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## Infrastructure Deficit and Social Challenges: The Ripple Effects on Sustainability in Ghana

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### ABSTRACT

The lack of intercontinental and intracontinental trade integration in Africa is the result of underdevelopment in the area of poor infrastructure. The Ghanaian economy is bedeviled with deficits at both the economic and infrastructure levels. Only 25% of the rural population has access to road, and 34% of the total African population have access to roads. The lack of infrastructure investment has contributed to the infrastructure deficit in Africa. 100,000 Ghanaians are homeless resulting in increased cases of teenage pregnancy. A coordinated action including priority setting and serious monitoring of the performance of fund mobilization, agreeing on contribution levels for each state as well as ensuring close monitoring of implementation and performance is recommended.

### INTRODUCTION

Many scholars and players argue that the term infrastructure refers to roads, railway lines, electricity supply, telecommunication networks, and other public utilities required for industries and economic functions (Buys *et al.*, 2006). Other scholars such as Nijkamp, (2000) have the view that infrastructure covers roads, railways, airports, pipelines, knowledge networks, communication systems, education, culture etc. (Dupuy *et al.*, 2008) also assert that infrastructure is responsible for “rolling out” basic energy supply, water, sewerage, and communication service across geographical territories as public or quasi-public goods use systems of standardized services. Therefore, infrastructure should be assumed to be integrator of urban spaces and “they are believed to bind cities, regions and nations into functioning geographical and political wholes” Graham (2001).

According to a report of the Ghana Statistical Service, Ghana’s economy has received some level of growth over the last decade. The increase is basically for the improvement in every aspect of the economy. This growth had some ripple effects on poverty alleviation, leading to the current standing of 24.3 percent poverty level representing a drop of 4.2% points over the previous rate GSS (2015).

Though some achievements have been recorded, mediocracy must be avoided in order to eschew lethargy Jordan (2007). The Ghanaian economy is bedeviled with huge deficit in both economic and social infrastructure, contributing to a slow rate of economic growth acceleration ILO (2017). There has been a number of efforts from the political front to close the infrastructure gap in Ghana with significant investments in infrastructure that have gone into energy, railway,

education, road and health sectors. The ILO (2017) report indicates that the construction of the Akosombo Dam for hydroelectric power generation, cost US\$258 million. The Dam gave Ghanaians a head up in energy provision which has been able to support the energy need until Ghana experienced population explosion within the last two decades, leading to the “Dumsor” experienced under former Presidents Kufuor, Mills, Mahama and Akuffo-Addo’s administrations. This indicates how efforts on the part of successive governments to target development strategically could have put Ghana in a position to compete well with other developing countries.

### Statement of the Problem

Lack of infrastructure related investment is one of the key contributing factors to infrastructure deficit (Mafusire *et al.*, 2010); contributing to African countries’ inability to keep pace with the growing demand and increasing gap. (Mafusire *et al.*, 2010) argue that less than 40% of the population of the African continent has access to electricity, 25% of the rural population has no access to roads and only 5% of the total agriculture is irrigated. The researchers argue that in Africa, it is only 3% of the population that have access to improved sanitation with a slightly better situation for clean water, which is about 65%. Though Marfuseri projects that 25% of the population have access to roads, the United Nations’ 2020 Report on population estimates that 34% of the total Africa population of 1,332,629,212 have access to road, arguing that the Africa’s economy and development are being hampered by lack of modern road infrastructure (Mafusire *et al.*, 2010). The correlation between the projection from Marfuseri project and the United Nations in relation to lack of access to road depicts the level of

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the problem.

McKinsey (2010) of Global Institute is of the view that the global demand for funding for Africa's infrastructure will reach \$57 trillion by 2030, an issue that could only be resolved with a crystalline lens. The figure is a sizeable amount that could be contributing factors to Africa's social challenges like the prevalent water-borne diseases, and other infectious diseases such as cholera, ebola etc. In order to solve the above problem, the study pays critical consideration to the following subtopics:

- (i) Understanding the historical contexts of both infrastructure and social challenges;
- (ii) Understanding the key infrastructure frameworks;
- (iii) Establish the link between infrastructure deficit and social challenges;

### LITERATURE REVIEW

The first major infrastructure project in the ancient world happened in Assyria and Mesopotamia, a millennium from about 1200 BC to 300 BC Toro. (2016). In Rome, for the purpose of effective administration and governance; which required conquering, collection of taxes, and tithes, over 80,000 Rome roads network linking over 1500 self-governing states were constructed. The assertion buttresses the position of researchers like Sahoo & Dash (2012) who claims that infrastructure service plays an important role in the economic development of a nation. Infrastructure such as the University campus provides a platform for academic and research development, medical facilities, for instance, is a key factors for healthcare provision; railway and road systems provide the means to transport manufactured goods and farm products to market and other storage facilities. The ever-growing population, for instance, requires a strategic housing output to ensure the availability of housing needs.

