

**REGULATION OF HOUSING AND SERVICES  
FOR THE URBAN POOR: A CASE STUDY  
OF ACCRA, GHANA**

by

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## **ABSTRACT**

This thesis explores the inadequate housing conditions of the urban poor in relation to housing regulations and services provided in selected communities in Accra, Ghana. Case studies and qualitative approaches are used in examining the main provisions of building codes: housing development processes, arrangements and sizes of rooms, materials used in construction and penalty for non-compliance (denial of services), in three urban poor communities in Accra.

A review of the literature indicates that formal regulations, particularly building codes were set during the colonial period in Ghana. The main purpose was to provide European settlers or officials with houses of standard design similar to those in their country of origin. Even though Ghana obtained political independence in 1957, these building codes with little modification have become the dominant tools in housing policies.

The thesis finds that the standard requirements set by the building codes are very high for the urban poor. They are also unrelated to local culture, the climate, and the skills and resources of the urban poor. The overall effect is that the urban poor do not follow the standards specified by the codes and are penalized by the government through denial of the city's infrastructure and services like water, electricity, garbage collection, roads, etc.

From the case studies and analysis of secondary data, the thesis concludes that although there are other social, economic and political factors which underlie inequality in the city; the penalties for non-compliance with building codes are key factors contributing to the inadequate housing conditions in the urban poor communities. They also hamper progressive housing improvement strategies.

To allow flexibility in the extension of infrastructure and services to the communities, the thesis suggests reformulation of the building codes, taking into account the existing conditions of the rapidly growing urban poor settlements.

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## **DEDICATION**

**TO MY DEAR WIFE EUNICE, FOR HER  
LOVE, SUPPORT AND SACRIFICES**

## **CHAPTER ONE - INTRODUCTION TO THE STUDY**

### **1.1.0 Background**

Cities in developing countries are growing at extraordinary rates, often compressing into decades the urbanization process that has taken centuries to evolve in technologically advanced countries. During the 1990s, 600 million people will be added to the world's cities and towns. Of the world's 21 megacities, which will expand to more than 10 million people during the 1990s, 18 will be in developing countries (World Bank, 1991).

Accra, the capital city of Ghana (See Fig. 1 in Appendix ) - is relatively small in comparison with megacities in other developing countries. However Accra has had its own population explosion. The city's 1984 population of 860,000 almost doubled to 1.6 million in 1990. By the turn of the century, if the projections are fulfilled, Accra's population will be well over 2.2 million (Government of Ghana, 1984; HUDA, 1990). The need for successful urban management processes to cope with the general problem of population growth like housing, infrastructure and services is therefore paramount and obvious.

### **1.2.0 History and Growth of Accra**

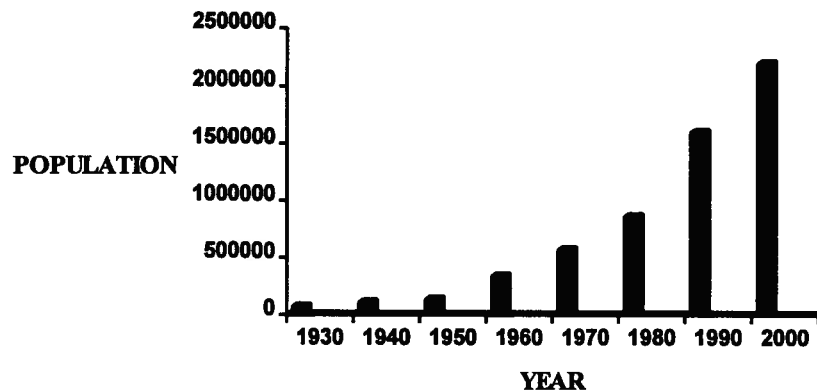
Accra, which was founded by the Ga ethnic group towards the end of the 16th Century, began as a small village near a lagoon called 'Korle'. The Ga inhabitants were mainly farmers and fisher folks, who caught fish in the lagoon. The settlement began to assume importance in the 17th Century when Fort Crevecoeur (now called Usher Fort) was built by the Dutch in 1650, followed by the Swedish Christianborg Castle in 1657 and the English Fort James in 1673 (Abloh, 1972). Although the three forts were built for purposes of trade,

they also afforded protection to the residents of Accra, during the inter-tribal war period in Ghana's history.

The safety afforded by the settlements attracted people of other Ga settlements who were at war with other groups. The town later became the capital of the Ga people. The presence of the forts also led to the development of Accra as an important trade center along the West Coast of Africa. Accra's importance increased in 1876, when the British transferred the administrative headquarters of the colonial country from Cape Coast to Accra. By the end of the 19th Century, Accra was a major trading center in gold, rubber, palm kernel and cola.

As a growing capital and a trading center, the urban beginnings of Accra started to attract immigrants from all over the country and also from overseas. As a result of this trend, buildings began to spread away from the old built-up area around the forts. At the outbreak of the Second World War, Accra was made an important West African War Base and a large number of troops both local and foreign were stationed there. This immediately led to the development of Giffard Camp and quickened the growth of other new housing areas to meet the growing demand for housing for both soldiers and civilians who continued to flock to Accra in large numbers. When Ghana obtained political independence in 1957, Accra became the dream destination of most rural-urban migrants and marked a dramatic increase in its population as illustrated by the graph below:

**Figure 2. ACCRA'S POPULATION GROWTH**



Source: Constructed by the author from Abloh (1972), Census (1984) and Huda (1990)

The unprecedented population increase in Accra has left in its trail intractable problems like severe housing shortage, poor sanitation, slums and environmental deterioration. All these have had adverse effects, especially on the urban poor. The position of the urban poor has been worsened further because they have little or no access to the legal housing market. In coping with this problem, central and municipal governments have over the decades devised a wide range of policy instruments and planning regulations aimed at meeting the housing needs of the city. In the past the main planning regulations and controls have included land use zoning, subdivision regulations and building codes.

In principle, the main goal of planning regulations and control measures is to ensure that private and public developers act in a way that maximizes the social and external benefits and minimizes the social or external costs associated with urban developments. In practice, however, the control measures have not stopped the proliferation of slums which is a conspicuous characteristic of

Accra. It is against this background, that this study examines the housing conditions of the urban poor in Accra, Ghana. The study is from the perspective of access to services like water, electricity, sanitation, roads and drainage.

This study, focuses on regulation of urban development through the use of building codes in housing development. Building codes are typically designed to reduce fire and health hazards and to provide privacy, public safety and open space (Linn, 1983). Houses which violate the specifications of the building codes are stigmatized as 'substandard' and denied legal access to basic services. It is estimated that about 53 per cent of the houses in Accra - Ghana, fall into this category of 'substandard housing' (Ghosh, 1984). Given the changing demand for housing driven by the unprecedented population increase of Accra, the question is raised: how can the operative building codes be adapted to improve the housing delivery system for the urban poor?

### **1.3.0 An Overview of Accra's Housing Situation**

The evolution of Accra's housing problem dates back to the mid 1950's when the country obtained political independence from the British colonial administration. It is the growth of Accra as the capital and the primate city of Ghana that, has culminated in the housing problems. Much of this growth has been due to rural-urban migration. This is borne out by the fact that between 1960 and 1970, the national population growth rate for Ghana was 2.4 per cent whereas the equivalent growth rate of Accra was 3.5 per cent. Compared to the 1990 national growth rate of 2.7 per cent, the city's growth rate was 4.6 per cent. The prominent place held by the city's urbanization process has meant that household formation has been rapid, rising ahead of provision of urban facilities

like housing. The result has been constant shortage and "substandard" houses being occupied by the urban poor (HUDA, 1990).

In Ghana, as in most Third World countries, the provision of adequate housing within a wholesome environment has become one of the cardinal objectives of most successive governments. However, the yawning gaps between demand and supply of housing and its associated infrastructure services continue to be the dominant problem characterizing the development process of the capital city of Accra. The picture of the housing "crises" becomes more gloomy when the housing situation is further analyzed in terms of unequal levels of access to the limited resources by the various socio-economic groups in the urban setting. This has culminated in most of the urban dwellers living in low income communities without essential services. Even where these services are provided through their own initiative and resources, rapid increases in residential densities without a corresponding increase in the supply of these services have rendered them ineffective.

The ownership of a house for the immediate family or household is a popular desire in Ghana. Ownership of the house and the land on which it stands offers the household a sense of security and pride. However, this aspiration is out of reach to most households because of the cost involved in the construction of 'standard houses' and their low incomes. It is therefore, becoming increasingly difficult for the urban poor residents to own a house that is in line with municipal standards.

With incomes falling in real terms, the cheapest shelter built to satisfy municipal standards in Accra would cost upwards of 12MW (multiples of the annual



minimum wage). Even that would be net of land and servicing cost. Plot cost would require another 5MW at least (Korboe, 1992). In 1989, the World Bank expressed deep concern that Ghana's house-price-to-income ratio was higher than any country for which records were available (World Bank, 1989).

The housing situation has become more critical in Accra which is the capital and primate city in Ghana. According to HUDA (1990), whilst the metropolitan area is growing at an annual population growth rate of 4.6 per cent the housing production rate has fallen below the corresponding population growth leaving an accumulated housing delivery deficit of 27,460 units. The enormity of the housing problem can be well appreciated if this figure is compared to the current production rate of 444 housing units per year within the metropolis. Projections indicate that if the annual population growth rate of 4.6 per cent is sustained up to the year 2010, then nearly 200,000 extra dwelling units would be needed in the next two decades. The housing crisis has culminated in slow rate of housing starts with the rich, government officials and those with political connections controlling the limited legal housing market. Access to housing for the urban poor is now more restricted than ever before.

The consequence has been the low income urban residents solving their own accommodation problems through the construction of houses that are considered by housing technocrats and policy makers as illegal because they do not conform to the operative building codes in the municipality. The extension of infrastructure services to these settlements is therefore not on the municipal agenda. This may be a contributing factor in the proliferation of slums in those parts of the city where sanitation is the poorest with little or no public services. Though current data on slum settlements in the city of Accra are not available,

in 1984 it was estimated that 53 per cent of the city's population were living in slums- that is in non-conformity with local building and land use regulations (Ghosh, 1984).

### **1.3.1 Informal or illegal housing sector**

The housing development processes in Accra are generally characterized by informality or illegality and formality or legality. A review of the literature of housing development revealed that, this is common in most Third World countries that were formerly under colonial administration. Laquian (1983) observed that the imposition of outmoded building codes in most developing countries had culminated in open violation of codes by majority of the residents. This explains the growth of informal or illegal settlements.

In the informal or illegal housing sector in Ghana where most of the lands are acquired from customary land owners, the houses are not built in accordance with any town planning layout. In addition, the buildings are not constructed with any building plans. The absence of building plans or any form of development control means that the house owners could vary their building operations to suit their circumstances. These types of houses generally called 'traditional compound houses' constituted about 51 per cent of the city's housing stock in 1990 (HUDA, 1990). The process of development usually involves first the occupation of the land, followed by building and pirating from the main services supply lines (if available). This is a process similar to what Baross (1988) calls "Occupation, Building, Servicing and Planning." The houses built from this informal sector are mostly financed from personal incomes through a process of incremental development.

