ASHESI UNIVERSITY COLLEGE

THE CURRENT SITUATION OF ROADS IN ACCRA AND ITS EFFECTS ON REAL ESTATE

DEVELOPMENT (HOUSING) WITHIN THE CITY

LORNA LISA LARBI

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DEVELOPMENT (HOUSING) WITHIN THE CITY

By

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DECLARATION

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:…………………………………………………………………

Candidate's Name:……………………………………………………………………..

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I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by Ashesi University College.

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ACKNOWLEDGEMENTS

ABSTRACT

Housing is a one of the most fundamental rights every human being deserves for survival and existence. Every human being in one way or the other has the longing desire to own a home. A country with a healthy environment, good labor force, good infrastructure, good society, affordable and decent housing produces a good urban economy.

However, in Ghana, a difficult issue most citizens are facing is the inability to afford or rent decent housing in a decent neighborhood.

This study therefore seeks to assess the state of infrastructure, especially roads within the city of Accra and how the state of roads and road networks presently has a huge effect on the real estate industry within the city of Accra.

This study was undertaken based on primary and secondary information. Research instruments such as questionnaires, interview guides and focus group discussions were used to gather data.

The data was analyzed with tools such as Microsoft Excel, SPSS and Numbers (Macintosh).

Recommendations were also made from the research findings. Among these were the enforcement of the laws of the state in accordance with the planning and building regulations by city authorities. This would ensure that the necessary road infrastructure would be provided in the various districts and localities.

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CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 Introduction

As the population of the world is increasing drastically, urbanization has become of high importance to most countries worldwide. It has been estimated that in the next few years, presumably in 30 years, the population of the world will increase by 2.2 billion people where over 90% of this figure will be born in cities. Also, about 95% of the 90% will be born in the world's poorest cities. It has also been estimated that in the next twenty years, over 90% of the growth in the world's population will occur in developing cities (USAID).

A developing city with a good infrastructural base that does well to support urbanization will have a positive impact on the economic growth of the country, whereas one without good infrastructure will face serious problems like power outages, water shortages, pollution, the rundown of natural resources, a bad economy, to mention but a few (USAID).

A city has basic needs, which always includes housing; however those cities should be able to have basic infrastructural facilities and services such as, good road networks, drainage systems, bridges, power and water supply, waste disposal and a lot more services related to sanitation.

Ghana, as a developing country, is facing a lot of rapid urbanization issues in its major cities. The city of Accra in the past few years is growing past its boundaries due to the fact that, people are migrating from the rural areas of Ghana into the urban areas in search of job opportunities and better living conditions.

This trend, has given rise to the growth of suburban residential areas such as West Legon, North Legon, Adenta, Spintex, East Airport, Kasoa, Weija, Michelle camp, Amasaman to mention but a few. The rate of the population is growth has put a lot of pressure on the city's housing and infrastructure such as roads, water, electricity, sanitation, refuse collection and so on.

Demand for basic infrastructure continues to rise, and in the case of housing supply, the government has not been able to provide enough of that (Boison, 2002). Sufficient housing contributes to the economic, social and political status of a country.

According to a study conducted by the Ghana Real Estate Developers Association (GREDA) and the Government of Ghana in 1999, it was estimated that the government should be able to provide between 110,000 to 140,000 housing units every year. As at 2002, only about 30,000 units were being provided (Boison, 2002). With this figure outstanding, the Ghanaian government is still having difficulties in providing basic infrastructural services within certain parts of the city.

The State Housing Corporation was established over twenty years ago, to provide housing to the different localities and communities across the country. The corporation did well to start estate projects such as the Kanda, Nyaniba, Dansoman, Teshie-Nungua estates within the city of Accra. It provided estates across the country.

Some of these estate projects were left uncompleted due to the lack of continuity of its management because of political instability. In areas where these projects were uncompleted, the evidence is there for all to see. The existence of untarred roads, poor drainage systems and the existence of uncompleted buildings are the results of this problem. These have resulted in an unsightly streetscape, attracting squatters and kiosks, eventually developing into slums. The values of properties in these areas are drastically reduced as a result, making them unattractive for developers. The few areas that are well developed in terms of infrastructure thus are in high demand.

According to economic theory, when demand exceeds supply, prices escalate the result being high property and rental values. On the other hand, when supply exceeds demand, there is a surplus that subsequently causes prices to fall. It can therefore be deduced that the expansion of road networks will facilitate increase in housing supply.

1.2   Statement of the Research Problem

Accra, with a population of about 1,695,136 (National Population Census, 2000) is growing every day. People are beginning to find accommodation further away from the city center. This is mainly because the value of land in the city center is rising very fast. Also, the continuous growth of the population indicates that there is an increasing number of people who want to acquire homes for themselves.

Land and housing values in the suburban areas are much lower than their comparables[1] within the city. This is mostly because the suburban areas need good infrastructural development.

Accessibility has become of high importance within the country. The urban areas within the country, especially in Accra seem to have good road networks, whereas the suburban areas sometimes lack such good roads and networks. Roads may exist in some areas, but their maintenance is poor. They deteriorate fast due to low quality construction and harsh weather conditions. Such problems are the causes of traffic, high fuel consumption, flooding, low productivity, wear and tear of vehicles and the like.

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[1] Comparables refer to attributes of other properties that are similar in type and size to the properties within the interest of the buyer and the seller.

Also, once an area is inaccessible, it not possible to make provision for infrastructural services like water supply, power supply, sewerage systems and the like. This can go on to reduce property and land values.

The existence of good roads could go a long way to affect and increase the value of real estate within the country.

On the contrary, land acquisition is also quite difficult because acquisition of new land documentation is a cumbersome process due to fraud. Some landowners take advantage of this situation and dupe people. Real estate developers have taken it upon themselves to deal with this land issue. This makes it easier for an individual to rent or buy a house, since the estate developer will act as an intermediary channel between him and land title authorities. This approach has increased the demand for housing built by redevelopers in Ghana since these developers take care of land title documentation for properties in well-established areas.

Sometimes, the estate developers buy large tracts of land, service and develop them, and make it easily accessible to homeowners.

Considering the instability of the macroeconomic environment in Ghana, which includes the fluctuating levels of inflation rates, interest rates, bank rates and exchange rates, investors are being careful about their investments. High

inflation and interest rates have affected the cost of borrowing from financial institutions (GREDA, 2009).

There is a housing deficit (GREDA, 2009) currently in the country, hence people are desperate for housing, and the alternative therefore, is for them to finance the construction of their own projects more often without the requisite technical supervision and services such as electricity, water, telecommunication, thus compromising on the quality of the buildings. This is to the extent that even the absence of roads, drains, walkways etc, does not deter people from building in areas that lack these important facilities.

The state housing agencies concerned are also not up to the task to meet the challenges of rapid development. The city as a result, is growing faster than the provision of infrastructural development. Because the current state of infrastructural development does not commensurate the growth of the city, there is a growing demand for areas that are well serviced and already have good infrastructure.

Unfortunately, areas that fall within this category are very few. These are concentrated in very few areas within the urban areas of the city.