The Larabanga Mosque in the Northern Region of Ghana is arguably the oldest in the entire West-Africa Adam. (2017); and a tourist Centre that has survived for centuries despite the inclement weather in the Region. The structure such as what was constructed by the Ayuba, a Moorish trader, who happened to travel extensively across the Sahara in the 14th Century, has provided a huge service to Islamic religion and tourism in Ghana. In 1421, the Islamic trader happened to spend a night in the village of Larabanga and in a dream, he received an instruction from Allah to construct a mosque in the village. When he awoke, according to the report, the foundations of the structure had already been established for him to build upon it. The method of construction was a traditional Sudanic-Sahelian model, using mud and reeds; The sides of the building had separate entrances for men and women. There was a separate entrance for the Larabanga Chief and yet another for the Muezzin who calls the community to prayer.

The last major renovation work on the structure was in 1997 to make it more attractive for tourism purposes. Today, perhaps because of the mistakes of the 20th century, the mosque is largely maintained by the local

community. They still worship in the ancient building, but they also reap the profits of many tourists who come to visit the holy site.

(Kwofie *et al.*, 2011) write on Historical Overview of Housing Provision in the pre and post-independence Ghana. The study argues that since creation, housing has been considered as one of the essential needs of humanity alongside food, water and clothing. However, it has never been easy for certain states and governments to provide interventions that could help close housing gaps in many developing countries. Those interventions span several centuries from individuals, community, self-help, corporate organizations, NGOs to states. It is believed that housing provision started right from the Paleolithic era with interventions such as caves, tents, nomadic artefacts, traditional mud houses, wooden houses etc. In Ghana, for instance, the early settlers were the Denkyira and the Adansi; from which a majority of the remaining Akan groups originated. The Akan word "adansi" is a two syllabic words "adan" meaning houses, whiles "si" means build. Adansi is therefore believed to refer to the early Akan group who introduced housing into the country. This assertion is supported by Nyarko (2018) who argues that the Adansi are believed to be the first Akan group to use mud to build houses, thus their name which means the builders.

(Kwofie *et al.*, 2011) are of the view that the efforts to meet Ghana's housing challenges have been prejudiced by the nature of the requirement, ethnicity and geographical considerations, location, colonial impact and policy direction at a given time. There have been some efforts, anyway, but (Kwofie *et al.*, 2011) \argue that those efforts have been inconsistent and often fall short of the demand. This has culminated into several developmental problems such as high unaffordable rent, development of slums, ghettos, teenage pregnancy, as well as huge housing deficits that will take sustained efforts over long periods to correct.

Historically, housing provision in Ghana has evolved through several paradigms as well as fragmented and unsustainable interventions due to several factors. In Ghana, the intervention in housing challenges started right before independence as Governor Guggisberg saw closing of the housing gap as an intrinsic aspect of the economic development of the country. Nyarko (2018)

### Infrastructure Frameworks

(ILO, 2017) The African Union Program for Infrastructure Development in Africa (PIDA 2012) is an ambitious strategic plan with the key objective to ensure interconnection, integration and transformation of the continent. The document indicates how the African Union places importance on integration, socioeconomic development and cooperation as the second pillar of its 2009–2012 strategic plan. According to the document, the African Union believes that delivering on this pillar requires an extensive regional infrastructure program. For this purpose, the organization sought to forge a

strategic partnership with the United Nations Economic Commission, African Development Bank and the NEPAD Planning and Coordinating Agency to ensure that there is sufficient infrastructure development in Africa. The initiative is based on regional projects and programs, and it is believed to help address the infrastructure deficits in African states and their impacts that severely hamper Africa's competitiveness in the world market. The framework seeks to provide a common understanding for African stakeholders to ensure that there is the availability of the required infrastructure for more integrated transport, energy, ICT, and transboundary water networks aimed at boosting trade, sparking growth and create jobs for Africa's current and future generations.

The proposed project was estimated to be USD360 billion as the long term capital cost for the implementation of the project through 2012 to 2040. Energy and transport projects of the program represented around 95% of the total cost, demonstrating the critical need for

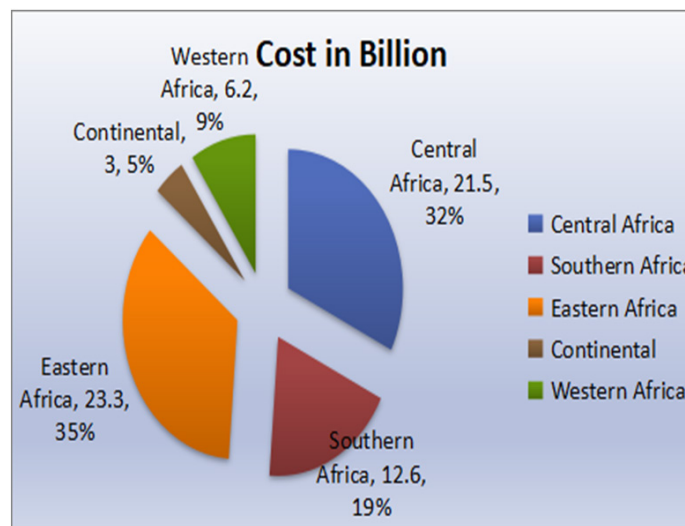
transformative investments in these sectors to support African trade, promote growth and create jobs. Using the PIDA study's macroeconomic projections on growth and demand, the priority action plan was developed around the set of vision statements and objectives which was in alignment with Africa's long-term continental and regional strategies. The document provides different visions for each segment to ensure performance.

