

# **The Effects of Poor Settlement Layouts and Rapid Population Growth in Ghana(11931). EYESON Ronald Papa Kobina, Ghana.**

**Keywords:** Informal settlements, Land management, Young surveyor

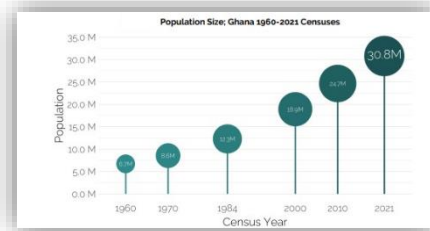
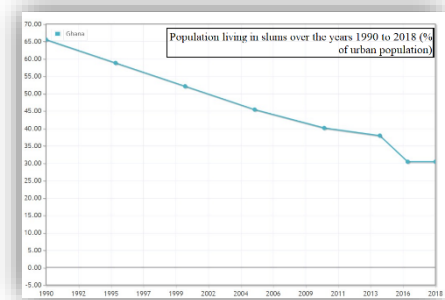
## **Summary:**

This study focused on the causes, effects and recommendations of land management in Ghana-informal settlements. It analyzed how land can be effectively managed, challenges of land management, legal and institutional arrangements backing management of land, and the effects of poor settlement layouts. It was found that most conditions in areas had deteriorated, leading to poor sanitation, substandard housing, lack of basic services and facilities, and low generating income activities. The institutions in charge of managing land face a lot of challenges in undertaking their duties, such as political influence, delay in the release of funds, failure in reviewing plans and inadequate logistics, land litigation and disputes. Efficient land administration in urban areas could promote development of communities and enhance socioeconomic growth.

## **INTRODUCTION**

Land is a basic natural resource on which man depends for survival. However, according to Verheye (1997), population density of the world has increased due to factors such as unplanned settlements, improper management and high population pressure on the previously reserved lands. A settlement can be either formal or informal, where formal settlement is an urban area that is complex and interrelated with others which have access to basic services, infrastructure and mostly having good quality housing and their physical surroundings are very congenial for living purposes (UN-HABITAT). According to United Nations Human Settlements Programme (UN-HABITAT), an informal settlement or a slum as a contiguous settlement where the inhabitants are characterized as having insecure residential status, poor structural quality of housing, inadequate access to sanitation and other basic infrastructure. Population pressure in Africa emerges not only from procreation but also from urbanization. African governments live in cities and, not surprisingly, their policies mostly favours the cities, hence causes the enlargement of the urban populations and city sizes in Africa (Timberlake, 1991). Rapid urbanization in Africa is intertwined with certain peculiar problems. Carter (1981) outlined the problems of urbanization as alienation, traffic congestion, pollution, vulnerability and slum growth or informal settlements. According to Srivinas ad Todaro, Informal settlements (also referred to as a shanty town or squatter settlement) is explained as residential buildings built on “planned” and “unplanned” areas which do not have formal planning approval. Hence, they are characterized mostly by the low quality houses and the lack of, or inadequate infrastructure and social services. Informal settlements have been perceived both as a problem and solution to housing needs in speedily growing cities of many developing countries. Currently, it is estimated that more than 50% of Ghana’s population of over 24

million now live in urban areas (GSS 2010). According to UN Habitat (2008), this is up from 8% in 1921; 12.8% in 1948; 23.1% in 1960 and 43.8% in 2000. The four (4) most urbanized cities alone in Ghana, out of a total of 364 urban centres in 2000 account for over 50% of the total national urban population (NDPC, 2005). Ghana is also the 68<sup>th</sup> As a result of rapid urbanization coupled with increasing population growth rate, there is increase in demand for land for developments. The value of land therefore continues to rise, the urban poor who happens to be the majority of the urban population therefore find it difficult to acquire land legally, and they rely on how to get access to urban land illegally and try to put up some structure needed for their survival. There is an urgent need for efficient management of land in the face of an ever-increasing population and the growing demands in all activities based on land (Gyasi et al., 2006). Informal settlements cover issues such as illegal occupation of lands, houses built on lands not intended for that purpose, housing that do not have planning permission and houses that do not conform to the laid down building regulations of an area (UN Habitat, 2003; Fekade, 2000).