It must be emphasized that "informal" housing in Ghana should not be confused with the notion of land illegality associated with squatter settlements in some Latin American cities. In short, the owners of illegal or unauthorized housing in Accra are not squatters. Almost all the house owners hold at least a recognized customary allocation note on the land on which their houses stand which was issued by the authoritative landholder (usually the chief). The absence of squatters may be due to the fact that, lands in Ghana and other West African countries are shrouded in spiritual and religious myths. The concept of the land or earth as a deity or goddess appears to be a generally accepted norm in the sub region. The care of land, in turn, is vested in traditional chiefs who manage the allocation of traditional lands.

Among the Ashantis of Ghana, Busia (1951) has observed that land is a supernatural feminine spirit that can be helpful if propitiated and harmful if neglected. The belief is so strong that before an Ashanti farmer cultivates a new farm, he offers a sacrifice of mashed yam, eggs and a fowl to the spirit of the earth to propitiate her to ensure his safety and a good harvest while he works on the land (Siriboe II, 1975). It is believed that the dead ancestors shed their blood to preserve the land for posterity and that those living are only custodians of dead ancestors and generations yet unborn. According to several authors (Elias, 1956; Ollenu, 1962; Lloyd, 1962 and Asante, 1975), in West Africa generally land belongs to a community defined as a 'vast family of which many are dead, few are living, and countless members are unborn.' Similarly, in Accra this notion of continuity is so strong that, most occupiers of land do so with the consent of the land owning group. Peoples' attitude towards customs and beliefs regarding land ownership and the role of spirits of the dead

in the affairs of the living may be the reason for the absence of squatter settlements in the city (Konadu-Agyemang, 1991).

### **1.3.2 Formal or legal housing sector**

In the formal housing sector where most of the lands are acquired from the State, strict compliance with all development controls is demanded. The formal houses are usually designed and built for single families that are in the high and upper middle income groups. This type of houses that are typical western styles and quality ranges from three to four bedrooms with exclusive garages, kitchens, bathrooms, toilets and other appropriate conveniences. Most of the formal housing developers who obtain capital from the financial institutions follow a process of "Planning, Servicing, Building and Occupation." According to HUDA (1990), these houses constituted about 22.4 per cent of the city housing stock surveyed.

The remaining housing stock surveyed which constituted about 26.6 per cent were constructed with a combination of formal and informal development processes. With this category of housing development, the prospective developers initially obtain the development permit by complying with the necessary procedures to obtain municipal approval for the extension of infrastructure and services. However in the process of housing development, undue advantage is taken over the weak monitoring by the City's building inspectors. The approved design is therefore substantially amended to reflect personal preferences and circumstances, all with the intent of avoiding the penalty of seemingly unrealistic building codes, (that is, the denial of infrastructure and services).

### **1.3.3 Services**

Housing in this study has been defined to include not only the shelter structure, but also the plot on which the shelter stands and the services provided for the plot such as water, energy supply, waste disposal drainage, etc. In Accra most urban poor houses lack these basic services.

Asiama (1985) observed that poor households build a large part of the housing stock in Accra. Where the results fall short of the desired municipal building standards poverty is not always the cause. The efforts are rather hampered by lack of public services like water, electricity, drainage, etc., which the municipalities have failed to provide. Thus in Accra, rather than lack of availability of raw land, it is the lack of services by public utilities and other urban services that creates major bottlenecks for the urban poor in their housing development.

### **1.4.0 Statement of Problem**

The search for a more comprehensive understanding of the linkages between services accessibility and urban poor housing, is the main subject of this study. The purpose of the study is to examine the inadequate housing conditions facing three urban poor communities in Accra, from the perspective of services accessibility and imposition of municipal building codes. Although it is admitted that planning regulations shaping the housing development process include building codes, regulations, subdivision laws and zoning, this study focuses on building codes. The research question is: are the building codes preventing or promoting the proliferation of slums in the city?

For the past four decades, access to the city's services has been restricted to the upper middle and high income groups, senior government officials and senior army personnel. The urban poor who cannot afford to build according to official building codes are forced to operate outside the law. They often resort to illegal water supplies and illegal electricity connections where they exist. It is understandable that the enforcement of the building codes, which to a large extent determines the direction of municipal investment in infrastructure and public services, is meant to ensure that basic health and safety standards are met. But by demanding unrealistic and expensive standards, they condemn the poor majority to never enjoying the protection of these standards. The overall effect is that urban services and other public utilities are not legally accessible to the poor neighborhoods in Accra.

The study intends to address the rationale and enforcement of this institutional bottleneck, 'building codes,' which block services to the urban poor and thus hinder their survival strategies in the city. Alternative means of coming up with more flexible and pragmatic building codes are suggested.

#### **1.5.0 Scope of the Study**

This study examines the shelter and service conditions of three low income communities located within the Accra Metropolitan Area of Ghana. The communities are Nima (an inner city settlement), Madina and Ashiaman (peripheral settlements). The focus of the study will be on housing tenure and type of construction materials used in housing development processes, standard of design and services provided. These are discussed in relation to the specifications of the building codes, and related issues. Where appropriate

peripheral references are made to zoning and land use regulations which contribute to housing delivery system in the city.

#### **1.6.0 Significance of the Study**

The study of urban poor housing is appropriate because the urban poor constitute the majority of the city's population but are ironically housed in the most deplorable unsanitary areas of the city. Their housing circumstances are not only dictated by limited funds but by institutional factors like building codes which penalize the poor and hinder their survival strategies in the city. In 1984, 53 per cent of the city's population were classified as living in slum areas (Ghosh, op cit.), i.e., buildings in contravention with municipal building codes and devoid of services like water, electricity, sanitation, roads, drainage, etc.

The high income group and those with political connections who constitute less than 5 percent of the city's population, are the few who can technically be said to have legal access to these services (Merrill, 1988). The upper middle income group acting through their various corporations and public authorities also have some access to the services. This has contributed to the continued increase of the urban poor in the slum settlements.

Most government policies and programs aimed at the urban poor housing situation have often tended to be tentative and focus narrowly on specific issues like financing without addressing other related issues. The current debate and the continued increase of the housing problem have attracted the Government's attention. In 1985, the Government commissioned the Ministry of Works and Housing to formulate a National Housing Policy to critically examine the country's housing problem with the aim of initiating more pragmatic

approaches. This led to the National Housing Action Plan from 1985 to 1990. The policy did not, however, address the housing problem of the urban poor.

In 1987, the Government further commissioned the same Ministry of Works and Housing to look at the concept of housing standards in the country in line with the operative building codes - The Town and Country Planning Ordinance -, which was inherited from British Colonial Administration in 1947 and has since been in operation. The report was also to address the seemingly obsolete building codes in relation to the realistic situation being faced by the urban residents in their housing development process. The outcome of the report is yet to be made for public consumption and can therefore not be presumed to take care of all segments and income groups in the city.

Since 1988, better urban poor housing has become a high priority of the Ghanaian Government. In his January 1988 budget speech, the Government's Secretary for Finance and Economic Planning stated that:

"The availability of housing, particularly low income housing, had not kept pace with urbanization. The existing stock is inadequately maintained, and numerous structures have been left uncompleted" (Dr. Kwesi Botchway cited in Merrill, 1988).

Without prejudicing any of the on going surveys and analysis, this study challenges the conventional city planning wisdom of insisting on minimum standards in housing development as specified in the building codes. It argues for flexibility to accommodate the urban poor in the city's infrastructure and public utility services.



### **1.7.0 Research Objectives**

The study has one long term goal and three operational objectives.

#### **1.7.1 Long Term Objectives**

In the long term the study adds new insight to the study of low income housing in developing countries and especially in the West African context. In this connection the study has contributed to the framework of guiding and stimulating the growth of Third World cities, not only through environmental improvement for the current population but also to accommodate a possible doubling of the cities' population within the next twenty years.

#### **1.7.2 Short Term Objectives**

In the short term, the study has;

1. Identified and analyzed the relationship between services and urban poor housing in Accra,
2. Analyzed the impact of the operative building codes on urban poor settlements,
3. Examined how the implications of the study can guide policy formulation in the city, the nation and other third world countries where services accessibility and associated issues create problems of urban management.

### **1.8.0 Theoretical Framework<sup>1</sup>**

Alternative approaches to low income housing problems in Third World countries came about in the mid 1960's, when it was gradually realized that the traditional solution of public housing and slum clearance were not effective. As many low income urbanites disregarded planning policies and started solving their housing problems through informal settlements, more attention came to be

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<sup>1</sup>Housing theories are discussed in greater detail in chapter two.

paid to this informal solution tried by the urban poor. The study therefore adopts a theoretical framework of the 'New Housing Settlement Paradigm' with Abrams (1964) and Turner (1968, 1972, and 1976) as the chief proponents. The other known authors of this school of thought include: Laquian (1972, 1983), Doebele (1978, 1987), Angel (1983), Baross (1983, 1987) and Burgess (1978, 1982).

The study questions the underlying rationale that houses which do not meet the requirements of the operating building codes should be denied access to infrastructure and services. Angel (1983), makes this position more vivid when he argued that:

"Efforts to construct public housing for poor families must be abandoned in the face of impossible financial constraints and be replaced by the opening of new serviced areas where low income people can build their houses gradually over time..."

Angel's position is supported by Otto Koenigsberger who observed that:

"If government cannot improve a low-income majority's housing conditions then it must not build houses" (Koenigsberger, cited in Turner, 1983:210). This gradual approach to housing improvements as argued by Angel and others, requires the acceptance of slum or make shift dwellings mostly occupied by the urban poor as legitimate forms of urban housing which in principle must be improved rather than ignored.

Another theoretical issue supporting the main subject of this study is the concepts of basic housing standards explored by Laquian (1983), Turner (1976) and others. These critics accuse minimum standards of inhibiting the efforts of the poor to build houses for themselves, thereby limiting the number of dwelling units that can be made available to them. Such standards do not state

the people's housing needs in terms of priorities. In most developing countries the priorities of the poor are not appreciated by the high income legislators, technicians and administrators. These policy makers view the city from aesthetics point and comparable to cities in the advanced countries where they were educated, without looking at the importance of housing per se. The important thing about housing was pointed out in particularly cogent terms by Turner (1968), when he argued that:

"Housing is not what it is, but what it does in people's lives, in order words the dweller satisfaction is not necessarily related to the imposition of standards..."

The imposition of such standards usually reflected in unrealistic building codes are usually disregarded by the urban poor because they cannot afford to meet those standards and as such are not meant for them. They therefore see such standards as an imposition of an alien ideology intended to be an exploitative tool by the elite.

The literature on Third World housing abounds in numerous instances where low income houses demolished for not complying with the building codes have culminated in the people merely relocating the units in other geographical areas of the city. The effects of eradicating existing slums and shanty towns destroyed some of the cheapest housing options opened to the urban poor, thereby worsening the housing problems through increased illegal settlements. The result of such actions is usually to make conditions even worse in other urban poor settlements as those evicted have to double up with other households or build another shack in another urban poor settlement.