**The Vision for Energy**

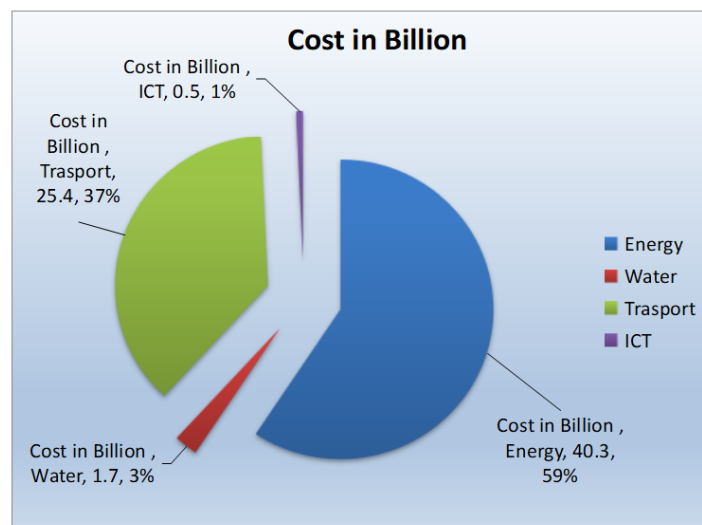
Ensure development; efficiency; reliability, cost effectiveness and environmental friendliness. The vision for transport seeks to work towards an integrated continent where the transport infrastructure and services enable the free movement of goods and passengers.

**The Vision for Water**

Seeks to promote integrated water resource management to develop trans-boundary water infrastructure projects,



**Figure 1:** Distribution Cost of Infrastructure by Region.  
 Source: *The African Union Program for Infrastructure Development in Africa (PIDA 2012).*



**Figure 2:** Distribution cost of Infrastructure by Sector  
 Source: *The African Union Program for Infrastructure Development in Africa (PIDA 2012).*

strengthen trans-boundary management frameworks for regional integration and ensure water security for the socioeconomic development of Africa.

Finally, the vision for ICT seek to enable Africa to build an information society and an integrated digital economy in which every government, business and citizen has access to reliable and affordable ICT networks.

Though the total estimated cost of the project between 2012 and 2040 was USD360b, the first section which was earmarked to be completed in 2020 was estimated to be USD67.9 Billion. Below is the graphical distribution per Region:

### **Ghana's Policies, Strategies and the Established Statutory Funds**

Due to the focus of the study, and the fact that the document is broad in nature, the research narrows down on some specific aspects of infrastructure; specifically building and road infrastructure. A number of draft policies have been established with the aim of enhancing access to decent housing facilities as well as closing the national housing infrastructure gap that confronts the country. A few key interventions were provided directly by almost all the governments and, in some cases, loans were given to Ghanaian workers for building their own houses, or providing some subsidies to the State Housing Company Ltd., Tema Development Corporation and the Department of Rural Housing to build for the Ghanaian public. Few examples include roof and wall protection loan schemes; supply of building materials; construction of low cost houses; government estate houses; and rural housing cooperatives. Such interventions have been the focus of national housing policies until the rollout of the recent one unveiled in 2015. The most notable one was the 1986 National Housing Policy and action plan which spanned between 1987 and 1990.

Another notable intervention was the National Shelter Strategy introduced in 1992 known to have been developed with the support of UN-HABITAT; nonetheless, this intervention stalled as a result of lack of stakeholder support (National Housing Policy, 2015; Habitat, 2011) and the fact that the housing infrastructure policy also faced with lack of political will to sustain the. (NHP 2015).

A recent housing policy has been unveiled by the Ministry of Water Resources, Works and Housing (MWRWH) on behalf of the government of Ghana titled "the National Housing Policy, 2015" with the aim of ensuring the participation of key stakeholders in decision making in relation to housing development allocation in their communities. One of the key strategies associated with the intervention is the deliberate attempt to use such interventions to promote indigenous ownership of infrastructure projects in Ghana to enhance employment generation.

### **Public-Private Partnership (PPP) Strategies**

The Ghana Government developed its PPP policy in

the year 2011. The World Bank provided support in the organization of the said legal framework including administration and management system aimed at enhancing performance in the implementation of the Policy. The World Bank also provided capacity building for the key institution responsible for the adaptation of the PPP policy a strategy to ensure the effective delivery of public goods. An amount of Thirty Million US Dollars (US\$30m) was spent between 2012 and 2016 (MoF, 2013). The government's support and interventions in PPP arrangements include the establishment of a Project Development Facility (PDF); the establishment of a Viable Gap Scheme for supporting PPP projects; and the establishment of an Infrastructure Finance Facility (IFF) in recognition of the need for supporting the long-term enhancement of local currency through the private sector partners of PPPs (MoF, 2013).

### **National Infrastructure Plan**

The ILO (2017) produced a document on Background Studies on Infrastructure Sector in Ghana. The study was consulted to the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. The aim was to harmonize the development of infrastructure projects in Ghana to help realize the long-term goal of the National Infrastructure Program (NIP). The plan, which was at the draft stage in 2017 has gone through the necessary processes which was coordinated by the National Development Planning Committee (NDPC), with the vision of providing world-class infrastructure: efficient, dependable, resilient, functional, accessible and inclusive, that could have the capacity to provide requisite support to help Ghana realize a growth in export as well as improving the quality of life of all the citizens. The infrastructure plan, is designed to span a period of 40 years (2018-2057), and is expected to be implemented as an integral part of the national development plan.