1.3 Objectives of the Study

The purpose of this study is to discover the problems associated with the current state of roads within Accra and how it has affected real estate development. This study could serve as a guide to land owners and real estate developers to make them more aware of the fact that, a good infrastructural base, will offer better value for their land and money. This study therefore will try to:

i.   Determine whether the city authorities with respect to the provision of good road networks are adhering to the planning scheme of Accra.

ii.   Determine the current state of roads and road networks within the city.

iii.   Determine how the situation of these roads affect real estate industry

iv.   To determine why real estate developers concentrate their products within areas very good road networks in terms of product supply

v.   To give recommendations that could be employed by the appropriate city authorities to improve infrastructural development, especially roads, which will benefit both the developers and the general public.

1.4 Research Questions

i.   What is the planning scheme of Accra with respect to road infrastructure?

ii.   What is the procedure for providing a road within the country?

iii.   What is being done about the current housing deficit?

iv.   What is being done about linking up outskirts and rural areas with more good roads?

1.5   <u>Data Collection</u>

The research, being exploratory, provided a deep intuitive understanding of the issue at hand. This was done by forming a sample of a population, which consisted of officials from the Town and Country Planning department, the Ministry of Roads and Highways, a number of real estate developers within Accra, some civil engineers and some architects.

Tools for data collection included interview guides, focus group discussions and questionnaires. The interviews were administered both in person and via telephone. Questionnaires were also administered both in person and via e-mail. Focus group discussions helped the researcher obtain different opinions on the topic. Observations were also made on the field.

The study was therefore done based on primary data acquisition backed by secondary data.

1.6   Significance of the Study

Considering the importance of infrastructure provision and effects to the real estate industry, this study seeks to help the educational community by proving correlations between infrastructure developments, in this case roads, with housing in Accra.

The results are expected to help investors make a good industry analysis and also to help policy makers insist on infrastructural development in newly acquired areas for development before they are sold to the public.

Since documentation on the real estate industry in Ghana is minimal, this study could serve as a point of reference for other studies to come concerning this topic.

1.7   Outline of Dissertation

This study is broken down into five distinct chapters. The first chapter will serve as an introduction to the study. This chapter will do well to give a quick review on every detailed step the researcher took to achieve results and justify the objectives of the study, including problems encountered during the study.

The second chapter of the dissertation comprises of a literature review that will elaborate on the ideas, theories and hypotheses used to undertake the study.

Past articles and dissertations related to urban planning, infrastructural and real estate development in Ghana and other developing countries would be reviewed and analyzed.

The third chapter describes in detail, the methods the researcher used to collect the data for the study. The different method techniques are well explained in this chapter. The method also elaborates on the sample of the population used for the study and statistical tools that will be used for the collection and analysis of the data.

The fourth chapter comprises of a detailed analysis of the data collected. Relationships and correlations that exist within the data are indentified. The results, findings, recommendations and conclusion are included in the fifth chapter.

1.8   Scope and Limitations of the Study

This study was limited to roads and residential (housing) developments within the city of Accra. The population sampled was limited to real estate developers within Accra. Officials from the authorities concerned with infrastructural development were involved within the sample population.

The data collection process was quite tedious since the period of time for the study was very limited. The difficulties were experienced from the officials of

the related government authorities. Their unwillingness to disclose certain information reduces the response rate. The real estate developers on the other hand, cooperated effectively.

Availability of print sources on real estate development in Ghana from the local libraries was very little, almost non-existent.

CHAPTER TWO

LITERATURE REVIEW

The purpose of this chapter is to review and give an account on the academic work, books, articles and journals that have been written on theories concerning the state of roads and its effects on residential estate developments. Residential estate development in Accra, Ghana will be used as a basis for this study.

2.1   <u>Real Estate Development</u>

Real estate development refers to the frequent growth and advancement of an environment, to suit the needs of the people within that environment (Miles et al, 2007).

However, in the United States of America, real estate is legally referred to as "real property". Real property could as be described as a building(s) including the land it is situated on.

Since population is always increasing alongside technological advancement, the needs of people begin to increase and their tastes and preferences change as well. Hence, these developments create value for themselves by making provision for practical space, and infrastructural services. These services

include the provision of roads, electricity, water, telecommunication, sewerage disposal and the like.

Real estate developments can be categorized depending on its purpose. Types of real estate include:

i.   Residential- Properties used for housing families

ii. Commercial- Land and properties where business and commercial activities are conducted. For instance, shopping malls, hotels, office blocks, and so on

iii. Industrial- land and property used for industrial purposes. For instance factories and warehouses

iv. Agricultural- Land and property used for agricultural purposes. For example, farmlands.

v.   Special purpose- Land and property used for unique purposes, such as, cemeteries, churches, airports, parks, stadia and so on.

        (Galaty et al, 2003)

2.2   **Residential Estate Development: Housing**

Housing literally means building for the occupancy of human beings. Since shelter is a basic necessity for human living, as the population within a region grows, demand for housing within that region also grows. However, the type of population, be it senior citizens, students etc associated with their employment

and income level, helps determine the kind and style of housing that will be supplied within that specific area.

Due to socio-economic changes and the quality and type of infrastructural services provided, the demand for housing within the region itself may vary from area to area.

QuickTime™ and a
decompressor
are needed to see this picture.

Figure 2.2

Consider this imaginary region illustrated in Figure 2.2. Areas around locations A, B, and C could have a high demand for housing because of good quality housing, infrastructure and services like good water supply, power supply, road networks and so on.

On the other hand, areas, around locations D and E, lack these amenities and therefore demand for well structured housing in those areas is virtually non-existent. The situation in these deprived areas invariably lead to the development of slums whereby people with scarce resources build anyhow and

anywhere regardless of the absence of essential amenities such as water, power supply, road networks, toilet facilities and the like.

The presence of slums "claims the worst housing, the greatest overcrowding, and the highest rates of disease."(Miles et al, 2007)

2.2.1 <u>The Housing Cycle Theory</u>

According to Alghamdi (1995) as cited in Needleman (1965), the variation in the size of the housing markets is in the form of a cycle. As a measure of the utilization of housing, vacancies were used in ratio to housing price levels (Needleman, 1965). This cycle is shown in Figure 2.2.1 below.
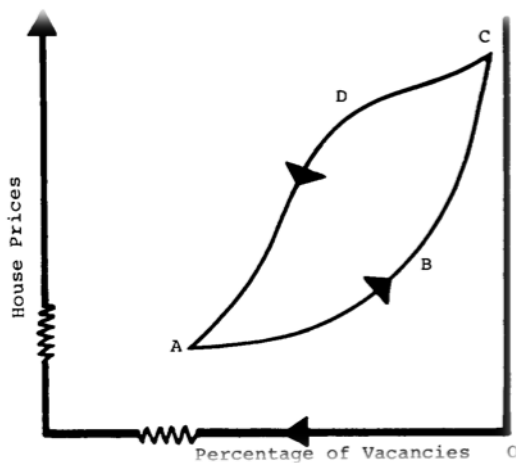
Figure 2.2.1

As the diagram illustrates, at point A, the price of housing is relatively low, calling for a high demand for housing, leaving no room for vacancy and making the level of vacancy low.

