Implementing a Street and Property Identification System: A Case Study of Accra, Ghana

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IMPLEMENTING A STREET AND PROPERTY IDENTIFICATION SYSTEM: A CASE STUDY OF ACCRA, GHANA

by

Grace Akpene Ecklu

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
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Department of Geography
Advisor: Benjamin Ofori-Amoah, Ph.D.

Western Michigan University
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Grace Akpene Ecklu
IMPLEMENTING A STREET AND PROPERTY IDENTIFICATION SYSTEM: A CASE STUDY OF ACCRA, GHANA

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Western Michigan University, 2011

An increasing problem in rapidly growing cities of developing countries is lack of a functional and standardized address system to support management of resources and provision of necessary facilities and services. In Accra, Ghana, previous attempts to develop an address system have been fragmented in nature and largely unsuccessful. This paper examines the reasons why previous attempts have failed and how a physical address system can be successfully implemented within the Ghanaian context. Based on interviews with a City Planner and a sample of residents of Accra, the paper identifies political, administrative, technical and socio-cultural challenges as major gaps which need to be bridged in order for an effective physical address system to be established. Furthermore, weaknesses in the local government system in Ghana present a major structural and institutional hurdle which hinders the successful implementation of projects of this nature and scale. Therefore, in order for a street and property address system to be successfully established, there first needs to be a reorganization of the district planning machinery before specific strategies directly related to street addressing can be applied.
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CHAPTER I

INTRODUCTION

Background and Purpose

The Problem

Street addressing and house numbering systems perform several vital roles in the city (Farvacque-Vitkovic et al, 2005; Thale, 2007; Rose-Redwood, 2008a; UNECA, 2004). First, they are the basic systems of identifying a physical location in cities. Second, an address system is a tool city governments use to track urban growth by guiding the development and provision of infrastructure and services in the urban environment. Third, address systems help businesses to deliver essential services and provide a reference system for the delivery of mail more effectively and efficiently. Furthermore, a functional street naming and numbering system forms the basis for the intuitive identification of places. Residents and visitors alike depend on street addresses to find their way. Functional addresses do not rely on memory or extensive familiarity of the local neighborhood and are linked to maps. In addition, many street names are linked to a cultural set of identification borne out of local or regional, ethnic and/or historical inventory.

In Accra, however, this essential and basic system is either non-existent or inoperable. In some cases, a street name may simply not exist as the street in question was never given a formal name through an official naming agency negotiated by multiple authorities. Where a street name does exist, it is largely arbitrary, providing limited
functional use to individuals, corporations or city authorities. This lack of a unified address system makes it difficult for city authorities in Accra to effectively and efficiently locate and coordinate the resources within their jurisdiction. For instance, land-use planning and parcel identification for legal, security and billing purposes are difficult to manage without a comprehensive system of identifying physical locations. In addition, the absence of such a system makes it virtually impossible for the delivery of mail, emergency response to the general public and essential services such as extension of credits by financial institutions to their customers. Furthermore, where there is no system of street coordinates, navigation becomes difficult for both visitors and residents since they have to rely on local gatekeepers, memory and landmarks that tend to be ephemeral.

In the last ten years, from 2000 to 2010, there have been various attempts to develop a comprehensive street and property addressing system in Ghana, at both the country and city level. However, these initiatives have not succeeded. The result is that post office boxes are still the main form of addresses for both residential and commercial landscapes, while the use of landmarks and lengthy descriptions still dominate place identification and the giving of directions.

Explanations for these failed attempts have been twofold. Government officials blame property owners for not appreciating the relevance of a more comprehensive address identification system as they defaced the house numbers that were assigned to them. Others have blamed individuals who wanted to name their own streets and therefore did not accept the new names. However, planning theory shows that when people and local power structures are not involved in the planning process of a project,
the project’s implementation often runs into difficulties (Booher and Innes, 2002; Burby, 2003; Faludi, 1973a; Green and Haines, 2008). Thus, what is not clear is whether or not the failure of these efforts was due to factors in the cultural environment dictated by people’s attitude or by weaknesses in how the project was planned and implemented. In the meantime, new efforts are currently being made to establish a street addressing system in Ghana.

The purpose of this study therefore, is to examine why previous street addressing and property identification attempts in the city of Accra have failed and what can be learned from these efforts so as to establish a successful system. The study assesses the limitations of previous street addressing and property identification exercises, compares them with practices in the current attempt at street addressing, and makes recommendations for implementation practices in the area of planning and street addressing. Under these goals, the study addresses the following objectives:

1. To examine the limitations of previous efforts to establish street and house addresses in the city of Accra, Ghana
2. To determine the reasons for the failure of these efforts
3. To recommend how a successful comprehensive street and property identification system can be successfully established

Research Questions

Specifically, the study will address the following questions:

1. What were the major characteristics of previous and current street addressing efforts?
2. How were they implemented?

3. Why did they fail?

4. What can be learned so as to establish a successful system?

Methodology

Primary and secondary data sources were used for the study. Primary data were acquired through interviews. The interview subjects consisted of two subgroups of Accra residents. One group consisted of individuals who live in an area where previous street addressing efforts were made. The other group consisted of individuals who live outside those areas. A government official who was involved in the address identification exercise was also interviewed. Interview questions focused on the planning and implementation of the past street addressing and identification system, why it did not work, and how the system can be successfully implemented. The interviews were used to attain an in-depth understanding of the address system and the implementation process from the perspective of the expert and the end user. Secondary data sources were acquired from related literature of previous and current implementation strategies.

Based on responses from the interviews and related literature, the study used a qualitative approach to examine the various strategies adopted by previous and current street and property identification exercises. These served to validate the conclusions reached by the study.
Significance of the Research

The problem of Accra's inadequate street address system has been investigated by Grant and Yankson (2003), Grant and Nijman (2002); and Arku (2009). However, the foci of these studies were more on the evolution and development of the problem. For example, Grant and Yankson (2003) attribute it to historical development policies aimed at organizing Accra's physical environment. Grant and Nijman (2002) and Arku (2009) attribute the city's lack of a comprehensive street address system to lack of enforcement of zoning and building codes in the non-European section of the city during colonial times. Thus, although there is an understanding of how the problem developed, the reasons why attempts at introducing a more unified address system failed have not been addressed.

This study hopes to provide a better understanding of the dynamics of implementing a physical address system in Accra. A direct benefit of this research might be to inform decisions which will be taken in the current street naming and property identification project in the Accra metropolis. The research is also expected to validate and contribute to the process of implementing plans using participatory approaches in urban communities.

The Study Area

Accra is located along the south eastern coast of Ghana (see Figure 1). Ghana is situated along the Gulf of Guinea coast in West Africa, north of latitude 4 degrees north and intersected by the Greenwich Meridian, longitude 0 degrees. Accra was originally a collection of small villages along the coast inhabited by the Ga people who first settled
there in the late 15th century. The presence of European forts and castles such as James Fort, Ussher Fort and Christiansborg, are indicative of Accra’s growth as first a trading post and later a port city for Europeans.

Figure 1: Map of Ghana Showing Accra

Source: Generated by the Author (2010)
These forts changed ownership several times until they all finally came under the control of the British, establishing the former Gold Coast as a British Colony. Accra became the seat of the colonial government in 1877 with the relocation of administrative functions from Cape Coast. At the time of Ghana's independence in 1957, the city remained the national capital.

As with several other major cities in developing countries, the city of Accra experienced rapid urbanization in the post colonial period, and quickly became a primate city, dominating the political, economic, social, and cultural life of Ghana. Subsequent government policies, including macroeconomic reforms introduced by the World Bank and the International Monetary Fund in 1983 (Grant and Nijman, 2002; Arku, 2009), reinforced this tendency leading Arku (2009) to observe that eighty four percent of foreign investments for the entire nation are concentrated in Accra. The relative affluence of the city has prompted increased migration of the rural population to the city leading to even greater urban expansion. Today, Accra is a sprawling urban area with an estimated population of 3.9 million and covering a land area of more than 200 square kilometers (Ghana Districts, 2006).

This dramatic demographic shift from rural areas to the city has put considerable strain on government resources with respect to the provision of facilities and services, compounded by a failure to efficiently plan the urban center. In addition, conflicting objectives among private developers, planning agencies and traditional land owners have resulted in a situation in which these developments have taken place in an ad hoc manner. Thus, planning has neither been strategic nor integrated. Lack of discipline in the land market has created a situation where land is sold and developed with little regard to
planning and zoning regulations. This has resulted in a fragmented and disorderly urban landscape characterized by leapfrog expansion of new, low density developments (Grant, 2009). One of the visible expressions of this landscape is the absence of street names and/or the haphazard method of numbering buildings in many portions of the city.

Several street addressing and house numbering practices exist in Accra. There is the Block System of addresses where an area is assigned a lettered code and individual properties are given unique numbers in addition to the area code. For example, a building under the Block System will have an address of B 632/26 (see Figure 2). However, with the growth of the city, buildings began to be numbered with no relation to a street address database or a property addressing system. Where a semblance of organization has been attempted, street and house addressing exercises are approached with the purpose of assigning numbers for revenue purposes. This is manifested as numeric numbers (see Figure 3) represented by metal plate signs or by painting numbers on the visible part of the building from the street or road. However, there are properties and streets which have never been assigned a unique identification. Planned areas such as residential estate developments also have address systems for their neighborhoods.

Some public utility companies such as the electricity corporation and the water company assign unique numbers to buildings for billing purposes. Thus, it is not unusual for a building to have more than one number. Furthermore, some residents name a street on their own volition. Some buildings also maintain the plot number and size from the cadastral survey as their house numbers. It is the failed efforts to streamline these haphazard address systems that is the focus of this thesis.
Figure 2: Old Block Numbering System (Alphanumeric) in Accra
Source: Pictures Taken From the Field by the Author (2010)

Figure 3: Numeric House Number
Source: Pictures Taken From the Field by the Author (2010)
Organization of the Thesis Chapters

The rest of the thesis is organized into five chapters. Chapter two reviews the literature on street addressing and the implementation of plans to provide a theoretical context for the thesis. The chapter discusses the significance of street address systems, the different methods of street addressing and the role proper planning and implementation plays in establishing a successful system. In the third chapter, the methodology is discussed. Chapter four provides background into historical and institutional practices which have contributed in shaping the existing street and house identification system in Ghana. The fifth chapter presents and discusses the major findings from the interviews conducted. The final chapter provides a summary and conclusion of the study. It also makes recommendations to support successful street and property identification exercises in Ghana.
CHAPTER II

IMPLEMENTING STREET ADDRESSING SYSTEMS

The purpose of this chapter is to review the literature on implementing street addressing systems. The chapter is organized into two main sections. The first section reviews the literature on street address systems with respect to its definition, importance, types and methods. The second section reviews the literature on plan or project implementation, discussing specifically the role of implementation in the planning process and factors affecting successful implementation.

Street Address Systems

Introduction

In this section, street address systems are first defined and then discussed in terms of their significance and function as a socio-cultural part of the landscape, a tool for urban management and a tool for enhancing socio-economic activities. The second part of this section discusses the various methods employed in assigning street names and house numbers.

Definition

"An address is a primary means to identify and locate a unique object" (UNECA, 2004, p. 1). It is "the precise, complete, permanent and unique location of any spatial object (e.g. thoroughfare, parcel, place of interest and property addresses) using a system of identification such as name, number or descriptor" (UNECA, 2004, p. 2). An address
is thus essential to identifying the situs or site of a spatial object. This allows for understanding of and ability to navigate the spatial structure of the city. Street addressing is an exercise which uses a system of street coordinates to identify locations on the ground, whether it is a dwelling or urban facility (Farvacque-Vitkovic et al, 2005). An address is functional when it permits the process of navigation and location of places within this context, while a functional street addressing system allows for the intuitive identification of places without relying on memory or extensive familiarity of the local neighborhood. This idea of a comprehensive address system was made explicit by the Philadelphia City Directory of 1861 which stated that “[n]umbers properly arranged suggest distances to the mind: but improperly placed, they lead to confusion” (Philadelphia City Directory, 1861, cited in Rose-Redwood, 2008a, p. 302).

Significance of a Comprehensive Street Addressing System

Street Addressing as a Socio-Cultural Artifact

A physical address is a socio-cultural feature of the landscape. It is used in everyday life and it is an important way by which people interact with their environment. As it becomes a recognized part of the urban landscape, people make it their own. Thus, an address system is internalized by the urban residents (Rose-Redwood, 2008a). Rose-Redwood (2008a) further notes that the development of house numbering in the United States was facilitated by individuals who, at one time, were responsible for inscribing numbers on their property and buildings.

Street and house addresses have always carried with them cultural significance. House numbers are not merely utilitarian but are symbols of meaning. People become
attached to house numbers as they are a form of identity which acquires “connotations and associations, both personal and socially shared” (Thale, 2007, p. 134). In a similar vein, street names usually carry with them a sense of cultural and political identity. For a street name to be effective, its identity should be based on mutual consent. Ignoring street naming as a social activity and regarding it as simply a performative practice may result in a situation in which the populace does not recognize its legitimacy. Thus, street names especially, have some significance in understanding the social and cultural geography of the city.

Street names also serve as tools to mold national identity with regard to historical heritage. Commemorative street names are used to advance a set of values. They also serve to “introduce an authorized version of history” (Azaryahu and Kook, 2002, p. 199) into the context of daily life, for example, naming a street after a national hero. The significance of a street name as a reflection of the cultural landscape and identity has been discovered by various cities which sought to either name or rename their streets (Guyot and Seethal, 2007; Rose-Redwood, 2008a; Thale, 2007).

A Tool for Urban Management

Managing urban areas is foremost on the agenda of many cities to reduce the ills generally associated with urban areas. In the rapidly urbanizing cities of developing countries, the problems of urbanization are even more pronounced. This is because, although they function as the hub of the country, many of these cities are not able to serve as engines of growth which characterized the urbanization process in the industrial era. City authorities grapple with increasing urban poverty characterized by poor housing
conditions and the domination of the informal sector. In these rapidly urbanizing areas, city authorities are always looking for a way to balance the needs of their jurisdiction with available resources. A critical factor in this equation is generating enough revenue to operate the city effectively. Revenue generation is even more critical as scarce resources compete for many needs. Street addressing is a useful tool for revenue mobilization and debt collection. Without a clear system of street addresses, individuals, companies and property cannot be identified and taxed appropriately. Therefore, more than ever, authorities need a system whereby they can account for what goes on within the city. Information on location of the land allows planning to proceed in a more coordinated manner as planners have knowledge which enables them draw up relevant plans for the area.

Furthermore, a street address system is used by town authorities as a tool for the identification of individual residents. Yeoh (1992, p. 313) notes that the physical address is essential for “counting the population as well as general surveillance of the city’s inhabitants”. With a functional address system, a person’s identity can be linked to a physical location which is useful for legal, security and billing purposes. An address lends credibility to and complements other forms of identification such as drivers’ licenses, electoral records and property records as these can be cross-referenced to check for validity. For example, each voter can be matched to an address which can be physically verified, thereby eliminating ghost names in the voters register. In addition, information on the population residing in different areas of the town and its characteristics can be known and appropriate measures taken to address issues concerning the population. For instance, unemployment patterns, if any, can be
determined and appropriate actions taken to address it. Therefore, a street address system is a useful tool for managing and organizing information about people and activities within the city and is helpful in promoting the successful implementation of representative democracy.

Finally, with a functional address system, data sharing and management becomes efficient. A stable and standard record-keeping system can be used in land management and land use planning. Land ownership, for instance, can be monitored and this helps eliminate disputes associated with land titles. In these ways, then, a physical address system is a powerful source of information for decision making. The daily management and planning of the urban environment, and the production and maintenance of records is also improved (UNECA, 2004).

A Tool for Enhancing Socio-Economic Activities

The lack of a comprehensive system of street names and house numbers is detrimental to social and economic activities (Farvacque-Vitkovic et al, 2005; Rose-Redwood, 2008a; Thale, 2007). In addition to the major role of facilitating the location of places by residents and visitors, the establishment of an address system also facilitates the work of emergency and security services. These include the fire, ambulance, and police services. A function of the efficiency of these services is how quickly they are able to offer their services wherever they are required. As these services are usually required under crisis conditions, accurate and quick identification of their destinations is essential. Without a proper spatial referencing system, the response time for these services is
considerably lengthened. This may result in the loss of life and the destruction of property. This is a huge loss to the society and a drain on the economy.

A good address system ensures that mail, goods, parcel delivery, courier and taxi services are possible. Without a physical address, individuals who desire to receive mail and packages have to rely on post office boxes to receive them. Additionally, individuals without post office boxes have to rely on others who have addresses to receive packages or they simply cannot receive them through delivery services. Delivery services are, thus, limited where it is difficult to locate places. Comprehensive street names and property addresses reduce delays as a result of the trips which have to be made to the post office and therefore make postal delivery services more efficient.

The benefits of efficient delivery services are not, however, restricted to individuals. With time considered to be “the soul of commercial transactions” (Rose-Redwood, 2008a, p. 296), businesses, industrial establishments, and commercial activities depend on addresses to operate efficiently and effectively, especially in the distribution and delivery of goods and services. Within this context, the publishing of city directories developed under the argument that “a sure and reliable index to the character and resources” (Rose-Redwood, 2008a, p. 295) of a place was needed to expedite business transactions. Utility services such as telecommunications, electricity, water and sewerage also rely on physical addresses to make connections and collections on the services they provide.

Furthermore, without a standard address system by which an individual can be identified, accessing credit becomes a challenge particularly for individuals simply because a person’s identity cannot be easily verified. Small and medium scale enterprises
in developing countries also find it difficult to access credit because they are considered high risk investment and operate under greater external uncertainty. This difficulty of accessing credit is a major hindrance in the growth of these small businesses and this implication is crucial as one considers that these countries are trying to develop. Small and medium scale enterprises constitute up to 90 percent of the economies of some developing countries and employ about 22 percent of the adult population (Kayanula and Quartey, 2000). Because they are geared towards the needs of the poor and use indigenous skills and entrepreneurship, small and medium scale enterprises are considered the means by which developing countries can achieve accelerated industrialization and growth of their economies. With a reliable system of identification, financial institutions are more willing to offer credit to individuals and small businesses. Coupled with government intervention schemes, a reliable identification system which is based on a system of spatial referencing can reduce the risk factor associated with doing business with these enterprises.

Social and cultural activities such as religious gatherings and entertainment are part of the fabric of daily activities undertaken by residents, visitors and tourists. Businesses in the hospitality sector, such as hotels, guest houses and holiday destinations, need a reliable form of street addresses to help customers access these locations. It can be time-consuming and frustrating looking for a building or the location for any of these activities. This is more so when the search is fruitless.
Methods and Procedures for Street Addressing

Many types of addressing systems exist worldwide (Davis et al, 2003). Some are simply intended to distinguish between buildings on a street and serve the purpose of precision. These systems do not define the city as a whole. Other identification systems are designed to make the task of locating an address speedy and simple (Thale, 2003). In general, there are three things to consider when embarking on a street addressing project. These are zoning the city, determining the baseline and coverage and systems of street, and building identification.