Laquian (1983) affirmed that, the impositions of unrealistic building codes in developing countries have culminated in its open violation by about 40 per cent of those people living in make shift dwellings. The dismal failure of the building code enforcement compelled most Governments to house the poor sections of the population in the so called "standard low cost" public housing. This approach has mostly failed because the supply could not meet the ever increasing demand. Secondly, low cost standards units turned out to be too expensive for the target groups.

Because of increased cost, very often the units so produced were rented or sold at prices that the low income group could not afford. During certain occasions the poor had to be forced into government public housing against their will and have suffered from what Turner (1976) calls "conditions of oppressive housing." Such public housing units were too high an architectural standard for the poor and too expensive.

This does not mean that the poor have not benefited at all, for they often sold their rights to new families. But building for middle income families was not what the agencies believed, or at least pretended, they were doing. Thus apart from Singapore and Hong Kong whose unique positions as city-states made public housing relatively successful, the programs failed in most Third World countries in terms of sustained commitment especially in meeting low income needs owing to the perception of an acceptable standard (Epstein, 1972).

The researcher does not intend to supplant the essence of building codes. Building codes and housing standards do have their uses, but they should be based on existing situations and reflect current realities. The variety of housing demand especially in most Third World countries is immense and therefore

require highly diversified approaches where the house users can manage and maintain their dwelling units after design and construction. If planning is confused with design and strict rules indicating what all people and organizations must follow, enterprise will be inhibited, resources will be lost and only the rich will benefit to the disadvantage of the low income urban residents. The variable nature of three universal housing needs as identified by Turner (1976:97) namely:

- Access to the people, institutions and amenities on which their livelihood depends,
- Tolerable degree of shelter from the view point of climate and community needs,
- Tenure long enough to make the housing investment worthwhile.

These elements should be satisfied within the limits that the household and neighbors concerned can accept.

The brief theoretical background is intended to support the researcher's opinion that, if urban poor policies in Ghana are to be meaningful, then the people must be enabled to do something for themselves. Government policies must be geared towards the development of institutions to facilitate the urban poor to provide housing for themselves. A start could be made through the provision of services by revising the existing building codes.

#### **1.9.0 Research Methodology**

Case studies and qualitative analysis were the methodologies used in this study. A very substantial part of the data base in chapter four of the study is derived from an unpublished report by Housing and Urban Development Associates (HUDA, 1990 Volumes 1,2 &3) entitled "The Housing Needs and Assessment

Study of Accra, Ghana." The researcher was a participant in the design and implementation of this study in his capacity as the Assistant Estates Manager of the State Insurance Corporation of Ghana, one of the housing related agencies in the country. The work was jointly funded by the UNDP, UNCHS and The Government of Ghana.

The main working tool for the collection of specified data was the closed questionnaire administered by well trained and motivated groups of interviewers. Officials of relevant housing related institutions and bodies were interviewed for more information on the housing situation in the city. Two sets of questionnaire were prepared and administered in the survey. They were:

#### **1.9.1 House owner Questionnaire**

This dealt with the housing development process and its physical characteristics such as land cost and plot size, preparation of building plan, construction cost, construction materials, title held, availability of amenities and services such as kitchens, bathrooms, toilets, water, electricity, garbage collection, schools, clinics or health post, etc.

#### **1.9.2 Head of Household Questionnaire**

This dealt with household data such as size, income, expenditure, length of stay in the city, types of employment, means of transportation to work, etc.

#### **1.10.0 Survey Method - Probabilistic Sampling Approach**

The survey was undertaken during the first quarter of 1990 through the application of selective stratified sampling technique. It covered 33 communities in Accra that included all the low income communities in the city.

The low income communities classified in the survey as High Density Low Class Sector, included the three communities covered by this study, namely: Nima, Madina and Ashiaman. These communities where sanitation, drainage and urban services were the poorest accommodated the majority of the city's poorest residents.

The interviewers were trained to systematically select every tenth house on each lane and interview the house owner and one head of household in each house. This was to ensure a fair distribution of the sample at the community level. The interviewers were assigned to specific communities for the administration of the questionnaires. The completed questionnaires were submitted to their supervisors every evening after the days work for review. This ensured effective supervision and control of the interviewers to reduce the biases that might be noticed. Out of the total 5733 houses in the three study communities (Government of Ghana Census, 1984), the number of houses covered totaled 110 with a sample percentage of 1.9 as detailed in Table 1 below:

**Table 1: Number of Houses Surveyed**

<b>COMMUNITY</b>	<b>HOUSES</b>
<b>Nima</b>	<b>20</b>
<b>Madina</b>	<b>40</b>
<b>Ashiaman</b>	<b>50</b>
<b>Total</b>	<b>110</b>

The actual survey was preceded by a pilot survey of Madina to test the questionnaire in terms of interpretation of the questions by the interviewers,

ability of interviewers to record responses accurately, ability of respondents to understand and provide the required information, identification of general problems likely to crop up during the actual survey and how to cope with them.

### **Secondary Data**

The secondary data includes books, journals, publications and articles written on the housing situation in Ghana and other Third World countries.

### **Other Sources of Data**

The researcher's personal experience and subjective information were also used. These were augmented with unstructured interviews with relevant persons like city planning officials, residents and community leaders of the low income settlements and representatives of the Ghana Real Estate Developers Association (GREDA)- an association established in 1990 to assist in the housing delivery system in the country.

#### **1.11.0 Limitations of the Study**

Little is known about Ghana and its housing conditions much less low income housing in the capital city. Thus a fundamental limitation of the study was the dearth of information and the lack of accurate and reliable statistics. This is partly due to the absence of workable framework for housing development demanding monitoring and evaluation. Data relating to such vital issues as the nature and number of housing stock, tenure arrangements, density levels and the quality of housing are either non-existent or their reliability is suspicious.

Also of some significance is the absence of data on the population who inhabit the houses that are built. The few sociological studies that have been



undertaken on the population have concentrated on issues other than housing. The results are thus related to housing only in a peripheral way. Thus current data on household formation and other population issues relating to housing on a national scale and the Accra Metropolitan Area in particular are still not available for public consumption.

Another handicap of the study was the limited time and finances that prevented the author from undertaking an exclusive independent survey of the selected case study area.

It was also observed in the survey that some house owners were not resident in the houses and the occupants were not in a position to provide the required information. This refers especially to those relating to the development process of the building, that is, cost, land acquisition procedures, year of construction, etc.

The houses surveyed were chosen through the application of selective stratified sampling technique. The small sample size of 1.9 per cent and conclusions drawn in this study can not be used as a universal application of the conditions being faced by all low income residents in the city or the country.

#### **1.12.0 Definition of Concepts and Terms**

The following terms and concepts are defined as follows in this study:

- 1. Access to water:** Households obtaining municipal water supply from a public standpipe within the neighborhood.

2. **Access to electricity:** Households with legal municipal electricity supply.
3. **Household:** In Ghana, this includes all persons who live together and share housekeeping arrangements or eat from the same pot.
4. **House:** A house is a dwelling place or building sited on a plot of land. It may have none, one or more of the following facilities and services: kitchen, toilet, bathroom, water, electricity.
5. **Housing:** Housing refers to the process through which shelter is provided. This includes the physical structure, the construction process and the provision of infrastructure and services.
6. **Informal Housing:** These are low income housing developments that do not fully conform with official building codes and standards. Houses in this category are regarded as unauthorized developments because the construction was done without planning approval
7. **Bathroom:** In the study communities, this is a room (usually detached from the house) with a small drainage hole at the base of the wall.
8. **Kitchen:** In the study communities this is a shelter or temporary structure used for storing utensils.

#### **1.13.0 Organization of the Thesis**

Following this introduction, the next chapter reviews the relevant literature on building codes and minimum housing standards in developing countries. It

traces the history of building codes from the time of King Hammurabi of Babylon in 1700 BC. The history weaves through the adoption of building codes in pre industrial Europe and their subsequent adoption in Ghana through colonization. After examining the rationales for the adoption of the building codes, on the basis of European perception of standard housing, this chapter addresses some of the stipulations of the building codes in Ghana. These are discussed in relation to the local culture, climate, resources, materials and skills, which have culminated in the difficulty of enforcing the codes. It ends with the denial of basic services like water, electricity and sanitation for the urban poor who cannot afford the standards demanded, and argues for the adoption of a more realistic building code.

Chapter three looks at the study communities from the perspective of their geographical location in Accra, historical development of the communities and their settlement patterns. The different housing types and tenure in the city and how they impact access to services are also discussed. This chapter further indicates that, contrary to the notion of 'home ownership' associated with most illegal settlements in Latin America, South East Asia and other African countries, most urban poor living in substandard houses in Accra, Ghana are tenants and rent-free occupants (relatives of house owners).

Chapter four examines the housing development processes, conditions and level of services provided in the three urban poor communities in Accra namely : Nima, Madina and Ashiaman. It discusses housing characteristics, type of construction materials and services provided. It examines data and analysis of the study communities, indicating that, the processes through which most urban

poor build and use their houses are divergent with the building codes as perceived and interpreted by housing technocrats and policy makers.

The final chapter ties together the major conclusions of the Thesis. It draws some important generalizations and insights from the research findings and examines the policy implication for housing development in Accra. It concludes that, the building codes in their present form have negative effects on the improvement of housing for the urban poor. On the basis of the findings and insights, it argues for the revision or reclassification of the building codes to reflect the realities and different affordability levels in the city. This could lead to the elimination of some of the key bottlenecks restricting the access of the urban poor to basic infrastructure and services in the city and consequently improve their housing conditions.

## **CHAPTER TWO - EVOLUTION AND ENFORCEMENT OF BUILDING CODES**

### **2.1.0 Introduction**

Housing is accepted as one of the basic necessities of life, whether it be in the form of a shack or a mansion, located in a slum or in a beautifully landscaped area. In most Third World countries the housing classification of either a 'slum dwelling' or 'standard house' has been through the institution of town planning intervention. The key instruments have been regulatory measures such as building codes, subdivision laws and zoning. This study ,however, focuses on building codes. Physical developments in statutory planning areas are regulated by these codes and laws which to a large extent determine the direction of municipal infrastructure and services. Developments are supposed to meet certain standards stipulated in these codes before they are given planning approval, infrastructure and services.

In the case of Accra, the standards specified in the codes are based on foreign living standards fashioned by former colonial administrators as the most desirable, and thus often disallow the use of indigenous building materials in the construction of new houses. By applying these foreign standards in an entirely different urban setting, a large proportion of existing housing stock built through traditional construction methods are stigmatized as "unauthorized or sub-standard" developments and therefore officially illegal. Such illegal structures mostly occupied by the urban poor are prima facie not authorized to receive infrastructure and services, because they are proceeding without official control or direction (Kanyeihamba and McAuslan, 1978).

### **2.2.0 What Is a Building Code?**

Building codes are types of regulations which impinge upon housing development. The other regulations are subdivision laws, zoning provisions, housing standards and professional culture of people involved in housing and urban services.