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As the level of vacancy continues to decrease and demand for housing increases, housing prices will begin to rise since there will be ready demand. This is evident at point B of the diagram.

Looking at point C, as the demand for housing is still rising and the level of vacancy continues to decline, housing prices get ridiculously high. Needleman (1965), believes that at point C, buyers will restrain from buying these houses for some time, until prices start dropping once again.

Once again, at point C, (Needleman, 1965) still believes that the high housing prices at that point will attract investors therefore increasing housing supply in the long run.

It is also believed that, still at point C, once demand for housing is high, and level of vacancy is relatively low, the situation is most likely to develop into a housing deficit. As investors decide to invest, hence increasing housing supply, prices will still remain at a constant for sometime, because these investors will be cashing in on the huge profits from the high pricing.

All the same, it is forecasted that, as the investors continue to increase the supply, house prices will start dropping once again, since the vacancy level will be on the rise. At this point in the cycle (point D), there is likely to be an excess housing supply, hence investors will want customers to buy, and the

only way to increase demand and reduce vacancy level is to reduce the level of prices.

Eventually, the level of prices drop and the vacancy level also drops simultaneously, since low pricing would have increased demand enormously. This takes us back, to point A of the cycle and the cycle repeats itself over again.

From Needleman's theory, once again, (Nutt et al, 1976) and (Cadman, 1983) as cited in (Alghamdi 1995) believe that high prices for housing and accommodation will encourage investors to invest in the sector, but, by the time these investors are able to supply extra housing units into the economy, the housing prices by that time will have dropped considerably. This school of thought does well to justify Needleman's cycle from point D to point A, where excess supply will result in low house prices and a gradual increase in housing demand.

2.3   **Housing in the City of Accra**

Theoretically, the size of the population in the deprived areas reduces drastically due to the social and economic conditions (Galaty et al). However, in Accra this is not the case. Having a land area of about 201 square kilometers (UN-HABITAT, 2009), a population of about 1,695,136 (National

Population Census, 2000) people, and an annual growth rate of 4.3%(UN-HABITAT, 2009), it is the most populated and fastest growing city in Ghana.

When Ghana gained independence, the government provided housing for the people. In an effort to provide enough and adequate housing for the people, the CPP government then headed by Dr Kwame Nkrumah decided to "replicate" the mass housing construction initiatives implemented by European governments after the Second World War (GREDA, 2009).

Due to this, two institutions, namely the State Housing Co-operation (SHC) within the Accra metropolis and the Tema Development Co-operation (TDC) within the Tema municipality were both set up to implement this idea.

As the years went by, projections for the future of the housing sector were never made therefore a "legacy of a veritable housing crisis was left" (GREDA, 2009).

Today, housing and rental costs have become relatively expensive in the city of Accra. Prices are continually increasing, making basic housing gradually unaffordable for the middle and lower income level classes of the population (Buckley and Mathema, 2007). Most of the people who fall within these income level classes, especially that of the lower income class live in the most densely populated areas within the city.

In most of these areas, there may be very few roads with drains, which are poorly constructed, or non-existent. Access to some of these houses is a nightmare. In such an environment, the absence of water and power supply lines is very common leading to very poor sanitary conditions amongst others.

As a result, it is very likely to see more than five families occupying a single house resulting into what is known in local parlance as compound houses. In this case, one family could even occupy a single room (Buckley and Mathema, 2007).

In relation to the housing cycle explained above in Figure 2.2.1, it is easy to believe that the housing sector in Accra, Ghana has reached point C of the cycle. As the housing deficit continues to rise in Ghana (GREDA, 2009), demand for housing has exceeded supply enormously. Investors have therefore taken a cue from this and are investing seriously into residential estate developments.

Currently, there are over 50 private residential estate-developing companies within Ghana who are creating communities across the country. However, due to high population growth and urbanization rates, most of these developments are found within and around the greater Accra region and in the city of Kumasi, which happens to be the second largest city within the country.

According to Obakumah, areas within the city of Accra with low class housing always have the highest population densities. They have an average plot size of about 60'x60' (Obakumah, 1998). Such areas include the zongos, Nima, Akweteman, to mention but a few.

The middle-income sectors of the population live in areas where population densities are fairly high. Average plot sizes within these areas are about 100'x100' (Obakumah, 1998). Such areas include Dansoman estates, Labadi estates, North Kaneshie and the like.

In Accra, residential areas close to the city center such as Airport Residential Area, Labone, Ridge, Cantonments and the like form the "Golden Triangle" within the Ghanaian real estate circles (GREDA, 2009). They are also perceived to be the high-class residential areas, since they are properly planned communities. These areas have good road networks with drainage systems, water supply, power supply and the provision for telecommunication. Average plot sizes within these areas are about 200'x200' (Obakumah, 1998).

Prices for rent or sale within these areas are quoted in thousands of dollars per annum. These rent and sale prices are still rising for which only the high-income earners of the population can afford.

A study by Obakumah (1998) shows that the housing market in Accra can be segmented as follows:

i. Affordable housing- this is housing for government workers at subsidized rent and sale prices. E.g. SSNIT flats

ii. Lower upper income housing- these are estate homes targeted at people between the low and middle in come classes. Private estate developers such as Hydraform estates target this income class of the population.

iii. Middle Income housing- this is housing targeted at people within the middle-income group. Examples of private estate developers who provide such housing include Devtraco estates, Manet, Regimanuel Gray, to mention but a few.

iv. High Income housing- these are estate developments and re-developments targeted at people who fall within the high-income group. Such developments and re-developments are located within the "Golden triangle". Private estate developers such as the Trassaco group, Taysec Company Limited provide such housing products too.

2.3.1 Housing Policies

From a report on housing statistics in Ghana (1991) as cited in (Abusah, 2004), the country as at the year 1991 needed to provide 70,000 units of housing, including a backlog which increased this number to 250,000 housing units. From these statistics, it was therefore estimated that, by the year 2020, the average supply of housing needed would be about 133,000 units. By the year 2005, the housing deficit was estimated to be 500,000 housing units

outstanding (Government of Ghana National Shelter Policy, 2005) as cited by (GREDA, 2009).

Today, there are still problems concerning the delivery of houses within the city of Accra. Attempts have been made to solve this issue over the years, but these attempts have been hindered by problems associated with land delivery, inadequate supply of basic infrastructure especially roads, lack of skilled labor, "institutional incapability" which is most of the time due to lack of financing and so on (Abusah, 2004). Unfortunately, these problems are still getting worse especially in Accra.

As mentioned earlier, in Ghanaian housing policies and programs dated as far back as over twenty years ago, the government intended to provide housing without evaluating the needs of the population and also without predicting or forecasting population increase in the future.

Since forecasts were not made due to population increase and there is an increase in housing deficit, private sector participation was greatly encouraged for housing provision (Abusah, 2004). From (Owusu et al, 1993) as cited in (Abusah, 2004) an approach, whereby the government assists in the maintenance and supply of housing delivery by the private sector helps create a conducive environment for privatization.

The National Housing Policy and Action Plan 1987-1990 was a program designed to encourage public sector participation in the delivery of basic infrastructure like roads, electricity and water, assisting in the provision of credit for housing project investments, facilitating land acquisition and so on (Abusah, 2004).