## BACKGROUND

The high rate of urbanization and fast growing population of cities have impacted on land management. The study analyzed how land can be effectively managed, challenges of land management and also the legal and institutional arrangements backing management of land and to come out with recommendation on how land can be managed effectively in Ghana. From the study, it was observed that, the conditions in most areas of Ghana had deteriorated considerably leading to poor sanitation, substandard of housing, lack of basic services and facilities and low generating income activities. It was further established that, the institutions in charge of managing land face a lot of challenges in undertaking their duties, some of the challenges are, political influence, delay in the release of funds, failure in reviewing plans and inadequate logistics, land litigation and disputes. Efficient land administration in urban areas could promote development of communities and enhance socioeconomic growth. Since the 1950s, the number of urban population living in informal settlements has continued to grow in the cities of developing countries (UN-Habitat 2003), these informal settlements have become serious problems to the Local and Metropolitan Authorities of the city and developing countries. For instance, the UN-Habitat in 2003 stated that 99.4% of urban dwellers in Ethiopia, 99.1% of urban dwellers in Chad and 98.5% of urban dwellers in Afghanistan were informal dwellers. (Carr, 1987), Nearly 5.35 million Ghanaians, which is about 37.9 percent of Ghana's total urban population live in slums, according to United Nation statistics. It is not surprising therefore that a recent survey conducted by the UN-Habitat in 2006 indicated that between 40 and 70% of urban dwellers in developing countries live in slums. Cumbersome processes

involved in land titling and registration contributes to haphazard development on the urban land. It also takes long time for building permits to be issued for newly acquired land. Moreover, urbanization is also a contributing factor to illegal settlement formation. They therefore make use of the marginal or less valuable urban lands such as riverbanks, steep slopes, dumping grounds, abandoned or unexploited plots, near industrial areas and market places, low lying areas, wet lands, among others. These sites normally do not cost the slum dwellers anything and they are able to secure them almost immediately as they arrive in the city. Unauthorised structures are a major problem in Accra, Kumasi, Takoradi, Tamale and in other large settlements in Ghana (AcquahHarrison, 2004).

Currently, physical planning situation in Ghana is not far from this statement. Indeed some of the liabilities of unauthorised structures including filthy environment, congested town centres, flooding, and traffic congestion with its resultant loss of productive time in traffic jams.

### **Rationale for the study**

The study aims to make people aware of the existence of institutional arrangements for land-use planning, the various challenges that have hindered land planning and management institutions, and the factors that have influenced people to put up unauthorised structures in urban areas of Ghana.

### **Definition of Informal settlements**

There are various definitions of informal settlements. Cities Alliance Action Plan describes informal settlements as neglected part of the urban cities where living and housing conditions are actually poor, and it ranges from high density, central city tenements to spontaneous squatter settlements without any legal backing. (Cities Alliance 1999. According to the UN HABITAT, slum is a contiguous settlement where the inhabitants are characterized by having inadequate housing units and basic services. A slum is mostly not recognized by public authorities as an integral part of the urban city. Different names are mostly given to informal settlements based on their form of development. For example, some are termed as spontaneous settlement because it developed due to the lack of central or local government finances and proper development control and also uncontrolled settlement is given to some informal settlements when it lacks proper registration and conformance to regulation. (UN HABITAT 1987). When we talk about informal settlements certain words come into mind such as “slums”, “squatters” and most at times “ghettos”. Slum is termed as highly congested urban area which are marked by unauthorized, deteriorated and insanitary buildings, poverty and disorganization. (Global Development Research Centre 2003). In summary, there are certain features or characteristics of informal settlements which are as follows: Lack of basic services, Poverty and social exclusion Low substandard of housing and Overcrowding and high density. These features convey a lot of negativity on the environment and also an avenue for social vices. From the above therefore, informal settlements or slums can be defined as an urban area or part of an urban settlement that lack access to basic services, highly dense and overcrowded with low substandard of housing and are mostly not backed by planning regulations or laws.