A building code is a legal document which sets forth requirements to protect the public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures. This is accomplished by establishing the minimum acceptable conditions for matters found to be in need of regulation (Thompson, 1949:2). Topics generally covered are exits, fire protection, structural design, sanitary facilities, light and ventilation, etc. The major purpose of building codes therefore, is for the protection of persons who have no voice in the manner of construction or the arrangement of buildings.

#### **2.2.1 Types of Codes**

Building codes are commonly classified as being *specification codes* or *performance codes*. The *specification code* describes in detail exactly what materials are to be used, the size and spacing of units and the methods of assembly. The *performance code*, on the other hand, prescribes the objective to be accomplished and allows broad leeway to the designers in selecting the materials and methods that will achieve the required results. For the purpose of this study the *specification code* will be used since that is what is in operation in Ghana. For practical purposes of including low income settlements in future building codes, the issue of performance code will be revisited later in this study.

### **2.3.0 Historical Development of Building Codes**

The genesis of building codes is first recorded to have begun in approximately 1700 BC. during the reign of King Hammurabi of Babylon, when he attempted to codify the many laws of the land he had conquered.. Article 229 of that code reads as follows:

"If a builder has built a house for man, and his work is not strong, and if the house he has built falls in and kills the householder, that builder shall be slain" (cited in Sanderson, 1969:5).

The harsh penalties and inhuman requirements of these early regulations were the forerunners of the many detailed codes and ordinances that are necessary to the protection of the public health, safety, and welfare in our modern society. Since the time of Hammurabi, building codes have been developed over the years as part of human effort to prevent those disasters that are within peoples' power to prevent. In England, which influenced the operation of building codes in Ghana owing to colonization, the government recognized that they have a responsibility to protect their people by enacting and enforcing building regulations. Fire hazards inherent in buildings were the basis of the earliest building regulations in England.

In his discussion about the history of building codes and regulation in England, Ferguson (1974) noted that prior to introduction of building codes in London, the city was built of wood and that the roofs were covered with straw or stubble or thatched in similar manner. It was in 1136 AD, during the reign of King Stevens, when fire outbreak destroyed the major parts of the city that many citizens started to build their houses of stones to avoid a similar disaster.

Following this experience an "Assize" (written agreement) was made in 1189 in London, which stated inter alia:

"...There, in this ordinance, called an Assize, it has been ordered and declared that citizens shall build in stone..." (Corporation of London Records Office cited in Ferguson, 1974: 43).

#### **2.4.0 The Colonial Impact on Building Codes**

The crisis in shelter provision in most African and Asian countries, has partly been attributed not only to the tremendous demographic changes and redistribution of population that have taken place in these countries, but also to the fact that policy solutions are applied to the situation that are inappropriate (Mabogunje, et al. 1978). Perhaps the most important examples of this wrong approach are standards and criteria for shelter provision which were imported from metropolitan countries and applied with little modification in the completely different circumstances of colonial territories. The operative building codes and standards applied to shelter provision in Ghana, notably "Town and Country Planning Ordinance of 1947," are clearly recognizable extensions of similar normative requirements in Britain in the 19th and early 20th Centuries.

The standards stipulated by the colonial policies in their housing development process were intended for the welfare of European officials or settlers. Indeed, in some countries the object was to provide accommodation for officials that was not too dissimilar from what they were used to in their home country. This, it was hoped, would reduce their sense of separation from home and alienation from their own society (King, 1976:147). The result was an emphasis on imported building materials and on designs reminiscent of those in



the metropolitan country . For example, early colonial architecture in many West African countries made provision for fireplace in the sitting room to be used particularly during the Christmas period, even though room temperature was in the upper twenty degrees Celsius (Mabogunje, et, al., op. cit.).

Subsequently, these foreign constructions came to acquire significance of an innovation and status symbol. The elite in the local communities regarded buildings in similar material and design as a hallmark of their social arrival. The wholesale adoption of foreign standards and a complete indifference to traditional standards quickly came to be the order of the day. The situation was reinforced in the education of those whose proper role might have been to strive for more appropriate sets of standards and criteria. Trained in Europe and United States, they came back to occupy positions formerly held by foreign officials and technocrats, and wanted to maintain the status quo.

Other circumstances that have also facilitated the imposition of foreign standards in shelter provision are large scale housing construction such as Mamprobi, Kaneshie and Kanda estates in Accra, Ghana. Of necessity these had to operate to some agreed standards. Most of the construction companies that built in these areas tended to be foreign firms, and both cultural inclination and vested interest led to preference for standards and criteria with which they were familiar. Moreover, in the absence of any dependable research on local building materials, or of any significant local industrial production of such materials, they were constrained to order from foreign suppliers, building materials which were in popular demand in developed countries. Although this situation is understandable, the expense and foreign origin of the shelter

provided in this way has helped to generate a popular feeling that houses built according to traditional rules and standards were inferior.

In many countries in Latin America and Africa a 'facade syndrome' is noticeable in urban areas: houses are provided with a frontage that makes them appear to be constructed of 'superior' imported materials and designed to foreign standards. In Ethiopia, for example, during the reign of Haile Selassie, it was imperative that house roofs be painted red or pink to imitate the color of roof tiles in Europe, and their mud walls were hidden behind opaque fences (Mabogunje, et, al., op. cit.). A similar desire for 'respectable' facade is noticeable in the widespread practice of applying a plaster of cement to mud walls in Ghana and other African countries.

Even though some West African urban centers flourished before the Europeans came, many cities at present bear the imprints of colonialism. Cities like Accra, Abidjan, Dakar, Dar Es Salaam and Lagos, were selected as colonial capitals due to their coastal locations. Apart from being the seats of the colonial administration, they served as ports for the shipment of raw materials to the West as well as the center for the diffusion of western values, technology and standards.

After independence, most of the cities became the capitals of the newly independent nations. The politicians and planners having been influenced by years of diffusion of western standards were committed to the modernization of the indigenous cities. With the assistance of foreign consultants, ambitious master plans were prepared to provide the means to visually reproduce western cities in developing countries. These master plans were generally insensitive to

the local architecture and cultural heritage. They produced elaborate land use maps and building codes which basically rendered most local building materials and architecture substandard and illegal. Subsequent housing developments along the local architectural and cultural outlook were therefore not supplied with infrastructure and public services because they were "substandard and illegal." A typical example in Ghana, is the construction of massive highways across indigenous urban settlements often occupied by low income households. The Nima highway in Accra displaced many of the urban poor residents. The site allocated to the displaced victims have to date not been supplied with electricity nor linked to the city's garbage collection system, because the new housing units are substandard.

#### **2.5.0 Rationales for Building Codes and Standards**

Analysis of the existing official building standards in Ghana which has general application in all parts of the country shows that they are not aimless; they have been created and at least particularly enforced to achieve certain ends. They are conceived under the "police powers" of the State to regulate building construction. These powers are codified in legal provisions which allow the state or municipality to intercede to assure the health and safety of their citizens. Since their inception in Babylon during the time of Hammurabi, most building codes are derived from their historic development; in that they have generally been written as responses to specific events occurring at the scale of the country, city or town. The fundamental purpose of building codes has been to ensure that buildings neither "fall down nor burn up," or at least do so at rates least damaging to the society or their occupants.

Gilbert (1990), argues that in some Latin American countries building codes have also been used for political control through a system of client-patronage relationships. The use of regulations to create a dual city of legal and illegal housing allows the politicians to reward their own clients and ignore those of others. According to Gilbert (1990), in such circumstances the building codes could be used as a method of rationing services. If the poor complain that they have not received services, then the government can blame the illegality of the settlements. In other words the governments can use the regulations as a reason for benign neglect or inaction. In Gilbert's view, in so far as the government is always short of resources, and the capacity to provide services and infrastructure is weak, this form of rationing is very useful. Though this rationale may appear to be successful in the short run, it cannot be maintained in the long. It also cannot achieve a more environmentally sustainable urban setting, in illegal settlements springing up in most Third World cities.

Many administrators presently defend building codes and minimum housing standards as being necessary for health and safety, economy and efficiency. They contend that if people are not told what should be built, and how such things should be built, the result would be anarchy and the rights of people would not be protected. The concern for safety may be seen in codes that prohibit the use of grass thatch, reeds and bamboo in urban areas as these are considered to be fire hazards. It is reflected in careful specifications for the use of special foundation and materials for house-building in earthquake zones. Moreover, the fear of epidemics is behind regulations on how many people can live in a house, and other sanitary measures adopted in residential areas. In technologically advanced countries, the institution and enforcement of such

building codes and minimum housing standards have made great contribution to human welfare.

In developing countries, however, there are many who question the usefulness building codes and uniform housing standards. These critics notably Turner (1976, 1983), Laquian (1983) and others believe that standards inhibit the efforts of the urban poor to build houses for themselves, thereby limiting the number of dwelling units that can be made available to the people. Within the housing literature, the supporters of building codes were branded as "obstructionist" and blamed for the perpetuation of high building costs (Ventre, 1977; Trellis, 1977). Without recognizing the heterogeneity of society and therefore allowing for the co-existence of different standards, most building codes prescribed minimum standards which all people and organization must conform to. This rigid application of uniform standards saw most low income communities as unauthorized and were therefore deprived of infrastructure and other public utility services; an issue that has contributed to the deplorable housing conditions facing the urban poor in most developing countries.

#### **2.6.0 Western Standards and Third World Realities**

As previously mentioned, Town and Country Planning laws passed in Britain were used by colonial administrators in Africa without regard for local conditions. For example in poor African countries, the codes made assumptions about levels of private car ownership in designing road widths and parking provision, based on criteria in use in Europe. The plan gave little thought to the "obvious fact that most inhabitants would walk or cycle to work or shops or to visit friends" (Linda, 1983). Similarly, most of the range of norms and codes governing housing, building and planning assumed that most people will

live in 'nuclear families' with one or two children who go to school, and with the house and place of employment separated. This has led to many house designs and site plans at odds with family size and structure, community needs, cultural preferences and the pattern of employment (Afrane, 1993). Confirming the disparity between western style of site lay-out and specific cultural needs of Africans, Coroline Moser (1987) has documented many ways in which western norms and codes have ignored or misunderstood women's needs.

The validity of applying rigid standards and defining substandard housing at the city level has even been questioned in western countries like the United States as early as 1936. Basset(1936) criticized uniform standards and zoning on the grounds that they originated as the response of the elite to protect their low density housing from the threat of tenements or recent immigrants who surged into the cities in the early decades of the century. In his paper on squatter settlements in Latin American cities, Gilbert (1990) supported Basset in discussing the issue of western standards and illegality associated with urban planning in developing countries. He maintains that it was the need to control the expansion of illegal settlements which led to the introduction of standards which defines authorized and unauthorized developments.

Gilbert and Gugler (1982) also question the imposition of western standards on Third World countries. They argue that;

"For many Third World poor, our standards are irrelevant because they have more urgent needs. To a hungry family food is of far greater importance than shelter, especially where the climate is very dry and warm." (Gilbert and Gugler, 1982:83).