In a matter of a few years, this program was reviewed and a "National Shelter Strategy Program (1993-1997)" was compiled and debated about in parliament.

According to Obakumah (1998), the research acknowledged the fact that there was a shortage of housing, but also stressed on the fact that problems were being encountered with the delivery of land in the most suitable locations (Obakumah, 1998).

This program looked at issues such as:

i.   Land acquisition- Making government responsible for its delivery, accessibility and affordability to real estate developers and individuals.

ii.   Finance -This ensures that the government facilitates credit provision to finance housing projects.

The emergence of private real estate developers within the country has initiated several housing projects and communities within the city and is still expanding towards the outskirts of Accra.

For instance, big private estate developers that have made a huge presence within the city of Accra include the Regimanuel Gray Limited, NTHC Properties, Taysec Ghana Limited, Buena Vista homes, Comet Properties to mention but a few. These private estate developers do well to provide products such as apartments, townhouses, semi-detached houses, condominiums and the like.

2.3.1.1   Impact of Housing Policies

The housing policies mentioned in the earlier section were proposed and implemented to make an impact on the Ghanaian housing sector, but they obviously have been unsuccessful due to the following reasons (Obakumah, 1998):

i.   Inflation

ii.   Lack of communication

iii.   Political Instability

iv.   Lack of basic resources and Infrastructure

2.4   Real Estate Development Process in Ghana

The real estate development process always begins as an idea. This idea turns into an estate development when human beings actually inhabit the livable space that has been provided by the developer and his team (Miles et al, 2007).

2.4.1 <u>Land</u>

In Ghana, the first step a developer takes once the idea is in place is land acquisition. As cited in (Boateng, 2009), *"the basic principle of our customary land is that there is no land in Ghana without an owner (Ollennu, 1985). "* Land in Ghana is either owned by the government, an individual or group of individuals or a family.

Land ownership in Ghana can therefore fall into three main categories. These are namely, state lands, family lands and stool lands. Acquisition of any of these types of land for any form of development requires certain specific processes.

2.4.1.1   <u>State Lands</u>

This refers to land owned by the state. As cited in (Boateng, 2009), the State Lands Act (1962), (Act 125) states *"the mere declaration through publication of an instrument designating a piece of land as acquired in the public interest automatically vests ownership of that land in the State*."

To acquire such land for any form of estate development, a request has to be made in writing to the lands commission of Ghana. Once the Lands commission accepts the request, a document is put together concerning terms of lease and payment plans between the lands commission and the "developer".

2.4.1.2 **Family Lands**

These are lands owned by individual families and controlled by family heads. To acquire such land, the prospective lessee of the property will have to contact the Lands commission and make sure that, the plot of interest meets the right requirements to be sold. Once the plot of land meets the commission's requirements, a lease can be processed for the lessee.

2.4.1.3 **Stool Lands**

As stated by article 295(1) of the 1992 Ghanaian constitution, "stool includes a skin, and the person or body of persons having control over skin land" therefore stool land "includes any land or interest in, or right over, any land controlled by a stool or skin, the head of a particular community or the captain of a company, for the benefit of the subjects of that Stool or the members of that community or company."(Article 295(1), 1992 constitution of Ghana)

Acquiring such land requires the developer to get in touch with the chief of the locality where the land of interest is situated. According to the law, the government of Ghana allows stools to issue only leasehold interests (Obakumah, 1998).

After the lease documents have been acquired, through either of the acquisition processes discussed above, the documents will have to be sent to

the Lands valuation board for further approval, registration and documents processing.

The next step is to gain a building permit. This is done by submitting the registered lease document, in addition to the site plan and architectural drawings to the district assembly and the Town and Country Planning Department.

After the land has been acquired, it is ready to be developed. The development process starts with construction. Construction could either mean developing virgin land for urban usage, or redeveloping previously developed land.

In the development of virgin land for urban usage, the site must have a good plan and layout. Apart from the obvious, which is constructing buildings, factors such as provision and construction of roads, electricity, drainage, water supply must be well considered.

Road construction is very important because the existence of roads is the main source of accessibility, which result in the ease of mobility of people, goods and services within various areas and localities.

In the case of Accra, compared to other cities within the country the city is densely populated. Accessibility therefore, is a key issue in determining value of properties within the city. It is a major factor that real estate developers

cannot overlook. It is however, the responsibility of the government to provide the requisite infrastructure.

After all these elements of development are considered, the construction of the actual buildings can then begin. The building process involves a lot of planning, contract awarding to contractors and subcontractors, and also good project management. This is to ensure that the development meets the right requirements and specifications and also is in adherence to the country's building regulations.

However, in order to sustain good property value now and in the future, the development alongside with its associated infrastructure must be well maintained.

"*It is these three things, space, time and services- in association that are needed so that consumers can enjoy the intended benefits of the built space*" (Miles et al, 2007).

2.5 <u>Overview of Road Infrastructure in Ghana</u>

Road infrastructure in Ghana seems to be an important element of transport within the country. The ministry of roads and highways is responsible for the development and maintenance of all roads in Ghana.

This ministry is further broken down into three agencies to develop manage and maintain the different categories of roads within the transport infrastructure system of Ghana. These agencies are:

i. The Ghana Highway Authority

ii. The Department of Urban Roads

iii. The Department of Feeder Roads

2.5.1 Agencies of Ministry of Roads and Highways

2.5.1.1 Ghana Highway Authority

This department under Act 540(December, 1997) is responsible for the "development, administration and maintenance" of highways and other similar road networks within the country. Being backed by the law, their policy objectives include:

i. Improving road conditions

ii. Reducing accident fatalities

iii. Reducing travel time

iv. Environmental and social mitigation measures

v. Improving quality of systems delivery

(Ministry of Roads and Highways, 2008)

2.5.1.2   Department of Urban Roads

This department under the ministry is responsible for the "development, administration and maintenance" of urban roads and other similar road networks within the country for safe and efficient to and fro movements of goods and people. According to the department's strategic plan (2006-2010) with the backing of the laws of Ghana, the department sets out to:

i.   Reduce the average travel time on the arterial roads in each city

ii.   Progressively reduce the walking and waiting time for public transport in low income communities in each city

iii. To strengthen the capacity of the MMDRUs to manage the roads and coordinate the operations of transport systems in each city

iv.   To develop and apply social, economic and environmental criteria for the selection of projects

v.   To progressively improve the environmental conditions along roads in each city

vi.   To progressively improve the proportion of the road network in good condition in each city, especially in low income and newly developing communities.

(Ministry of Roads and Highways)

Under some of the goals of the Transport sector development program (TSDP) for the year 2012, the department plans to:

i. Improve the road network condition to 60% good, 20% fair and 20% poor by 2012

ii. 80% of routine maintenance is undertaken annually on urban roads by 2012

iii. Coverage of periodic maintenance is increased from 50% in 2008 to 80% in 2012

iv. 100% of traffic facilities is maintained annually

v. GIS maps are prepared on metropolitan/municipal/district basis to determine accessibility and plans proposed for improvement by 2012

vi. Increase the coverage of paved roads in the urban network from 48% in 2008 to 60% by 2012

vii. Use of HDM 4 to plan, programme and prioritize development & maintenance activities from 2009.

viii. Lands for urban infrastructure are properly acquired during planning stage to ensure development at minimal cost.