Zoning the City

This involves specifying the areas to be addressed and grouping them into relevant sectors. These divisions may be existing neighborhoods or address zones created for this purpose. The aim of creating subdivisions is to provide a meaningful reference system for residents. Zones with not more than nine hundred streets are better suited to serve this purpose (Farvacque-Vitkovic et al, 2005).

Determining the Baseline and Coverage

The geographic direction of numbering must also be specified to enhance its practicality to residents (Farvacque-Vitkovic et al, 2005 and Thale, 2007). Two perpendicular axes could be established to provide a system of reference points. The streets will run based on these axes. The choice of the axes varies based on a city’s layout, for example, whether it is growing outward in all directions from a center or whether it is traversed by a river.
Systems of Street and Building Identification

Different street and building identification systems have been developed and adopted based on the spatial layout of cities (Thale, 2007, Davis et al, 2003). According to Farvacque-Vitkovic et al (2005), there are three street and three building identification systems.

Street identification systems

a. Naming streets

The naming of streets is the most common and versatile way of identifying streets. This is because names for streets can be adopted to suit any street layout. Assigning names to streets, however, is usually a lengthy process which involves compromise and much debate. It is therefore not suitable for rapidly growing cities seeking to carry out a street identification exercise. There needs to be enough time for decisions to be made on the name selection process. To counter this challenge, cities may create official nomenclature of names for future implementation (Azaryahu and Kook, 2002).

b. Numbering streets.

This system arranges streets in either numerical or alphabetical order. It is a neutral system usually used in cities with a grid layout. In addition, it is relatively easy for people to understand. It may also be used in combination with the Cartesian coordinate system.
c. Neighborhood designation prefixes

This system is used in cities with an irregular layout. Streets are organized into zones or neighborhoods as a way to establish street coordinates. Each street is assigned a prefix that designates the neighborhood in addition to a sequential number, to give it a unique identification. This has been done in Niger, Senegal and Togo.

Building identification systems

Buildings have broadly been identified using either continuous or sequential numbering practices. The former has largely been discontinued due to its potential for causing confusion when implemented in large areas. Alternate numbering assigns odd numbers to one side of the street and even numbers to the other side. Based on the starting point, odd numbers are conventionally assigned to buildings on the left side of the street and even numbers assigned to buildings on the right side. Three types of alternate numbering systems exist: sequential numbering, metric numbering, and decametric numbering systems.

a. Sequential numbering system

Also known as the classic system, buildings are assigned sequential numbers, alternating between odd numbers on one side (1, 3, 5) and even numbers on the other side (2, 4, 6). Simple and common, this system, as shown in Figure 4, is useful where all the buildings have been completed or the master plan for future buildings has been drawn. In the absence of a master plan, new structures built after the addressing process need to be assigned numbers with suffixes to differentiate them from the original structures. Therefore, sequential numbering is difficult to use in developing
neighborhoods in which buildings are springing up. Another drawback to this system is that buildings do not have the same length of frontage. Therefore, successive even and odd numbers may not be located directly across the street from each other.

Figure 4: Sequential Alternating Numbering System


b. Metric numbering system

This system assigns odd and even numbers based on the metric distance between a building entrance and the beginning of a street (see Figure 5). It is one of the most important and flexible addressing systems in the world (Davis et al, 2003). The consideration of distance simplifies finding an address. In addition, new buildings can be assigned addresses based on distance from the street’s starting point. The process whereby segments are filled up by new buildings over time is referred to as
densification. Numbers, however, are not sequential which may be puzzling to people unfamiliar with the system.

Figure 5: Metric Numbering System


c. Decametric numbering system

Decametric numbering is similar to metric numbering but in this case numbers are placed according to ten meter-long sections of the street. It combines the advantages of the first two systems. However, when densification occurs or more than one building is located in each ten-meter segment, letters are required in addition to numbers to differentiate between them, for example, 10A and 10B. In reality, this system is little used.
From the above methods, it is easy for the assignment of street names to slide into mere technicality. However, when the populace does not share the symbolic significance of a street name, a dichotomy is created whereby an official name exists alongside an alternative designation which is used by the local populace. As Yeoh (1992, p. 320) notes, “[t]he persistence of different street systems of signification in the city showed that municipal representations of the landscape did not command an unchallenged hegemony”. Thus, issues of “who gets to decide what the appropriate circumstances are, who the appointed authority should be, and what procedures or social conventions must be followed in order to ensure the performative enactment of a name” (Rose-Redwood, 2008b, p. 877) are significant when considering a street addressing system which is to make the maximum impact in terms of its relevance.

Azaryahu and Kook (2002) have highlighted measures such as Street Names Committees and the formation of an official nomenclature of names within the Arab neighborhoods of Haifa, Israel, to eliminate this dichotomy. Thus, cities and neighborhoods have adopted different systems to guide the choosing of street names. Common among these is the use of a theme which is relevant to the local population and which usually follows a logical order based on a reference point. Examples of such themes include names of flowers, trees, streets named after famous writers and poets, presidents, pilots, or simply streets named in alphabetical order.

Another way of naming streets is by using the Cartesian plane coordinates. This system is usually applicable to cities laid out in a grid pattern where it is easy to demarcate streets going east-west and north-south. Manhattan, New York City is famous for this system. On one hand then, the success of a street name and consequently, an
addressing system lies in its ability to be interdependent in the sense that it is acceptable to all users regardless of political affiliations and ideological preferences (Azaryahu and Kook, 2002). On the other hand, the process of addressing is a technical endeavor which cannot be separated from the context of its location.

Thus, the development of street names and house numbers should not merely be the initiative of authority: “Codifying a new regime of spatial inscriptions is one thing, yet ensuring its ‘permanence’ cannot be achieved by top-down imposition alone” (Rose-Redwood, 2008a, p. 309). Residents also play a role in the establishment of house numbers. Consequently, the street name and house number is an expression of the perceptions of place of the people residing in an area and its landmarks. That is the reason why early city directories were described as offering a guide to the assets and characteristics of places (Rose-Redwood, 2008a). A functional physical address system should be able to blend the technical features of that system with its socio-cultural environment.

Summary

A street address system presents cities with a powerful tool for managing resources in urban areas. It is an information system which can form the basis for spatial analysis to improve cities. Adopting a street addressing system requires both social and technical considerations as Table 1 below indicates. On the one hand a physical address is tied in with the identities of individuals and the city as a whole. On the other hand, the methods of building a geodatabase are not standardized but are influenced by the spatial and cultural characteristics of the urban area. The implication here is that like many
planning projects, successful implementation of a street addressing system depends on good planning and particularly public support and participation. The next section reviews the literature on this.

Table 1

Recommended Functional Addressing Practices

<table>
<thead>
<tr>
<th>Issue</th>
<th>Recommended</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street naming</td>
<td>Unique name across</td>
<td>Use same name and different suffixes when off a major road for example</td>
</tr>
<tr>
<td></td>
<td>jurisdictions</td>
<td></td>
</tr>
<tr>
<td>Street as number system</td>
<td>Replace by a name</td>
<td>Associate with local numbering system (e.g. Arabic): consistent</td>
</tr>
<tr>
<td>Street name posting</td>
<td>Each intersection legible</td>
<td>Uniform (color, size labels), clear, visible, frequent and systematic</td>
</tr>
<tr>
<td></td>
<td>and accessible</td>
<td></td>
</tr>
<tr>
<td>Street name format</td>
<td>Name + Suffixes</td>
<td>e.g. Mango Ave</td>
</tr>
<tr>
<td>Material to use</td>
<td>Local material durable</td>
<td>Boost local economy</td>
</tr>
<tr>
<td>Numbering</td>
<td>Consistent Chronological</td>
<td>Should allow update without altering the chronological numbering system</td>
</tr>
<tr>
<td></td>
<td>Odd/even</td>
<td></td>
</tr>
<tr>
<td>Choice of name</td>
<td>Resident choice</td>
<td>Easy to write, short (&lt; 15 characters)</td>
</tr>
<tr>
<td>Thoroughfare classification</td>
<td>By size (Hwy, Ave, Rd, St</td>
<td>Add pathway to the classification to accommodate building without direct</td>
</tr>
<tr>
<td></td>
<td>trail, path, etc)</td>
<td>known road frontage</td>
</tr>
<tr>
<td>Property identifier</td>
<td>Unique across the nation</td>
<td>Easy for national property and building database management</td>
</tr>
<tr>
<td>Landmarks</td>
<td>Use street name</td>
<td>e.g. Airport Transit St South Lake Ave</td>
</tr>
<tr>
<td>Several households</td>
<td>Use suffix for the</td>
<td>e.g. 56A Green Rd</td>
</tr>
<tr>
<td>in the same compound/estate</td>
<td>building at the front</td>
<td></td>
</tr>
<tr>
<td>Parcel address</td>
<td>One address for one parcel record</td>
<td>Parcel Unique Identifier</td>
</tr>
</tbody>
</table>

Source: UNECA (2005)
Planning for Street Addressing

Plans and the Planning Process

Definition, Characteristics and Form

Projects and plans are systematic efforts aimed at improving the conditions of people. These efforts coordinate resources to ensure that specific goals are achieved. Chen (2005) describes plans and projects as processes which have forms akin to systems. Plans have internal and external dimensions, with back and forth linkages between these areas. The manner in which resources are organized and the way the plan interacts with the external environment to convert these resources into real world success is at the heart of every program. Every project, such as a street addressing plan, has inputs which it transforms to produce outputs. The extent to which inputs are converted into the necessary outputs is a measure of the effectiveness of a plan’s internal organization.

A Systems View of Plans

Plans and projects may be viewed as an interaction between inputs which are transformed into outputs, all operating within the environment (Chen, 2005). Inputs are resources drawn from the environment without which the program cannot be sustained. The important task is organizing inputs effectively and efficiently to make a program succeed. These inputs include technology, finances, equipment and facilities, personnel and clients. Transformation involves using the inputs obtained to achieve the desired outputs. It is thus a process where through a series of action or events, inputs are converted to services for the beneficiaries of the program. Every project has specific and
measurable goals it aims to achieve. Outputs are the realization of these objectives through the process of transformation. The success of a plan can be judged based on whether or not the outcome of a plan is in sync with its goals. The output of a plan to establish a functional street addressing system in an area will therefore be measured, for example, by whether the established system is actually used by residents in navigating the city and also whether local authorities refer to it in managing development and activities in that area.

All plans and projects operate within a specific context which is the environment the program exists in. Any external influences which can impede or enhance the implementation of a project are termed the environment. For example, social norms, political structures, the economy, funding agencies, interest groups, and concerned citizens are all influences stemming from the environment (Chen, 2005). At every stage of a plan or project, the environment exerts considerable influence on the progress of a project. Inputs are obtained from resources in the environment. Furthermore, the outputs of a project are only deemed successful when the general environment perceives them as such. That is, the project needs to be validated by people’s acceptance of it.

Feedback is another component of the planning process. This refers to the information required about all the other components of the system; inputs and outputs, transformation, and the response of the environment to the project. Plans and projects are primarily a means to influence the future in various aspects of the society. Plans may be formulated to ensure the continuation of a trend, to reverse a trend or to accelerate change in either direction. Thus, because plans are aimed at influencing the future, it is not always clear how the elements in a plan might interact when they actually begin to be
implemented. This uncertainty is what makes plan implementation the thorniest part of the planning process. The success of a plan largely relies on how well it is implemented (Mensah, 2005) to meet and address the issues which were identified to warrant the need of a plan in the first place. This is where feedback becomes important in the planning process. As an open system where different factors come in to play to achieve specific results, unforeseen factors may crop up during the planning process and may alter the plan from its initial form. More inputs may be needed or may need to be organized differently. The planned outcomes might have to be revised as factors in the environment (for instance, people) respond to the plan. Thus, a plan can be sustained when the system allows feedback, serving as an alert system for planners (Faludi, 1973a). Feedback allows planners to recognize unforeseen circumstances, understand the reasons for these and consequently, enables adjustments to be made during the process. As a result, feedback plays a critical role in the implementation of plans.

Type of Plans

Plans can be classified based on how general or specific they are and the types of issues they address (So and Getzels, 2009; Jones, 1990). The comprehensive or general plan is the broadest of these plans both in terms of geographical extent and the concerns it addresses. The system plan is more specific as it deals with networks and facilities such as land use and transportation. Area plans are specific to defined geographic areas such as neighborhood plans. Halla (2005) identifies strategic and comprehensive planning processes as having different requirements for implementation. The strategic plan is issue-specific and therefore, does not try to address several problems at once. A strategic
plan identifies a problem and then involves people who have a stake in that issue to help address the concerns. For example, it could be managing urban environment, transportation or improving utilities and services. The scope for comprehensive planning serves as a flexible framework for coordinating development, for example, the general planning scheme. Because the level of planning cuts across different sectors, planning for development at this level can involve a broad range of stakeholders.

Within the plan document, Baer (1997) argues that the plan should be able to address some critical issues if it is to do something, that is, if it is to be implemented. Some of the questions considered are:

- whether the plan has priorities for implementation
- whether there is a time frame for the implementation of the plan
- whether the plan identifies an agency or person responsible for implementation
- whether the responsible agency is indeed capable of implementing the plan

Thus, the type of plan and the extent to which the document addresses the actions for implementation is important for the success of the plan.

The Planning Process

No matter the type of plan, the planning process for an addressing system generally follows these basic steps; setting of goals and objectives, data collection and analysis, developing action plans and finally, implementation. Setting of goals involves mutual agreement on a broad direction to pursue as relating to a particular planning issue. Goals may or may not be data driven. On one hand, this part of the planning process can be decided before data is collected and then the data collected is used to inform how the
goals might be met. On the other hand, goals can be set after data is collected and in this case the data shows the strengths and weaknesses thus guiding what kinds of goals to set. Goal setting is important as it guides future decisions and actions. Data collection, then, is an essential part of the planning process. Data gives all those involved in the planning process information about existing conditions and the situation on ground. Data is usually collected to include socio-economic indicators such as housing, demographics, income and employment. It also includes environmental factors such as water and land resources. The data collected typically reflects the issue being planned for. Also included in this step is a survey of the opinions of people who will be affected by the plan. Analysis of data follows data collection. This stage of the planning process brings together data gathered, interprets the different results, and attempts to determine their implications. The end result is information which can then be used to decide on specific action plans and interventions.

The next step of the planning process involves translating goals and objectives into policies and specific plans of action (programs and projects) to address existing conditions. These policies are implemented through these programs and projects. Plan evaluation and monitoring follow implementation to ensure that set goals and objectives are being met. In reality, the planning process is not always direct and does not neatly follow the steps outlined here. These stages interact at different times especially as conditions change and knowledge on existing conditions improve.
Factors Affecting Successful Plan Implementation

Implementation is the action part of plans. It is the tangible result of a plan where policies transform the environment in a deliberate manner. The finest plans may be prepared but how planners turn them into reality is what matters most. If a plan is not implemented, then it is impossible to deem it successful (Mensah, 2005). Consequently, when implementation is a success, then a plan can be regarded as effective. Since so much of a plan rests on its implementation, Chen (2005, p. 129) describes implementation as a “complicated and challenging course of action”. This is because achieving success in a plan depends on how much of the world is known and perceived by planners and how they can use the resources available to them effectively. Thus, Faludi (1973a) sums the ability to convert resources into tangible and expected results as resting on the twin factors of knowledge and power. The fact that these factors are limited is what exerts a direct influence on the ability of planning agencies to implement programs. Implementation requires the formation of agencies to organize and manage these variables in the most effective way (Chen, 2005; Faludi, 1973a and 1973b). In terms of knowledge, planners only know so much of the real world. There might be distortions in the image that they hold of the world.

Power, or control, comes into play in terms of how resources can be managed within the plan environment. There are different degrees of control with different outcomes and implications. The design of a plan usually takes into account how resources will be controlled to meet the goals of that plan. Furthermore, the manner in which resources are converted into control will affect the implementation of that plan. Therefore it is important to view implementation not as a separate, one-time event, but as a process
which should influence the formation of plans from the onset. The implementation component in traditional forms of planning, for instance, is generally missing (Alexander, 1998).

In the classic rational planning paradigm, policies are formulated as an end result of a problem-solving process. Rational planning is a linear process where there is a clear distinction between the formulation of the policy or plan and the start of implementation. The adoption of a plan or policy is usually the last step of the planning process and the implementation component is usually missing. After a policy is formulated, it is assumed that the plan will somehow materialize on the ground. Implementation is only linked to the process in the sense that if the quality of the plan is good, then there is a better chance that actual implementation will occur and yield better results. In a related form of planning, implementation has to satisfy certain requirements as set in a pre-determined framework or prescription. In these two forms of planning, it can be argued that implementation is noticeably absent. This is because implementation is regarded as not a "simple elaboration of completed plans and adopted policies" (Alexander, 1998, p. 306). Rather, it is an integrated process which merges with the entire process.

There are distinct practices employed to influence behavior in the implementation of plans: prescriptive control, persuasion and participation (Faludi, 1973a; Nutt, 2007). Each strategy is different in timing and scope as it applies to implementation.

1. Prescriptive Control/ Coercive Power

The use of this type of control usually applies legal powers (edict) to bring about changes. This is an autocratic approach which uses or threatens to use force to achieve goals. Development control is built on coercive powers. For example, setting growth
limits and decongesting the central city are both programs backed by law. Strategies
which follow blueprints are also a form of prescriptive planning. Prescriptive control,
however appealing it might be, is best used in moderation. Three reasons are highlighted
to support this (Faludi, 1973a).

First, it is not possible to achieve complete control even in the most uncongenial
superior-subordinate relationships. The subordinates may rally together to defy their
superiors thereby giving those under control some leverage. For example, slum dwellers
and students usually use what Faludi (1973a, p. 285) terms their “nuisance value” to
make demands. Second, prescriptive control distorts the image of what people want. This
is because it relies on blueprints to guide the process. The regulatory process does not
allow for much initiative for development because development is based on blueprints.
Dalton (1989) terms this a reactive process. Third, coercive or prescriptive control has a
“self-generating effect” (Faludi, 1973a, p. 285). People who are subjected to coercive
control tend to lose their sense of “loyalty and political obligation” because they are
usually acting out of compulsion rather than a sense of duty. This in turn results in a
desire by administrators to wield greater control to combat this lack of obligation. Thus, a
vicious circle is perpetuated. For more successful planning using prescriptive methods, a
compromise needs to be made. Faludi (1973a) suggests adopting general, all-embracing
plans which minimize the level of details and particulars. This style of planning is evident
in some vision plans and master plans of communities.