They further argue that most of the criteria by which the housing conditions of poor countries are judged are highly subjective and ethnocentric. The needs of the poor in ordering their needs are frequently misunderstood by professionals and technocrats who have lived most of their lives in the developed world. The central theme of Gilbert and Gugler's argument was that, the judgments about housing standards being faced by the urban poor in Third World cities, must take into account different cultural, social and environmental conditions within Third World cities.

In most Third World cities, conventional rigid standards have also been questioned by Abrams (1964) and later by Turner (1972) and Laquian (1983). Similar criticisms have emanated in the field of architecture from Fraser (1969) and Rappoport (1977). Turner, arguably the chief proponent of low cost housing in developing countries, questions the issue of minimum standards and argues that it hinders the initiative of the poor. In his own words;

"If government cannot, or will not make up the difference between what housing laws require and what the effective demand can purchase, then why do they create problems? Why is the commonsense solution of allowing and encouraging people to make the best use of what they have, treated as subversive nonsense by the technocratic and bureaucratic institutions?...why are these problems so universally defined in terms of what people ought to have (in the view of the problem staters) instead of in realistic terms of what people could have?" (Turner, 1972:151)

The issue of uniform building standards being used by housing technocrats and policy makers to hinder the survival strategies of the urban poor have also been questioned as inappropriate by Hardoy and Satterthwaite (1989). In their book on "Squatter Citizen, the life in the Urban Third World," they argue that;

"There must be something wrong with a law or code if it is often broken by so many people as they go about their daily lives. To put this in perspective, one can envisage a standard which would be inappropriate for a western city. All new housing could be required to have large gardens say minimum of 300 square meters. Setting such a standard could be considered as 'improving living conditions'. But in any major city, the effect would be to price most people out of the market since the cost of including a garden of this size in all new units would enormously increase their price. In effect, this is exactly what happens in most Third World cities -existing codes and standards price most Third World citizens out of the market.."(Hardoy and Satterthwaite, 1989:31)

In their view standards should be user relevant and not deny the right of the poor to make do with whatever resources are available. This view supports Turner's description that a house is not "what it is" but "what it does" in peoples lives.

Supporting Turner's views, Laquian (1983) criticized the ethnocentric view of Third World housing when he argued that, in most developing countries standards and building codes have been handed down from colonial administrators and have therefore little relevance to current situations.

The author does not in any way intend to supplant the issue of standards in building codes. Standards have been used to achieve a lot of welfare and environmental benefits in most of the developed countries and have their rightful place in all types of human endeavor. It is however , improper to use them as a universal measure of human values. For example uniform standards of densities may be untenable. Density after all is relative and not very meaningful in housing without reference to the culture and quality of life of a particular social group. Conditions which may be stressful for some people



may be wholesome for others (Asante-Kyereme, 1980). What is the African experience on the use colonial building codes in urban poor housing projects?

#### **2.7.0 Building Codes and Slum Upgrading/Serviced Sites in Africa**

European planning ideologies seemed to have dominated the development of most former colonies in Africa. For example, the development of Mtwara in Tanzania, were based on stringent building controls which were not relevant to Tanzanians. The building regulations and town planning controls were on the lines of "Model Clauses" attached to the planning schemes prepared under a 1932 U.K. Ordinance (Linda, 1983:24). Recent decades have, however, witnessed a number of changes in concepts and attitudes towards the shelter and environment question in most African cities. Many of the pre-colonial building codes and regulations are being questioned as well as flouted by those who are supposed to observe them. One major change has been the abandoning of direct provision of housing by public authorities. Instead, self-help housing in unplanned or planned areas has been accepted or encouraged. A common method of achieving this especially in the provision of housing for the urban poor is through site and service schemes or slum upgrading.

In many of these projects, however, the targeted low income households have been replaced by those in the middle and upper income groups. The owner occupation espoused in many of these projects has been replaced with subletting (Lusugga Kirondale, 1992). This mismatch between what is planned for, and what happens, has led Mattingly (1991) to wonder whether shelter planners in African cities understand the market they are working with. According to

Chana (1984), one of the reasons for the failure of such schemes is the underlying standards inherent in most building codes in African countries.

Drawing on experience from Kenya, Chana (1984, op, cit.,) noted that one of the problems of the Dondora Low Cost Housing Project in Nairobi was the issue of applicable existing building codes. The Nairobi City Council did not want to approve the plans for the buildings and services because they did not conform to the adopted building codes (inherited from colonial administrators). After series of meetings the plans were amended to bring them in line with the building codes. This subsequently resulted in increased cost of construction and cost overheads. The increased cost put the prices of the units and services out of the levels of the specified target low income groups, hence defeating the purpose of the project.

Similarly, Jere (1984) reported that the building codes Zambia inherited from colonial administrators did not cater for the majority of Zambians. Rather than advocating a solution through such inappropriate conventional housing, The Second National Development Plan (1972-76) took a bold step. The government recognized that, though most Zambians lived in squatter areas that are unplanned, their houses nevertheless represented assets both in social and financial terms. The planning and provision of services to such areas were better than wholesale demolition or neglect. Despite the fact that these squatter settlements contravened the building codes, the government introduced some flexibility by designating some of the areas as special development zones where the provisions of the codes would not apply. Infrastructure services like water, electricity, roads were extended to the squatter settlements, having first resolved the issue of security of tenure. The consequential effect was that more

than 50 per cent housing improvement was noticed after the extension of services to the units.

Though there may be slight variations in other African cities, the use of colonial building codes in solving the urban poor housing problem has produced similar results in Nigeria and Ivory Coast (Mustapha, 1991; Grooteart and Jean-Luc, 1986). The fluid situation in most African cities needs liberal and flexible attitudes towards standards formation and enforcement in urban poor housing projects. There is therefore the need to re-examine the adopted building codes if the slum communities are to be upgraded as an integral part of African cities.

#### **2.8.0 BUILDING CODES IN GHANA**

In the context of planning and development the law applicable in Ghana may be traced to The Towns Ordinance, 1892 (Cap 86) which is arguably the genesis of formal planning in the country. During the colonial period, Ghana like most of the African countries operated under laws similar to those in force in the United Kingdom. With the enactment of comprehensive Town and Country planning laws in the United Kingdom, the colonial administrators in Africa began to adopt the English planning system. The adoption was often done by simply transplanting a UK Act to the recipient country with little or no modification to suit local conditions and circumstances. Kanyeihamba (1980) observed that there was little difference between the Kenya Town and Country Planning Ordinance, 1948 and the Town and Country Planning Act of England, 1947. Similarly when the 1947 planning Act of England was passed, an ordinance was adopted in Ghana to replace the 1892 Ordinance. This legislation known as the Town and Country Planning Ordinance of 1947, which is still the operative

planning law in the country had most sections in common with the England Act of 1947.

As part of the adoption process the law established Health Boards, and vested them with planning responsibilities to meet ad hoc problems or emergencies regarding health, floods, earthquakes, control of building works and street layout, for the proper development of certain specified areas.

In practice, the boards were more concerned with urban centers than with rural areas. The latter were often ignored and left to develop largely under African customary laws (McAuslan, 1968:65-66). Thus presently, the legal bases of planning, regulation and monitoring of land development in Ghana is "The Town and Country Planning Ordinance of 1947, (Cap 84)".

All urban centers in the country with 5000 or more people are covered by statutory planning schemes under which all development operations must conform. The development must be covered by the necessary planning and development permits, otherwise they are considered "unauthorized" and denied government infrastructure support and services. What is usually meant by "unauthorized development" is that the given activity has no official sanction, that whatever is being done is contrary to or outside the official plan and is proceeding without official control or direction.

#### **2.8.1 Town and Country Planning Ordinance of 1947**

Some of the relevant stipulations from the Town and Country Planning Ordinance are as follows:

(a) All physical developments must conform to the broad land use zones defined in the Ordinance. These include: residential, industrial, recreational,

educational, civic, cultural, commercial, transportation and greenery developments.

(b) Developers are required to obtain development permits before proceeding with construction activities;

**(c) The minimum size for residential plots were:**

- A - 2500 square feet (232 square meters) in the Central Business District and inner city areas of Accra.
- B - 3600 square feet (335 square meters) in other areas within the geographical boundaries of Accra.
- C - 4800 square feet (446 square meters) in the sub-urban and peripheral villages of Accra.

**(d) Type of Construction Materials**

Building activities in areas A and B must be undertaken with permanent materials, defined mainly as cement or sandcrete blocks and kiln dried bricks. Areas in C and the peripheral villages within the metropolitan area could be built with mud bricks or mud and wattle.

(e) The maximum built up area of any plot should not exceed 60 per cent, the extra 40 per cent is intended for greenery.

**(f) Minimum room size and window openings:**

- Bedrooms: 12 feet by 10 feet,
- Windows: 4 windows of 3 feet by 4 feet per bedroom or kitchen.

(g) Provision of kitchen, bathroom and toilet in each house.

(h) Prohibition of economic, industrial and any other activities which may impair or disturb the comfort and convenience of residents in residential areas.<sup>2</sup>

(i) A medical certificate, satisfying that a completed building is fit for habitation must be obtained before occupation.

(i) Posting or displaying of planning schemes in such places within the planning area as the Minister directs. This is to give a chance for public inspection of the scheme so that any necessary representations or objections, can be raised.

Kasanga (1991) observed that most of the planning schemes such as those mentioned above are obsolete, some have been in force for 20 years or more without having been revised. The lengthy and protracted procedure towards the issuance of a building permit could be a daunting task for a prospective developer who wants to procure all development permits prior to the commencement of development. From a random selection of 20 applications for building permission at the City Engineers Department in Accra, Kasanga (1991) reported that the fastest took 6 months. The longest took 8 years and 3 months. A majority of the rest took about 2 years to process.

The issue becomes even more obscured when most of the customary land owners are not represented in the planning committee and they are unaware of the provisions of formal planning. Consequently in spite of the existence of the

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<sup>2</sup>This regulation is not expressly stated in the Planning Ordinance. It is based on the interpretation of sections 2(1), 4(1), and 5(1b) of the Ordinance.

law, development control is helplessly ineffective. The loss of touch of the development control with the realities being faced by the majority of the city's residents is creating many environmental hazards. These include:

- Poor or no infrastructure and services for most unauthorized developments,
- The conversion of open spaces, road reservations, sanitary sites etc. into other uses,
- Severe drainage and waste management problems,
- Traffic jam and lack of road access for most developments.

An introduction of a more realistic and enforceable regulation could prevent or mitigate some of the environmental hazards mentioned above.

The above analysis is not to suggest that building codes are basically bad. They do have their uses but only if they are based on existing situations and reflect current realities. The need for building codes and regulations in most Third World countries is inevitable. The types of shelter built by various social groups are mostly inadequate. No consideration is given to structural stability, fire hazard, health or sanitation - the primary concern of building codes. What is needed are codes and regulations which deal with the above risks, while remaining relevant to the communities in which they apply.