(Transport Sector Development Program, Ministry of Roads and Highways)

2.5.1.3   **Department of Feeder Roads**

This department under the ministry sets out to make sure feeder roads are constructed properly for the transportation of people, goods and services. The department focuses on the socio-economic and agricultural development of the country.

The objectives of the department in accordance with the laws of Ghana include:

i. To address the levels of poverty and gender issues in the new road areas and districts

ii. To protect investments made on improved roads through adequate maintenance system

iii. To implement measures to mitigate the negative environmental impact of road schemes i.e., to carry out road works in such a manner as to minimize the hazard caused to road users, pedestrians and workers during the course of the execution of works.

iv. To improve the institutional capacity of DFR to sustain feeder road programs.

(Department of Feeder Roads, Ministry of Roads and Highways)

The core functions of the department in accordance with the laws of Ghana include:

i. Assisting MRT in policy and strategy formulation and development

ii. Planning of the development and maintenance of feeder roads and bridges.

iii. Assisting District Assemblies in the in the selection and prioritization of roads and bridges for improvement and upgrading

iv. Liaising with other Ministries and Agencies in the planning and management of feeder roads in general

v.   Collaboration with research institutions in the area of research and development e.g. the use of road stabilizers and new techniques for road development and maintenance

(Department of Feeder Roads, Ministry of Roads and Highways)

2.5.2 <u>Types of Roads</u>

From the overview of the above-mentioned departments it is clear that roads in Ghana fall under three main categories:

i.   Trunk roads- these are roads one would also refer to as highways. This type of road is constructed to connect cities, harbors and the like. They are built of very high standard because of the density of traffic that the road will carry. These roads are built with bituminous surfaces, which are normally easy to maintain.

ii. Urban roads- these are roads that are provided within the cities and surrounded by developments. These are made to be long lasting and of good quality. They also tend to be much more expensive as compared to the construction of trunk roads. This is because since their purpose is for use within the city, other associated elements such as the provision of pavements, drainage, electricity and water supply lines, bus stops, bicycle lanes, overpasses, traffic lights and the like all have to be considered. The implementation of at least, one of these elements costs a lot of money

iii. Feeder roads- In Ghana, these are very minor roads in rural communities that feed traffic onto major roads. They also provide accessibility. They are un-engineered or cleared paths. Sometimes they

have graveled surfaces. An associated element to a feeder road may include a culvert, in case of an interruption by a stream or any little water body.

2.5.3 <u>**Road Maintenance**</u>

Maintenance is one of the most importance things to be considered after road construction. This is to ensure that the road does no deteriorate after a certain time period of usage. Road maintenance falls into two main categories:

i. Routine Maintenance- this is the day to day maintenance of the road. This involves the trimming of grass, de-silting of gutters, the sweeping of the road and so on.

ii. Periodic Maintenance- This is the occasional maintenance of the road. This involves the filling of potholes, patch work, resurfacing, sectional gravelling and so on.

In Ghana, a road fund has been set up to facilitate the maintenance of roads within the country. Finances within this fund are raised from a fuel levy.

Another method of financing road maintenance is the collection of tolls. Toll collection is accumulated and used to maintain some particular roads especially trunk roads within the country.

CHAPTER THREE

RESEARCH METHODOLOGY

Research is needed to analyze and study this topic logically, to help bring light unto hidden facts, ideas, concepts and theories in relation to the topic in question. A methodology is a system of procedures, which is undertaken in relation to the topic in question. For that reason, research methodology is about how the research is going to be carried out.

3.1   Data Collection Period

Collection of data took almost four months. This included the conducting of a survey, focus group discussions and interviews.

3.2   Sampling Techniques

Sampling involves selecting a subset of the population of interest. With regards to this research topic, a sample was studied and the results were generalized to the population the sample was chosen from. In this study, non-probability sampling techniques such as snowball, judgmental, convenience and simple random sampling was used.

Snowball sampling was used because the researcher for the purpose of the study met individuals who met the standards for partaking in the study. These

individuals went an extra mile to recommend other individuals who also met the same criteria.

Secondly, simple random sampling was used because it is practical. This is because it is a very good technique used to get opinions of individuals from a homogenous population about the topic being studied. It is also inexpensive and saves a lot of time because access is relatively easy.

Also, convenience sampling was used to collect data from random people who live within the city of Accra. This was used to get a general public opinion of the research topic.

Finally, judgmental sampling will also be used within this study because the researcher in this case will be selective of the sample by determining individuals to be included in the study depending on the level of expertise.

Accra will be used as the case study, this is because Accra being the fastest growing and most densely populated city within the country will have the most practical and realistic results.

3.3   **Primary Data Acquisition**

The researcher will select a good number of estate developers, some architects, civil engineers, and random people from the general public to be

interviewed. A number of officials from the town and planning authorities and the Ministry of Roads and Highways will also be interviewed.

3.4   Secondary Data Acquisition

The researcher did a review of literature to throw light upon past studies and research on topics related to the topic of this particular study. Information was gotten from online articles and journals, past dissertations on related topics, textbooks.

3.5   Sample Size

The researcher targeted real estate developers and various residents within Accra, officials from the Town and country planning authorities, the Ministry of Roads and Highways, some architects and civil engineers.

Ten estate developers within Accra were selected by recommendation. Residents within the city were also selected randomly. Officials from the ministries of works and housing, urban roads and town and country planning authorities were interviewed to aid in the data collection process. This process made the final sample size 30.

This sample was selected because the respondents would have the most appropriate information to help make this study a successful one.

**3.6	Data Collection Methods**

Research techniques used include the use of questionnaires, interviews and focus group discussions and analysis. A qualitative research method was used due to the kind of objectives the study is looking to seek. The data collection methods include interviews, focus group discussions and the use of questionnaires to perform a survey.

3.6.1 Focus group discussions and analysis

This method of analysis is strictly for qualitative assessment. Views and analysis on the research topic will be gathered from members of the focus group. The discussion will be well organized and supervised by a mediator (Trochim, 2005). In order to understand the topic better, the researcher organized a group discussion with a number of architects, estate developers and engineers who form the major members of the real estate development team and will therefore give a more accurate assessment of issues related to the topic. This helped the researcher to obtain different opinions and views on the topic since a lot of brainstorming was involved.

3.6.2 Interviews

This involves the researcher collecting data directly from the respondent (Trochim, 2005). For this study, an interview guide was designed used to guide the researcher on how to structure and ask questions. The first draft of the interview guide was given to other thesis supervisors to analysis and critique. Also, Interview guides from past dissertations related to real estate

development in Ghana were reviewed. Some responses from the respondents gave more insight and allowed the researcher to derive follow-up questions. This method aided in the collection of primary data for the research.

3.6.3 Questionnaires

Questionnaires were designed to collect information from residents within Accra and some selected residential real estate developments. The questionnaires were designed and initially tested on friends and colleagues to discover the flaws and ensure its relativity to the research questions and objectives.