2. Persuasion

Persuasion attempts to convince a group of people to agree with a plan by
presenting arguments to influence the way they think about the proposed plan. In this
strategy, planners identify the issues to be addressed, choose the best course of action from a list of alternatives and then present these ideas to the people the program is going to affect. The plan which has been chosen is advocated as being in the best interest of the majority of people involved. Persuasive powers are exercised by planners through public meetings, announcements, flyers and pamphlets. When persuasion is used, the parties involved feel they will mutually benefit from a give and take relationship as opposed to using coercive powers. The result of persuasion is that the community of people involved come to agree that the programs laid out before them are indeed the best options. A major challenge with persuasion is that if the objects of the plan are not given enough time to understand the issues presented to them before the plan goes ahead, they may feel that they have been taken advantage of. In this case, Faludi (1973a) argues that persuasion has been used to con people to bring about change.

Although the use of persuasion comes after the plan has already been formulated, genuine persuasion will, however, involve participation. This is because, ideally, persuasion should go beyond telling people what is good for them to collaboration and consensus building. The dialogue ensures that whatever views are formed by people are authentic. Therefore at this point, perceptions are changed and people are no more objects of control but subjects who have a say in the issues which affect them.

3. Participation

Participation as an implementation strategy engages interest groups in the planning process. Both planners and stakeholders agree on the issues which need to be addressed by programs. Participation is a two-way communication process which makes both stakeholders and planners partners and advocates for a plan. Whereas prescriptive
control and persuasion strategies attempt to impose a set of actions to achieve a pre-
determined goal, participation frames the entire process. Hence, participation leads the
planning process and tempers the negative effects of control employed by the first two
strategies. Implementation of plans and programs are more successful when participation
strategies are used from the onset of the planning process (Nutt, 2007).

There are a variety of ways people can participate; through public action, public
involvement, electoral participation, and obligatory participation (Green and Haines,
2008). Electoral participation is usually the most common form of participation. Public
involvement and obligatory participation are government initiated processes while public
action is initiated by the community.

*Rationale for participation*

Planning shapes the spatial environment and therefore affects the people who live
in these environments. Therefore, urban residents, for example, should have a say in
decisions which affect the urban space. It is generally assumed that one has a “right to be
involved in decisions that affect one’s life” (Kamete, 2006, p. 360). Consequently,
planners, whose role it is to facilitate the shaping of the environment, have a moral
obligation to involve residents of the environment for which they are planning.
Furthermore, as stakeholders are engaged as equal partners in the planning process,
projects become more sustainable as stakeholders are interested in making the plan
succeed.
Successful implementation using participatory approaches

Planning has evolved from a practice which had a predominantly top-down approach to one which regards its beneficiaries as equal partners in development and, consequently, seeks to actively engage them in the planning process. In a fast-paced, ever-changing society, the ability to obtain, synthesize and apply information is what differentiates successful institutions from unsuccessful ones (Booher and Innes, 2002). Consequently, in an increasingly interdependent society, power from networks of information is what is needed for institutions to be most effective.

Participation is therefore a non-traditional way of planning where planners do not make all the decisions. It is evident that planners are not always right due to the opposition people display towards some policies and programs. Sometimes persuasion is used to try to attain a middle ground so that people feel they have some say in the programs being implemented. The objective is to make people believe that a plan is theirs. However, it is obvious that plans can only be deemed successful when they are implemented successfully and they can only be implemented if those whom the plan affects view the plan as addressing the issues which concern them. As a result, participation has taken center stage in plan implementation, requiring planners to take on new roles and to have new skill sets.

Booher and Innes (2002) observe that for effective stakeholder participation, there should be communication and collaboration among individual, public and private agencies, and businesses in a society. These various groups, when drawn together, are able to achieve mutual goals by drawing on each other’s resources to achieve that goal. In a study by Burby (2003) of 60 local government plans in the states of Washington and
Florida, involving a broad array (more than 5, up to 10) of stakeholders, resulted in high-quality plans and policies which also increased the success of implementation by more than 200 percent. The same study also found that plans were more successful when stakeholders initiated and advocated for proposals. Ideally, three conditions should characterize participation: diversity, interdependence, and authentic dialogue (Booher and Innes, 2002). While all three are not usually present in collaborative efforts at the same time, the extent to which they exist will dictate how successful and efficient a network will be.

Diversity refers to capturing "the full range of interests and knowledge relevant to the issues at hand" (Booher and Innes, 2002, p. 226). Diversity could therefore be sought in resources, experience, and gender, for instance. Coupled with authentic dialogue, diversity exposes all actors to a broad range of ideas and prompts them to view the same issue from different perspectives. This enables participants to develop a better and more informed understanding of the issues being discussed. Thus, diversity should be welcomed in any collaborative endeavor as this is more likely to produce better outcomes than if it were absent.

Interdependence refers to the give and take relationship that should exist among participants. There should be recognition that each group brings something valuable to the table and expects that other participants are able to offer them something in return. Usually, one stakeholder does not have all the resources, whether it is time, money, or expertise, for instance, to proceed with a project successfully. An awareness of this promotes an atmosphere of reciprocity which further fuels the process because one group or individual cannot succeed without the other. Participants are, after all, rational. They
are interested in issues which interest them and which they can benefit from. It is rare that participants get involved because they are selfless altruists. There is usually something to be gained and recognizing this interdependence keeps participants talking with others.

During authentic dialogue the focus is not on whose view is right, but on suspending judgment and sincerely listening to and understanding alternative views being presented. Collaboration should operate in an environment where stakeholders actively listen and speak to each other frankly. Information relevant to the issues should be shared. Sincerity, accuracy, comprehensibility, and legitimacy characterize authentic dialogue (Booher and Innes, 2002). Meetings held in person are necessary for building trust and interpersonal relationships. The interests of each participant should be laid out for everyone else and complete information should be provided. Information should be presented in a form in which everyone can understand and relate to. Experience also lends credibility to the information being shared. Authentic dialogue thus ushers in the alternative form of persuasion mentioned earlier. This less conventional view of persuasion, then, is not aimed at getting everyone to subscribe to one particular idea. Persuasion operating under authentic dialogue refers to putting together suggestions and proposals which are developed from listening and understanding all the views which have been put across.

Participation is not a way of simply dispensing ideas but collecting and shaping them as well. More participation implies a change in the whole process of planning, that is, involvement will not remain at the implementation level but will come to define the whole plan formulation process. A challenging factor is that interest groups have different beliefs which may not always coincide. This situation may render the process of
participation not as harmonious as one would expect. However, the aim of planning is to deepen democracy and participation is a tool in fulfilling that objective.

Institutional Environment for Planning

A society’s political-administrative structure might promote or hinder certain actions or behavior related to planning. Usually the planning process is coordinated by a lead organization. The planning structure might be made up of one central body usually at the national level. The central body might rely on subunits to carry out their functions while serving as a coordinating unit. Some administrative structures for planning are completely decentralized and planning is done at a local level.

Alexander (1998) identifies some challenges faced by planning coordinating bodies. A challenge with sub-planning units is that they sometimes lack the capacity to operate effectively as lead organizations and manage relations between significant and powerful actors. For example, the lead organization may not be able to withstand pressure from influential politicians and businesses to maintain a fair process for all stakeholders involved. Another difficulty is whether the lead organization and sub-planning units are well coordinated. For example, there may not be good operational links exist between the central planning unit and its subunits. Sometimes the channels of communication are wrought with bureaucracy and functional overlaps which result in long delays as opposed to a well-defined hierarchy and network for communication. Furthermore, there is the issue of whether or not the subunits are able to coordinate effectively among themselves when the situation calls for collaboration. The reality of
decentralization is that it does not always give control to residents of an area. Instead, it concentrates power in the hands of the local elite (Green and Haines, 2008).

To facilitate the planning process, Alexander (1998) identifies in his case studies the creation of a special coordinating unit to augment the capacity of the lead organization. A coordinating unit can take the form of an ad hoc group or it can be a committee set up deliberately in anticipation of harmonizing the process between organizations. The coordinating unit provides an alternative structure for participation by allowing various stakeholders to have their say. This is especially the case when there is public-private partnership. A coordinating unit is also advantageous when the statutory planning system is weak and people do not have confidence in the system. The independence of the body from the traditional planning body helps stakeholders feel more confident about participating.

What should guide the decision of the kind of alternative coordinating unit to establish is how efficiently the structure can help to coordinate different decisions among different organizations. If an independent planning unit will facilitate the timely implementation of a complex project through the planning process while making room for all relevant stakeholders, then it will make sense to pursue that option (Alexander, 1998). Furthermore, coordinating structures will only be as effective to the extent that they are relevant to their cultural, political, economic and institutional contexts (Alexander, 1998).

Another key issue is how flexible the planning structure is and whether it allows for real participation. Some planning structures allow participation to occur as required by the law. But as Kamete (2006, p. 369) points out, sometimes the nature of the “legal
and structural environment which ultimately demarcates the space within which planners can manoeuvre” becomes the enemy because it stifles change. This is because the institutional set up for planning is organized in a way that allows no room to accommodate real participation. This challenge of pseudo participation is mostly evident in institutional set ups which are modeled after the rational planning process. The focus of participation in such cases is to simply legitimize planning decisions. Over time, when people become aware that their opinions are continuously ignored, a culture of apathy is nurtured because they realize that they are not equal partners in the planning process. Where this is the situation, change can only begin by a complete overhaul of the institutional structure and a deliberate inclusion of participation into all components of the process.

Thus, strongly linked to administrative structure is the administrative culture for participation in the planning process. On the one hand participation may be viewed as important and necessary to the planning process. On the other hand, as a consequence of rigid administrative structures, a planning culture is propagated where participation is regarded as a necessary evil required by law (Alexander, 1998). A culture of apathy is usually the result and this, negatively affects outcome of programs which need public input. Given the consensus that participatory planning tends to produce more sustainable results (Booher and Innes, 2002; Burby, 2003; Green and Haines, 2008; Kamete, 2006; Nutt, 2007), a key question is how planning should be organized to facilitate the process of participatory planning. The answer depends very much on the planner.
The Role of the Planner

Several authors (Alexander, 1998; Baer, 1997; Booher and Innes, 2002; Faludi, 1973a) agree that with a shift in the way planning is practiced a new role is being defined for the planner. The rational way of planning saw planners as the experts and technocrats who shaped the environment based on set rules and design. With the belief that power and knowledge was concentrated in the hands of a few, politicians and technocrats supposedly knew what was best for their societies and made decisions to that effect. However, with many of these plans gathering dust on the shelf and facing opposition from the very people the plans were prepared for, planners have begun to find ways by which they can understand the demands of the communities they plan for. Power and knowledge now belong to anyone who is able to harness information and organize it to influence change. Thus, for planning to be effective, planners need to know what the people are thinking so that the plan which is formulated is significant within the context of the society.

Thus, in implementation, one key question which defines the planner’s role is how does the planner help to make the plans he prepares to be relevant? The role of the planner then, demands a different set of skill sets needed to manage the environment. The planner transitions from what may be regarded as an armchair technocrat to a facilitator.

This does not however imply that planners do not have any real power to plan as effectively as some planners argue, and that elected officials seem to hold all the power to direct development. As Booher and Innes (2002) point out, the role of planners as facilitators still make them a significant part of the planning process, especially in shaping the process. Thus, while planners may not have the political clout to effect
change, Burby (2003) presents evidence that through the actions of planners to inform and empower stakeholders, issues which might normally be ignored by political officials are brought to attention. The planner negotiates between the government and different stakeholders. The planner's role provides the missing link between implementation and planning by interacting with participants and bringing together their different ideas, weaknesses and strengths to forge ahead with a program (Alexander, 1998). How well a planner plays this coordinative role is what planning scholars agree will determine the level to which a plan will be successfully implemented.

According to Alexander (1998, p. 305) coordinative planning is defined as “planning to effect interorganizational coordination”. This type of planning asks how we can get there. Coordinative planning recognizes the diversity of stakeholders and attempts to work with them to achieve a common goal. Alexander (1998) sets some guidelines for how to perform coordinative planning. The first is to identify the stakeholders for a specific program. These may be individuals, organizations, agencies and constituencies, either public or private. The second is to define each stakeholder’s role within the context of an implementation strategy. The task of identifying stakeholders and the nature of the interaction with them goes a long way to further determine how successful a plan will be.

**Identifying the stakeholders**

For any particular plan or program, stakeholders can be identified based on how the plan concerns them. Identifying which groups or individuals fall within each of these broad categories enables planners to know who the stakeholders are. Generally, a plan
will affect people within the community in three different ways, which in turn creates three categories of people or organizations (Halla, 2005):

1. those who will be at either an advantage or disadvantage from a particular problem or policy
2. those from whom the given problem or issue originates
3. those who are able, by some authority or vested interest, to provide a remedy for the particular problem or issue

_How to involve stakeholders_

Although it is a fact that bureaucratic structures sometimes do not create an enabling environment for participation, other times, the enabling environment is stifled by the planner. Stakeholders might be involved in the planning process but the nature of their interaction with planners might not make the presence of the former worthwhile. Hence, in involving stakeholders, planners have to consciously make decisions about how they will go about interacting with stakeholders while they plan. To increase stakeholder participation and success, planners need to make the right decisions on five important issues (Burby, 2003):

1. Objectives: actively listening to citizens should be a conscious and deliberate choice.
2. Timing: the people should be involved at the beginning of the process and throughout the entire process.
3. Whom to target: stakeholders should represent a wide section of those whom the issues concern
4. Techniques: techniques should be used which help the smooth sharing of information between the parties involved. Dialogue is an especially important method of ensuring meaningful communication.

5. Information: providing technical information in language that is easily understood by people is necessary if indeed they are to be equal partners in the planning process.

Even with all the benefits of participation, some planners are reluctant to engage in this process. Burby (2003) suggests that administrative and resource constraints such as understaffed departments make it difficult for planners to adequately involve people. Also, some planners are of a mind that the benefits of participation may not justify the resources used. Evidently, although yielding more sustainable results, participation lengthens the planning process. Ensuring that people are able to intelligently participate in the process does not necessarily make the process more efficient. The role of the planner is important in supporting any movement which creates opportunities for inclusion and hence, human development. Creating a welcoming environment and giving existing organizations room to express their identities are ways by which planners can harness the contributive power of various community groups.

**Summary**

Ghana has made several unsuccessful attempts to implement a street address system in the city of Accra. Some have blamed this situation on poor planning practices by city authorities such as weak enforcement of planning regulations. The uncooperative attitude of residents has also been touted as a major challenge contributing to the failure
of these attempts. It is the view of this thesis that this failure could be due to the way the project was planned and implemented. Against this background, this chapter reviewed the literature on implementing a street address system. The review has established that street addressing systems are used to identify unique physical locations and are important for navigation within the spatial environment. They are also a useful resource for local authorities in helping them manage activities and development through the information a street identification system provides. However, establishing a street and property identification system is a planning problem, which requires that the technical requirements of a street address system fits within the social and cultural context of the place.

From the theory of the planning process, successful implementation depends on the approach taken from the onset of the planning process. In particular, participatory approaches to planning, which engage relevant stakeholders from the formulation of the plan and goals of the project, have been shown to have a direct influence on how well a project is implemented. This is because participation gives people a chance to accurately reflect their needs and locally own the project. Furthermore, it gives legitimacy to plans. Recognizing who a plan or project is for and harnessing the human resources for the process is critical for making the plan relevant. The stakeholders, the planner as the facilitator and the plan as a document are all elements which need to be combined to ensure effectiveness in the implementation of a plan. These elements work synergistically within a given institutional and socio-cultural environment to contribute to the success or failure of a project. The next chapter describes the methods used to obtain and analyze the data for the study that were used to verify the central view of the thesis.
CHAPTER III

METHODOLOGY

In order to achieve the objectives of this study, it was necessary first to understand the planning environment in which the street addressing system was undertaken, and second to understand the points of view from both the planners and residents who were involved in the project. This chapter discusses the methods used to obtain this understanding. It is divided into four sections. The first section describes the types of data and data sources. The second describes the methods of data collection. The third discusses the methods of analysis. The last section addresses problems and issues that arose in the process.

Data Types and Sources

Data was obtained from both primary and secondary sources. Primary data sources were acquired from formal and informal interviews conducted by the researcher. A formal interview, semi-structured in form, was held with a planner from the city of Accra. Informal interviews, also using a semi-structured format, were held with the residents of Accra, focusing on the two residential areas of Achimota and Taifa, where past street addressing systems had been introduced. Further sources of primary data were obtained through direct observation of the physical address system in the study area. Secondary data consisting of the planning history of Ghana and the evolution and development of the city of Accra were obtained through library research.
Data Collection

The Accra Metropolitan Assembly (AMA) forms the core of the city of Accra, usually referred to as Central Accra. The Ga West District is an administrative area adjacent to the AMA. Ten residents of Accra were interviewed from these two districts: five residents from Achimota in the AMA where attempts have been made to introduce street name and house numbers; and five residents from Taifa in the Ga West District where a less coordinated attempt has been made by the district authorities to put in place a physical address system (see Figure 6). The planner for the AMA who was in charge of the project was interviewed to represent the views and perspective of the administration. An interview with a government official from the Ministry of Local Government and Rural Development was not possible. This Ministry is in charge of policy making with which the districts have to comply. Currently, the ministry, in partnership with the districts and other stakeholders, is formulating a street addressing operational manual which will provide a standardized way of street addressing in the country.

A snowball sampling technique was used to select the ten residents of Achimota and Taifa. Key contacts in each area were used to identify and contact other potential respondents. Purposive sampling method was used to identify and select representatives from the AMA and the Ministry of Local Government and Rural Development as this required specialized knowledge of the issues which were to be addressed. Purposive sampling targets specific individuals or entities from whom particular information can be obtained. Some of the interview sessions were audio recorded where the interviewee agreed to have it done. After review, the study, however, did not require approval from
the Human Subjects Institutional Review Board as the questions related to the investigation of a system and not the individual.

![Image: The Study Locations within Accra](source)

**Figure 6: The Study Locations within Accra**

Source: Generated by the Author (2010)

**Types of Questions**

The interviews were semi-structured in design and composed of close and open ended questions. The close ended questions were designed to establish residents’ knowledge of issues surrounding street naming and house numbering in Accra. These questions acted as a filter for further questions to be asked. The majority of the interview questions were open ended and designed to elicit explanations and opinions on the issues...
raised. The interviews addressed issues on community involvement in street addressing exercises and level of functionality of street names and house numbers in the city. The interviews also asked what residents feel can be the solution to making a street addressing system relevant to their everyday lives.

**Method of Analysis**

The data from both primary and secondary sources were analyzed qualitatively. The interviews from both residents and the Accra city planner provided first-hand information about issues relating to the street addressing system. These were compared to examine the nature of implementation of previous street addressing exercises and determine which issues were important to both parties and also points at which they did not share the same concerns or held a different perspective. For instance, based on these interviews, it was possible to determine whether or not previous house numbering efforts achieved the objectives the city planner and residents believe should have been met and what those objectives were in the first place. If these objectives were entirely different, it then raises a further question as to whether that gap contributed to the failure of implementation. Secondary data sources mainly describing present planning practices based on the planning history of Ghana provided a reference point for cross referencing primary data sources. Based on this, validating the information provided by both primary and secondary data sources was possible.
Problems and Issues

The willingness of participants to engage in an interview and feel frank about expressing their views was highly dependent on third party assurance. Thus, the snowball method was critical in getting residents to participate in interviews. Therefore, for each area, a relationship first had to be established with someone living in the neighborhood. This person then acted as a contact person for other residents by making referrals. Where the contact person was not able to make a personal introduction, the mention of this person to other residents helped to dissipate any suspicion they felt. Consequently, after an explanation of the purpose of the interview, residents were willing to grant the interview either immediately or at a later date.