## **Types of Informal settlements**

There are many classifications of informal settlements according to different authors and scholars, United Nations Economic Commission for Europe (UNECE) in 2009 came out with broad classification of informal settlements and these include;

### **- SQUATTER SETTLEMENTS**

Squatter settlements are human settlements in urban areas that are caused by rapid urbanization and high rate of rural-urban migration. They lack water and sanitation, have low standard of housing, and face serious risks when terrain is insecure.

### **- ILLEGAL SUBDIVISION**

This sort of informal settlements where the land has been subdivided, rented or resold by its legal owner to people to build on it. It is normally based on unapproved land without the necessary requirement such as building permits. Unapproved informal settlements are illegal due to abuse of land use planning, low standard of services, breach land zoning, and lack of building regulation.

### **- SUBSTANDARD INNER-HOUSING**

In respect of the report of the United Nation Economic for Europe (UNECE) in 2009, this form of informal settlements is termed as part of the urban area which mostly have dilapidated housing units, overcrowded and highly densely populated. The area was developed and planned but has lost its uniqueness and attractiveness due to high influx of low income people into the area. Security of tenure is mostly not the problem but the quality of the housing units and the lack of access to basic services and infrastructure is the concern.

### **- SETTLEMENT FOR VULNERABLE GROUPS OF REFUGEES**

This is a form of informal settlements which usually emerges with the authority from the government as a temporary or permanent responses to crisis, it is mostly found within the urban centres, pockets of marginal land or close to refugee's camp. The living condition of these kind of settlements are very poor and face significant obstacles which prevent the dwellers to return home.

## **Causes and Effects of Informal settlements in Ghana**

Slums and informal settlements in developing countries are characterized by overcrowding, poor quality housing, insecure tenure statements, inadequate access to potable water, poor sanitation and lack of socio-economic infrastructure. They also have high rates of crime, unemployment, urban decay, drug addiction, mental illness, malnutrition, diseases and poverty. Causes of development of informal settlements in Ghana include:

- Abandoned projects by Government

Old Fadama is the largest informal settlement in the city of Accra, providing cheap, centrally located housing while still remaining close to core services. It was initially acquired by the Government of Ghana for the Korle Lagoon Ecological Restoration Project, but was abandoned

and the land remained undeveloped until the 1980s. Since then, the population has grown substantially, with the most recent data suggesting that nearly 80,000 people now live in the area. Not all housing is substandard, with better quality houses found in unplanned areas at more affordable prices than other areas in Accra.

- Socio-economic and policy implementation weaknesses create slums in the cities:

Slums are caused by social factors such as urban population growth through migration into the cities and natural increase. Migrants to the cities do not have any place to live and eventually find homes in the urban spaces such as areas liable to flood and swampy areas, public dump sites and reservations along rails and roads. High birth rates in the cities among the low income group push them into the slums where they can find some kind of social support. Economic factors such as looking for nonexistent jobs result in slums, as many migrants are engaged in unsustainable means of livelihood. They feed from the waste and pay little to survive, making the cost of living low.

- Natural disasters have contributed to the creation of slums

The flooding of Old Fadama and the Kwame Nkrumah Circle in May 2015 for instance caused many people to find shelter in public open spaces along rail lines and in recent times along the Tema motorway. This raises concerns about climate change issues that comes with unexpected flooding in many of the cities in Ghana particularly Accra and Sekondi Takoradi.

- Cultural practices contribute to creation of slums:

Cultural practices of some Ghanaians is to live close to relatives; Ghanaians live close to relatives, friends and families, resulting in in-filling of existing houses with extensions such as kiosks, metal containers and dwelling units built with cement blocks. This leads to the development of slums in approved settlements such as Chorkor and James Town.

- The country's inability to implement housing policies of previous governments:

The government tasked the Town and Country Planning Department to design the Korle Lagoon area for recreation in 1970, but it was not implemented, leading to the development of a slum. Previous social housing policies, such as giving loans to workers to build their own houses, subsidizing state agencies, and providing building materials, construction of low cost housing, were not implemented.