The PPP approach was the key concept for the National Infrastructure Program the private sector leads the way for the execution of the Ghanaian infrastructure plan through skill development. This includes enhanced equipment, capacity, and local production of a range of construction-related supplies. There is a variety of and categories of infrastructure considered in the study. They include the following: energy; transport; water; human settlements; ICT; Institutional Development and Logistics related infrastructure.

The said PPP policy was expected to ensure a coordinated and sequential provision of key infrastructure in the country in line with the sustainable agenda as it's basis.

### **Ghana Infrastructure Investment Fund**

(GIIF Act, 2014): The document containing the Ghana Infrastructure Investment Fund (GIIF) Act, 2014 (Act 877), the Act was established by the state with the objective to create a fund owned by Ghana to ensure mobilization of Funds, managed and coordinated to ensure the availability of financial resources for investment in a diversified

portfolio of infrastructure projects in the country for the sustainability of the state and other related matters.

To make the objective operational, the Government of Ghana passed the Ghana Infrastructure Intervention Fund Act, 2014 (Act 877) with a seed amount of US\$250 million. The Government of Ghana as part of ensuring equitability in accessing the fund established a standard qualification for the fund which covers energy; transportation; telecommunications, ICT and media; agribusiness; heavy industry; oil and gas; education; administration and security; water/waste services; social housing; sports and cultural centers; municipal and local government facilities.

In pursuance of this objective, the fund is to ensure that the investments will engender the development of skills in infrastructure development comprising project management, financing and investment. Funding for this program is expected to emanate from both domestic and international sources.

### Infrastructure Deficit

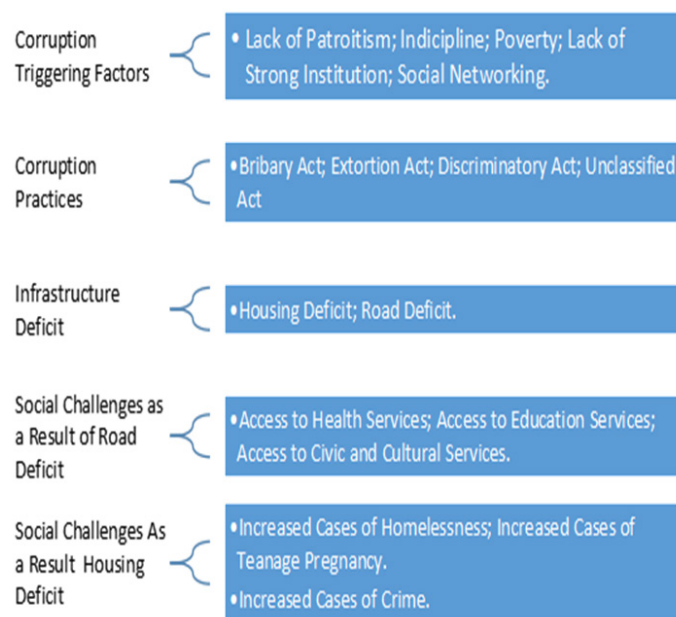
Gaal & Afrah, (2017) writes on Lack of Infrastructure: the Impact on Economic Development: A Case of Benadir Region and Hir-shabelle in Somalia. The Academic Professor argues that lack of infrastructure is a key element of poverty. He emphasizes that infrastructure acts as a promoter of development and that interventions aimed at improving the human, social, financial, and natural assets could have both positive and negative impacts on both economic and social sectors respectively. The study indicates that without an infrastructure like road, the resulting effect is that farmers in the hinterlands are unable to sell their output on the market. He further argues that electricity is the source of employment as it supports industrialization. He therefore agrees with Pouliquen (2000) who indicates that in a

country like Costa Rica, a retrospective review of the rural electrification experience through electrification cooperatives indicates that for one of these cooperatives, the number of major businesses jumped from 15 to 86 after electrification.

Sherraden S. (2011) argues that for one to say that there is an infrastructure deficit, there should be some level of road congestion, antiquated air traffic systems, clogged ports, etc. as evidence or manifestations. The deficit according to the Researcher has the potential to undermine the economic efficiency of the country including lowering the quality of life. Per the above definition, an infrastructure deficit is considered as the infrastructure state of a country that is less than what is required or expected to meet the infrastructure needs of the country. Sheridan's argument indicates that the decades of lack of seriousness in investing sufficiently in infrastructure on the part of successive governments is the reason for tailbacks in the infrastructure base of the country.

Bueno. (2017) writes on "Infrastructure Gap: What Does It Mean for Public Policy Makers?" The study creates the impression that the determination of the strategic infrastructure direction of every country is hinged on the leadership's ability to ascertain and or establish the infrastructure gap of the country. Bueno reiterates that this, in furtherance, could help establish the current need for investments at all levels, and he emphasizes that the determination of infrastructure deficit or gap is an important indicator for state officials and public authorities to enhance strategic infrastructure planning.