Initially, focus group discussions were to be used to acquire primary data from the residents of Accra. This, however, was not feasible because individual schedules varied greatly and where there was a set date, there were always last minute cancellations. Sometimes, this was after residents had been previously contacted and a convenient date for the discussion confirmed. Thus, interviews presented a more flexible solution to the varying time schedules of the residents. Furthermore, due to the limited time available for field work, it was more practical to conduct individual interviews. Some interviews, however, after having been agreed to, were cancelled by the potential respondent citing unavailability as the reason. In the case of one resident, this occurred after the date had been twice confirmed. Another resident rescheduled the interview date three times before finally cancelling the appointment.

Outside of the research, I was able to engage several residents of Accra in informal discussions about the state of street addressing in Accra. These discussions were
always animated, not constrained by suspicions on the part of the resident. Some of these residents had not agreed to an interview but still wanted to air their opinions on the issue just as well. This apprehensive attitude towards giving interviews was one limiting factor in the sample size used for the research and contributed to the small size of residents interviewed. This reluctance to scheduled interviews might reflect a wider cultural attitude. Some residents also wanted to know whether or not I was working for the government. How this would affect their response is not clear because a resident specifically wanted the results of the research to be known to the district administration while others were glad the research was not for the government.

The sample size for the study was small. However, this is due to the challenges mentioned above, mainly time constraints and the extent of availability of residents. Thus, under the circumstances and given the nature of the research, it was possible to interview a limited number of residents.

Summary

Using qualitative approaches, the study analyzed data from both primary and secondary data sources to determine weaknesses of previous street addressing efforts and examine current attempts at street addressing in Accra. Primary data sources provided a platform for validating data on the street addressing situation in Accra. The next chapter provides a historical perspective of the planning process and institutional environment in Ghana to provide a context for understanding of the street addressing problem. The planning and street addressing situation in Accra is also discussed with an account of former and current street addressing efforts.
CHAPTER IV

THE GHANAIAN CONTEXT

Introduction

The purpose of this chapter is to provide the context within which the street address system of the city of Accra was implemented. The chapter is divided into two sections. The first section focuses on planning in Ghana, its evolution and current practices. The second section focuses on the street address system of the city of Accra.

Planning in Ghana

The history of planning in Ghana may be divided into two major periods. These are the colonial and independence periods. In most of these plans, the focus was on economic development with little regard to the spatial development of settlements. As a developing country, economic growth and development has been regarded by successive leadership as the means to improve the lives of Ghanaians. Furthermore, attempts at organizing the spatial environment were stifled due to political upheavals. Understanding the nature of planning as it evolved through the history of Ghana’s development sheds light on the current practices and institutions which guide and regulate planning in present day Ghana. The various plans pursued within this time period also provide a background for the challenges faced in the practice of planning.
The Colonial Period

The Guggisberg Ten-Year Development Plan

This Ten-Year plan was the brainchild of Sir Gordon Guggisberg and was the first comprehensive planning endeavor in the Gold Coast (colonial Ghana). The plan came into being soon after he became the governor of the Gold Coast in 1919. The ten year plan was scheduled for implementation from 1920 to 1930. The plan’s actual period of implementation was between 1920 and 1927. At that time, no formal planning body existed. However, Guggisberg’s experience as the Assistant Director of Surveys in the Gold Coast between 1902 and 1908 gave him the technical knowledge and an understanding of the political and socioeconomic conditions of the country which helped him launch his plan. This plan was unique in that, at that time, British government policy did not focus on long-term economic development programs in its colonies.

The plan was drawn during a period of economic prosperity in the Gold Coast and the driving goal of the plan was to improve the standard of living of the people (Ewusi, 1973). Furthermore, the plan was also to enhance trade between the colony and Britain with notable improvements in transportation, which received about two thirds of the funds allocated for the plan. Railways, roads and harbors were the focus of the transportation component of the plan. The most significant investment was the building of the Takoradi harbor. This was important in enhancing trade and export in the colony. The roads and railways opened up the interior of the colony. Agriculture, especially cocoa farming and trading, dominated the economy. Thus, expanding the reach of trade was a means to help diversify the economy from its dependence on cocoa exports. Other
areas of the plan covered were drainage, water supply, surveying, hydroelectric works and town improvements. The hydroelectric works was not pursued but it was the first time the present Volta River Hydroelectric Dam was considered. Investments at this time in surveying and mapping formed the basis for later planning in the colony. Through town improvements, the Guggisberg plan made significant contributions to health care and education in the Gold Coast. Nineteen new hospitals, including the Korle Bu Teaching Hospital, were built at that time. Also, present day Achimota School, then the Prince of Wales College, was also established. With these investments, the Guggisberg plan had a real influence in providing services to the people to improve their living standards.

The Ten-year Plan of Development and Welfare for the Gold Coast

This ten-year plan, implemented between 1946 and 1956, was also the initiative of the British Crown government. After the Second World War, the Colonial Development Act was passed to support plans in British colonies. Under this Act, each department prepared its own plan. Areas of concern were agriculture, forestry, health, electricity, broadcasting, education, communication, public works and social welfare. According to Ewusi (1973), the plan had very limited impact. There was no clear or stated objective of the plan. In addition, the plan was prepared without consideration of available funding. As a result, it was implemented for only one year (1946). It is argued that the colonial government had no real interest in the welfare of the people living in its colonies but to help Britain come out of its economic woes after World War II. Colonies were often important trading posts and markets for British exports.
Ten-Year Plan for the Economic and Social Development of the Gold Coast

This plan was a follow up to the previous plan. The plan was scheduled to be implemented between 1951 and 1961. However, it was effective for one year, 1951. Just like the plan before it, this plan did not have a clear statement of objectives. The main difference between this plan and its predecessor was that it was matched with available financial resources. Projects to be undertaken were considered and kept within financial resources. Maintaining flexibility in the plan was an important factor. In addition, transportation and social services together accounted for a significant portion of the financial resources although agriculture was being stressed as an important industry. However, this was not backed with finances. At this time, the first African-majority government was formed promising to implement the plan in a shorter period of time. Thus, the period of implementation was changed from ten to five years. This became the First Five-Year Development Plan.

The First Five-Year Development Plan

This plan was to span the period 1951 to 1956. Its actual implementation period was from 1951 to 1957. The plan adhered to all the areas as set out in the ten-year plan from which it was adopted. The budget, however, was increased and funds were allocated for schools in the Northern Territories. The plan also proposed ambitious investments in industries such as textiles, shoes and a cement factory. Planning was still patterned after the colonial style of department-based projects because Ghana was still a colony and no planning body had yet been established. The need for an organized body possessing
technical skills for effective planning was recognized. Thus, the Development Commission and the Standing Development Committee were established by the ruling party. Since the first Five-Year Development Plan was derived from the existing ten-year plan, the new government set about preparing its own plans with the help of these two bodies. The Development Commission was to be a technical body while the Standing Development Committee was to be the decision-making entity (Ewusi, 1973).

The Independence Period

The Consolidation Plan

The Consolidation Plan was an interim plan operating while the two planning committees prepared their first plan. Thus, this plan served the period between 1958 and 1959. The driving force behind the independence plans was to see the country develop rapidly and catch up with the more prosperous independent industrial nations. Planning was to provide a controlled environment where resources could be coordinated to accelerate development.

The Second Five-Year Development Plan

This plan was to cover the period between 1959 and 1964 but was implemented for two years. The Development Commission was in charge of data collection while the Standing Development Committee decided which projects were to be included in the plan. The plan was drafted by Professor Arthur Lewis, a renowned economist from Saint Lucia who later became the winner of the 1979 Nobel Prize in Economics. The objective of the plan was to provide services which would tackle disease, poverty and illiteracy.
The plan placed a strong emphasis on services and infrastructure such as power lines which were to pave the way for the industrialization of the country. This plan signaled the beginning of industrialization as a force for development in addition to the usual emphasis on agriculture. Generally, though, the plan followed the structure of plans from the colonial period by focusing on projects at the department level. Ewusi (1973) points out that the plan featured inconsistencies as certain projects, such as the establishment of secondary schools, were not evenly distributed geographically. This plan was short lived as it was decided that a new plan was needed.

The National Physical Plan

This plan was developed in 1962 with the help of the United Nations. The sole purpose was to bridge the gap in development areas (Adarkwa, 1982) as a response to the spatial disparities in development. This it attempted to do by strategically locating human activities.

The Seven-Year Development Plan

The first president of Ghana was Dr. Kwame Nkrumah and his driving goal was to see both the political and economic liberation of Africa. His pan-African views were encapsulated in his declaration at independence that “[t]he independence of Ghana is meaningless unless it is linked up to the total liberation of Africa” (Nkrumah, 1957 in Ghana@50, 2007). Thus, Nkrumah’s policy was to pursue development through strategic planning to enable Ghana catch up with western industrializing nations. Nkrumah’s Seven-Year Development Plan (1964 to 1970) was significant in several ways. The plan
was prepared by the newly formed State Planning Commission. Twenty nine experts were appointed to the commission. The Planning Commission was made up of nine subcommittees which were to spearhead plans for the different sectors to be considered. An office of the Planning Commission that would be responsible to the president was set up. The national plan included both the public and private sectors of the economy. The plan objectives were to provide full employment and make structural changes in the economy from one reliant on the export of primary goods to an industrialized economy. The pursuit of African unity and socialism were also objectives of the plan. A policy document was also prepared at this time called “A Programme of Work and Happiness” which outlined the conceptual ideals pursued by the plan. The plan was completed in 1963 and published the following year. The State Planning Commission was renamed the National Planning Commission. In addition to the original members of the Commission, ministers, regional commissioners, state corporation representatives and some key members of the ruling party became members. With these inclusions, Ewusi (1973) suggests that the Commission began losing the strong technical base on which it was founded. In 1966, President Nkrumah was overthrown in a military coup d’état and the plan came to an abrupt end.

Rural Development (Late 1960s to 1970s)

At the beginning of the 1970s towns were much more developed when compared to rural areas. Also, the northern part of the country was less developed compared to the south. This spatial unevenness of development was evident in terms of health care, education and incomes (Konadu-Agyemang, 2000). Efforts were thus made to bridge the
gap between the spatial inequalities in development. As a result the focus of development planning during the 1970s was rural development. The Two-Year Plan (1968 – 1970) “aimed for a more equitable distribution of income between regions, rural development and diversification of the monocultural economy” (Adarkwa, 1982, p. 92). This objective persisted in the One-Year Plan of 1970 to 1971 and was later given expression in the Five-Year Development Plan (1975 – 1980). The policy of self-reliance espoused in the Operation Feed Yourself and Operation Feed Your Industry initiatives was aimed at increasing agricultural production for food and industry.

To operationalize the policy, the government adopted the growth center approach in which a hierarchy of development centers was identified to boost agricultural production. The first level of growth centers were called growth poles which existed at the national level. Accra, Takoradi and Kumasi were the cities which fell into this category. These areas were centers of high economic activity, with a concentration of population and infrastructure. At the next level were the growth centers located at the regional level followed by growth points at the district level. The growth points were to be strategic locations which provided essential services to boost agricultural production. At the final stage of the hierarchy were development service centers and these were to be located at the local and village levels. Agricultural activity was concentrated in these areas. Unfortunately, the plan was two years old by the time it was adopted and the frequent change of governments (seven changes in leadership between 1966 and 1981) derailed any systematic attempt at implementation. Furthermore, the country at this time was in a general state of economic decline which adversely impacted the implementation of these plans.
The Economic Recovery Program

In the face of political and social unrest, run-away inflation and failed development policies, the country sought to lift itself out of its economic woes. The Bretton Woods Institutions, that is, the World Bank and the International Monetary Fund, were approached and Ghana signed up for the Economic Recovery Program (ERP) from 1984 to 1986. The shift from a predominantly socialist economy to a market-based economy occurred under the leadership of President Rawlings. The ERP was the first comprehensive program since the Seven-Year Plan of the first Ghanaian government in the 1960s. Its focus was on stabilization, rehabilitation and liberalization of the economy (NSSD, 2010). The purpose of the ERP was to reduce debts and halt the rapid decline of the economy (Berry, 1994; Konadu-Agyemang, 2000). To achieve this goal, the program required a restructuring of the economic institutions in the country. By giving the government a lesser role in economic affairs and allowing the free market to operate, structural adjustment was expected to redistribute income from urban to rural areas. Ironically, the rationale behind the ERP was similar to the industrialization and modernization policies which were pursued in the 1960s and abandoned for their failure to help developing countries advance economically. The reality however, was that although the general decline of the economy was reversed, the cuts in government spending on social services such as health care, education and social infrastructure resulted in increased poverty among the already poor people. For instance, the pay-as-you-go policy for accessing health care made health care much less accessible to many people. This failure of the ERP to distribute wealth to the poor was further evidenced
when the Program of Action to Mitigate the Social Cost of Adjustments (PAMSCAD)
was introduced in 1988. However, this did not alleviate the negative impacts of the ERP.

The National Development Policy Framework

The Economic Recovery Program (ERP) set the stage for the National
Development Policy Framework, also known as Ghana Vision 2020. This was a more
comprehensive plan from the ERP whose focus on stabilization shifted to a framework
for long term development. The framework spans a period of twenty five years from
1996 to 2020. The Ghana Vision 2020 was prepared by the National Development
Planning Commission and the goal is to transform the country into a middle income
country by the year 2020. The plan is to be implemented in consecutive five-year periods
known as Medium Term Development Plans. One major consideration stemming from
the ERP was the need to incorporate spatial concerns in development. The first Medium
Term Development Plan had just partial success due to lack of political commitment and
less than ideal collaboration between the National Development Planning Commission
and the Ministry of Finance which had the most responsibility for managing and
implementing the policies.

Under the broad goal of reaching middle income status by 2020, the Ghana
Poverty Reduction Strategy (GPRS I) and the Growth and Poverty Strategy (GPRS II)
were adopted from 2003 to 2005 and 2006 to 2009, respectively. These strategies were
adopted against the background of the Millennium Development Goals which were laid
out for developing countries by the United Nations at the turn of the century. As a
subscriber to these goals, Ghana needed to find a way to accelerate the rate of growth and
development to meet the ten goals in the Millennium Challenge by 2015. The purpose of the Growth and Poverty Reduction Strategies, as the name implies, was to reduce poverty and enhance growth. These objectives were critical considering a background of economic stagnation which had seen poverty levels increase in the country. After the ERP, the economy had stabilized but there was no growth; instead there were high levels of inflation and the economy was still heavily reliant on the export of raw materials such as gold, cocoa and timber which produced very limited revenue for the country. So the question was how to achieve sustained economic growth to reduce poverty. Thus, under the GPRS I and II, the causes of poverty were to be ascertained and addressed.

Against this background of truncated development plans, with little or no regard to the pattern of spatial development, the development of the country has been even more skewed with most development efforts concentrated in urban areas and largely located in the southern half of the country. This has also resulted in the population moving to these urban areas. As a result of this, the government of Ghana under the Ministry of Local Government and Rural Development in 2010 developed a draft National Urban Policy document to provide a framework to guide the growth and development of urban areas towards a sustainable future.

The National Urban Policy

The goal of the urban policy is to “promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing and services, efficient institutions, sound living and working environment for all people to support rapid socio-economic development of Ghana” (MLGRD, 2010). With the majority of the population
in Ghana becoming urbanized by the year 2010, the absence of a policy to direct the nature of urban growth in the country has led to unplanned and uncontrolled development. This has exacerbated the problems faced in urban areas such as poverty which is increasingly becoming an urban phenomenon. The rationale for formulating a National Urban Policy is that there can be no real economic growth without urbanization and if a city is not planned properly, it creates inefficiencies which increase the cost of economic activities. Planning has been project-based and an urban policy will provide a comprehensive long-term approach to the development of towns and cities in Ghana. Furthermore, urbanization is projected to increase and therefore requires a strategic approach to address the present challenges.

The National Urban Policy recognizes that most plans in Ghana have been aspatial in nature. The urban policy thus seeks to have a real focus on spatial planning. With regard to this aspect, the National Urban Policy recognizes the weaknesses of the regulatory system and institutions guiding physical development, for instance, legislation by which the Town and Country Planning Department operates under. Furthermore, it also recognises irregularities in the land administrative system and the lack of enforcement of planning schemes, which result in sprawl and negative environmental impacts. Under the National Urban Policy, the planning of the urban environment is anticipated to be more deliberate as opposed to many plans preceding it.

In summary, the period spanning from 1920 when the first development plan was formulated to 1966 was generally characterized by inadequate skills and expertise for planning. The established planning agencies did not always have enough staff and the technical capacity to operate effectively. Compounding this problem was a lack of
adequate and reliable statistical data to plan. This is in part reflected by the fact that several of these plans were never pursued to their scheduled implementation time. Moreover, it has been noted that the implementation of these plans were left to ministers and government officials who were already burdened with other areas of governance. Thus, the lack of coordination between the plan formulation and its implementation has been noted as being a big hindrance to planned development (Ewusi, 1973).

Furthermore, Ewusi (1973, p. 73) notes that “one basic plan deficiency” was that it did not involve the people for whom these plans were being prepared. The plans had a top-down approach where the political leadership at that time initiated and carried out the planning themselves involving the few technical experts available at that time. Planning was also characterized by the political policies and ideologies which existed at the time.

Also, many of these attempts were focused on economic development which is a trend running through most of the planning history of Ghana. Presently, the National Urban Policy is still in its draft stage and has not yet been operationalized. However, the fact that it recognizes that sustainable development, in this case urban development, cannot occur without consideration to the planning of the physical environment is a vastly different approach to planning in the country.

Organizational Structure and Institutional Arrangements for Planning

Decentralization and Local Government in Ghana

Metropolitan, Municipal, and District Assemblies (MMDAs) are the highest units of planning and political authority in the country. MMDAs were created under the local government decentralization process. The rationale for the establishment of a
decentralized system of governance in Ghana is to promote efficiency and local participation in governance. The decentralized system is, therefore, to be consultative, participatory and inclusive in all respects. To emphasize this point, Chapter 20, Article 240 (2e) of the 1992 constitution of Ghana states that “to ensure the accountability of local government authorities, people in particular local government areas shall, as far as practicable, be afforded the opportunity to participate effectively in their governance.”

Thus guided by a policy of decentralization, the local government system was established in 1993 by Act 462 of Parliament where central administrative authority was devolved to the district level. Under the local government system, the role of MMDAs include the implementation of development policies, formulating and preparation of the district development plan and budget, and mobilizing and allocating resources to provide public services for the people.