3.7   Research, survey and interview Questions Design

The questions for the research techniques were prepared in a number of drafts. Drafts were used for pre-testing, critiques, review and analysis. Solutions were made to the flaws that were discovered. This aided in the preparation on the final set of questions that were going to be used for the actual study.

3.8   Methods of Data Analysis

Data will be collected, screened and organized. It will then be carefully scrutinized. Results will be discussed and solutions and recommendations will be proposed. Graphs like bar, line and pie charts will be used for easy understanding of the results.

3.9   Data Analysis Tools

Data analysis tools such as Microsoft Excel, SPSS and Numbers (Macintosh) were used for this study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

The purpose of this chapter is to make a detailed analysis of data collected from surveys, interviews and group discussions carried out with private estate developers, residents within Accra, some officials from the Town and Country Planning Department, the Department of Urban Roads, the Ghana Highway authority, some civil engineers and architects respectively.

4.1 Provision of Roads in Ghana

From interviews and discussions held with officials from the Department of urban roads, it was discovered that the process of providing roads within the country was partly the duties of the Town and country-planning department, the district assemblies and the Ministry of roads and highways. The agencies responsible for the provision of different types of road were as follows:

Type of Road	Agencies Responsible
Urban Roads	Town & Country Planning Department, the district assemblies and Department of Urban Roads.
Highways/ Trunk Roads	Town & Country Planning Department, the district assemblies and Ghana Highway authority.
Feeder Roads	Town & Country Planning Department, the district assemblies and Department of Feeder Roads.

To start with, the Town and Country Planning Department, at the municipal, metro and district assembly level, is in charge of putting together plans including structural plans for the use of the land anywhere within the country in order to keep up with the growth and development of human settlements within a town or a district. When areas are planned, planning schemes are prepared. These planning schemes examine how to apportion the land for the provision of roads within the various local communities.

After these planning schemes are prepared, they are distributed to the various district assemblies and other appropriate ministerial institutions for reference incase of any form of road and building construction or land and permit acquisition.

The next step is for the district assemblies in charge of the planned areas to ensure that the construction of the various roads within the planning schemes is implemented. They do this by liaising with the appropriate agency under the Ministry of Roads and Highways, depending on the type of road that has to be constructed.

The ministry of Roads and Highways is responsible for the design, construction, monitoring and supervision of all road infrastructures within the country.
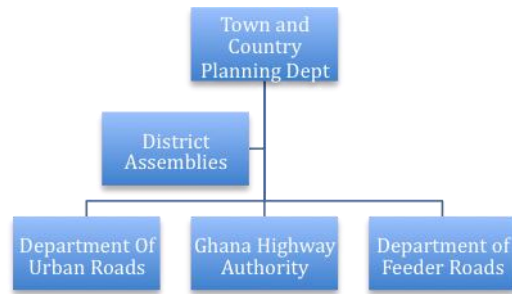
Figure 4.1

Interviews conducted with the various agencies under the Ministry of Roads and Highways revealed that 65% of roads within the country are feeder roads, 27% percent of roads within the country are trunk roads and 8% of roads within the country are urban roads. This has been illustrated in figure 4.1.1.

Most roads within the city of Accra fall under urban roads, which means the roads in Accra including urban roads in other Ghanaian cities form that 8%. From an interview with an official, from the department of urban roads, it was revealed that, the department aims at giving good access and mobility of goods and services to people who reside within the city.

Secondly, the department is responsible for ensuring that the roads are constructed up to the road design specifications. There is no specific time period for constructing a road. It could take as long as two years or more for the department to construct a road.

Again, the department is also in charge of urban road maintenance within the city.

However, the main problem that affects the operations of the department of urban roads is purely financial constraints. It was also revealed that, if there is no provision made on the road construction budget concerning road maintenance, the road maintenance schedules are not adhered to. From these issues raised, in the case where, a gated community is being developed, the department is NOT responsible for the provision of roads within the community.
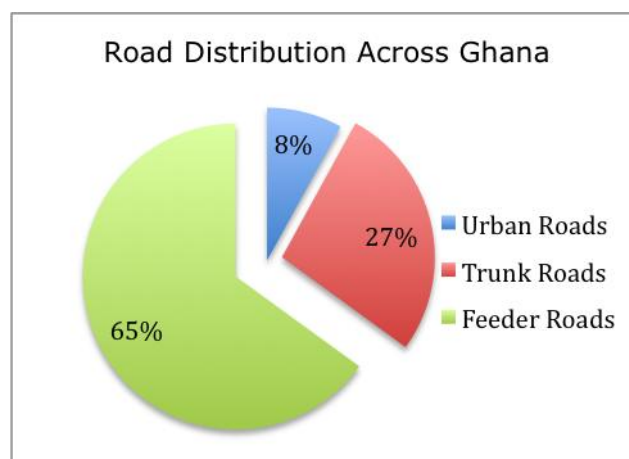
Figure 4.1.1

Concerning the issue of the department's operations being hampered by financial and budget constraints, an interview was also conducted with a private estate developer who had recently acquired a bare tract of land on the outskirts of Accra for a mixed development. The incapability of the government to finance the construction of minor arterial roads was brought to light from this interview.

However, for the sake of good accessibility to his property, this private developer had to take it upon himself, to finance the construction of a minor arterial road linking his property to other properties or a main road. The developer therefore had to obtain the road design and specifications from the

Department of Feeder Roads, since the development is located on the outskirts of Accra, hence close to the rural areas. In a situation like this, the Ministry recommends contractors that are capable of handling the job. Eventually the developer awards the contract to the contractor who wins the bid.

After the road is finally constructed, it becomes a property of the government and not the developer. In such a situation, we will assume that it will still be the responsibility of the government to maintain the road, but once again due to lack of government finances, maintenance also becomes an issue posing a big challenge to the developers. The cost of which is passed on to the residents.

4.2   Real Estate Development in Accra

A survey was conducted amongst some residential estate developers within the city of Accra. This survey was conducted in order to discover the effects roads have on real estate developments in Accra and the importance of these effects concerning the country's future economic growth and development.

From the survey, it was revealed that most of the estate developers are in the real estate business to provide more housing so as to reduce the current housing deficit within the country.
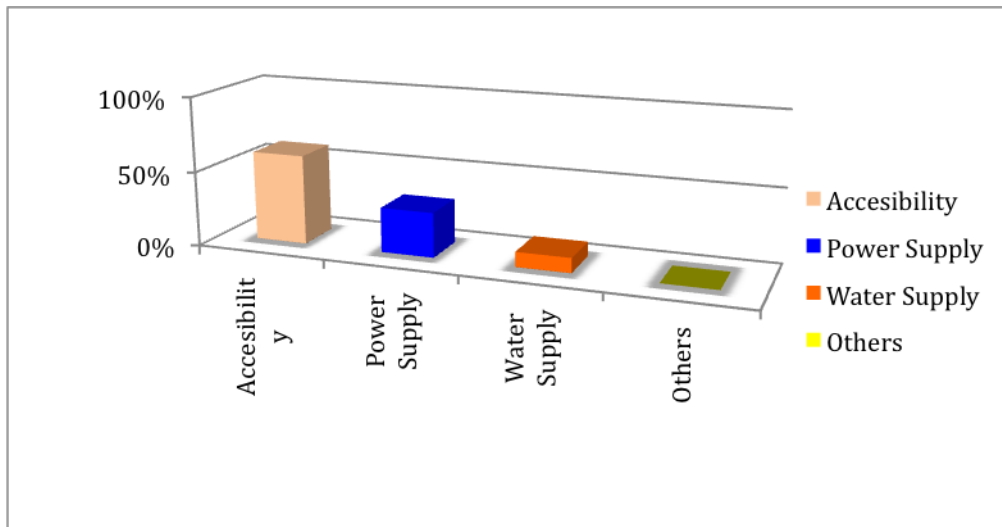
Figure 4.2

The existence of roads makes room for accessibility. When areas are accessible, it then becomes possible to establish other infrastructural facilities like electricity, water and the like. From the representation of the data above, 60% of real estate developers within the sample consider accessibility first before embarking on any estate development. This means that, they look at how easy it is to access the development. 30% of the respondents consider electricity supply, and 10% consider water supply.

