricultural production must be considerably increased, which restricts the allocation of resources to other economic and social sectors.

One example of this is increasing funding for the unproductive part of the population, which consumes but does not generate goods and services and must be fed, clothed, housed, and educated.

Due to lack of proper nutrition, the presence of diseases linked to poverty, and the children's lack of appropriate adult contact, the physical and mental development of children is often affected in large families.

Almost at the same rate as population growth, the need for firewood is increasing. The productivity of agriculture and, among other things, the supply of water management are both seriously affected by this environmental destruction. The resultant food shortage made the malnutrition situation in African countries worse.

Political and social conflicts: Possibilities of certain conflicts between different ethnic, religious, and socioeconomic groups affected by rapid population growth rates. Group of young unemployed People with little hope of a fulfilling future, may establish a chaotic and dangerous political force, which will result in rising demands for governmental services in health, education, welfare, and other areas. In other cases, it may be the cause of violence, aggression and ultimately, war.

4.2. Impact of Overpopulation on Education Systems

For us to understand what kind of possible impacts that Africa's rapid population growth could have on its own education systems, we first must understand the impact of rapid population growth or overpopulation affects education systems in general.

One of the most noticeable impacts of overpopulation on education systems in an overpopulated country is the increased demand for teachers and facilities. The higher the population of people of the appropriate school-going age in a society, the more teachers are needed to teach these new students. This can place a strain on an already overtaxed system. In some cases, teachers leave their existing posts and move to other professions for the chance of receiving a better income, while those who stay are left to bear the resulting increasing burden of the ever-increasing number of students. (Arnette, 2018)

Another noticeable impact of overpopulated societies is that schools and classrooms become overcrowded. We all know that all buildings are constructed to hold a specific number of occupants. Schools which experience an increase in population face the possibility of this capacity being exceeded, thus resulting in overcrowding. As a result, the local governing authorities need to provide more facilities in existing schools or establish bigger schools in the affected locations or districts. This costs money, which some governments do not have at their disposal.

Another impact, which often results from the above-mentioned overcrowding problem, has to do with the change in the learning attitudes of students, which are mostly negative in nature. These negative attitudes towards learning can manifest themselves in many ways such as a lack of educational idealism, drug use and gang mentality. This could even further result in loss of control in education facilities with too many students and not enough teachers.

Negative attitudes, as mentioned above, can have what can only be described as a domino effect leading to another negative impact on education, which is the discouragement of students to pursue further or continued education. The negative attitudes developed by students in primary or secondary level schools about schooling can carry on through their schooling years, resulting in a lower chance for that student to want to attend college or other extended education programs. Today, applying for most well-paying jobs requires that applicants have at least a college or university level education. This lowers the earning potential of the student with no education of this type, resulting in a possible poverty situation.

A very important underlying factor that is necessary for the establishment, growth, development and continued support of a well-functioning and well-maintained education system is the continued flow of necessary funding required to do the job. Communities that have experienced population growth without economic growth may find resistance in the funding of the education facilities because of increased demand for allocation of funds to other sectors. As a result, the education sector may face funding cutbacks or a stall in funding altogether, which is required to provide the necessary supplies and facilities needed to cover the ever-growing number of students in need.

4.3. Challenges facing Education in Africa due to Overpopulation

Overpopulation can be the overall leading challenge facing the implementation of good education in many African countries. Due to overpopulation, governments have been overwhelmed and lack the financial ability or resources required to effectively supply the facilities needed, be it to provide new education facilities, improve or expand existing ones or provide quality resources to run public education facilities, all in order to give proper education to the ever-growing number of people who have reached the appropriate school going age.

These further supplements another big challenge which still exists until today in many countries- illiteracy. Many African countries such as Burkina Faso Mali, Central Africa Republic, Niger, Sierra Leone, South Sudan, Somalia etc. have literacy rates below 50%. This means that more than half of the population in these countries cannot read, write or both.