The codes should be rooted in the needs and preferences of a particular society. Each society, each culture has its own parameters within which such standards could be developed. Building codes for example should be intimately linked to local climatic conditions, availability of local building materials, the availability of building skills, and the likelihood of hazards such as earthquakes or floods. They should also be linked to cultural needs and preferences which are also particular to each society. To put up one uniform standard to which all groups

of people irrespective of income, culture, needs and preferences should conform could be counter productive and inhibit the survival strategies of the majority of the population. To be effective, building standards and codes must be related to local reality. If set too high or too much at odds with local preferences, they cannot promote 'better practice' which should be the objective. If they cannot be implemented, they lose meaning. If they contradict deeply held social beliefs, they will create conflict.

The problem with the operative building codes in Accra is that, they are typically old and outmoded. Many aspects of the codes or norms date back from colonial regulations which were first instituted to ensure that houses built for expatriate staff were to standards comparable to those of their country of origin. In a number of cases, these codes have been revised and altered in England in the light of new knowledge and a better appreciation of human biological and psychological needs, whilst the older versions have been retained and hallowed by official routine in Ghana and other former colonial territories (McAuslan, 1975).

As a result many of the building codes being applied in most Third World countries are irrelevant to all but upper-income residential areas, modern commercial structures and government complexes. They cannot be used for the vast majority of the people, particularly the urban poor who live in unplanned developments proceeding without official control or direction (Kanyehamba and McAuslan, 1978). Gilbert's (1990) argument that, they are useful in rationing services cannot be maintained with the growing illegal settlements. Something must be done to include such illegal settlements which are becoming the norm rather than the exception in the provision of services. Since Ghana obtained



political independence in 1957, the housing technocrats and policy makers have used these codes to dominate the housing decision process in the city and the country at large. A review of the operative building codes to reflect the realities facing the city's residents, particularly the urban poor in their housing development process may be a step in the right direction. On the above basis, the official building codes in Ghana and their influence on access to housing by the urban poor could be examined from the following perspectives.

### **2.8.2 Irrelevance to local culture**

The official building codes which specify building standards in Ghana which are borrowed from the British colonial administration since 1947, are irrelevant to the local culture of the urban poor. Hall (1966: 165), agreed with the inevitable role of culture in housing design and use, when he observed that "People raised in different cultures, inhabit different sensory worlds." Every country has its own culture, and the cultural influence on living patterns and shelter cannot be overemphasized.

However, the Western educated elites who implement these borrowed building codes have developed a technical perception of what 'ought' to be, rather than a realization of what 'has' to be. Their tunnel vision of technology plays a significant role in standards setting in Ghana. Modern is taken to mean 'Western', and modern housing means 'Western housing.' What is indigenous is often considered obsolete and substandard. This leads to many inappropriate design and structures that are unsuitable for local culture and living patterns.

A case in point is the resettlement of the displaced victims of the Volta River Project. Although outwardly the resettlement houses appear to be superior to the

traditional mud and thatch dwellings, in some respects they have been found to be inferior. A comparison of the thermal characteristics of the two types of houses indicated that, the traditional house possessed a greater thermal inertia. That is the mud and thatch houses tended to be cooler than the ambient temperature during the day and warmer than ambient during the night. Complaints were often expressed to the investigation teams of physical discomfort because of the cold at night and extreme heat during the day in the resettlement houses (Chambers, 1970: 174). This confirms Peil's (1976) observation that in the tropical countries it is even more convenient to stay out doors during some months of the year owing to the high temperatures. This discomfort in 'modern standard houses,' what Turner (1976) calls "oppressive housing" may be a major contributor to a number of settlers moving out of the resettlement towns.

A review of the literature indicated that, this phenomenon is not only applicable in Ghana, but to other developing countries that were also colonized. For example, a survey of the activities of the Housing Development Board in Singapore revealed that, in the new residential neighborhoods which were built in western style, nearly 55 per cent of the households never went to the community centers which were provided, and only 18 per cent of the children used the play grounds. Nearly 50 per cent of the households living in multistory apartments were dissatisfied with their high-rise buildings because of frequent failures of the elevators, whereas those living in the lower floors were troubled by rubbish thrown from upper floors (Yeh, 1975). Similarly, it has been noted that in many of the slum-clearance schemes in Madras, people use the toilets as a place to keep their agricultural implements and fishing nets, because no other space was provided for this purpose. Moreover, they did not

relish the idea of toilet opening into a living room (Mabogunje, et, al., 1978). These varieties of forms and orientation probably reflect traditional understanding of the significance of local climate, topography, social structure and the pattern of daily social contacts, in the convenient design and use of dwelling space.

In Ghana, and most countries of tropical Africa, living and sleeping are often outdoors at least for part of the year. Rooms serving specialized and exclusive uses are also not often found in the culture of the urban poor. A kitchen is often more than a place for cooking; it is also where children play, and are fed and reared. But these considerations did not enter the building standard setting procedure used in Ghana's building code. According to the intention of the building code, a house is divided into bedrooms, living room and kitchen based on the single-purpose Western model. This practice is anathema to the cultural needs and circumstances of the urban poor, who see the law as a tool which the wealthy and well connected can use to exploit them (McAuslan, 1987).

All nations are characterized by a number of values, life-styles, customs, traditions and institutions,- in other words by their culture or cultures. These are specific and unique to themselves, because most of them are based on experiences accumulated and refined over long periods. People's culture has always been reflected in the houses, neighborhood and settlements that they develop for themselves. One can learn much about a culture and its economy from its house designs, materials used and the ways the settlements are planned (Oliver, 1987). But most Third World governments have long ignored both history and culture as essential inputs into their 'planning for development.' They cannot see in the many illegal settlements the seed of what could develop

as a more accurate and appropriate reflection of the nation's culture. They cannot grasp that the house designs, the materials used and the plans for these illegal settlements are more realistic and often more appropriate than their own unfulfilled plans for "low cost housing."

### **2.8.3 Indifference to local resource materials**

In his travels in the interior of West Africa in the mid-19th century, the German geographer, Heinrich Barth, noted that local mud, mud and grasses, or grasses alone, were used to construct two-story residential houses of great elegance, and some most impressive public buildings such as mosques in Djenne, Timbuktu and Zaire (Barth, cited in Mabogunje, et, al., 1978). In a few instances, especially in the historic towns of the East African coast, local stone has been used in the construction of dwellings particularly for the rich. Similarly, in India emphasis on local material is noticeable. In the state of Jammu and Kashmir the main traditional materials are wooden logs; in North Karnataka they are largely stone slabs. Ironically to date, Ghana's building codes specify the use of cement blocks in housing construction. If this is violated, a building permit will not be issued. Without a building permit the extension of infrastructure to the housing unit is denied and it becomes an illegal or unauthorized dwelling unit. This insistence on such construction material is purely influenced by Western idea of housing.

Similar impositions of foreign construction materials have been noted in Uganda (East Africa). In rejecting the use of local materials for the new Mulago hospital in Kampala, the expatriate adviser recommended the adoption of the United Kingdom building regulations. He argued that: "If the hospital is to

cater for all people it has to be up to the standards at present accepted in the United Kingdom" (Phillips, cited in Kanyeihamba, 1978).

To most Europeans and North Americans, a bamboo house may be inferior to one built with bricks; one of wood inferior to cement. But in a hot climate like Ghana, bamboo and wood are entirely adequate materials, though they may be poor in more temperate Latin American cities like La Paz or Buenos Aires. To insist on the use of cement blocks, a relatively expensive and inappropriate material in a hot tropical country like Ghana is therefore unrealistic. In such an environment the cooling effect of mud and wood- the major building materials used by the urban poor in Accra, may be more appropriate.

As noted earlier, the design of traditional compound houses mostly occupied by the urban poor in Accra, is also closely related to the local climatic conditions. Over the centuries, traditional compound houses have evolved as effective solution to the problems of the local climate. On the contrary the brick, concrete and glass houses stipulated by the operative building codes have become the symbols of 'progressive' architecture. The impact has been the disregard of traditional climatically appropriate architecture by the housing technocrats and policy makers. Most of these concrete buildings have become heat traps in the city, sacrificing comfort for status. In spite of climatic or even economic inappropriateness, such structures have come to symbolize 'standard housing,' which the urban poor cannot afford. The unanswered question in Ghana is, why have official standards in building codes remained insensitive to local conditions, despite the fact that the concept of 'appropriate technology' and the use of local building materials have been explored with good results by the University of Science and Technology at Kumasi?

Housing policy makers in Ghana, could learn from adaptive houses in some parts of India. For example 89 per cent of the houses in Assam (India) are made of leaves, bamboo and reeds to suit the monsoons and seasonal rains which have shaped the resource availability of the construction cycle (Aroma, 1990).

#### **2.8.4 Lack of relation to local economy**

To be effective and useful, the provision of housing should be within the capability of the nations and the people it is meant to serve. Most of the urban poor who constitute the bulk of Accra's population live at subsistence level. They cannot afford the housing available on the open market. It is also beyond the capacity of the Government to provide "standard housing" for the majority of people. In such a situation, an alternative policy would be to ensure that all those who have the capacity to create and maintain dwellings with minimum help from governments, should be encouraged to do so.

The factors mentioned above may call for a drastic change in policies and even the abandonment of some minimum standards. Instead a selective enforcement of ceiling standards may be called for. Government services should be restricted to the provision of certain essential services, and maintenance of environmental sanitation; which the people by their individual efforts cannot provide. The policy in such a situation should be to help people to help themselves and not to kill local initiative by the imposition of rigid building standards as specified in Ghana's building codes.

### **2.8.5 Difficulty of Enforcement**

The existing system of rigid and static building standards in Ghana, has another major handicap. They are not easily enforceable, except in cases of upper and upper-middle income group housing and houses built for publicity purposes. Merrill (1988) reported that, the standard house stipulated by Ghana's building code can only be afforded by the top 5 per cent of Accra's population. Similarly in Jakarta-Indonesia, Devas (1983) observed that only 17-20 per cent of all new construction could afford the required building permit. In the case of Delhi-India only 2 per cent constituting the few elites could afford the standard housing (Shrivastav, 1982). In Nairobi-Kenya, Uche has observed that:

"The City Council of Nairobi, which at the relevant time was made up mainly of Europeans, exercised planning control through building by-laws of 1948, which imported wholesale English ideas of town planning, including the high standards required for residential and other buildings. The logical effect of the operation of the by-law was that no African<sup>3</sup> could afford to meet the high standards required for buildings to obtain planning permission" (Uche cited in Kanyeihamba, 1980: 249).

Since most of the codes are in practice meant for those who have enough funds to invest, they are alien to the socio-economic realities of the urban poor. Perhaps in theory the high standards specified in the codes are correct. But as practiced in most Third World cities, standards have become so complex and rigid and so beyond any possibility of implementation, both in relation to local circumstances, and the possibilities open to the poorer groups, that they are transgressed daily. Laquian (1983) noted that, the imposition of outmoded building codes in most developing countries had culminated in their open

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<sup>3</sup>The Africans constituted the poorer class of the communities.

violation by about 40 per cent of the people, i.e., by those people living in make shift dwellings.