- Weak enforcement of policies:

The most important details are that existing policies that could have contributed to avoiding the creation of slums are not effectively implemented. These include environmental mainstreaming, the National Climate Change Policy, the Ghana National Urban Policy, Ghana National Spatial Development Framework, the National Health Policy, the National Youth Policy, Rural Development Policy, and all the MTDPs prepared by the MMDAs. If these policies are adequately implemented, the development of slums might reduce.

## EFFECTS OF INFORMAL SETTLEMENTS

The sprawling of inadequately controlled settlement advancements has brought about numerous natural and wellbeing related issues, uncontrolled settlement development is bringing on physical disorder, uneconomical land use, and excessive encroachment of settlements into good agricultural lands as well as, environmental degradation and pollution risk (Cole 1995). The most common effects of informal settlements include the following:

- Pressure on limited city facilities

As people move into the urban areas to seek for greener pastures they tend to put up their own form of housing unit because of the high rent of housing around advantageous areas because of the facilities in these areas. Sooner than later the facilities and services within these areas are over-stretched and become inadequate to serve the increased population due to the immigration of rural poor to these areas. Typical stations include Asawase and Aboabo:

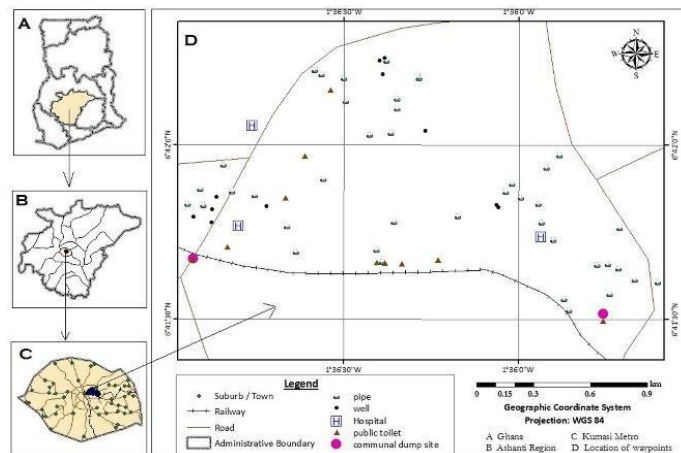
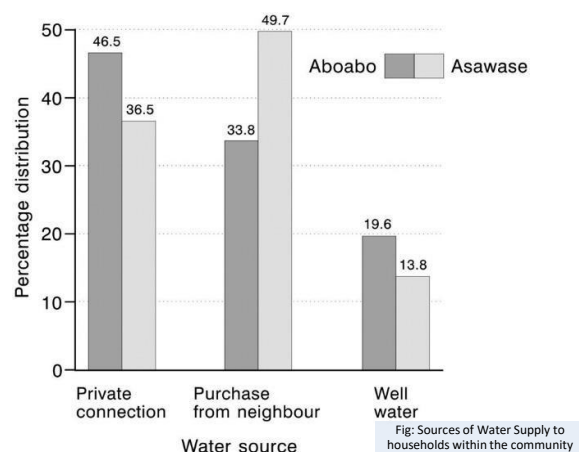


Fig: Map of the study area showing location of water and sanitation facilities

The study areas of Asawase and Aboabo, the two largest communities in the Asawase constituency, are located in the centre of Kumasi. Their populations number 46,315 and 34,206, respectively, with a growth rate of 5.47 per cent per annum, and the population density for both communities is 6,224 per square kilometer. The constituency's location in the Kumasi metropolis has made it a preferred destination for migrants, especially from the northern part of Ghana. The settlements are characterized by high poverty levels, high rates of illiteracy, high unemployment levels, poor housing, lack of access to quality health care and to transportation, relatively low incomes, poor environmental sanitation, overcrowded housing, an unhealthy environment and the generation of large volumes of municipal solid waste that must be managed daily. There is indiscriminate garbage disposal, low waste collection coverage and a lack of suitable treatment and disposal facilities for the generated waste. Other characteristics of these areas include poor drainage