The United Nations' 2020 Report on Population estimates Africa's population as 1,332,629,212 with only 34 percent having road access. This argument is buttressed by Fleshman, (2009), that the African economy and development are being hampered by a lack of modern



**Figure 3:** Relationship Among Corruption, Infrastructure and Social Challenges.  
*Source: Developed by the Researcher.*

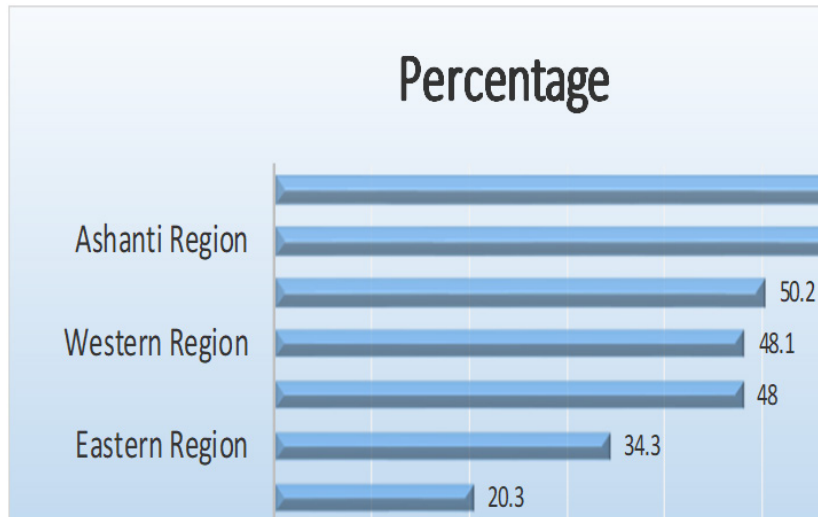
road infrastructure. McKinsey (2010) of Global Institute is of the view that the global demand for funding for Africa's infrastructure will reach \$57 trillion by 2030, an issue that could only be resolved with a crystalline lens, he reiterated.

**Infrastructure Deficit and the Key Ripple Effects Social Challenges as a Result of Road Deficit**

The 2020 World Bank Report on Ghana's Poverty Assessment . The document concentrates on poverty rate,

poverty gap, severity of poverty impacts and inequality levels between 1991 and 2016. The study pays a critical attention to the key pathways for accelerating poverty reduction which, according to the study, has to do with job creation, human and physical capital development as well as higher agriculture productivity.

Figure 4 below is one of the key statistical presentations provided by the study to explain the percentage of Ghana's children under age five (5) according to the respective



**Figure 4:** Percentage of Children Under Age Five (5) whose Developments are on Track by Region in Ghana as at 2017 to 2018.

Source: The 2020 World Bank Report on Ghana Poverty Assessment

Regions whose development was tracked in 2017 and 2018. It demonstrates that only four (4) percent of the total children of Senior Secondary School going age were enrolled in Senior Secondary School in the Upper West region of Ghana. The Upper-East had 17.4% enrolled, Volta Region 20.3 and Eastern 34.3 total enrollments.

The study indicates that Ghanaians in the Regions classified as poor Regions are disadvantaged as a result of limited provision of public services and infrastructure i.e. access to market road networks and electricity. It recommends the need for investment in infrastructure, which according to the study, would foster increased opportunity, jobs creation and improve productivity and competitiveness of the Regions. The study buttresses the argument that poverty reduction effort hinges strongly on infrastructure provisions such as road networks and energy. Availability of roads in the poorest Region will help close poverty gaps as agriculture products will be easily transported to market with a reduced travel time and cost.

In another development, the inequality in the distribution of energy is so huge that something has be done about it. The study indicates that 94% of urban settlers such as those in Accra and other larger cities have access to electricity whiles more than half of the households in the poorest Regions have no access to electricity.

**Social Challenges as a Result of Housing Deficit**

Coit, (2001) defines a social challenge or social problem as conditions that disrupt or damage society, such as crime, racism, and the like. "Social challenge is a series of situations considered as social problems". According to Kelly (2004), a social issue or challenge is an issue that has been recognized by society as a problem that is preventing society from functioning at an optimal level. These include lack of access to healthcare, education, civic and cultural services, increased homelessness, cases of teenage pregnancy, etc.

In contrast, however, other ideological schools, such as the Constructionists argue that some conditions ought to be viewed as a social problem, depending on how they are socially construed. The Constructionists argue that social problems' processes begin with claims-makers who make claims that some condition ought to be considered a problem, and that the problem should be understood in particular ways, and that it would need to be addressed. Kelly (2004) argues that a social problem should be constructed and reconstructed by the media, the general public, policymakers so that those who implement the policy, as well as critics, can assess the effectiveness of the policy.

**Increased Cases of Homelessness**

(Crushell *et. al.* 2019) write on the Impact of Homelessness

and Inadequate Housing on Children's Health. The research paper is a position paper by the Faculties of Public Health Medicine and Pediatrics, Royal College of Physicians of Ireland.