Another challenge being faced today in many countries is the lack of quality education itself. This challenge has been a continuously growing one, amplified by the Rapid population growth rates. Africa has so many graduates but very few "quality" graduates. Several people graduate from school with degrees upon degrees but face the challenge of "application". In other words, most students spend years in school but work very hard just to pass their exams and graduate. Most students graduate with

certificates, diplomas and degrees but are unable to apply what they've learned to better their everyday lives.

Furthermore, another challenge facing education systems in many African regions experiencing rapid population growth is the overcrowding of classrooms and facilities. As discussed in the previous segment, there are several implications which result from overcrowding, and this is experienced in several African education facilities.

However, there is one challenge that provision of education faces which does not necessarily stem from overpopulation but otherwise has an impact on the literacy level of many African regions- gender inequality. The level of education experiences an increase in gender inequality due to the archaic cultures, traditions and religious practices in some African communities, which often portray girls as inferior to boys which leads to a bias where boys or men are favored as better qualified to receive formal or even basic education leaving women and young girls with little to no opportunities for formal education.

4.4. Economic Impact- How is the African economic atmosphere being affected?

Out of the above already mentioned factors that are affecting economic development in African countries, education is our main point of focus. Education and prosperous economic development are closely related. The number of years an adult is educated can be seen to be directly correlated to the level of income in a country. The average number of years of adult education in low- income countries is five years, around eight years in mid-income countries and twelve years in high-income countries. Moreover, there was a 0.6 percent increase in long-term GDP growth rates with every year of additional schooling. (Hanushek, Woessmann, 2010)

Therefore, it can be said that the level of education received by the average population in a country has a direct effect on the earning capability as well as the country's level and rate of economic development. According to this line of reasoning, it is conclusive that investing in education leads to an increased level of skills and talents in a labor

pool, raised productivity, increased incomes and finally an overall increase in economic growth.

But how can we relate the above reasoning to the increasing population growth rate in African countries? And how does that finally influence the economic atmosphere in said countries? And eventually, what kind of impact do we see in already overpopulated regions in Africa?

A rapidly growing population necessitates a significant increase in agriculture, food production and education even though unproductive segments of the population consume but do not produce products or services. This limits the quantity of resources that can be allocated to other economic and social sectors. Furthermore, the presence of unproductive segments of the population means that there are serious implications for the provision of productive employment. Since the rapid population growth is normally accompanied by a proportional increase in the supply of the labor force, it means that the rate of job creation should match the rate of supply of the labor force. In Africa, however, the rate at which the labor force supply has increased has far surpassed that of job creation being, meaning that the rates of unemployment have increased rapidly and are still increasing. In other words, the number of people seeking employment increases more rapidly than the number of available jobs required to meet the demand. This kind of situation poses a disruptive and menacing problem for African societies because when a continuously growing number of workers cannot be absorbed by the increasingly modernized economic sectors of the African countries the workers are forced into unproductive service occupations or back into the traditional sectors with their low wage levels and low levels productivity. Because of this shift, technology advancement is limited, and the resulting widespread poverty slows down industrialization, thus slowing the economic growth of the African nations in question.

5. Link Between Overpopulation, Education and Poverty

In a world where birth rates are high and child mortality rates are high, combating global poverty and protecting children is essential to reduce overpopulation. Rising population size and density, rapid population growth, and an increasing dependency

burden all have an impact on the demands placed on African governments in terms of productive activities, which in turn worsens challenges with underemployment and widespread poverty.

The rate of fertility has an impact on population growth and the prospective need for education which determines the number of kids who can attend school each year. Lack of education for women increases the trending fertility in Africa countries because of poverty mainly due to certain conditions children are born into and early marriages because many aspects of African culture, traditions, and religious practices frequently portray girls as less valuable than boys.