systems, improper control of livestock, poor toilet facilities and unauthorized building extensions. The few poorly maintained drainage systems have either collapsed or are choked with refuse due to irresponsible human activities. This leads to water, land and air pollution, putting the residents at risk of major public health threats and environmental degradation. Pipe-borne water (piped connections to households or water purchased from neighbouring homes) formed the main source (80 per cent and 86 per cent in Aboabo and Asawase, respectively) of water supply for the two communities, with only 20 per cent and 14 per cent of households drawing water from well sources. The high number of households using pipeborne water is due to the extensive water supply network in the city, especially in the city centre where the study communities are located. Pipe-borne water coverage in the Kumasi metropolis is 83 per cent compared to the 80 per cent national average. Although most of the households used pipe-borne water, many were not legally connected to a private tap at the household level because of low income levels. Illegal tap connections by some residents pose a major challenge to the tracking of actual volumes of treated water distributed to these settlements by the municipal authorities. This causes a reduction in expected revenue and a subsequent increase in the cost of water provision to these settlements. Of the households that used well water, a high percentage (69 per cent and 44 per cent in Aboabo and Asawase, respectively) draw it from unprotected sources where it is either free or relatively cheap. Total improved water coverage from pipe-borne water and protected well sources was 94 per cent and 92 per cent for Aboabo and Asawase respectively.

#### - Flooding

The continuous construction of haphazard houses in water ways block many natural water ways leading to the frequent floods during the rainy seasons particularly in the months of June and July of every year. Soil erosion and landslides are strongly related to flooding which destroy houses as well as footpaths and unpaved roads (Ameyibor et al 2003). A high housing density, which most of the informal settlements are characterized with, makes natural seepage of storm water more difficult due to a high share of sealed land.

In May 2016, a typical flood incident occurred in Asawase, Kumasi. The town was flooded due to the blockages of drainage features by unauthorized structures as well as the non-existence of sufficient drainage systems, storm water created big puddles that consequently become breeding places for mosquitoes. Other effects also included loss of life and property.



Another incident occurred October, 2022 at the weija dam site: The Weija Dam, situated on the Densu River is operated by the Ghana Water Company. Prolonged heavy rainfall in the region caused levels of the dam to increase. Normal level is 46.5 feet (14.17 metres) , while maximum operating level is 48 feet (14.63 metres) . Over recent days the level jumped to 49.5 feet (15.09 metres), according to the Ghana Water Company. Four spill gates were opened to safeguard the integrity of the dam, save the dam from collapse and save lives and properties, the Company said. Homes of homes have been reportedly flooded and residents forced to evacuate areas of Ga South municipality, including Ashalaja, Weija, Oblogo and Tetegu. Local media reported an estimated 1,000 houses flooded and 1,500 people displaced. Disaster officials said around 25 residents were rescued after they became trapped in their homes and emergency teams.



On the other hand, the dam, which was constructed 40 years ago, supplies water to many parts of the Greater Accra Metropolitan Area. To offset the impacts of potential dam failure due to seismic activities, as well as accidental and planned water spillages, about 100 m of lands around the dam and 30 m of riparian lands around River Densu were reserved. Despite planning prohibitions, these reservations have largely been encroached by homebuilders and business operators. The affected households have attempted to mitigate the effects of flooding by elevating structures with stones and sandbags, strengthening walls, constructing drains and pumping water out during flooding events, but with little success. However, given the lack of political will to remove the unauthorized structures constructed within the buffers and reservations, the challenge now is to minimize flood vulnerabilities by flood-proofing buildings, improving drains and channelizing portions of the river within the township.