The research paper indicates that "Inadequate housing" covers a wide range of issues, including homelessness, overcrowding, insecure tenancies and housing that is in poor physical condition; and provided a distinction between family homelessness and hiding. The Researchers argue that family homelessness refers to i.e. family(s) or parent/s with one or more dependent children, who have been presented to a local authority as homeless and have been found to be so by the local authority. This is based on the Housing Act (1988) and such family members are normally transitory and are placed in accommodation such as hotels or family hubs. Morrin H & O'Donoghue Hynes B (2018)

On the hidden homelessness, the study indicates that it is a broader concept and it covers those who live in inadequate or unsafe housing facilities such as mobile homes, caravans and those with insecure tenancies. Based on the Housing Act (1988), the hidden homelessness covers those who stay with families and or friends on a temporary basis and also those who are couch-surfing.

The causes of family homelessness are generally different to the causes of homelessness among lone adults. Although the reality is more complex, lone adult homelessness is often associated in public discourse with people with mental health or addiction problems, or with young people who become homeless once they leave State care. The study defines family homelessness as the situation in which there is difficulty in accessing affordable housing in the context of the ending of a previous tenancy agreement. And these are mostly as the result of relationship breakdown, domestic violence, being a migrant, a young parent, living in a family of more than three children or having a parent or child with a disability without a suitable home. Such situations have the potential to increase the risk of homelessness. A report by Thelwell (2020) indicates that over 100,000 of the total population of 30.4 million Ghanaians are homeless every given night and that over 39% of Ghana's urban population lives in slums, representing 5.5 million people with poor households and domestic violence as the higher risk identified for homelessness in Ghana.

### **Increased Cases of Teenage Pregnancy**

Ziblim (2019) writes on "So Many Teen Mothers in My Village": Factors Contributing to Teenage Pregnancy in West Mamprusi District in Ghana" The Researcher establishes that one of the key predictors of teenage pregnancy is poverty and that the pregnancy is as a result of their parents' inability to provide their basic needs which include water, food, clothing and shelter. This position buttresses the early position of Gobena (2015) who also argues that the last factor to be discussed is family related factors that include the economic status of parents/guardians. The findings tell how all meaningful Ghanaians should work together to minimize the impact by attacking the root cause of the infrastructure deficit gap in Ghana.

### **Increased Cases of Crime**

Duncan (2005) writes on the Case of Inadequate Housing in Latin America and the Caribbean. The study concentrates on the effects of inadequate housing. The study agrees that the housing deficit in Latin America and the Caribbean affects more people in urban areas, but the impact is worse in rural settlements. Duncan has the view that on top of the lack of basic infrastructure and services such as water, sewerage and garbage management, citizens in informal settlements end up enduring high crime rates, drug abuse and trafficking as well as an increase in organized crime cases Coit (2001). Coit's research also finds out that the cost of purchasing services including water and electricity is pointedly higher than the cost in the formal sector. The resultant effect is increased poverty in settlement areas, he reiterates.

### **METHODOLOGY**

The study adopts a combination of secondary data source and a desk study (review of relevant studies). Data was analyzed from the key institutions both locally and internationally, including a desk study drawn from key researchers. The study targeted institutions and individuals who deal with public perception and assessment of the corruption situation both in Ghana and abroad. The researchers made reference to both the rules-based and principles-based literature on the study variables; reviewing some government policies related to infrastructure and social challenges and Paid critical consideration to the following:

- 1) Understanding the historical contexts of both infrastructure and social challenges,
- 2) Understanding the key infrastructure frameworks,
- 3) The link between infrastructure deficit and social challenges.

The study ensures that there is some level of quality control measures in place aimed at strengthening the methodology, including strict data interpretation procedures.

### **RESULTS AND DISCUSSIONS**

African's lack of intercontinental and intracontinental trade integration is as a result of poor infrastructure. Giovane Biha has said it all in her speech at the official opening of the 23rd Session of the Intergovernmental Committee of Experts, on the subject: "Trade Facilitation in Southern Africa: Bridging the Infrastructure Gap". The Deputy Executive Secretary of the Economic Commission for Africa (ECA) argues that infrastructure deficit remains the key challenge to trade facilitation, intraregional trade as well as economic development and transformation in Africa. She explains that Africa needs approximately \$93 billion annually as the total financial requirement to close the gap. This is a huge total funding requirement for the closing of Africa's infrastructure gaps which is clearly a sizeable amount. McKinsey (2010) of Global Institute projects \$57 trillion by 2030 to solve infrastructure gaps. (PIDA 2012) also estimates a total of \$360 billion as a long-term capital cost for the implementation of infrastructure projects through 2012 to 2040 to close the gaps. Key projects

include energy and transport program representing around 95% of the total cost.

Lack of infrastructure investment has contributed to infrastructure deficit among African States. Deloitte (2018) reports on addressing Africa's Infrastructure Challenges. The paper argues that without infrastructure, Africa will not be able to achieve its required economic growth levels. Ghana for instance should consider a railway network from Accra to Paga, Accra to Elibo and Accra to Dambai as the initial solution to transportation of goods that includes agriculture or farm products as well as other goods from production and manufacturing. This is because, currently, transportation of all goods has been hinged on the inadequate roads and highways; increasing the level of individual and national carbon footprints through burning huge amounts of fossil fuel which in a nutshell contributes to ozone depreciation with ripple effects on the general population.