The decentralization policy is based on the assumptions that development reflects and meets the needs and priorities of the people. Also, development is a shared responsibility between central government, local government, parastatals, non-governmental organizations, and the people. Furthermore, strong local government institutions are necessary to provide the focal point for local initiative and organization for citizenship mobilization. District Assemblies have been designated as the human institutions mandated to materialize these assumptions. At the District Assembly level, development agents, stakeholders and representatives of the people create a forum where development challenges in the district are identified, assessed and addressed.
The Local Government Structure

The local government structure of Ghana consists of four levels: regional, district, sub-district and local (see Figure 7). At each regional level are the Regional Coordination Councils (RCCs) whose role is solely to coordinate and monitor the affairs of the District Assemblies in their respective regions. This includes any financial allocation from the central government to the District Assemblies in the region. The RCCs are not political or policy-making bodies.

At the next level are the District Assemblies, which depending on population size, may be denoted a Metropolitan, Municipal or District Assembly. At the sub-district level of local governance are sub-metropolitan district councils, urban, zonal, town and area councils, also based on population. At the local level are unit committees. Unit committees form the most basic level of local governance, serving populations between 500 and 1,500 while metropolitan assemblies consist of populations of 250,000 or more.

Institutional Arrangements for Planning

Metropolitan, Municipal and District Assemblies have been granted deliberative, legislative and executive functions by the constitution of Ghana (Constitution of the Republic of Ghana, 1992). The districts are the basic units of government administration and the highest planning authority in the country. They are therefore responsible for the planning and development of their area. They are to do this by preparing development plans, programs and organizing resources within their jurisdiction.
Within the Metropolitan, Municipal and District Assemblies, there are sub-committees which are set up to perform specific functions to aid the running of the district. The development planning sub-committee is in charge of the process of planning and preparation of plans for the district. Each district has a District Planning and Coordinating Unit whose role is to prepare the District Medium Term Development Plan under the guidelines of the National Development Planning Commission (NDPC). The NDPC guidelines for planning identify the District Planning and Coordinating Unit, the
District Chief Executive, a facilitator or consultant, District Assembly members and the Regional Planning Coordinating Unit as the key actors in the preparation of plans.

The National Development Planning Commission was established under 1994 Act 479 of Parliament under the executive arm of government to serve as an advisory body on development policy in Ghana. The principal function of the NDPC is to “advice the President on development planning policy and strategy” (Constitution of the Republic of Ghana, 1992, Article 87[1]). The NDPC, under the executive arm of government, is responsible for coordinating and guiding development under the decentralization system of development planning in Ghana.

The function of the NDPC also includes preparing broad national development plans. The commission is an umbrella body for development planning in Ghana. The rationale is to ensure that the development of Ghana is holistic, that is, development in all districts is being planned in a predefined direction. Under the constitution, one of the responsibilities of the NDPC is to ensure “the even development of the districts of Ghana” (Constitution of the Republic of Ghana, 1992, Article 87[2d]) and to monitor, evaluate and co-ordinate development policies, programs and projects. Thus, the preparation of a national development policy for Ghana is the responsibility of the NDPC. The NDPC sets up thematic areas for development which are seen as the critical areas on which the development of Ghana should be focused. In order to come up with these broad areas for development, the commission carries out studies on the environment. These thematic areas are expected to reflect and address the economic, social and physical concerns of the districts in the country. The medium term development goals pursued under Ghana Vision 2020 spring up from these development
themes. The NDPC also issues guidelines for the preparation of District Medium Term Development Plans for each medium term development policy framework. These policy frameworks under Ghana Vision 2020 cover a span of four years.

The Ministry of Local Government and Rural Development exists to promote the establishment and development of a vibrant and well resourced decentralized system of local government for the people of Ghana to ensure good governance and balanced rural-based development. Established by the Local Government Act of 1993 (Act 462), the ministry was created to facilitate decentralization in governance. Thus, it formulates policies and programs which are aimed at deepening democracy and enabling local governments to function effectively and play their role as institutions for the development of Ghana. Under the Ministry of Local Government and Rural Development, the Institute of Local Government Studies was set up in 1999 to build the capacity of the local government machinery, that is, the District Assemblies. This is to enable districts to “deliver efficient and effective local governance” (ILGS, 2010). The institute does this through training, research and consultancy services.

The Town and Country Planning Department is responsible for spatial land use planning in Ghana. The department was established in 1945 as a civil service department to oversee the planning and management of the country’s cities, towns and villages. It was headquartered in Accra with smaller offices in the regions and districts. The Town and Country Planning Board existed then and was “responsible for the orderly and progressive development of land … and the preservation and improvement of amenities in these areas” (TCPD, 2011). The Town and Country Planning Act of 1958 (Act 30) transferred responsibility for planning to the Minister in charge of Town and Country
Planning. However, it was not until 1960 that the Town and Country Planning Board was abolished.

Following the administrative reforms of the 1980s and the subsequent Local Government Act (462) in 1993, the department was decentralized to the regional and district levels. However, full transfer of authority to the District Assemblies did not occur. Under the pre-independence arrangement there was a well-laid system which regulated land use planning. This aspect was lacking in the new Local Government System. District Assemblies had the authority to prepare and approve plans but how this would be carried out was not explicit. Thus, the Town and Country Planning Department still maintained part of its centrality and functions by establishing Planning Committees with representatives of the District Assemblies included in them.

Recently, there have been attempts to streamline the activities of the department with the decentralized Local Government System. Thus, the department is being fully integrated at both the regional and district levels. At the district level, it will become the Physical Planning Department which includes the Department of Parks and Gardens. At the national level, the Head Office will function under the Ministry of Environment, Science and Technology. Under the restructured Town and Country Planning Department, spatial planning will occur on three levels. The first is the District Spatial Development Framework which is a political document which shows current and future major land uses. It is not a legal document. At the second level are Structure Plans which are legally binding planning documents. Also referred to as Master Plans, these plans indicate zones for development and are to be revised five to ten years or as may be required. The third level of spatial planning includes the preparation of Local Plans.
Local Plans are made in consultation with the community and the plans are used to help implement Structure Plans.

The Ghanaian Planning Process

The National Development Planning commission outlines the steps by which district planning should be conducted. These steps are issued in the guidelines for the preparation of the district medium term development plans. The National Development Planning Commission (NDPC) guidelines for the preparation of District Medium-Term Development Plans (2010 – 2013) were prepared with the involvement of stakeholders. These include District Assemblies, Regional Coordinating Councils, non-governmental organizations (NGOs), the private sector, research and academic institutions and development partners.

In addition to the district officers such as the coordinating Director, Planning and Budget Officers, the planning unit is composed of representatives of relevant organizations and groups such as NGOs, community-based organizations (CBOs), research institutions, traditional authorities and youth groups. These groups and organizations represent significant issues such as gender and environment which impact development. All these actors are to facilitate the formulation of development plans by playing their required roles. The role of a facilitator is to provide professional assistance in the preparation of a plan where it is required. One role of the DCE is to ensure that district plans reflects both the development objectives of the people in the district and the national development policy framework.
The beginning of the plan preparation process involves a performance review to assess the state of development of the district in view of earlier development plans. For instance, the performance review for the 2010 to 2013 guidelines includes interventions which were executed from 2006 to 2009 but were not part of the Growth and Poverty Reduction Strategy II. The District Assemblies and sub-district councils are required to "mobilize community members to support the planning exercise" (NDPC, 2009, p. 5) by providing information and opportunities for the community to make their views heard.

The next step involves compiling information on the district in the following areas; physical and natural environment, demographic characteristics, culture, spatial analysis, economy of the district, food security, governance, social services, vulnerability analysis, information and communication technology, HIV and AIDS, and gender.

The results of the profile are compared and harmonized with the needs identified by the community. The community needs are then prioritized based on the broad development objectives spelt out within the medium-term development framework. The National Development Planning Commission establishes thematic areas for development for each medium term development framework. For example, a thematic area for development for the 2010-2013 development framework is developing human resources for national development. In the preparation of district plans the general goal of harmonizing the plans with the broad themes for national development is emphasized. The districts are to derive their objective from the national framework and "ensure that they are consistent with national policies" (NDPC, 2009, p. 6). According to the district planning guidelines, the national development policy framework is to take precedence over district plans. The District Chief Executive must ensure that district plan reflects the
development objectives of the communities in the district under the seven broad themes of national development.

Based on the established areas of priorities, a development focus is established and development goals derived for the district. The district also makes development projections based on the compiled data on identified needs. Specific development objectives are then formulated with strategies to achieve the stated objectives. These action points are developed into programs of action. Sustainability and annual action plans with their budgetary requirements are additional considerations in the formulation of the district plan. A monitoring and evaluation system is to be established to track the progress of the plan preparation. Furthermore, a communication strategy is also required to keep all stakeholders informed and educated on the district medium-term plan. Finally, at the regional level, all district plans are harmonized by the Regional Coordination Council. This is important for the allocation of resources and for avoiding duplication of development programs. The Regional Coordinating Council also facilitates joint district plans required for collaborative projects.

There are three main principles guiding community participation. The first is that each District Assembly is to hold a public hearing before its District Development Plan is adopted. Second, each Sub-District authority which has been authorized to prepare a local plan is required to hold a public hearing before the plan is adopted. Third, the NDPC is entitled to feedback from public hearings in the form of written reports attached to the proposed plans. The District Planning Authority is to organize public hearings during the planning process. At least two public hearings should be held at the district level. The first public hearing should occur after data collection and analysis has been completed. At
this stage the public hearing serves the purpose of informing the people about the
development situation of the district and to seek their views on what the plan should
include. The second public hearing is conducted after the draft development plan has
been formulated.

For each of these public hearings, a cross-cutting section of the people in the
district is required to be in attendance. Due to challenges in mobilizing all citizens, the
guidelines suggest that participants should include the following groups:

- District political and administrative personalities, and planning personnel
- Traditional authorities: chiefs, queen mothers, sub-chiefs, community heads, etc.
- Non-governmental organizations, private industrial enterprise groups, and
  business associations
- Civil society organizations
- Government agencies, departments, corporations, etc
- Recognized religious bodies, voluntary and youth associations, women’s groups
  and cultural organizations, and political party-representatives
- Opinion leaders, influential individuals, interested persons, etc.

When specifically invited, each group, organization or individual is to be given a
copy of the draft Development Plan at least two weeks before the hearing is held. Notices
of the public hearing are also to be given at least two weeks before the hearing occurs.
Means of notification are diverse: “posters, letters of invitation, Information Services
Department public address system, radio, T.V., newspapers; traditional means – ‘gong-
gong’ by chiefs, etc” (NDPC, 2009, p.40). In setting the day and time for the hearing, the
Planning Authority is required to make certain that an ideal date is set that is convenient for majority of the people.

In a study on the problems of district development plan implementation in Ghana, Mensah (2005) identifies some causes of poor plan implementation. One of these included the lack of effective participation in the preparation of plans. Stakeholder involvement was very limited due to time and money constraints and as a result, most of the people in the districts had no knowledge about the substance of the plan and thus there was little expectation of them committing to its goals. Another significant cause of poor plan implementation was the weak institutional structures of the District Assemblies. Many of the functions of the districts are delegated among the various sub-committees. However, these subcommittees were largely ineffective as they were poorly organized (they did not meet regularly) and members were not well versed in the operation of the local government system. The Urban, Town and Zonal Assemblies and Unit Committees were largely inactive and were not staffed due to the unavailability of financial resources. This situation limits the capacity of the District Assemblies to generate internal revenue as this activity normally would rely on the sub-district structures. This further cripples the Assemblies’ financial standing limiting future ability to function effectively.

Politicization at the Unit Committee level has been also identified as one major hindrance to participation although sub-district level governance is to be free of party affiliations (Ayee, 2003; Bokor, 2006; Mensah, 2005). Issues are not addressed objectively with the focus on improving the general welfare of the community. The agenda instead becomes how to further the goals of a political party or candidate. This
practice is divisive and is a disincentive to broad base inclusive participation. Leadership represents the central government and not the community (Laryea-Adjei, 2000). A result of this is that leadership at the Unit Committee level is unstable as it changes with a change in political leadership. Furthermore, these changes deny new leadership the benefit of experience that past leaders can provide.

A further cause of poor plan implementation was the unavailability of planners and planning staff capable of facilitating the planning process. As Laryea-Adjei (2000) and Piovesan (2003) point out, sometimes it is not so much the weak financial position of District Assemblies, although that is a significant factor affecting their effectiveness; the challenge lies with the wide capacity gap for professionals with urban management skills. The establishment of the Institute of Local Government Studies in Accra was set up to address this problem.

The City of Accra

Background and Development of Accra

The transfer of administrative functions from Cape Coast to Accra in 1877 marked the beginning of the development of Accra as a major city and the current capital of Ghana. Accra was perceived by the colonial administration to have locational advantages. Geographically, it was more centrally located, and in terms of health, its drier climate made it less prone to some tropical diseases and thus a safe environment for Europeans (Grant, 2009).

The city also rose to prominence during the governorship of Sir Gordon Guggisberg in the 1920s. The development projects in infrastructure and social services
undertaken during this time resulted in an increase in migration from rural areas. Furthermore, Accra’s rise as an administrative and commercial center attracted European businesses and administrators. After independence from the British in 1957, Accra became the seat of government for the first Ghanaian government. Due to the policy of central governance pursued by the first and subsequent governments, Accra has remained the most prominent city in Ghana, housing the government ministries and important government agencies. The city is the present seat of central government. It is also the capital of the Greater Accra Region and the Accra Metropolitan Assembly.

The Greater Accra Metropolitan Area

Administratively, Accra refers to the district called the Accra Metropolitan Assembly (AMA). The district is largely built-up, covering a land area of about 344 square kilometers. Depending on the context, however, Accra may have different spatial boundaries. More commonly, Accra refers to the continuously built-up environment which extends beyond the boundaries of the AMA; its core being the AMA and including the adjacent districts of Tema, Ga East and Ga West Municipal Assemblies. Sometimes, the boundary between the AMA and adjacent districts is blurred or contested.

In reality it is difficult to distinguish between the AMA and adjacent areas because there are strong linkages and movements between these districts and the AMA. Many workers commute daily from other districts to the AMA. The AMA accommodates 2.5 to 3 million people in terms of socio-economic activity (that is, apart from residential). Administrative decisions such as planning decisions in any one of these districts, especially the AMA has spillover effects on the others. Waste management is a
case in point. There is an ongoing debate about where to dispose of the huge amount of waste generated in the AMA. Formerly, the waste was disposed of in landfill sites within the boundaries of the district. However, with these sites being filled, the AMA is looking outside its administrative area for a new landfill site. The suggested site in the Kwabenya area of the Ga East District has become a source of tension between the residents of this area and the AMA. Another contemporary issue is how the decongestion of the city center is becoming a problem transferred to adjacent areas. Thus, although administrators tend to view these districts as distinct entities, the fact is that they are characterized by many linkages which inevitably ties in their fates. These represent a real challenge when it comes to making planning decisions. In recognizing this fact, it is becoming more common to try to incorporate all these areas in development and planning decisions. This broad area, shown in Figures 8 and 9, is usually referred to as the Greater Accra Metropolitan Area (GAMA). It is this conceptualization of Accra as a continuous urban area that is used in this study.

Planning Problems

Without the benefit of stringent physical planning and development controls at the very start of its development and coupled with population increases which 2007 estimates place at 1,970,400, the spatial expansion and growth of the city has been rapid (Farvacque-Vitkovic et al, 2008; Grant, 2009). Experts suggest higher population figures as certain sections of the population such as slum dwellers are usually undercounted. According to Grant (2009), the urban population of Accra has doubled in the last decade.
Accra is home to 34 percent of the urban population in Ghana (Farvacque-Vitkovic et al, 2008). The urban expansion of Accra is characterized by uncontrolled low-density urban growth on the fringes and minimal densification within the central city as a result of residential units being replaced with commercial uses. The land area of the urban area has increased by more than 300 percent in the last ten years (Grant, 2009), extending to incorporate formerly rural areas. Communities such as Taifa, Dome, New Achimota, Mallam and Kissieman are now classified as urban following the 2000 census. Madina, Adenta, Ofankor and Pokuase which were all areas formerly physically distinct and separated from the city have now been integrated into the broader metropolitan area which makes up Accra.
However, because these communities are administratively distinct, figures for Accra tend to be underestimated as they focus on the administrative boundaries of the Accra Metropolitan Assembly (AMA). Within the core city, although the built-up area in the Accra Metropolitan Assembly increased from 133 square kilometers to 344 square kilometers between 1985 and 2000, the average density per square kilometer has decreased from 14,120 to 8,102 within this time period (Farvacque-Vitkovic et al, 2008). This trend indicates that growth of the urban area is occurring faster than growth of the urban population.

With the urban area expanding rapidly, the cost of service delivery and infrastructure places more strain on district resources. Accra is therefore plagued with many of the problems associated with growing urban centers (Yankson, 2000; Acquaah-
There is no development control and the planning and management of the city is dominated by informal systems such as exists in the transportation and housing sector. Water, sanitation and housing are few of the major challenges facing Accra. These challenges are significant especially as the annual growth rate for rural areas is expected to be negative in the coming decades (Farvacque-Vitkovic et al, 2008) indicating that most of the growth will be taking place in urban areas. The nature of the urbanization process in Ghana has resulted in increasing poverty levels in the urban area. An expression of this is the low quality of housing development in Accra. The lack of adequate planning within the urbanizing environment has created a situation where more than half of the neighborhoods in the Greater Accra Area are characterized in the category of low quality housing. Furthermore, 30 percent of the urban population lives below the poverty line with 50 percent lacking access to potable water.

Poor spatial planning has contributed to the nature of urbanization in Accra. Planning regulations and standards are not actively enforced and there is a lax approach to physical planning. It is not uncommon for areas to be developed without consideration for planning schemes. Access to land and the nature of land markets have also contributed to the lateral growth of the city. New developments opt for less expensive land at the periphery of the city.

The Ghana Land Administration Project

Planning has existed within the context of a disorganized land use system. The recognition of the general state of poor physical planning in the country’s cities and towns in particular has resulted in an initiative to reform the land administration sector to
enable spatial planning to become coherent and effective. This land reform initiative is spearheaded by the Ministry of Lands and Natural Resources. The chaos existing within the land administration system is worse within the city and its environs because the demand for land is greatest in these areas. A dual land economy exists in Ghana: the customary land tenure and administration system, and a state market oriented system. These economies are controlled by customary and state law respectively. There are also the informal and formal markets operating side by side. This conflict within the land market, coupled with weaknesses in public land institutions, has resulted in a state of widespread disorderliness in the land market (GLAP, 2011). The selling of a parcel of land to multiple parties is a rampant occurrence. Lands earmarked for other uses have also been encroached upon. Furthermore, areas have been developed with no regard for planning schemes or sometimes using unauthorized schemes resulting in haphazard developments.