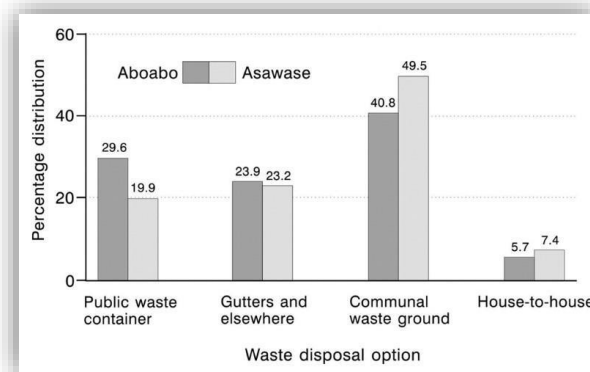


#### - Pollution



One major problem faced by slum dwellers is the lack of proper waste management systems, due to the lack of established collection points, leading to piles of garbage scattered within and around the area which create the health and environmental problems. As no centralized sewage system is available, liquid waste especially domestic waste and other industrial waste are also discharged haphazardly onsite. This practice creates unsightly scene in the environment and also pollutes the groundwater and other water bodies around. In general, as informal settlements are characterized by substandard housing, the beauty of the entire environment is distorted. A typical station is Asawase and Aboabo:

Fewer than half (about 42 per cent) of the households in both communities – including in family houses, rented apartments and privately owned homes – had access to on-plot toilet facilities in their homes. The absence of on-plot latrines in most rented apartments was because landlords had prevented their construction – spaces that could have been used for latrines were more commonly converted to rooms and rented out. Most households that resided in



family houses also saw no need to use their income to construct latrines as they believed this should be the responsibility of the property owner. The low incomes of most households also prevent them from having private latrines. Most on-plot latrines were shared between two or more households in family houses and rented apartments. Only 17 per cent and seven per cent of the on-plot latrines were being used by only one household. All shared sanitation facilities are considered unimproved, while those that are not shared are improved. The main types of on-site toilets used in the study communities included simple pit latrines (27 per cent and 28 per cent) and flush to septic tank latrines (12 per cent and 6 per cent), and ventilated improved pit latrines and bucket/pan latrines made up a small percentage (three per cent and eight per cent) for Aboabo and Asawase, respectively. Most residents in these communities use public toilets or resort to open defecation. The absence of bucket/pan latrines in Aboabo and the limited number in Asawase is due to their being phased out by city authorities because they have to be emptied by private, unlicensed nightsoil carriers, usually into drains, streams and nearby bushes. Unfortunately, in Kumasi, the sewer system serves just a small part of the city’s population, including the Kwame Nkrumah University of Science and Technology, Komfo Anokye teaching hospital and government bungalows in the Kyirapatre Estates. The two communities share 10 public toilets, each with about 14 squatholes, which serve 80,449 inhabitants (i.e. about 575 people per squathole) on a pay per use basis. Children are made to defecate in plastic containers, which are later emptied into the latrine. In households without access to private toilets, children’s faeces were disposed of in plastic bags along with household refuse (67.7 per cent and 72.9 per cent, respectively, in Aboabo and Asawase), in gutters and on open plots. The main waste collection methods used in the city are house-to-house (provided by Zoomlion Ghana Limited), communal waste container systems (skips) and the use of dump sites. The small number of households with a house-to-house waste collection is probably

related to the cost – residents are required to pay US\$ 3.25 before a filled solid waste container is emptied.

- Inaccessibility to Facilities:

The crowded nature of settlement areas deprives everyone most especially public services such as healthcare services like the ambulance service, waste management, transportation and fire operation services. According to GhanaWeb, a typical incident occurred on the 6<sup>th</sup> of July, 2014:

The service has underscored the need for developers to submit their building plans to the Fire Service for expert advice on the appropriate siting of their project to avoid obstructions. The Leading Fireman of the Komfo Anokye Fire Office told Ultimate Radio that in the event of fire outbreak, accessibility to fire scenes became very difficult as spaces earmarked for particular purposes have been developed. The concerns were raised after fire razed down a four-bedroom house at Kwadaso Estate in Kumasi. The occupants were rescued before any fatalities, but the



fire service was worried about poor layouts of buildings in the country. An eye witness also expressed concern about the improper settlement layout of structures as he empathized with the firemen who struggled before gaining access to the affected building. He also stated that the fire could have been put out early enough if the houses were properly arranged to allow easy accessibility. He feared that any other fire outbreaks in the many communities with such closely arranged settlements could be disastrous.