In presenting a general framework for the consideration of building codes and regulations in Third world countries, Svenson (1981) summarized the inappropriateness of most of Third World building codes when he pointed out that:

"The formulation of building standards as the basis for codes and regulations, applied to only a small fraction of the population, exacerbated social and economic differences, were inconsistent with the needs of the poor, required unavailable skills and materials, unfairly penalized those who could not comply..." (quoted in United Nations publication No. CHS/R181-3/S, 1981 :15).

This description typifies the enforcement of building codes in Accra, Ghana.

### **2.9.0 ACCESS TO SERVICES**

The denial of access to the city's services like water, electricity and sanitation has been the major penalty for non compliance with the operative building codes. Policy makers and housing technocrats in their attempt to maintain the pre-independence status quo (through benign neglect or inaction) hide behind the smoke screen of these outmoded building codes to deny the urban poor such basic infrastructure and services.

#### **2.9.1 Patron-Client Relationship and Services**

Though the researcher's unstructured interviews with City Officials in Accra indicated non-compliance with the building codes as the basis for denial of services to the urban poor, there may be other political reasons which reinforce the benign neglect of the slum communities.



The urban poor communities are mostly inhabited by those in the lower level of informal activities like street hawking, shoe repairs and petty trading. These are mostly passive, apathetic and inarticulate. They seldom become organized for promoting and defending their interest (Ewusi, 1971). This confirms Jawaharhal Nehru's (cited in Myrdal, 1976:62) observation that "The really poor never strike. They have not the means of power to demonstrate". In most developing countries when references are made to 'public opinion,' what it really means is mostly the opinion of the articulate and elite or the upper class. The power struggle has mainly remained one between groups in the upper class, middle class workers and in some countries students (Myrdal, 1976).

In Ghana, changes of governments have never occurred in response to pressure from the poor masses, having become politically aware of their interest and organized for collective action. According to Shillington (1972), the changes in government that have taken place in Ghana since political independence in 1957, have been necessitated by military officers, senior public officials, middle class unionized workers and University students. The consequential effect is that politicians tend to favor the powerful elite and in some instances middle class workers who are very organized and articulate enough to effect changes. The building codes are therefore used to selectively provide the services for such elite and middle class workers. The less influential urban poor are neglected under the pretext that, services cannot be extended to their settlements because their buildings contravene the municipal building codes.

### **2.9.2 Socioeconomic Background and Services**

Sociologist and town planners have seldom questioned- because the answer seems obvious- why some urban residents in a developing country like Ghana live in low density areas with such modern amenities like pipe water, electricity, access to roads, drainage and sanitation like Labone ( Accra); whilst others live in incredibly crowded and unsanitary areas like Nima (Accra). Poverty or the economic factor has usually been given as the explanation for the spatial stratification that is so apparent in such a city. Without denying that this economic explanation contains some truth, there are other social and cultural factors which have worsened the disparity and inequalities in the distribution of services in the city.

Quarcoo, et, al., (1967) observed that most of the residents of the slums in Accra are migrants from the northern part of Ghana, which has been described as the most impoverished part of the country. Norton (1988), noted that successive colonial administrators treated the North of the country largely as a reservoir to provide labor for gold mining and cocoa farming in the South. The region was therefore neglected with relatively poor provision of infrastructure and education. Similarly, the railway system in the country was not extended into the northern regions because of the relative absence of commercial exploitative crops and minerals. The North has generally remained poor in terms of income, infrastructure, education and medical services; even after post colonial governments made some efforts to address this disparity. Using the Ghana Living Standards Survey (GLSS), Ewusi (1976) indicated that most of the Ghanaian population at that time which had incomes below the poverty line of US\$100.00 per annum was living in the North.

Most of the slum dwellers having migrated from the northern parts of Ghana, may consider themselves as relatively better-off than their counterparts in the rural north where the infrastructure and services do not exist. The tendency to be content in the city environment, coupled with their isolation from local politics may be other plausible reasons for the city's benign neglect of the slum communities in terms of services and infrastructure activities.

Pogucki (1971), Kanyeihamba (1980) and others who have described the post independence scene, have argued that, though there may be other political, social, economic and cultural reasons for the growth of slums in most developing countries; the by-product of the perpetuation of high colonial building standards is the proliferation of shanty towns and slums. Ghosh (1984) noted that as much as 53 per cent of Accra's housing stock was built contrary to the country's building codes and regulations.

Unfortunately, the financial resources available have proved extremely inadequate to meet the requirements of western-oriented type of housing development. The need to tailoring the building codes to meet the needs of the ordinary people particularly the urban poor, should be examined. This situation is not only true of Ghana, but also most of the urban poor communities in Nigeria. In Nigeria, infrastructure and services (water, electricity, health facilities, sewers and roads), appear to be the most critical or most pressing need facing the new peripheral settlements of the city which have emerged in an unplanned manner. Because they are officially illegal, they are denied the necessary infrastructure amenities (Adepoju, 1990).

### **2.10.0 Summary**

This chapter has illustrated that building codes and housing standards do have their uses but only if they are based on existing situations and reflect current realities. The problem with the operative building codes in Accra-Ghana is that they are typically old and outmoded. Many aspects of the codes or norms do not reflect the local and cultural circumstances of the residents, particularly the urban poor. Since standards are means of helping to ensure a safe and happy life within human settlements, they must be realistic enough to allow the people who live in them to achieve their goals. It has thus become apparent that the current building codes and enabling legislation call for a redefinition and reclassification.

Two questions are therefore pertinent. The first is "Who are the standards for?" The second is "Who develops and sets the standards?" The answer to the first question is usually that, standards are set for all sectors of the community. But to date they have benefited only a few. The vast majority of the urban poor in Ghana live below the poverty line. The current building standards are either indifferent to their needs and abilities, or affect them negatively. The situation in Accra-Ghana is almost as if the poor subsidize the rich, especially in the use of services, utilities and housing. This is because considerable investment by public institutions, direct as well as indirect, goes into buildings and services for the upper and upper middle income groups. These higher income groups have the funds to build according to municipal building codes and hence are authorized to receive the infrastructure and public utility services. From this perspective, the urban poor who cannot build according to the municipal codes are interpreted to be living outside the law. The application of the law under

these circumstances can become unequal and arbitrary (Gilbert, 1990). Thus the building standards fail to provide protection for the urban poor as a whole, and instead serves the need of only particular classes within the society.

The answer to the second question should be that standards must evolve from people's needs, but at present they are often a middle class technocratic perception of what these needs are. The voice and needs of the urban poor are not reflected in building standards setting. Solutions are found for problems as the planners and housing technocrats perceive them, rather than for the problems that the urban poor really face. For the urban poor who cannot avail themselves of governmental assistance in the provision of their accommodation; the set of building standards operated by the municipalities may constitute the most important obstacle to their settled existence in the city to which they have migrated. The municipalities, providing no help to the urban poor in their search for shelter, nevertheless hide behind the smoke screen of the building codes to destroy or ignore as substandard, the modest and admittedly unattractive efforts of the urban poor to construct shelter for themselves. This idea of standard housing based on the operative building codes has so much engulfed most housing decision processes that, various governmental housing programs aimed at helping the urban poor, such as Rent Control, Public Housing and Resettlement Schemes have been counter productive (Chambers, 1970; World Bank, 1984; Tipple et. al., 1986; Asiama, 1990; HUDA, 1990; Willis et, al., 1990). A possible alternative would be the use of performance code, which prescribes the objective to be accomplished in housing development, and allows broad leeway to the designers and builders in selecting the materials and methods that would achieve the required result.

The next chapter examines the study communities in terms of their basis of selection, location and settlement patterns, historical development, housing typology and tenure. These parameters may be of assistance towards the reformulation of more realistic building codes to reflect the circumstances of the urban poor.

## **CHAPTER THREE - THE STUDY COMMUNITIES**

### **3.1.0 Basis for Community Selection**

In 1989, the Town Planning Department of Accra identified three communities as having the largest concentration of unauthorized houses in the city: Nima, Madina and Ashiaman. It was observed that 42 per cent of houses in Nima were substandard. The comparative rates for Madina and Ashiaman were 33 per cent and 26 per cent respectively. The researcher therefore decided to study these communities more intensively.

The three settlements attracted a majority of the urban poor migrants in the city. Sandbrook and Arn (1977) reported in their survey of urban poor in Accra that, 26 per cent of Nima residents, 32 per cent of Madina residents and 43 per cent of Ashiaman residents were attracted to the communities owing to the availability of accommodation there. This is in line with the description of these three communities as the place of refuge for the poor. Ironically, they act as the major source of cheap accommodation for the urban poor who cannot afford the "standard" houses in other part of the city.

### **3.2.0 Location and Settlement Pattern**

Accra is built on the concentric circle urban planning pattern. The city center offers a wide range of informal employment opportunities (e.g., street hawking, repair work, food sales, personal services, etc.) for low income people. It is not surprising, therefore, that many urban poor live in Nima (located about 2 kilometers from the Central Business District). Aside from Nima, however, there are other low income areas in Accra that also attract the poor. These

include Madina and Ashiama which are located on the periphery at about 14 kilometers and 18 kilometers respectively from the Central Business District (see figure below).

#### LOCATION OF STUDY COMMUNITIES IN ACCR

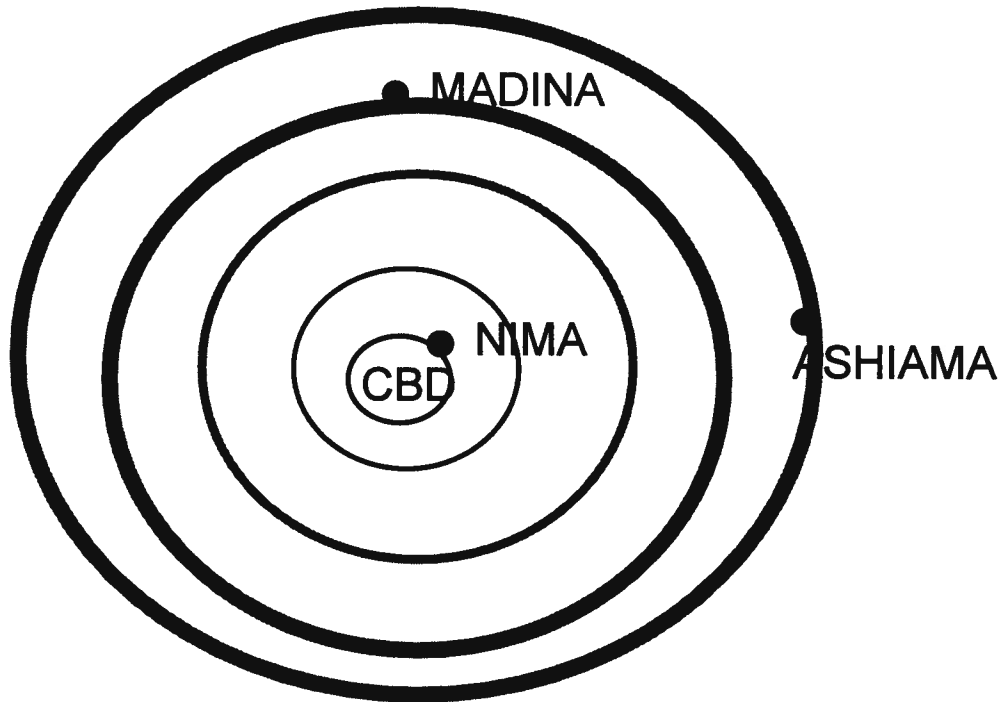


FIG. 4

#### **3.3.0 Historical Development of the Settlements**

The historical development of the settlements tells a lot about the circumstances leading to their formation, as well as the actions of technocrats and policy makers which have been influenced by years of persistent stigmatization of these communities as slums and communities of "law breakers." In stressing the importance of the rule of law most urban administrators and politicians regard slum dwellers as those living beyond the pale. The significance of this view from a juridical standpoint is that once specific groups of people in the society



are interpreted to be living outside the law, the application of the law thus becomes unequal and arbitrary (Gilbert, 1990).