A National Land Policy document was formulated in 1999 in view of the challenges in land administration in Ghana. However, the recommendations in the policy could not be put into effect due to the failure of the institutional bodies to manage and coordinate activities within the land sector. Corruption is also rife within these institutions deepening the land administration problem. The various laws governing land administration within the dual land market further compounds the problem. The result is that there are a large number of land ownership conflict cases in court. This situation also stifles development because it discourages investor confidence. It is not uncommon for compensation to be denied and monies to be lost and tied up in land cases. Furthermore, because of the conflicts in land ownership, encroachment, and unauthorized
developments, it is difficult to establish ownership. Thus, effective registration and land titling are major challenges emanating from this situation.

It is against this backdrop that district authorities have attempted to establish a physical address system. A physical address system, if it is to be a tool for administration and managing resources in a given jurisdiction, should provide information beyond a street name and a house number. A functional physical address system will be linked to information such as ownership, number of occupants and usage where applicable. However, given the present lack of discipline in the land sector, this basic information is lacking and sometimes even when available, contested. Thus, the fate of a comprehensive address system is tied in with the conditions prevailing in the land sector.

The purpose of the Ghana Land Administration Project therefore, is to establish “an efficient system of land administration, both state and customary based on clear, coherent policies and laws supported by appropriate institutional structures” (LAP, 2011). In view of this, one of the objectives of the project is to provide a land information system that is “current, accurate, universally available and shared” (LAP, 2011). To achieve the above objective among others, the Land Administration Project will create a standardized land policy and legislation for land administration. It also recognizes the need for institutional reform and capacity building to enable these objectives to be carried out. One of the key points of implementation is to properly demarcate and register allodial land boundaries. Land use planning is expected to get better as a consequence.
The Accra Street Address System

The street address system in Accra is fragmented, characterized by inconsistencies and a multiplicity of different methods of assigning house numbers as described previously. Whereas some properties have numbers, others, especially those occurring outside the central city, do not have assigned addresses. Several of these properties use their plot numbers as substitutes for house numbers. Regarding streets, the situation is similar: some streets have been named while others have not been named. Again, it is more common for streets within the area traditionally referred to as Accra Central to have names as they were the areas formerly under the control of the colonial administration. Due to these inconsistencies in the Accra street and property identification system, there have been various efforts to establish a logical and non-conflicting system which can be used to meet practical needs such as navigation and revenue generation.

The Street Address Situation

Originally, the block system was the physical address system used where communities were subdivided into blocks. This system uses a combination of alphanumeric designations to give unique identifications to property. With the expansion of Accra, this system has not been extended to newly developing areas within the city. To compensate for this, a lot of houses and property use the plot numbers assigned to them. Plot numbers are also represented by an alphanumeric combination showing where the plot is and its size, for example ADK1 1/2.
Elsewhere in the city, an attempt to phase out this system resulted in properties being assigned numeric numbers with street names. However, the numbering of houses was not consistent in all areas. In some areas, the numbers were given sequentially, that is, all property was numbered from 1 through to the last house on one side of the street and continued on the other side in a cyclical manner. In other areas, the numbering was done sequentially but with the numbers alternating. Therefore, one side of the street had even numbers while the other side had odd numbers. Street names were assigned for some of these areas. However, in other areas, it is not clear whether street names were assigned and the signage never put up or that they were never assigned in the first place. Residents in areas like this say they do not have street names. Furthermore, some areas in Accra simply lack street names and house numbers as none has been ever assigned to property in these areas. In parts of the city where residential estates have been built, developers have established an address system for the houses in that area. Within these islands of excellence, locating houses is not a challenge. An issue with these estate developments is where or not they should be allowed to have their own system of addressing, or addresses similar to the areas surrounding them. Usually, though, these residential estates are able to maintain a separate system as adjacent areas may not have a comprehensive addressing system in the first place.

With the existence of this mix of identifying buildings in the city, residents in Accra resort to descriptive methods to get from place to place and this has become part and parcel of the daily living and coping habits of residents in Accra. With the passing of time and in view of unsuccessful attempts to establish a physical addressing system, the practice of using descriptions to identify places within the city has deepened. Residents in
Accra have created strong mental maps of places within the city and have in essence, adopted their own system of identifying places in the absence of an official system. This practice is reinforced by transport service operators who name bus stops after a physical landmark, a dominant activity in the area or any characteristic which distinguishes a location from others. With time, these names come to characterize the entire area and eventually the area assumes that identity. This is especially true in newly developing areas. For instance, if one of the first houses to be built in a particular area has a distinguishing feature like a blue roof, the street (and area) eventually assumes the name of Blue House. These names sometimes exist alongside official street names and house numbers. Official street names and house numbers which exist are even sometimes ignored in favor of using descriptions and landmarks. This coping mechanism presents a push factor preventing the establishment of a new system, the rationale being that it is easier to establish a system on a space which has not been previously defined.

Previous Efforts

Attempts to establish a street and property identification system have occurred over the years in different areas and on various geographic levels. The Accra Metropolitan Assembly (AMA) attempted one in 2000/2001. The latest attempt was started in 2006 as part of the AMA’s Urban Management and Land Information System (UMLIS) project. There have been isolated attempts in the Kumasi Metropolitan Area (see Figure 10) and in the Brong Ahafo region. There was also a national attempt in 2006 with pilot projects in the Ashanti Region.
Figure 10: Street Signage from Previous Street Addressing Attempts in Kumasi

Source: Pictures Taken From the Field by the Author (2010)
One continuous feature which characterizes these efforts was that they were aimed at revenue generation. With increasing decentralization of the central government administrative functions, District Assemblies, especially those with major towns and cities, have been looking for means to raise revenues in their jurisdictions. Taxes are difficult to collect without a comprehensive way of identifying individuals, businesses and property. Thus, the tax net leaves out a significant portion of potential tax payers. One way the District Assemblies have sought to plug this leak is by assigning street names and house numbers as a way of identification. However, these exercises have been arbitrary and have not solved the revenue problem especially as it cannot keep up with the pace of new developments. Sometimes, the exercise is carried out by the Revenue and Budget arm of the District Assembly without the involvement of the Town and Country Planning Department. Furthermore, complications in the land market make it difficult to establish a property tax. It is against this background of trying to generate scarce resources that many of these previous physical addressing attempts were embarked on.

In 2006, the government of Ghana allocated 60 billion old Ghana Cedis (now GHC 6 million) in the budget to begin naming streets and numbering houses. The Asante Akim North District in the Ashanti Region was chosen as the pilot area. In an interview with the media, the Minister of Finance at that time explained that the project was “a holistic approach to move the nation from a cash-based economy to the more expansive and flexible modern system of a credit-based economy” (Lartey, 2006). The project was anticipated to tie in with the National Identification System initiated by the central government. The National Identification System was initiated to register information on all Ghanaians in a central database. The street naming project was seen as a way to
facilitate future town planning in the development of the country. Additionally, it was expected to be a means to collect revenue more efficiently and implement a property rate system. Navigation, the delivery of mail and emergency services such as the police and fire services were also identified to be improved with the naming of streets. The disorderly pattern of spatial development with characterizes many towns and cities in Ghana was identified to be the major hindrance during the exercise.

In this project, the process of street naming was separated from house numbering with the latter proceeding after street names had been completely assigned. In pilot areas such as Konongo in the Asante Akim North District, streets were identified with numbers, for example, 2nd Street and 3rd Avenue. The rationale for using numbers was to avoid the complications of assigning names to streets since people would want to have streets named after people of their choice. However, some areas maintained the option of having individuals pay to have a street named after them. In the previous attempts by the AMA, the exercise followed the addressing features of the existing system. There was no introduction of a new system.

Current Efforts

In 2006, the Ministry of Local Government and Rural Development began consultative meetings with stakeholders to formulate a document which will serve as a guideline and standard for all street and house identification projects in the country. As a result of this decision, districts which were in the process of assigning addresses to streets and houses were required to halt their activities. The AMA, in partnership with the Swedish government, had begun the process of developing a comprehensive street and
property identification system under its Urban Management and Land Information System (UMLIS) project. The UMLIS project was started in recognition of the inadequate information on land and property in the AMA. This situation was identified as one of the major reasons for revenue loss in the district. Coupled with the irregularities in the land administration and titling system, this inadequate information resulted in inefficiencies in the day-to-day administration of the assembly. Furthermore, in an effort to elevate the status of Accra as a modern city on the international scene and having recently subscribed to the Millennium City Initiative, the UMLIS project is a major effort to reshape the face of Accra through proper spatial planning supported by an up-to-date information system.

Thus, at the district level, the AMA had identified these weaknesses and begun the UMLIS project to streamline land-related information. Incorporated into this project is a street and property identification project. The pilot area for the project is Ayawaso. The Ministry of Local Government and Rural Development is thus partnering with city authorities to develop a street addressing system which is practical and can be sustained at the district level. A street addressing manual is to be prepared under this project. The manual, although prepared under the ministry, will be operationalized by the respective districts; the reason being that districts are the planning authorities for physical development in their respective areas. A technical committee has been set up by the ministry to guide the formulation of the manual. The rationale behind this latest attempt by the government of Ghana is to establish a standard for naming streets and numbering

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1 This is the first draft Operational Manual for the Street Addressing System. At the time of writing, the Manual has not yet been approved by the cabinet.
houses to facilitate the social and economic growth of the economy (Operational Manual, 2007).

The street addressing system is to provide a system of identification which all stakeholders recognize. In the address system, streets and access ways will be named and buildings and property numbered in reference to the access ways. The manual provides a step by step approach for the process of a street addressing. By establishing a uniform standard, the objectives of the street addressing system include:

- the efficient delivery of utility and emergency services
- making possible the identification of individuals, institutions and places
- facilitating economic activity and access to credit
- enhancing the ability of District Assemblies to plan, budget and generate revenue

The old Block addressing system in certain parts of the city is to be integrated into the new street addressing system. The numbering system will follow a sequential progression. The starting point for numbering will be from East to West and North to South. Odd numbers will be assigned along one side of access ways, even numbers on the other side. Odd numbers will be assigned on the East side of North to South access ways and even numbers on the West side. For East to West access ways, odd numbers will be assigned on the South and even numbers assigned on the North. Access ways will be coded with a four digit number. The first digit will represent the sector number, for example, North Legon. Thus, if the sector number for North Legon is 4, a street in this area could be represented by an identification code of 4051.

The District Assembly planning committee and the Town and Country Planning office are the bodies under which street addressing will occur at the district. A task force
specifically for the project is to be established in each district to enhance the process. The supervision and maintenance of street names and house numbers is to be the responsibility of the Town and Country Planning Department.

The following are essential features of the process of street addressing. First, one main step is to consult stakeholders at the beginning of the process. Stakeholders can identify and agree on technical, administrative and other needs. Secondly, creating awareness through educational activities is important throughout the process. A third feature of this system is that locations will be uniquely coded, giving them identifications in addition to place names. Thus, designated names become an attribute of the coded locations. This is to facilitate the process by avoiding the immediate complications associated with assigning names. Fourth, data collection is an essential feature of the exercise. This ties the system to a wider information database which provides information on socioeconomic and demographic characteristics by adding attribute data to geocoded addresses. Finally, a data management system is to be included for the maintenance of the system.

Summary

Present planning practices in Ghana has strong historical roots. Beginning from the colonial period through the 1980s of the independence period, planning practice essentially adopted a centralized, top-down and aspatial approach, with very little participation from the broad spectrum of the citizens. The result has been an uneven spatial development with a high dose of urban bias. This in turn has resulted in the rapid and chaotic growth of Accra, the capital city of the country, as the primate city. One such
feature of this growth is the lack of a proper and systematic street address system. In recent years, significant strides have been made to decentralize local government so that planning can be done at the local level.

Within this context the Accra Metropolitan Assembly has made previous efforts at implementing a street address system, but all have failed. Another effort is now underway with a more elaborate framework of decentralized planning. While the planners are very optimistic that this new effort will succeed, there is no guarantee that that will be the case, since it does not appear that the current effort has taken into consideration all the mistakes of the past efforts. The next chapter examines the evidence regarding why the previous attempts failed and what might be done to make to make the current effort succeed.
CHAPTER V

INTERVIEW RESULTS AND DISCUSSION

Major Findings

Introduction

This chapter presents the views of both the city planner and residents of Accra on the street addressing situation in Accra. Previous and current efforts to name streets and assign house numbers are discussed given the background and context provided in the previous chapter and the interviews to determine the challenges of implementing a street addressing system in Accra.

Professional Planner’s View

Previous Street Addressing Efforts

From the professional planner’s point of view, the rationale for a new street addressing system was to address the inadequacies of the current Block Addressing System used in the city. This system was handed down by the colonial masters. It takes the form of F 139/13, where F represents the neighborhood and 139/13 is the house number. The challenges, however, are the difficulty in pinpointing locations, keeping the system updated and consequently, making it reliable and useful to the AMA. The current pace of development and investment, such as the building of apartments and condos in Accra, has far overtaken the updating of this system because it was done manually. The manual method cannot keep pace with the expansion of Accra and there was no system
developed to take care of this challenge. Obsolete maps and registers also made it
difficult to keep track of new developments. Thus, after a while, the block system was
not continued and therefore does not cover all areas of the city. It used to be a normal
practice of the building permit process to issue new addresses to houses. This is supposed
to be the process required by law. However, because there was no follow up of this
practice, the system was not updated. The plot number now mostly transcends and acts as
the building number. The certificate of habitation is also a practice which has been
ignored and which has created gaps in the issuance of addresses.

In spite of this, the purpose of the exercise was not clearly defined, whether it was
for revenue generation, navigation, or some other reason, although implicitly, revenue
generation was the dominant goal. Thus, with no clear goal in mind, the planning of these
exercises was flawed from the beginning. In addition, there was no strong stakeholder
involvement although generally, the District Assemblies were involved. The government
was the initiator of these major attempts. The assemblies were the authorities included as
stakeholders because they have the mandate to implement plans under the decentralized
local government system. Thus, they were included as beneficiaries of the process. The
government also relied on the assemblies for information needed for the exercise. Outside
of the assemblies, there was no strong collaboration with other stakeholders.

Closely related to the problem of limited stakeholder participation was that the
right groups of people with the knowledge and technical expertise necessary to
implement a project of this nature were not consulted or included in the process. For
example, in one district, the Budget and Revenue arm of the district began a street
naming and house numbering exercise without the involvement of the Survey and Town
and Country Planning Departments even though a project of this type is clearly the mandate of these departments. Furthermore, community participation was absent during the process. Therefore many residents could not relate to the house numbers they were given. They easily forgot because the number did not mean anything to them in terms of referring to something relevant.

Another problem encountered by these attempts was that the maps being used to plan street addressing exercises relied on the use of planning schemes which were only proposals and which did not reflect what was on the ground. The planning schemes were outdated so there was disparity between what was on ground and what was on paper. Thus, unanticipated challenges were encountered in trying to reconcile the two. Moreover, the legislative instruments guiding physical planning, especially those under which the Town and Country Planning Department operates, were outdated and thus not relevant to the planning of these projects. Consequently, the address systems could not be enforced under specific regulations or by-laws. This accounted for the unchecked indiscipline by some residents as they painted over the house numbers assigned to them. Vandalism of street signage was also a manifestation of the lack of laws to back the street addressing exercise.

In addition, there was no specific government policy action backing the projects. Thus, there was no strong legal basis as well as political backing for the exercises. Government attempts were mostly half-hearted. Also importantly, there was no decision-making system or mechanism to provide the necessary tools to perform tasks such as monitoring, dating, querying and searching for numbers. There were also technological problems. For example, there was no digital platform to guide the project and no
specifications or strict rules for geocoding such as determining the start and end points of streets. All these meant that things had to be done manually.

Features of the Current Street Addressing Effort

The new addressing system will be characterized by two types of address systems; the Street Addressing System (see Figure 11) and the Block System (see Figure 12). The Block System will be used for unstructured areas such as slum neighborhoods. A block refers to a number of houses in an area. The boundaries of a block follow natural or man-made constraints such as rivers, roads or pathways. An evaluation analysis was done for the areas which required the Block System of Addressing. The Land Valuation Board provided some of the information needed to demarcate areas into blocks. The maximum number of buildings in a block must not exceed 100. The blocks are numbered. In this system, blocks will be indexed to streets (the nearest street) to introduce a geographical direction. For example, house number 6, block 7 in Nima (a slum settlement in Accra), will be referenced as 7/6 Kanda Highway, Nima. This is different from the former Block System which was referenced to an area, for example, Osu, and not a street.

The Street Addressing System is for structured and motorable areas. Sequential odd and even numbers will be assigned, odd numbers on the left side of the street and even numbers on the right. A metric system is not going to be adopted because people may use numbers that do not exist if they want to evade detection. Streets will be numbered based on a reference line. This will indicate which side of the line you are, that is, east or west. This system will also be based on a system of maps for navigation purposes.
Figure 11: Proposed Street Addressing System in the AMA

Source: UMLIS-AMA (2010)
Figure 12: Proposed Block Addressing System in the AMA

Source: UMLIS-AMA (2010)
In the case of the amalgamation of plots, only one house number will be used in place of, for instance, three numbers. If a plot has been subdivided, each subdivided plot will be assigned an annexed number for example, 32A, 32B and 32C. With regards to unauthorized structures, the project will identify objects to be addressed. However, having an addressed building or property does not authorize the existence of the building. In other words, an illegal structure could have an address. This however, represents a gap between implementation and proposals.

Strengths and Challenges of the Current Attempt

From the professional planner’s point of view, the current street addressing project has several strengths when compared to past efforts although he admits that there are still challenges which remain to be addressed to make the new system a success. Foremost, the planning of the current street addressing attempt has required consultation with stakeholders. The identified stakeholders are the Lands Commission; the Ministry of Local Government and Rural Development; the Ministry of Finance; Metropolitan, Municipal and District Assemblies; Ghana Post; utility, security and emergency services; the Ghana Statistical Department; the business sector; the National Identification Authority; the Immigration Service; and the tourism sector.

The following stakeholders hold greater influence as compared to the others in ensuring the successful implementation of the street addressing system:

- The Lands Commission
- The Ministry of Local Government and Rural Development
- The Ministry of Finance
The main challenge with involving a wide range of stakeholders is that each meeting requires the organizers to pay representatives of these groups an allowance. Thus, the challenge is having the required funding to cover these expenses. Also of significance are advertising expenses.

To create a sense of ownership, the implementation of the street addressing project will take a community level approach where people will be sensitized about all aspects of the project. Schools will be a major platform for the dissemination of knowledge to build community ownership and for sustainability purposes. This is to minimize bad behavior such as theft and vandalism. Unemployed youth, especially secondary school leavers, will be employed in the plating and putting up of signage in the neighborhood. A certificate of house number which is a geocoded identification document will be issued to owners and can be presented as proof of identification of one’s house number. This will take the place of electricity bills which are commonly used by banks and other institutions as proof of a person’s physical address.