Some parents keep their daughters in the house while sending their sons to school and at the end of the day, illiteracy and ignorance are to blame for the young girls forced into early marriages and lack of formal education and gender-based violence. When fertility is high, this number is even higher and can make it much harder to improve education in environments where there are limited financial and material resource

Where rapid population growth far outpaces economic development, countries will have a difficult time investing in the human capital needed to secure the well-being of their people and to stimulate further economic growth. This issue is especially acute for the least developed countries, many of which are facing a doubling, or even a tripling of their populations by 2050. (UN Population Fund, 1994)

6. Conclusion-Chain of disruption

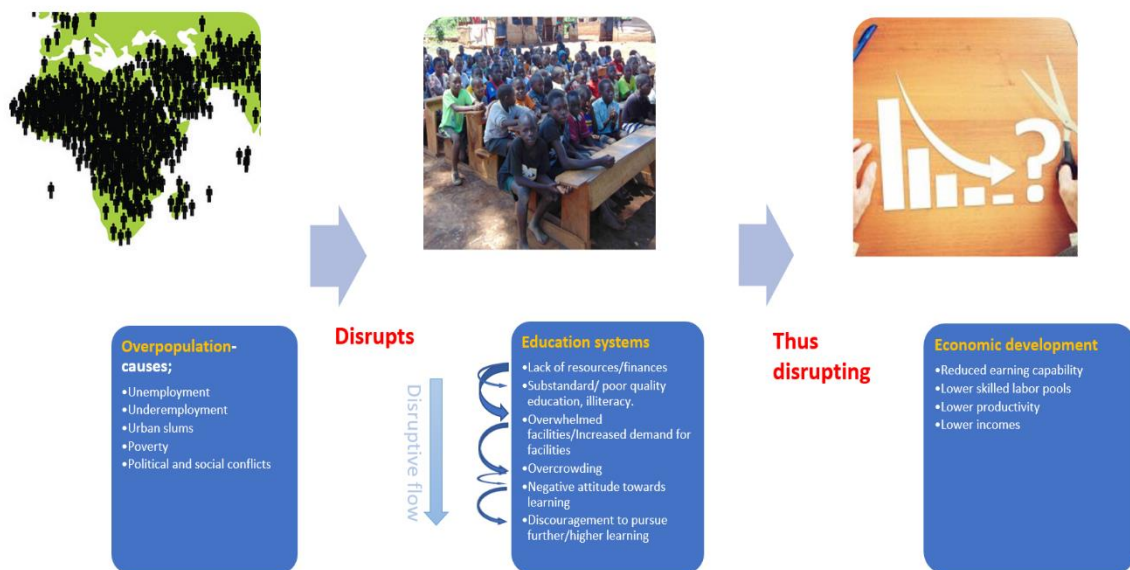


Figure 3: Chain of Disruption.

The diagram shown above is therefore a conclusive diagram showing the chain of disruption discussed comprehensively in this paper of how the overpopulation in Africa is disrupting the education systems and thus resulting in the disruption of economic development in the African region.

7. Possible Solutions

Changes in policy

Sub-Saharan African countries have the highest population growth rates worldwide. During the 1980s and 1990s, two thirds of sub-Saharan African countries adopted national policies on population to control the growth of the population in response to a variety of global and local forces. Today, many African nations offer rewards, in the form of financial incentives to encourage family planning. This may cause some couples to have less children than they would have otherwise planned.

Improvement of sex education in school

Poorly implemented education, especially that related to sex, has caused regression issues in many countries in Africa. The problems have become increasingly unavoidable to ignore that the United Nations Population Fund (UNFPA) is calling for a reform. This will aim to give children and adolescents the knowledge, skills, behaviors, and values they need to realize their health, well-being, and dignity, build respectful relationships with others, think about how their decisions affect both their own and others' well-being, and comprehend and ensure the protection of their rights throughout their lives.

Women will learn more about the effects of having sex when it comes to giving birth with the aid of improved sex education. This can help dispel stereotypes about sexual activity and spread awareness of birth control options.

Girl-child education

It is currently estimated that more than 130 million young women and girls around the world are not enrolled in school. Most of them live in male-dominated societies and this is notable in Sub-Saharan Africa, where many communities do not give women the same rights to education as men. A healthy society is built on its female population, where girls who receive an education grow up to be educated moms, and educated mothers are the foundation of happy homes, create better futures for themselves and their family.