From discussions held with some of the developers, it was revealed that the accessibility from the area of the development to the central business district of Accra also influenced the type of real estate products provided to the market.

Apartments, condominiums and townhouses seemed to be the product types situated within the city and towards the central business district. However, bungalows, semi-detached houses and single-family homes were situated in

areas reaching towards the outskirts of the city in suburban areas. The reason for this is because since land usage within the city center has been exhausted, the only way out is to renovate old buildings, or demolish them and redevelop the sites. The construction of apartments and condominiums in particular seem to be economical since they maximize the use of land. It is no longer economical to build single-family homes in the urban centers because of the high value of land.

From this research, it has been deduced that as one moves away from the city center, towards the outskirts and the hinterland, the value of land decreases. For now, the construction of bungalows and family homes will be best situated in the suburban areas because they require a lot of space.

About 60% of the estate developers had acquired virgin land for their development projects whereas the remaining 40% were interested in acquiring previously developed land. The same 60% of this population have had to construct roads within the sites for their projects. This is illustrated below:
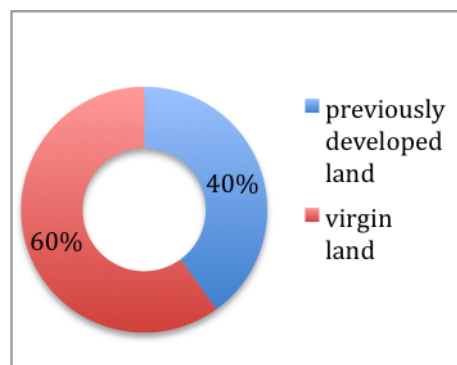
Figure 4.2.1

Hence, the estate developers price their products in terms of land value, cost of production, and the cost of other infrastructural services such as swimming pools, security, backup generator systems, effective waste disposal systems and the like.

On the other hand, focus group discussions and a quick survey conducted among residents of Accra revealed that, most Ghanaians had family sizes of more than 3. Most of these families lived in the suburban areas since housing that can fully accommodate their families is always available in such areas. Once again, due to the poor state of Accra's road network, most of these respondents owned four-wheel drives.

About 23% of the respondents lived close to the city center. This group comprised of Ghanaians of the high-income group, or Ghanaians who had inherited family properties. The remaining respondents were expatriates and diplomats who had small households and therefore could afford to live in an apartment or condominium.
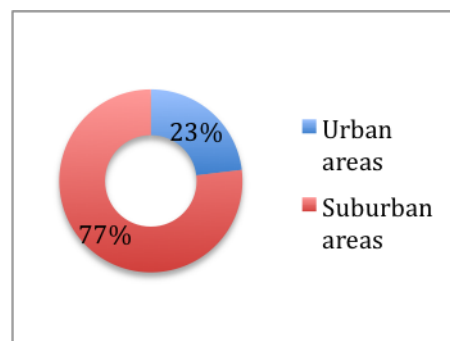
Figure 4.2.2

Also, the respondents who lived within their own houses and therefore did not pay rent, owned other properties within the country. The properties situated in

Accra were put up for rent, whereas the properties located outside Accra served as vacation homes. Even with vacation homes, some respondents operated them as guesthouses and lodges.

CHAPTER FIVE

FINDINGS, RECOMMENDATIONS AND CONCLUSION

Results from the data in the previous chapter threw light upon some of the effects accessibility has on residential estate development in Ghana, focusing on the city of Accra. This chapter consists of findings during the study, and recommendations to help solve any problems that were discovered. The real estate industry in Ghana is growing tremendously, it therefore presents good opportunities for investors. If taken seriously, the housing deficit issue will be solved and most Ghanaians especially the middle to lower income groups will be able to afford decent homes.

5.1 Findings of the Study

5.1.1 District assemblies

The district assemblies in the various localities do not perform their duties of ensuring that the Department of Urban Roads provide roads within the towns and cities as indicated on the planning schemes of the various localities.

5.1.2 Town and Country Planning procedures

Processes and procedures involved in acquiring a building permit from the Town and Country-planning Department is very cumbersome. Building without a permit attracts a penalty, but much as builders are aware of this, they would

rather pay the penalty and build without a permit. This problem has contributed to the construction of illegal structures within the city of Accra.

5.1.3 Lack of Urban Roads on the Outskirts

Since the city of Accra is bound on the south by the sea, available land goes beyond the suburbs and outskirts of the city towards the north. However, roads within the outskirts are mostly feeder roads and these feeder roads are not properly networked. The lower middle class will rather live on the outskirts since they cannot afford to purchase or rent houses within the urban areas. They however have to grapple with issues like traffic, over-consumption of fuel, wear and tear on their vehicles and so on.

5.1.4 Pricing of Real Estate Products

Residential properties for rent or for sale within areas like the "golden triangle" in Accra sold and rented in thousands of dollars. The average Ghanaian cannot afford these prices. Because of this issue, the estate developers target their products towards the expatriate community. Most embassies and multinational companies are situated within the city center and within the above-mentioned "golden triangle" area. They therefore encourage their officials to reside close to their work places. This therefore gives the few residential real estate companies a good monopoly.

5.1.5 <u>Power and Water Supply</u>

The flow of power and water supply within the country is not constant. Developers therefore provide infrastructural services within their communities to curb this issue. These vital services are built into the cost of the products.

5.1.6 <u>Interest rates</u>

Currently interest rates provided by the banks for loans are between 24%-30% per annum because of the level of inflation. Due to this, the developers tend to over price their products, so that they can service their construction loans in the short term, and at the same time also make profits. They claim it is the fastest way to make money.

5.2 <u>Recommendations</u>

From the findings discussed, this section seeks to make recommendations that would curb this issue and benefit both the real estate developer and the general public.

Authorities

City authorities should be able to properly enforce the laws of the state in accordance with the planning and building regulations. District assemblies should also be effective in executing their tasks, so that in this situation, the necessary road infrastructure will be provided in the corresponding localities.

Town and Country Planning Department

Processes and procedures at the Town and Country Planning Department should be streamlined to make it easier for people to acquire land and building permits.