- Spread Of Diseases:

High population density is a frequently identified risk factor for infectious disease. Diseases showing increased prevalence or transmission in high population density urban environments include respiratory diseases, viral hemorrhagic fevers, malaria, and enteric diseases. Correspondingly, this places populations residing in specific high-density neighborhoods, and especially in informal settlements or slums, at an increased risk for infectious disease. Characteristics of the crowded environment can also be important risk factors for disease. Evidence exists suggesting that malaria risk in urban areas is higher in irregularly or sparsely built-up areas, and that high building or structure density reduces dengue risk. Poor quality housing was found to be a risk factor for certain respiratory diseases, malaria, and soil-transmitted helminths. More specifically, for malaria, there is evidence suggesting that the risk of malaria infection is lower among occupants of completed houses, brick houses (compared to mud houses), houses with window screening or netting (compared to those with absent, or incomplete screening), houses with electricity, and houses with piped water.

Urbanization is causing a change in health of populations through the social environment, physical environment, delivery and access to healthcare. Urbanization also, may mutate the epidemiology of infectious diseases risking rapid spread. This can be observed in the recent Covid-19 pandemic. Urbanization therefore exacerbates disease transmission. Health improvement is dependent on infrastructures, technologies and guidelines that deliver clean sanitation and water. Leading to increasing vulnerability of populations to health risks especially for those living in poor communities. A typical example was the covid-19 pandemic:

Fig: Boundary (district and regional) and population density maps. These maps show the district (Faintlines) and regional (Bold lines) boundaries and the spatial distributions of population densities (persons per kilometers square).

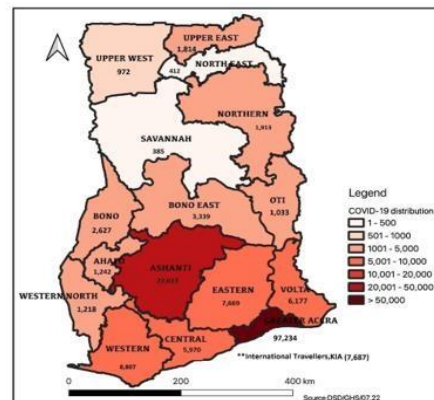
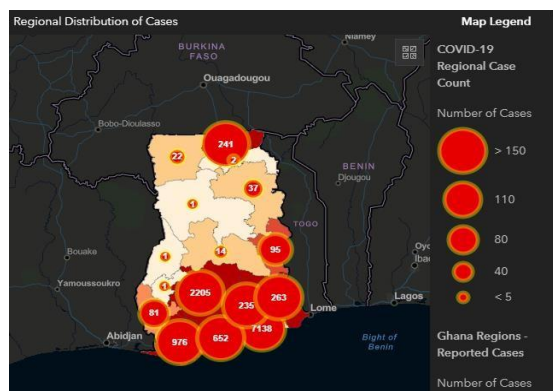
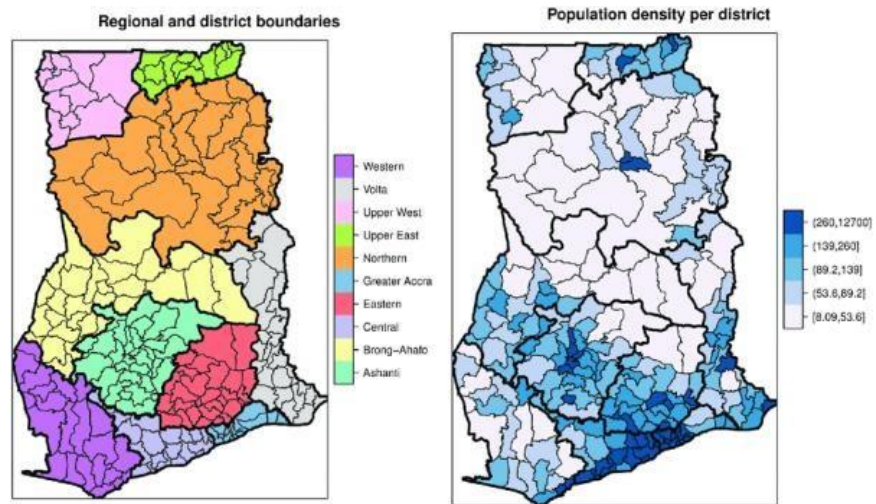