Lack of social infrastructure in Ghana has contributed to slow rate of economic growth in the county. The World Bank 2020 report on Ghana Assessment indicates that Ghanaians in the poor Regions are disadvantaged as a result of limited provisions of public services and infrastructure, given that access to market road networks and electricity is critical. As such, provision of such infrastructure could help increase business opportunities, job creation and improve productivity and competitiveness within the Regions. Buttressing other arguments, it is observed that the negative impacts may include poverty reduction which is hinged to road networks, energy and housing. Road network because transportation of goods and services depend on road network that could facilitate the transportation of farmers' farm products which are usually stacked in the hinterlands. It would also aid transportation of goods including raw materials to markets and other related supplies from south, west and north to other parts of the country. The inadequate infrastructure and the associated challenges on roads have the tendency to increase the cost of commodities, negatively, impacting on the consumers' basket as most often, directly or indirectly the high cost of transporting goods translates into higher cost of goods. The statement is in support of the earlier argument by Fleshman, F, that Africa's economy and development are being hampered by a lack of modern road infrastructure and that it is the key element of poverty. Over 100,000 Ghanaians are homeless every given night and there are increased cases of teenage pregnancy in most urban settings as the result of parents' inability to provide basic needs like shelter. The finding that over 100,000 Ghanaians are homeless every given night is in total agreement with the Global Statistical report by UN (2020) which indicates that there is an estimated 100m people homeless worldwide. Habitat (2015). Also, increased cases of teenage pregnancy in most urban settings are as the result of parents' inability to provide basic needs like shelter: The Habitat (2015) Report indicates that Households in Ghana are often overcrowded, a situation where between 10 and 20 people could share a room in some settings in Ghana. (Thompson *et al.* 2008) asserts that Homeless youth are at

particularly high risk for teenage pregnancy and that 20% of homeless young women become pregnant. This assertion tells how vulnerable young women and girls in the crowded homes and mostly homeless situations find themselves and the ripple effect it generates to the community.

## CONCLUSION

The lack of intercontinental and intracontinental trade integration in Africa is the result of underdevelopment in the area of poor infrastructure. The Ghanaian economy is bedeviled with deficits at both the economic and infrastructure levels. 25% of the rural population in Ghana has access to road, while in Africa, 34% of the total population has access to road. The lack of infrastructure investment has contributed to the infrastructure deficit in Africa. A total of hundred thousand Ghanaians are homeless resulting to increased cases of teenage pregnancy. Researchers including Deichmann, and Wheeler suggest that Africa's lack of intercontinental and intracontinental trade integration is as a result of poor infrastructure. The World Bank suggests that Ghana has 239sq/km of road. Africa lacks infrastructure investments, a problem that leads to African countries' inability to keep pace with the growing demand and increasing deficit gap. This is why Sherraden, S. (2011) had the view that it is the decades of lack of seriousness in investing sufficiently in infrastructure on the parts of successive governments has been responsible for the tailbacks in the infrastructure base of the country.

## RECOMMENDATIONS

- A systematic approach such as coordination of actions, priority setting and serious monitoring of mobilization of resources, agreeing on contribution levels for each African State, and ensuring close monitoring, implementation and performance, are recommended to bridge the gap.
- Key infrastructure that should be tackled should include housing, road and railways to make trade facilitation in African states easy.
- An introduction of a strong "Infrastructure planning and investment" fund. This is critical to the handling of Africa's huge economic and developmental gaps. This is key to helping the continent realize its economic potential. Africa's economic growth and development are inherently linked to its infrastructure base. Railway network such as the Ethiopian model should be the ideal for Africa's continental development.
- Creation of sustainable jobs for the citizens. Education and awareness creation on causes of teenage pregnancy and its negative effects on the current and future generations; policy generation and implementation to minimize birth rate in the country and policy generation for housing support for the poor are among the key recommendations to manage the identified social challenges.

## REFERENCES

- Adam. H. (2017). *Larabanga Mosque, Larabanga, Ghana: The first mosque in Ghana is known as the "Mecca of West Africa*. Retrieved from <https://www.atlasobscura.com/>