There are no major challenges anticipated when it comes to the public. For instance, there are no particular instances where it is anticipated to be difficult for the government to implement a system of order and which will make it necessary for a local power to step in. What is required, however, is proper education of what the system is about and how it is supposed work. In involving the community, defining who the community really is will be the major challenge when it comes to implementing the project. This is because different categories of people have different stakes and interests.
in the welfare of their houses and community, for instance, home owners and tenants. Including the real representatives of the community is important to the success of the project. Thus, determining who these people are so that they can participate in the process will be a big hurdle.

Although Act 462 of Parliament gives District Assemblies the general authority to name and identify objects within their jurisdiction, the legal framework does not provide specifics which regulate the dos and don'ts of a specific project like the Street Addressing System. This also presents a problem in the enforcement of the system when it goes into effect. There is, therefore, the need to work out regulatory issues guiding the operationalization of the system. Such a legal backing will allow authorities to deal with issues such as how street names should be chosen and acts of vandalism. The manual is going to be presented to the cabinet for approval. Another strong point of this latest attempt is that it has strong support from the presidency.

The Street Addressing project is also being built on a digital platform. A project department has been established for the Government of Ghana which involves the Urban Management and Land Information System (UMLIS) office. The UMLIS project was started as a need to generate revenue as property taxes, which provide a substantial part of AMA’s revenue, were low. This information system provided by UMLIS is the missing gap providing the digital environment. Within this digital platform, processes such as identifying houses, assigning alleyways with unique identification, and locating entry points are all expedited. The address becomes an attribute of its location. The digital base as a decision-making tool therefore serves to make the process easier and speeds up the street naming and house numbering project.
Residents' Views

Achimota

In Achimota, residents were aware that the Accra Metropolitan Assembly (AMA) had previously attempted to assign addresses in the area. However, only one resident among the five was aware that the exercise was carried out in the neighborhood. The others were either not aware of the exercise being carried out in their neighborhood or thought that the project had not yet been implemented in the area. One resident flatly stated that the house numbering exercise had not taken place. Most became aware of the AMA project through media coverage such as newspapers. One resident had seen some houses with new numbers to prove that the exercise had begun.

All residents had house addresses before the beginning of the exercise. The resident who indicated that the exercise was carried out in the area had an address change. One resident, however, did not know whether her house address had changed or not. She hardly uses her house address as a reference address, relying on her mobile phone as the primary means of contact for official purposes. Consequently, she does not know her street name and could only partially remember her house number. The other residents stated that there had not been an address change.

For all residents, there was no known form of prior efforts aimed at involving the community in the exercise. Most did not understand the address system in place but one mentioned that the numbers seemed to proceed in a logical order although she could give no further explanation. To the question of whether there were ways by which they would like to be involved in future attempts, three residents stated that their involvement was
not needed. Two of them argued that assigning street names and house numbers was the prerogative of the AMA and thus, their input was not needed: "Um...I don’t think...er...my involvement is needed because they are going to give the street names." However, one of these residents on further thought mentioned that she would like the opportunity to suggest street names.

One resident was not sure about how he could be part of the process. He indicated, however, that as a resident, he would like to be informed about when such an exercise will be taking place. Another resident, an outspoken advocate for the neighborhood, stressed the need for community involvement in street naming exercises in the future because he views street names as a sensitive subject which requires local participation for it to be relevant. He suggested that streets be named after relevant people and landmarks in the community. He has been active in writing to the Member of Parliament and the AMA on matters of concern in the community such as security. He, however, has not had much success in these efforts.

All the residents agreed that street names and house addresses were important features for places to have. The various reasons cited for this were to facilitate the delivery of emergency services and for easy navigation. The identification of places for visitors and people in the area is greatly facilitated by a good system of street addresses. Giving descriptions easily becomes tedious. Furthermore, a house address serves as a form of personal identification.

Two of the residents stated that their house address was not relevant at all to them. "Em, for now because the system is not really in order, we don’t use it for anything, just for directing friends to your house and even that one you don’t give them your house.

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2 Interview with AMA resident
address. You just tell them pass here...pass there." For one of these residents, his number had rubbed off the wall. The others felt that their house numbers, although not particularly relevant, was useful in directing visitors to their homes. However, since to the residents, the system in general did not seem to follow an order which made sense, each person maintained that in addition to the house address, some form of description was needed to direct people to the house. The number on the wall helped people to know which house they were looking for after they had finally located the street. For one resident, his address was important when filling out official documents.

Two residents mentioned that the most important feature they would like any future address system to have is for it to follow an order which makes logical sense to them. This factor, they stressed, was critical if the system is to help in navigation and easy identification of streets. Furthermore, for reasons they had already stated, they felt a comprehensive system was long overdue and suggested that a system needed to be established as soon as possible.

Taifa

In Taifa, all residents, except one, were aware that there had been various efforts on the part of the government to introduce house numbers and street names in the country. They were vaguely aware of these efforts, hearing it in passing in the media and did not know exactly where these exercises were taking place.

Describing his personal experiences in locating places in the city, a resident explained that in his area, there are house numbers but no street names. Therefore one has to rely on descriptions to locate places. Even when there are house numbers, there is

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3 Interview with AMA resident
usually more than one house with the same number in the same area, and without a street
name this makes it difficult to find places. He maintained that the system of using the plot
number is more meaningful because each house is identified by a unique combination of
numbers and alphabets. The system of using just numbers is confusing because, for
instance, there are many houses with the number 15 in the same area. Another resident
explained that locating places is tedious especially when navigating through unplanned
areas and slums. The presence of unauthorized buildings also makes it difficult to locate
places. Sometimes he has to make several trips to finally locate one place. They
concluded that since the unique identity which a house address gives was generally
lacking, using descriptions made it easier to find places.

To all the residents, navigational purpose was the reason they stated for the
importance of street names and house addresses. Inevitably, they felt that a good address
system should aid the location of places, making it less tedious. One argued that even
strangers in the city will be able to find places easily when there is a good address
system. The residents generally felt that their addresses were not relevant for navigation,
delivering mail, or official purposes. One resident however felt that his address was a bit
relevant because it was an alphanumeric combination which distinguished it from other
houses around. This was because he was using his plot number as his house address.

Expressing their frustrations with the present situation of physical addresses, a
resident stated that poor planning had resulted in houses being built on streets which then
disrupt the progression of numbers. One maintained however, that the present system
does not follow a logical progression that he was aware of. Furthermore, there is also no
system of maps to assist people to locate an address. Sometimes it is also not clear
whether the name for a street has been assigned officially or not and this makes it
difficult to use it for official purposes. Furthermore, one argued that having house
numbers was not relevant because of the high illiteracy rate in Ghana. He felt that the
everyday person is not able to read and understand what the street names and house
numbers signify.

A system which will be useful and relevant to people when they need to find
places needs to follow a logical, simple and consistent numerical progression. Street
names which are relevant and familiar to the people in that community should be used.
For example, streets should be named after influential people in the area. In addition,
street names should indicate direction so that one knows which street the name is
referring to. There should also be a coding system which is unique to each street. Up to
date maps should be made to help with the navigation process.

On a broader level, district level governance needs to step up and ensure that the
right thing is done. Authorities should pay attention to physical planning and should
enforce planning laws so that street addresses and house numbers become meaningful.
Generally, if the whole planning process is done well, that is, holistically, then having a
street address will make more sense in this environment.

To create a sense of ownership for any street address project, the residents were
willing to volunteer in practical activities demanded by the exercise and to be involved in
gathering community perspectives. Creating awareness in the community through
educating the public to sensitize people on their role and how the system will work was
seen as necessary and important to the process. The community needed to be given a
chance to air their views.
Discussion

Reasons for the Failure of Previous Street Addressing Projects

Previous street naming and house numbering attempts provide information which reveal practices which will either drive the success of a street addressing project or will work against it. From the recognition of the need for a functional address system to its implementation, a combination of factors evidenced by responses from the above interviews have shaped past attempts and will contribute to how well the current effort at street addressing will play out. Assessing these efforts also reveals challenges which remain unresolved.

Stakeholders recognize for various reasons that there is the need for a comprehensive street addressing system which the country can adopt to serve its development needs. The consensus on this need justifies the project from its beginning. However, plans and projects which do not reflect the needs of the people involved are prone to face problems from the onset because they are meeting perceived and not real needs. Adopting a street addressing system in Ghana is being undertaken in an atmosphere which seeks to have a sense of organization of the physical environment. In discussions with both planners and residents, there is no objection to the argument that the spatial environment needs to be better planned and therefore, the street addressing initiative is warranted from that viewpoint. This consensus among stakeholders is a major pull factor that can be harnessed to garner support for the project.

However, a major weakness in earlier attempts is how and when stakeholders were involved in the process. The mixed views of the residents concerning whether or not
a street naming and house numbering exercise had occurred reflects the weak organizational nature of previous attempts. They were either not systematic and did little to sensitize the public on on-going activities.

The two broad categories of stakeholders involved in this study are the experts and end users. For each of these groups of people, a street address system is important for various reasons. The experts (planners, government administrators) have traditionally approached the issue of a street addressing system from a revenue standpoint which has typically fostered reluctance from the end users because the latter do not perceive the benefits of a street address system from that point of view. This is not to say that revenue generation is not important, or even critical for the running of cities, towns and settlements. However, the emphasis on revenue generation while ignoring and not highlighting the other benefits of implementing a comprehensive addressing system has served to create the impression in the minds of the public, who are the potential taxpayers, that they have little to benefit from the project. This impression is created when experts and political figures give interviews through radio and television coverage and newspapers and only discuss the revenue aspect.

The economy of Ghana is dominated by the informal sector which is estimated to make up 80 percent of the workforce. Tax payers are generally those who are employed by the government (civil service), and registered corporate institutions such as banks. Also, because of the confusion in the land market system and the inability of the land valuation board to keep up with the evaluation of property for tax purposes, most people do not pay property taxes. There is thus a weak culture of paying taxes in the country which serves to make people wary when the issue is brought up. Furthermore, the fact of
the matter is that people will generally react against a scheme which will take money out of their pockets.

Residents regard a street address system as useful for the purposes of navigation. This was the principal reason given by all the residents interviewed. Emergency services such as the fire and police were also mentioned as benefits of functional street names and house numbers. Receiving mail was not mentioned and neither was paying taxes to the government cited by residents as a reason for seeing the implementation of a street addressing system. Conversely, just as taxes were not mentioned by residents, navigation was also not the strong point for previous street addressing attempts. These seemingly divergent views bring to the forefront the role of participation for all stakeholders at the planning stage. Participation allows stakeholders to present their views, problems and concerns. Providing a platform for authentic dialogue would enable planners of the project to know what is important to everyone and it would also allow stakeholders to understand the issue from a broad perspective. If the government and planners had broached previous street addressing exercises from a more comprehensive and multidimensional perspective, the people would have better understood the totality of the need.

Good infrastructure and services, for example, are also supported by a logical system of addresses which allows these services to be delivered. Residents may not readily connect the fact that paying taxes to city authorities results in a strong revenue base which will allow their metropolitan, municipal and district assemblies to provide them with the better services they want such as prompt emergency response and better planning for their communities.
Education is also a key factor to bridging the gap between perceived and actual ideas held by the public. Most residents were ignorant of the exercises and when they were, they saw it portrayed as a means for the government to get revenue from them. Previous attempts did not view end users as equal partners in the process evidenced by their limited involvement in the process. For every project, different stakeholders look out for their interests and there is the need to bridge the gap where their interests seem to diverge. In these street addressing attempts, the government was emphasizing taxes while the residents wanted a system which helped them find their way. Real participation allows a better understanding of these issues.

The emphasis on revenue generation in earlier street addressing attempts also reflected in some of the type of address systems which were adopted in these attempts. The address systems which were being established were more for what it could do for the government, not what it could also do for the people, although there was mention of the benefit of enabling financial institutions to offer credit to the public. Thus, whether or not people understood the system was not a central goal as it was more a system for tax collecting. It was more important that the experts understood the system than the people did. Thus, the system, at the beginning was not one which was deliberately planned to be of functional use to the residents. Ignoring the need to incorporate the requirements of the subjects of planning is an attitude which reflects top-down planning approaches which take implementation for granted by assuming that projects will be implemented in the real world as long as policies are made. Thus, the lack of an objective, which did not include the end user as an active stakeholder invariably resulted in a system which was not functional to the people.
Based on the responses of residents in Accra, the addresses were not understood by them and are relevant only within a highly localized extent, usually limited to the street. If a building has a number, it is usually the last element mentioned when giving directions. That is, an address will make sense only after one has been initially guided by landmarks and descriptions. Landmarks are the key elements in identifying places both for the person describing the place and the person searching for the place. These landmarks could range anywhere from temporary structures such as kiosks to imposing signboards, and from prominent trees to the woman selling food items at the street corner. This is why even though street names and house numbers exist at some places residents largely ignore them, preferring to use descriptions. Residents’ desire to see a consistent, logical system implied the existence of a situation which was characterized by inconsistency and incoherence. People need to be educated on how a street addressing system would work. That is one way to promote and encourage its use in everyday activities. It must not be assumed that people will know what their addresses mean and how they relate to other addresses. However, the variety of systems which exist in different parts of the city is a factor that contributes to the situation where residents do not understand their addresses and have limited use of it. This may have also complicated previous sensitization efforts, little as they were, as it is difficult to educate people on different conflicting systems. The advantage the current street addressing project has is that it has a national scope and is to be the standard for the entire country. Thus, sensitization efforts can take on a more relevant role. However, education for a clear understanding of any system is needed as reflected in the residents’ demands for a logical, consistent system.
Furthermore, most of the residents interviewed brought up the fact that they would like to be involved in the selection of street names. This draws attention to a sensitive issue relating to the socio-cultural dimensions of street names, that is, how street names come to shape the identities of people and places. Past attempts grappled with how to integrate the public’s suggestions to arrive at a middle ground on the choice of street names. It is still not clear how this issue will be addressed. The Accra city planner was not in favor of the practice of auctioning street names to the public. He felt that the planning authority should have the first prerogative for naming streets because a situation could arise where controversial names could have the highest bidding creating antipathetic feelings among the residents of that community. His view was that an alternative systematic process is needed with clear criteria for names that can be adopted as street names. An advantage, though, of the bidding option is that it is a good way to raise revenue for the street addressing exercise. However, at the time of writing, street auctioning was an option in the draft operational manual. This situation, however, further emphasizes the need for dialogue between local authorities and residents to arrive at a consensus. How well this plays out will be a factor in determining how well residents will adopt the new system.

Another factor which contributed to the failure of previous attempts was that the residents were kept out of the loop and therefore did not feel a sense of ownership for the project. This highlights the weakness of participation at the implementation stage of the project. When people feel a sense of ownership for a project, it promotes and facilitates the sustainability of the project. For a project of this nature, end users contribute in no small way to the success of a sustainable street address system. This fact is easily
overlooked because on the one hand, street addressing is a project which has socio-cultural dimensions while on the other hand, it is a process which requires technical expertise. This latter fact often relegates the end user to a receiver status as opposed to being an equal partner in the process because the technical aspect of the project overshadows the practical issues of implementing a system; practical issues which include notions of identity, place and functionality.

Current Street Addressing Efforts

Strengths of Current Street Addressing Efforts

At the initial design stage of the street addressing system, the present street addressing effort engaged a group of consultants during the preparation of the street addressing operational manual. This involved a team of technical and professional experts. Consultative meetings were also held with stakeholders such as the fire and police services and utility providers. At the community level, the project aims to bridge the participation gap by educating residents and training community-based teams to carry out activities such as putting up signage for house numbers. In the completed and proposed actions, the current street addressing project has several advantages when compared to previous efforts.

First, the project is strongly backed by the central government. Important to the success of a project of this scale is the level of commitment it receives from the government. By initiating the project, the Ministry of Local Government and Rural Development is playing a central role by which it can coordinate the activities of the district as regards the project. As a facilitator for the development of districts, the
ministry provides resources and direction needed in the development of districts in the
country. In this case it is providing the tools, in the form of a street addressing manual,
necessary for districts to implement a country-wide project. With the process of
decentralization still fairly recent in the country's history, the ministry is a vital resource
for coordinating the activities of the district. This coordinating role is crucial, especially
as it relates to establishing a unified street addressing system which has over the years
become increasingly fragmented. Thus, the project has from the onset been given the
necessary attention it deserves.

Second, the street addressing project has not only received strong government
support, but the problem has also been identified within the broad context of urban
management and institutional reform. Whereas previous efforts were embarked upon in
relative isolation, the current effort has made serious efforts to make the address system
relevant in meeting urban development goals. Thus, the street addressing system is being
planned within the context of urban land management reforms and a restructuring of the
process of spatial planning. The capacity of the Town and Country Planning Department
is being built and their activities restructured. Also, the Land Administration Project is
ongoing in an effort to streamline activities in the land sector. The National Urban Policy
Document has also been formulated to guide the development of urban areas which
includes the physical development of cities and towns. These projects and actions are
acting in tandem with the street addressing project to provide a comprehensive basis for
the project. A comprehensive street addressing system will also serve to validate and
strengthen other national schemes such as the National Identification Project and
National Health Insurance Scheme.
A third strength of the present street addressing project is that it is being planned with a need for legislative reform. Previous efforts were attempted in the context of outdated and irrelevant planning legislature. This is closely linked with the need to restructure the spatial planning apparatus in the country. One main reason that the Town and Country Planning Department was incapable of effectively carrying out its responsibilities was that it was being guided by legislative instruments which had been prepared from as far back as the colonial period. For instance, town planning schemes cover areas considered as statutory planning areas. Peripheral areas are ignored as these schemes do not consider the fact that development has grown past these boundaries and is occurring outside these statutory areas. In addition, these newly developing areas not under the formal physical planning umbrella also contribute to the development challenges faced by towns and cities. Thus, some of the regulations guiding physical development are no longer relevant to the planning process, especially within the decentralized local government system.

Consequently, efforts are being made to pass laws and regulations which will guide spatial planning in general and the street addressing system in particular. This latter point was mentioned by the interviewed planner as one challenge the street addressing process has continuously grappled with. Enforcement has always been a thorny issue for past attempts. Vandalism and general indiscipline has characterized these efforts. Regulation which deals with the specifics of the system is required for the project to be sustainable. However, recognizing that this change is needed is a step in the right direction which puts the present project on a stronger footing.
Fourth, at the national level, the project benefits from a clear direction spelt out by the objectives in the street addressing operational manual. At the city level, the goal of the Urban Management and Land Information System (UMLIS) which incorporates the street addressing system is to enable the AMA to collect property rates and other fees efficiently to increase the assembly’s revenue. Again, revenue mobilization and generation is at the heart of UMLIS. However, UMLIS was embarked out of recognition that the lack of efficient land administration has contributed to the escalating urban problems. Thus, there was a need to find a way to integrate all the sectors and agencies which deal with land to achieve efficiency in land administration. UMLIS is then a tool being used by the AMA to accomplish this. Thus, the street addressing project is embedded within the UMLIS project which deals with more than simply going out there to collect revenue and fees. The current effort is set within the framework of a comprehensive solution to the problems of revenue generation for urban planning.