Figure 7: Cumulative cases of COVID-19 in Ghana by region, 23 Jan 2023

Fig: Regional Distribution of COVID19 cases in Ghana March 2020; Image: Ghana Health Service

It can be observed from the figures above that the most populated regions reported the most cases of the virus.

## Addressing the Informal settlements

Throughout the years various strategies have been advanced to address the socioeconomic, physical and the health wellbeing of informal settlements in many countries. A number of approaches to address the informal settlements and these include the following:

- **Effective Enforcement of Existing Laws:**

Land use and spatial planning law needs to be enforced adequately. Enforcement of the law will be more difficult and quite complicated if slums develop before the laws are enforced or steps are taken evict them. Once the laws are enforced slums will not develop in the first place.

- **Upgrading of Existing Slums:**

There is the need to provide slums with water, roads, drains, education, health, and toilet facilities. Slums such as “European Town”, Chemuna, Avenor and Old Fadama will need alley pavement. The provision of drains will help address the flooding problems in “European Town”, Chemuna and New Takoradi.

- **Identification, Recognition and Incorporation of Cultural Issues in the Planning of Slum Upgrading or Redevelopment:**

There is the need for all stakeholders to identify, recognize and incorporate sociocultural issues of slum dwellers into plans and policy interventions geared towards improving the living conditions of slum dwellers. Practices such as social networking need to be part of the neighbourhood housing plan so that residents are brought together in a communal way of life rather than living in pockets of isolation.

- **A Study to Understand How MTDPS of MMDA’s Respond to the Issue of Slums:**

Metropolitan, Municipal and District Assemblies (MMDAs) should review their MTDPs (Medium Term Development Plan) implemented in the last two decades and use trend analysis to assess their performance. Successes and failures can be used in subsequent planning activities and shared among MMDAs in Ghana and Africa.

- **Comprehensive Revision of the Ghana National Housing Policy:**

The Ghana National Housing Policy should be revised to include slum dwellers and address gaps to ensure housing reaches the poor and low income.

- **There must be Strategic Partnership between Government and Private Sector:**

Private estate developers can access funds and build to supply housing in new areas, but government can rent the houses on behalf of low income people to make them affordable. This leads to more affordable communities.

- **Improve General Economy to Prevent the Creation of New Slums:**

Another way to manage existing slums is the prevention of the creation of new slums by improving the general economy of the country so that wherever people live they can find jobs.

- **Proper Planning of Settlement Areas:**

Every town has town planners who are responsible for planning the town. They ensure good layout for every town, they also set aside lands for the following:

- ✓ Industrial areas: These are located far from human settlements due to the dangers they bring to humans such as air pollution, water pollution etc.
- ✓ Residential areas: These are lands set aside for settlement. They are conducive areas that do not bring any health hazards to the people living in such places, etc

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**Biographical notes:** Eyeson Ronald is a third year student of Kwame Nkrumah University of Science and Technology pursuing a degree in Geomatic Engineering. Eyeson Ronald has a strong passion for all works concerning spatial data and analysis. He is also the author of 'The Wenchi Water Project' which was published by the International Federation of Surveyors (FIG) in the year 2022.

Eyeson Ronald Papa Kobina

Kwame Nkrumah University of Science and Technology

B413/11, Nii Awukey Lartey Street, Odorkor

Accra

Ghana

+233 505746427

[ronaldeyeson@gmail.com](mailto:ronaldeyeson@gmail.com)

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Ronald Eyeson (Ghana)

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