By supporting girls' education, communities, nations, and the entire world are transformed. Girls who acquire an education are more likely to lead healthy, fulfilling lives and are less likely to marry early with enough knowledge about the prevention of having many children by using contraceptives, earn higher wages, and take part in decisions that most directly affect which in the end may reduce poverty not only for themselves but the country in general.

Access to contraceptives

Birth control and better sex education should go hand in hand. The World Health Organization (WHO) states that 225 million women living in developing countries would prefer to postpone birth but are not using any form of contraception.

Organizations like the American Congress of Obstetricians and Gynecologists (ACOG) also support improving access to contraceptives to control the birthrate by assisting women in avoiding dangers and pursuing their life goals.

8. Africa and the world

Should the world, especially countries close to Africa, act on the issues facing that continent?

This paper has discussed the various issues facing Africa, including the lack of resources to deal with control, but what might be the side effects (unintended) of mitigation and who might be affected?

The following graph shows that one of the countries with the largest population, Nigeria, is one of the countries with the highest migration intentions, with a percentage of 78%, followed by Angola and Linea with percentages of 74% and 73% respectively. But in general, the graph shows that in each of the nine key countries, due to their demographic characteristics, the intention to migrate exceeds 50% of the intention to leave the continent, presumably in search of better opportunities for this young population.

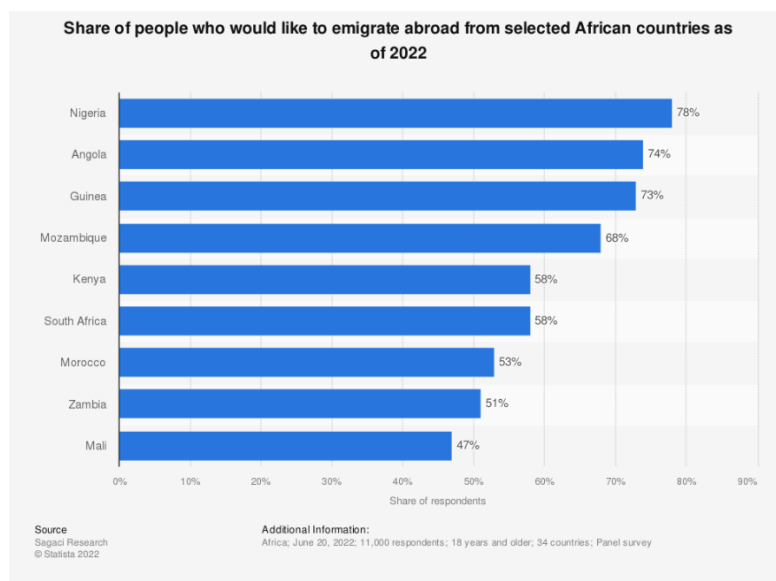


Figure 4: Sagaci Research. (July 8, 2022). Share of people who would like to emigrate abroad from selected African countries as of 2022 [Graph]. In *Statista*. Retrieved December 11, 2022, from <https://www.statista.com/statistics/1319715/willingness-to-move-abroad-from-africa-by-country/>

The regions close to the African continent and with more privileges and industrialization, such as Great Britain, the European Union, may be the most affected by the demographic growth of the continent, because as can be observed with the current migration intention, Africans will look for other spaces that offer them well-being and quality of life, however, a wave of emigration could completely change the economic future of the countries affected by it, although it is clear that Britain, the European Union and Africa need each other.

9. Questions to be asked

The future of the world could be completely shaped and affected by exponential growth, especially in West Africa (Nigeria - Ethiopia - Tanzania), due to the doubling of the population (Collier, 2010). Taking this information into account, some questions are raised, which are considered necessary in view of the importance of the African continent for the world.

- o Who will be most affected by population growth on the continent?
- o How influential is education as a factor promoting development?
- o How can the major economies exert a positive influence, so that the African continent can best cope with population growth and educational deficits?
- o What could be done to mitigate undesired impacts?

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