- places/larabanga-mosque
- Bueno, W. (2017). *Infrastructure Gap What does it mean for public policy makers?* Retrieved from <https://www.linkedin.com/pulse/infrastructure-gap-what-does-mean-public-policy-willian-bueno-e-silva>
- Buyts P., Deichmann U., Wheeler D. 2006. *Road Network Upgrading and Overland Trade Expansion in Sub-Saharan Africa*. World Bank Policy Research Working Paper No. 4097. Washington, DC: The World Bank.
- Coit, K. (2001). The other face of informality and illegality. *N-AERUS Workshop: "Coping with Informality and Illegality in Human Settlements in Developing Cities"*, Belgio.
- Crushell et al. (2019). *The Impact of Homelessness and Inadequate Housing on Children's Health* [The Faculty of Pediatrics is the national training and professional body for pediatricians in Ireland]. <https://rcpi-live-cdn.s3.amazonaws.com/wp-content/uploads/2019/11/Impact-of-Homelessness-full-position-paper-final.pdf>
- Deloitte. (2018). *Addressing Africa's Infrastructure Challenges*. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Energy-and-Resources/dttl-er-power-addressing-africas-infrastructure-challenges.pdf>
- Duncan, J. (2005). *Causes of inadequate housing in Latin America and the Caribbean. Habitat for Humanity, Latin America and Caribbean*. Retrieved from [https://www.habitat.org/lc/lac/pdf/causes\\_of\\_inadequate\\_housing\\_in\\_lac.pdf](https://www.habitat.org/lc/lac/pdf/causes_of_inadequate_housing_in_lac.pdf)
- Dupuy, G., van Schaick, J., & Klaasen, I. T. (2008). *Urban networks: Network urbanism*, 7. Techne press Amsterdam.
- Electronic Irish Statute. (1988). *Housing Act* [Data set]. Office of the Attorney General. <https://www.irishstatutebook.ie/eli/1988/act/28/enacted/en/html>
- Frischman, B. (2005). An Economic Theory of Infrastructure and Commons Management. *Minnesota Law Review*, 89, 917-+.
- Gaal, H. O., & Afrah, N. A. (2017). Lack of Infrastructure: The Impact on Economic Development as a case of Benadir region and Hir-shabelle, Somalia. *Developing Country Studies*, 7(1).
- Gobena, G. A. (2015). Family socio-economic status effect on students' academic achievement at college of education and behavioral sciences, Haramaya University, Eastern Ethiopia. *Journal of Teacher Education and Educators*, 7(3), 207-222.
- Goldin, I. (2019). Why do some countries develop and others not. *Development in Turbulent Times*, 13.
- Graham, S. (2001). *Splintering Urbanism*. University of Durham, UK.
- Habitat. (2015). Habitat III: Third United Nations Conference on Housing and Sustainable Urban Development. *Journal of Education for Sustainable Development*, 9(2), 125-125.
- ILO. (2017a). *Background Studies on Infrastructure Sector in Ghana* [Directorate of Research Innovation and Consultancy University of Cape Coast]. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_673143.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_673143.pdf)
- ILO. (2017b). *Background Studies on Infrastructure Sector in Ghana* [Directorate of Research Innovation and Consultancy University of Cape Coast]. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_673143.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_673143.pdf)
- Jordan, S. R. (2007). *The public interest in public administration: An investigation of the communicative foundations of the public interest standard* [PhD Thesis]. Texas A&M University.
- Kwofie, T.E., Adinyira, E. and Botchway, E. (2011) Historical overview of housing provision in pre and post independence Ghana In: Laryea, S., Leiringer, R. and Hughes, W. (Eds) *Procs West Africa Built Environment Research (WABER) Conference*, 19-21 July 2011, Accra, Ghana, 541-557.
- Mafusire, A., Brixiova, Z., Anyanwu, J., & Meng, Q. (2017). "Twelve: Infrastructure deficit and opportunities in Africa". In *Infrastructure in Africa*. Bristol, UK: Policy Press. Retrieved Aug 19, 2023, from <https://doi.org/10.51952/9781447326656.ch012>
- Morrin H & O'Donoghue Hynes B. (2018). *Family report: Analysis of the newly homeless families accommodated in the Dublin Region's homeless services in 2017*. Dublin Region Homeless Executive. <https://www.homelessdublin.ie/content/files/Final-Launch-Family-Report-June-2018-print-version-2.pdf>
- Nijkamp, P. (2000). *Infrastructure and suprastructure in regional competition: A deus ex machina?* Springer.
- Nyarko, J. (2018). History of The Abuakwa of Akyem, Ghana. <https://doi.org/10.13140/RG.2.2.34006.11849>
- Pouliquen, L. (2000). *Infrastructure and poverty*. Background Paper to the World Bank's, 2001.
- Sahoo, P., & Dash, R. K. (2012). Economic growth in South Asia: Role of infrastructure. *The Journal of International Trade & Economic Development*, 21(2), 217-252.
- Sherraden, S. (2011). *The Infrastructure Deficit Policy Paper*. Published by the New America. 740 15th Street NW, Suite 900, Washington, DC. <https://www.newamerica.org/economic-growth/policy-papers/the-infrastructure>
- Thelwell, K. (2020, September 17). *5 Facts About Homelessness in Ghana*. The Borgen Project. Retrieved from <https://borgenproject.org/homelessness-in-ghana/>
- Thompson, S. J., Bender, K. A., Lewis, C. M., & Watkins, R. (2008). Runaway and pregnant: Risk factors associated with pregnancy in a national sample of runaway/homeless female adolescents. *Journal of Adolescent Health*, 43(2), 125-132.
- Toro, B. (2016). *The Pax Asyriaca: An example of historical evolution of civilisations* [PhD Thesis]. University of Birmingham.
- UN. (2020). *Affordable Housing, Inclusive Economic Policies Key to Ending Homelessness, Speakers Say as Social Development Commission Begins Annual Session*. Meetings Coverage and Press Releases. Retrieved from <https://press.un.org/en/2020/soc4884.doc.htm>
- Ziblim, S. (2017). So Many Teen Mothers in My Village?: Factors Contributing to Teenage Pregnancy in West Mamprusi District in Ghana. *Journal of Humanities and Social Studies*, 3.