Provision of Urban Roads

The district assemblies should be able to encourage the provision of more urban roads in the outskirts of the city and the hinterland. When these areas develop to become urban, businesses are attracted and so is housing. Concerning housing, when supply is able to exceed demand, the exorbitant housing prices within the city will drop tremendously, making it affordable to the average Ghanaian.

Also, the Ministry of Roads and Highways should be able to practice the "Build-Operate- Transfer" (BOT) approach. This is when private companies or individuals finance the construction of roads, operate them, maintain them, reinstate them, and transfer them back to the government after the cost of the project has been recouped.

Again, the government could adopt the "roads first, houses later" approach, where government policies will only permit the construction of buildings after the roads have been laid out. This approach is practiced in the Ivory Coast.

Proper Management of the economy

The government should be able to manage the economy properly. Reducing government expenditure to avoid inflation would help lower the current bank interest rates.

Real Estate Developers

Real estate developers should also focus on producing more products that are tailored towards Ghanaian families. This will encourage more Ghanaians to purchase and rent houses, hence reducing the housing deficit.

5.3 Conclusion

A well-planned city always does well to put social, environmental, infrastructural and economic needs of the citizens in equilibrium. When this is achieved, investors will always feel safe with their investments, the needs of citizens will always be prioritized during the implementation of city planning schemes and infrastructure will be on point.

The situation or state of roads within the country and the real estate industry has to be critically examined by the government of the day to enact better policies that will make them a priority in the development of our communities. Most Ghanaian citizens desire to own their own homes, but with the state of the present economy, this wish cannot be fulfilled especially for low income and lower middle-income citizens.

To curb this issue, the government should be able to review its policies, find new and innovative approaches to solve the housing deficit problem and also ensure their implementation.

This will go a long way to benefit the government, the real estate industry and every Ghanaian citizen.

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APPENDIX

APPENDIX A: Description of Sample Study

Town and Country Planning Department

The Town and Country Planning department was developed under the ordinance of Cap 84, the Town and Country Planning Act 1945. This institution is responsible for the physical development of towns and cities in Ghana. 3 officials were interviewed from this institution.

Ministry of Roads and Highways

The Ministry of Roads and Highways, is the responsible body for the development and maintenance of all roads within Ghana. The ministry has been further broken down into three arms, namely:

 i. The Department of Urban Roads

 ii. The Department of Feeder Roads

 iii. The Ghana Highway Authority

4 officials were interviewed from this ministry.

Real Estate Developers

Ten different real estate developers were used as part of the study, so as to have a good mix of developers in various parts of the city.

Residents

17 residents from Accra were randomly interviewed for the study. This was done so that the researcher could understand properly the various public opinions relating to the topic.

APPENDIX B: CD

The CD, attached to this dissertation, contains a website and database that was designed by the researcher to discuss and blog the thesis topic and allow comments from the public which would serve as suggestions to help curb the problem.

APPENDIX C: Data Collection tools for Real Estate Developers

1. Name……………………………………………………………..

2. Factors that are considered when embarking on residential developments.

(a) Accessibility   (b) power supply   (c) water supply

   (d) Other………………………………………………………………………

3. What informed your decision to go into real estate?

4. What type of real estate products do you provide?

    Apartments/condominiums   []

    Townhouses   []

    Semidetached housing   []

    Single family homes   []

5. Who is your target market?

    Expatriates/ High Income   []

    Upper Middle Income   []

    Lower Middle Income   []

6. Why do you target them?

………………………………………………………………………………………………………..

7. What type of land would you prefer to acquire?

    a) Land in developed areas   []   b) virgin land   []

            Reason:………………………………………………………………

8. Considering your answer in the previous question, how long does it take to acquire your preferred type of land?

9. Have you ever had to construct roads for or within your estate project?

Yes []   No []

If yes why?...

IF NO, PLEASE MOVE ON TO QUESTION 15

10. How would you describe the legal processes for constructing roads?

Tedious   []

Satisfactory   []

Easy   []

11. How do you classify the cost of constructing a road without government assistance?

Cheap   []

Average   []

Expensive   []

Very Expensive   []

12. Do you have a road maintenance schedule for your development?

Yes   []   No   []

13. What challenges do you face when it comes to provision of roads?

14. What other type of infrastructural services do you provide for your development apart from provision of roads?

15. Does the provision of infrastructure affect the pricing of products at all?

Yes   []   No   []

If yes, state the nature……………………………………………………………

16. How do you price products?

17. How do you differentiate prices between products?

18. State the problems that affect your operations

APPENDIX D: Interview guide questions for some estate developers

1. Why did you go into real estate?

2. What informed your decision to go into those particular areas?

3. Who is your target market and why do you target them?

4. What types of products do you build for your target market?

5. Besides roads, what type of additional infrastructural services do you provide for your developments?

6. How do you price your products?

7. What do you consider when pricing your products?

8. Why do some estate developers prefer to supply housing within the "golden triangle"?

9. What factors do you consider when embarking on residential developments?

10. What are your product sizes in terms of floor area?

11. What has been the trend of property values of late?

12. How do you classify your residences?

13. Do road types influence the classification of your residences?

14. Do you have a road maintenance schedule for your residential developments?

15. If yes, what form does it take?

16. What challenges do you face when it comes to provision of roads

17. What are the problems that affect your operations

APPENDIX E: Data Collection tool for residents

1. Are you Ghanaian?

Yes   []   No   []

2. Where do you live? ……………………………………………………………

3.What is your family size?...

4. Do you own the house you live in?

Yes   []   No   []

IF YES PLEASE PROCEED TO QUESTION 6

5. Do you pay rent?

Yes   []   No   []

6. Why   did   you   choose   accommodation   in   this   particular
area?..

7. Do   you   own   any   other   properties   within   the   country?   If   so
where?..

8. What do you use those properties for?.......................................

9. What type of cars do you own? (e.g. Four wheel drives, saloon cars
etc)......................................

APPENDIX F: Interview Guide for Town and Country Planning Authorities

1. What is the role of the Town and Country-Planning Department?

2. What difficulties do you face when your roles are being carried out?

3. Do you have a role in the development of estates or housing in Accra? If so please explain

4. What development plans have been drawn for the city of Accra?

5. What informs your decision to zone a particular area for residential development?

6. Does the department have any influence on the lands department during the supply of land?

7. Do you ensure that residential areas are serviced with good roads?

8. Have you had any complaints from clients concerning your procedures and processes?

9. What are the prerequisites for acquiring a residential permit?

10. What are the costs associated with getting a residential permit?

11. Do people ever develop properties without permits?

APPENDIX G: Interview Guide for the 3 Ministry of Roads and Highways Agencies. (Department of Urban Roads, Ghana Highway authority, Department of Feeder Roads)

1.What is the role of this agency in the development of the city of Accra?

2.What is your development plan for the city of Accra concerning housing?

3. How do you involve yourselves with private estate developers concerning the provision of roads?

4. Concerning the processes involved in providing roads today, are these processes different from how they were in the past?

5. What type of roads does this department provide?

6. Are you responsible for providing minor roads that link up residences?

7. How long does it take to construct a basic road?

8.Do you have maintenance schedules for your roads? If so, do you adhere to them?

9. Do you have a documentation or layout of all roads in Accra?

10.What are the problems that affect your operations?