Fifth, the current system has the advantage of being organized around a digital platform which is the Urban Management Land Information System (UMLIS). Previous physical addressing efforts relied on manual methods, that is, outdated maps and planning schemes were the source of information for planning. A main reason for the state of haphazard addressing in Accra is that the pace of development far outstripped the city authority’s ability to assign addresses. Development was preceding planning. The established method of assigning addresses became irrelevant given the rate of physical expansion of the city and given that they were guided by planning schemes which had not been revised. Sometimes, the situation on ground was vastly different from what the planning schemes and maps indicated. Currently, the Urban Land Management
Information System (UMLIS) is a Geographic Information System (GIS) providing a platform for the efficient management of land related information. Within this database, land information will be updated and accessible for sharing between related departments to eliminate discrepancies. The UMLIS project is also set within the Ghana Land Administration Project (LAP). Land administration activities occur at the national and regional level and this centralized process makes it difficult for district level authorities who are responsible for planning to carry out land related administration effectively since they do not have easy access to information in this sector.

The Land Administration Project and the UMLIS project hope to bridge this key institutional gap between the land sector and planning agencies. All land related information generated in the metropolitan area will be stored in this system and a street addressing system is integrated within the system. The three components of UMLIS are the geographical component, the building component for registration of buildings and owners and finally, the financial component which relates to the invoicing of property (Yeboah and Johansson, 2010). Thus, with this foundation, a street addressing system is not arbitrary but is meaningful within the urban management context, meeting one of its functional attributes.

It is clear from the above that the current street addressing attempt aims to correct several of the challenges encountered by previous street addressing exercises as evidenced by its more comprehensive approach to the project. However, in the areas of participation and institutional reform and capacity, there seem to be some challenges which remain but which can still benefit from mistakes in past efforts.
Challenges of Implementation

Although the project is taking more deliberate steps to involve the public, attitudinal barriers will need to be removed to better engage a broad section of residents in the process. An observation rising from interviews with residents is that some of them view a street addressing exercise as an activity whose responsibility lies solely with the government and which they do not need to be a part of. Thus, a challenge will be getting sections of the community to view the project as something important. Since, for example, the AMA always did what it wanted to do in its jurisdiction without input from residents they did not see the use of being involved in the first place. This also reveals that the planning environment does not normally include active forms of participation from the public.

According to the guidelines for participation by the National Development Planning Commission, participation by stakeholders during the preparation of district development plans takes the form of public hearings at two main stages of the planning process. The first stage occurs before a draft plan is formulated and the second stage is after the plan has been prepared. This is the ideal situation and it occurs at the district level. Public meetings are also encouraged to take place at the sub-district level. Due to financial and time constraints, some of these meetings either tend to be organized too late, that is, when the draft plan has already been prepared, or do not get organized at all. In the first case, participation is not genuine and the meeting is informational only, with the presence of stakeholders serving to validate the process. Some of the sub-district level structures also tend to be weak or non-existent making the possibility of real participation even less. This is because Unit Committees are the lowest level of governance where
people can truly have a chance to be part of their local government. They are more community based as opposed to the district level which covers a much larger area. Thus, it will be easier for people to actively be part of the planning process at the Unit Committee level than at the district level.

Furthermore, although anyone can attend these meetings, representatives of various interests groups who are invited to attend form the bulk of these district-level meetings. It is argued that it is financially difficult to organize public hearings which involve large sections of the public. This is a problem which cuts across many broad-based participatory planning efforts (Reardon, 2009). Participation requires committing more financial and time resources. However, it has also been established that the trade offs are very successful projects. Thus, there needs to be an attitudinal shift in the way participation is perceived by institutional leaders in Ghana. The challenge with always relying on representatives is that they may not be truly representative. However, as a result of this, some of the public have gotten used to the idea of not being active participants of the planning process or in projects which concern them and have therefore settled for the status quo, not expecting anything more. Furthermore, some residents are not necessarily apathetic but simply need to understand the issues involved and why their participation is important. This is where participation becomes critical and where education is needed to sensitize people about the project.

Previous efforts were fragmented because planning was carried out at the national or district level. Some of the street naming and house numbering initiatives conceived by districts were tailored to suit their particular needs. Due to the view by city authorities which separates the communities of Accra into different administrative areas, there exists
a multiplicity of street naming and house numbering practices in the city which reflects the deeper problem of the limited collaborative planning between and among districts. Most residents conceptualize Accra as one seamless area comprising of at least 4 districts. Thus, people living in Taifa (Ga West Municipal Area) and Adenta (Adenta District) consider themselves to be residents of Accra as much as someone living in Osu which is regarded as “Accra proper”. On a normal basis, then, residents do not make the distinction between the different areas of Accra based on district boundaries. A person living in Ofankor (about 8 miles from the city center) who commutes to Dome on a daily basis considers himself as part of the city even though his movements do not take him within the boundaries of the Accra Metropolitan Area which is, again, traditionally considered to be Accra.

However, from the point of view of city administrators, the approach is different. There is an emphasis on administrative boundaries and this reflects in the planning decisions taken within these districts, considered as distinct entities. This has reflected in past attempts to assign street names and house numbers to different areas in the city. This reflects a challenge with the nature of planning in Ghana as regards how it can be collaborative without always having a third party such as the Ministry of Local Government step in. The Regional Coordinating Councils are by law required to play this coordinating role between and among districts. However, a challenge is that many plans are far advanced before they are harmonized by the Regional Councils. Districts need a better way or platform where they can interact from the beginning of a planning process.

Reconciling a technical problem within the socio-cultural landscape without causing too much friction is another challenge of street addressing. One problem of
existing addresses is that in addition to them not being understood, residents could not relate to some of the street names and addresses. A key issue here is how to effectively implement an address system on a landscape which is dominated by landmark descriptions and is heavily reliant on local knowledge.

Consequently, any attempt to assign addresses in Accra needs to take into consideration this situation and should attempt to integrate the peoples’ conception of their spatial environment and the official notion of the same environment. How theoretically sound the system seems is usually not the only concern. It is the failure to effectively incorporate these two dimensions that has often resulted in the situation where official names exist but are not functional. Participation and education will be major means of eliminating the dichotomy between the ways places are perceived.

The implementation of the street addressing system lies with the districts. Although possessing strong points in its favor such as having full government support and involving a broader group of stakeholders, the real success of the street addressing project will be determined by how well the districts are able to implement it. As successful implementation will require active participation by communities in these districts, the capacity of the districts to mobilize and organize their communities becomes crucial. Evidence from other studies reveal that in reality, many districts possess limited capacity to mobilize their communities for community-based development. Participation usually features little in the planning of a district’s activities. Where it is practiced, it is mainly to validate pre-determined outcomes. It is this basic weakness in the District Assembly’s role that needs to be addressed if the street addressing project or any project for that matter is to be sustainable. It is also necessary to address other challenges of the
District Assemblies such as improving their human and financial resource capacity if they are to be effective implementation agencies.

Concerning the participation of the community, defining the community remains a challenge. There is a difference between the attitudes of home owners and tenants, for instance, in a community. Home owners usually possess a greater sense of responsibility towards their communities as opposed to tenants. Tenants may view their stay as temporary and transient and may lack a sense of loyalty to the community. While this is not true for all tenants and home owners, the important factor is to identify the different faces of each community and actively seek to include them in the implementation process.

Summary

Different administrative practices between the previous and current street addressing exercises highlight the major differences between these projects. These differences explain the weaknesses and strengths of these efforts and largely determine the outcomes of these projects. Table 2 provides a summary of the main features distinguishing current and former street addressing efforts.

Regarding the residents of Accra, the interviews sought to establish the extent of awareness or lack of it of street addressing exercises in the area. Participatory issues and their relative importance were discussed based on residents' level of involvement in the process. From the responses of the residents in Accra, it was clear that participation, specifically in street addressing projects and generally in local governance, is limited or virtually non-existent. The perception and understanding of the need for a street address
were also surveyed by examining residents' local experiences and challenges relating to spatial navigation and other functional uses of street addresses. Reconciling divergent views on what residents' indicated their major challenges with an incomprehensive address system were (navigation) with what local administrators and planners regarded as foremost in importance (revenue generation) was also addressed and highlighted as a major factor in making a street addressing system truly functional.

Table 2

Summary of Main Features of Previous and Current Street Naming and House Numbering Attempts

<table>
<thead>
<tr>
<th>PREVIOUS EFFORTS</th>
<th>CURRENT EFFORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow purpose</td>
<td>Clear, comprehensive purpose and objectives</td>
</tr>
<tr>
<td>The use of manual methods and outdated planning schemes</td>
<td>UMLIS-GIS platform, that is, decision-making software</td>
</tr>
<tr>
<td>Limited government support</td>
<td>Full central government backing</td>
</tr>
<tr>
<td>Foundational issues not addressed/Isolated project</td>
<td>Set within the larger context of urban management reform/ Institutional reform</td>
</tr>
<tr>
<td>• Weak local government system</td>
<td>• Integrating the Street Addressing System with an information database</td>
</tr>
<tr>
<td>• Outdated and irrelevant planning legislature</td>
<td>• Land Administration Project</td>
</tr>
<tr>
<td>• Disorganized land use administration and information</td>
<td>• Capacity building for planners</td>
</tr>
<tr>
<td></td>
<td>• National Urban Policy document</td>
</tr>
<tr>
<td></td>
<td>• Local government restructuring (TCPD) and refocus on physical planning</td>
</tr>
<tr>
<td>No standard or guidelines for street addressing</td>
<td>Development of a street addressing manual</td>
</tr>
<tr>
<td>Limited stakeholder involvement</td>
<td>Broader stakeholder involvement</td>
</tr>
</tbody>
</table>
All these characteristics underline a weakness in the planning process of the street address system. In particular, lack of participation of the people who were going to be affected contributed to differences in the value of the address system and the failure of systems implemented in earlier efforts. While current efforts seem to have improved the process, participation at the local level is still a problem.
CHAPTER VI

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

Past street addressing projects in Accra have failed to bring about the anticipated transformation of the city into an organized space due to weaknesses in the way the projects were planned and implemented. These attempts took place in a planning environment which had a weak spatial planning and citizen participation culture. Spatial planning in Ghana has not fared well, usually taking second place to economic development planning which has also been fragmented over the years. In the same vein, planning in Ghana has traditionally been top-down even thought it appears to be bottom-up on paper. Thus, aside from the fact that previous street naming and house numbering efforts were half-hearted attempts to establish a measure of organization on the physical landscape, they were bedeviled with administrative and institutional challenges from the beginning. These efforts lacked a clear focus, were based on outdated maps and planning schemes and not supported by relevant legislation. Thus, the requirements of the project could not be enforced. The narrow emphasis on revenue generation also contributed to the failure of street naming attempts. This is because the implementation of a street addressing system was not considered within the broader context of land administrative reform. Furthermore, there was little consideration of the end users of the system which was being established. Many residents of Accra did not understand what was going on, especially as many of these efforts were fragmented. The result was that the implementation of these street naming and house numbering exercises did not succeed.
The continued rapid urbanization of cities and towns in Ghana, especially Accra, has however called attention to the importance of spatial organization as a prerequisite for efficient urban management. Accra is both a district, regional, and national capital, and the need to establish a street addressing system is a pressing need for both national and international considerations. The current street addressing initiative has been reintroduced as part of a larger plan to bring sanity to spatial planning in Accra. The plan has advantages over previous plans in many respects. One major advantage is that it is a national project being planned in partnership with the Accra Metropolitan Area as part of a concerted effort to address broader deficiencies in land administration and information. Thus, the project is being planned within the context of the Ghana Land Administration Project and the Urban Management and Land Information System initiative of the AMA.

Although revenue generation is still a focus of the project, other land related issues are being addressed. Thus, the address system can serve as a unique identification and will be part of a system where spatial information can be related to information about people and resources in the urban environment. At the center of the project is the street addressing manual which is to serve as a guideline for the implementation of the system in all districts across the country. This is critical in bringing logic and consistency in the system by standardizing it. Lack of consistency was a factor cited by residents as a feature which limited the level of functionality of existing street addresses. Another core feature of the current street addressing project is its focus on community involvement and sensitization of the public. This latest attempt recognizes the important role of residents as agents who will operationalize the system in the real world. This is a shift from street
addressing as a top-down exercise to one which recognizes the role of people in shaping the spatial environment by the identities they give to those places.

Conclusion

Street addressing exercises have taken place in Ghana with little to show as regards their intended goals. This picture reflects the general planning situation in Ghana which has traditionally been fragmented and has relied on top-down approaches to bring about change. Past street addressing attempts were fraught with problems right from the start. Examining the evidence from both planner and residents indicate that the idea was good but the planning and execution of these projects was not well thought out as these initiatives were not approached comprehensively. Previous street addressing efforts did not have the support they needed to make it successful. They were not approached with the level of importance they needed to make them succeed. There were challenges at the planning stage of the project which made its execution difficult. These challenges include institutional and administrative weaknesses, inadequate application of technological skills and insufficient stakeholder participation. Still at the pilot stage, the current street addressing initiative is superior to previous attempts on several grounds.

The success of the implementation of a street address system, however, will depend on two factors. These two challenges remain as they are yet to play out in the real world.

1. The extent to which the public is involved, sensitized and educated about the project through media campaigns and community-based activities.
The extent to which individual District Assemblies as implementation agencies are able to organize the project within their jurisdiction. A major challenge lies with the capacity of the planning agencies under the existing planning structure to marshal resources and their communities to effectively implement a street addressing system.

Recommendations

The following recommendations are made to addresses the major challenges disclosed by the study.

1. Building the capacity of the District Assemblies

   Structural weaknesses pertaining to the organizing and resourcing of the District Assemblies need to be addressed if future plans and projects are to be implemented successfully in the country. Since planning occurs at the district level under the decentralized local government system, there is a need for capacity to be built at this level to enable districts function effectively as planning authorities. Weaknesses in a district’s ability and capacity to manage projects will directly impact the implementation of plans and projects in that district.

2. Incorporating stakeholder participation and collaborative planning between districts as an indispensable part of the local planning process. In this regard:

   a. Planners need to be creative in the means by which they engage communities in the face of resource constraints and a culture of apathy.

   Planners can play the role of facilitator in helping communities see the need for better spatial planning of the environment. However, the success of this role is
dependent on an environment of local administrative support. Residents need to be recruited as allies in the planning process. Participatory planning can yield enormous results by tapping on volunteer spirit especially among the large youth population. The nature of planning needs to deliberately change from the traditional top-down approach to one which is increasingly participatory in nature by engaging the parties concerned.

b. There must be effective sensitization campaigns for the street addressing project especially as residents are major stakeholders.

An awareness campaign is necessary to dispel negative views of house numbers among the public. Community forums can also used to address the sensitive issue of street names in neighborhoods where a compromise or understanding can be reached.

3. Using the resulting information database to control and manage future growth of the city

A major weakness of the old address system was its inability to keep up with the pace of new developments. With the anticipated streamlining of activities of the land sector, information sharing will be an important element in keeping the system updated. The street addressing system adopted should also be designed to accommodate future growth of the city by allowing new developments to be assigned street addresses the same time they are given a building permit. A further recommendation is to systematically incorporate the new Block System into the Street Addressing System so that in the future, a single address system exists in all parts of the city.
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Appendix A

Interview Guide for Accra City Planner
Interview Guide: Accra City Planner

Background of Address System in Accra

1. Could you explain the current/existing street address system in the city?

2. How did it develop?

3. Does it follow a specific system or pattern? What are its major features?

Previous Attempts

4. Looking at previous attempts at street addressing, what were the main reasons behind the government’s efforts to introduce a property address system in the country?

5. How many previous attempts were there?

6. Which government agency/agencies were in charge?

7. In which areas were these attempts carried out? That is, on what geographical scale?

Stakeholders

8. Who was involved in the planning of the projects? That is, who were the other stakeholders other than the government and what was their role?

9. What system of house numbering and street addressing was used? (features and methods)

10. What were the major challenges you are aware of that faced these previous efforts?

11. On a scale of 1 – 5 with 1 being successful and 5 being failure, how would you rate these attempts?

Depending on answer in 11: Can the minimal success of street and house addressing attempts be attributed to characteristics of certain areas, i.e. culture?

Current Attempt

12. Explain the new address system.
Stakeholders

13. With reference to the stakeholder consultative meeting mentioned in the draft manual, who are these stakeholders?

14. Does any stakeholder hold greater influence, as compared to the others to ensure successful implementation of the street addressing system?

15. Are there any challenges concerning stakeholder cooperation that exist or which are anticipated?

Practical Considerations

16. How will new developments be incorporated into the system?

17. How will it aid navigation? (Will it be based on a system of maps, will it give a sense of distance or other technical details?)

18. How will illegal structures or structures at the wrong places be handled, for example, kiosks (which were mentioned in the draft manual)?

19. What will be the main means of information dissemination to the public?

20. What are anticipated, if any, to be major challenges when it comes to the public? (What are the particular instances where it is difficult for government to implement its system of order and the local power steps in? Are there any particular areas/places that experience this failure of plans?)

21. How would vandalism be dealt with? Are there legal instruments in place to enforce the new system and if so, what are they?

22. What guidelines or suggestions do you have for a successful implementation of the street addressing system in Accra?
Appendix B

Interview Guide for Achimota Residents
Interview Guide: Achimota Residents

1. Are you aware that there have been efforts on the part of the government to introduce house numbers and street addresses in the AMA?
   - Do you know whether or not it was carried out in your area or neighborhood?

2. Did you have an address before the exercise was carried out?

3. Could you describe the address changes?
   - Were you given new numbers or did you maintain the old numbers?
   - What about street names? Were they maintained or changed?

4. Before the street addressing was carried out, was your opinion or involvement sought in any way? And if so how?

5. Were you involved during the process itself?

6. In the future, are there ways you would like to be involved in a street address process?

7. What is your opinion about house numbers and street names? How important or not do you think they are?
   - Why do you feel they are important?

8. How relevant/useful do you feel your house number/address is right now? What purpose does it serve?

9. Based on the above, what suggestions can you make for a street address system which will better serve your needs?
Appendix C

Interview Guide for Taifa Residents
Interview Guide: Taifa Residents

1. Are you aware that there have been efforts on the part of the government to introduce house numbers and street addresses in various districts of the country?

2. On a scale of 1 to 5 with 1 being easy and 5 being difficult, how do you rate the experience of persons looking for your house?

3. What has been your personal experience in locating places in the city?

4. What is your opinion about house numbers and street names? How important or not do you think they are?
   - Why are they important?

5. How relevant/useful do you feel house numbers/addresses in Accra are right now? What purpose does it serve?
   - If you have a house address, is there a systematic/logical way it can be used to find your house?

6. Based on the above, what suggestions can you provide to make the street address system more useful and relevant for finding places?

7. Are there ways in which you would like to be involved in a street addressing exercise? What forms of personal and community participation would make you feel a sense of ownership for a street address exercise?