### **3.3.1 Nima (inner city settlement)**

A Hausa (tribe of northern Ghana) cattle dealer is reported to have established Nima as a "zongo" (stranger's quarters) in 1930, after he had obtained permission from the Ga customary owners of the land to settle there. At that time Nima was an area well outside Accra's municipal boundaries. The city subsequently took no responsibility to provide services to Nima or to enforce building codes and standards there until 1951 when it expanded its boundaries to encompass the settlement (Sandbrook and Arn, 1977:9).

Nima is thus a prime example of uncontrolled urban settlement, where haphazardly demarcated plots were entirely covered with structures (in order to maximize rental income). Litigation over land ownership and boundaries were widespread and interminable. After 1951, the city planners and authorities quickly concluded that Nima was both uncontrollable and irredeemable: it has been slated for extensive slum clearance since the country obtained independence in 1957.

This multi-ethnic location has been characterized, besides overcrowding, by: abysmal sanitation (open and dirty 'drains', uncollected refuse heaps, a paucity of public toilets and bathrooms, and irregular servicing of toilets); an inadequate public water supply; the limited availability or uses of electricity; and a high crime rate, especially theft. Slum clearance was partially carried out in 1960 to make room for public buildings and other commercial ventures. A substantial portion of the settlement remained and has grown from its 1970 population of

52,000 to a present day estimate of over 150,000 inhabitants (Sandbrook and Arn, 1977; HUDA, 1990 ).

### **3.3.2 Madina (peripheral settlement)**

The period immediately after Ghana's political independence saw frantic developments in Accra. Of particular interest were the constructions of the Nima Highway, Nima Redevelopment Project and Kanda Estates. These projects displaced many inhabitants of the inner city slum settlement (Nima) who were mainly migrants from the northern part of Ghana (Quarcoo, et, al., 1967 ). At this time the Government had also begun plans to construct a Trade Fair Site to the East of Accra as a permanent site for international trade fairs. This also necessitated the resettlement of displaced inhabitants. The Government therefore negotiated with the chief of Labadi (a suburb of Accra) for the release of land for the resettlement of the displaced inhabitants of Nima and the Trade Fair Site. Madina, located about 14 kilometers from Accra was selected for this purpose.

A Planning Committee<sup>4</sup> was set up by the Government to plan the new township. Among other recommendations, the committee proposed a township of about 64 hectares and 3300 people. The total land area was zoned into 31 hectares for housing, 31 hectares for open spaces and services and 2 hectares for light industries. The Government , however did not implement the planning scheme for the area. Neither were services provided. Uncontrolled development started springing up and Madina became one of the areas in the city where the cheapest accommodations could be available.

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<sup>4</sup>The Trevallion Committee of 1959

Quarcoo, et, al., (1967) estimated Madina's population in 1967 at approximately 2000. By 1970 (within a period of three years), the population of Madina had more than tripled to 7,480 inhabitants and in 1990 its population was estimated at 63,000 (Government of Ghana Census, 1970; HUDA, 1990). When the current population is compared to the target of 3300, the overcrowding and insanitary conditions in an area where services are *prima facie* illegal can not be over emphasized.

### **3.3.3 Ashiaman (peripheral settlement)**

Ashiaman is about one square mile in area and lies about 18 kilometers east of Accra. It was originally a small farming village. With the opening of an industrial complex at Tema (now part of Accra) in 1964, migrants in search of new jobs were attracted to Ashiaman by the availability of relatively cheap accommodation (Sandbrook and Arn, 1977). It therefore experienced a remarkable rate of growth. In 1960, Ashiaman was a village of 2,624, but in 1970 the census recorded a population of 22, 549. In 1990 the population was estimated at 94,000 inhabitants (HUDA, 1990).

To meet the demand for housing, aspiring landlords built dwellings in a haphazard manner. The stigma attached to the settlement as 'unauthorized' by the municipality has persistently denied Ashiaman basic services. Ashiaman has therefore suffered from abysmal sanitation, inadequate public water supply, the limited use of electricity, poor roads and drainage, and high crime rate (Djanmah, 1974).

The historical background of the settlements connotes their haphazard nature, as well as major source of accommodation for the urban poor. These inadequate

housing conditions are being perpetuated by the use of the building codes and regulations as tools to deny the communities services. As a guide towards the reformulation of more realistic building codes, it may be necessary to examine the housing typology and tenure in the city.

### **3.4.0 TYPES OF HOUSES**

**Table 2. Type of Houses in Accra (in units)**

<b>TYPES</b>	<b>PERCENTAGES</b>
Traditional Compound (single storey)	51.7
Multi Storey Tenement	10.4
Single Family Bungalow (detached)	22.4
Single Family House (semi-detached)	11.2
Block of Flats (Apartments)	1.2
Others	2.5
Total	100

Source: Extracted from HUDA, 1990 Vol.1: 45

As indicated in Table 2, five major house types can be identified in the city. These house types are discussed below, with pictures and illustrations provided in Fig.3.

#### **3.4.1 Single-storey Traditional Compound House**

This type of housing unit is regarded as traditional because it is the Ghanaian vernacular domestic architecture and is found in almost all parts of the country, both urban and rural. In Kumasi -the second largest city in the country, about 50 per cent of the population live in this type of houses (Malpezzi, et, al., 1990).

A typical traditional compound house comes in a variety of forms but its basic structural composition shows a number of rooms (usually 10 to 15), which are grouped around a square open courtyard. The compound usually grows by accretion (Sutherland, 1981). The fourth side of the compound contains the bathroom, kitchen and toilet. Most of these compound houses were built with rammed laterite known as "swish," (also locally called "atakpame" after a town in Togo where the first masons originated). On the average the completed compound house accommodates some eight households in 13 rooms on a plot area of approximately 1000 square meters (see Fig. 3.1 (a) in Appendix). Most of the rooms are rented out, the owner and other resident households sharing between them whatever services are provided.

Entry to all rooms is typically through the open quadrangle that provides a semi-private and climatically sensitive setting for most daytime activities. Sociologists and urban anthropologists like Schildkrout (1975), Senjek (1982) and Clark (1984), document the courtyard as the spatial arena in which social interaction and inter-household co-operation are typically nurtured. For example, since all the rooms open into a centrally located courtyard, the occupants share and interact in this common space. Also the occupants normally share the use of all the available facilities such as toilets, bathroom, and kitchen. On the whole, the poor and the more traditionally minded tend to be associated with communal lifestyles, and seem to prefer living in multi-nuclear traditional compound houses (Hill, 1966).

Table 2 shows that more than half (51.7 per cent) of the total number of houses surveyed for this study are of this type. Merrill (1988) and Korboe (1992)

reported that, most of the Ghanaian urban poor occupy single storey traditional compound houses. Unfortunately the traditional compound houses, which made up 51.7 per cent of the housing stock do not have the legal access to the city's infrastructure and services because of their non-compliance with the building codes. With the exception of the indigenous communities whose proximity to the Central Business District has compelled the city authorities to partially include them in the city's service system, most of the new settlements mostly occupied by the urban poor have little or no access to these services.

#### **3.4.2 Multi-Storey Tenement**

This type of housing unit is similar in its structural and functional organization to the single-storey traditional compound house but it differs in that the arrangement of the rooms around the open courtyard is carried up to two or three levels. Access to the upper floors is gained by means of wooden or concrete staircase, usually located within the courtyard (see Fig. 3.2 (b) in Appendix). In the indigenous sections of Accra, where some of these house types are found, they are the typical family houses which were built by affluent families in the early part of the century. The data show that multi-storey tenement houses are not as prevalent as the single-storey traditional compound houses. Only 10.4 per cent of the sample houses were of this type.

#### **3.4.3 Single-Family Bungalow**

This type of housing unit has been developed by both the government and individuals. The house in principle is designed or built to be occupied by a single household. The houses are regarded as bungalows, because they stand detached on individual plots of varying sizes. The dwelling unit is organized into specific rooms for receiving visitors and relaxation (known as the living

room), eating, carrying out other indoor family activities (known as the dining area), cooking (kitchen), ablutions (bathroom and toilet) and sleeping (bedrooms). In addition to these basic rooms, one finds additional spaces such as garages, store rooms, terraces, etc., depending on the level of affluence of the occupying household. Usually, the house faces outwards onto a private garden or forecourt and may have a backyard. Some of these houses have two storeys and some have annexes which are described as out-houses. These annexes invariably act as dwelling units for other people who may or may not be related to the family in the main building (see Fig. 3 (d) in Appendix).

These houses are contractor-built, often with cement blocks or kiln dried bricks and comply with the stipulated building standards in the city. They therefore have legal connection to the city's electricity, water and sanitation systems. They constituted about 22 per cent of the sampled houses. They were often owned or occupied by senior civil servants, rich businessmen and Europeans. Densities of one to two houses per hectare were typical.

#### **3.4.4 Semi-Detached House**

This house type is predominantly found in areas where there are government built estates. The design is basically two houses put together with a common partition wall. Similar to the bungalow type, the dwelling units are self-contained, although of limited size, ranging between one to two bedrooms (see Fig. 3.2 (c) in Appendix). In some of the old sections of the estates at Kaneshie, Dansoman and Osu, these small- size self contained units have been extended into three to four bedrooms. Being government built units they comply with the stipulated building standards and have legal access to the city's

infrastructure and services. As Table 2 shows, semi-detached houses do not constitute a very significant proportion of the sampled houses (11 per cent).

### **3.4.5 Block of Flats**

This form of dwelling unit is basically associated with government estates and other corporate housing facilities. It provides self-contained dwelling units of different sizes for single households placed on multi-levels without any defined private courtyard space. Balconies are provided for outdoor activities. In some cases, lockable garages and store rooms are provided on the ground floor for the occupying households (see Fig. 3 (e) in Appendix). The data show that Blocks of Flats are not common in the study area. The structures constitute about 2 per cent of all the houses surveyed.

Due to the architectural arrangements of this type of accommodation, the structural engineering and services requirements are of a very high standard and therefore attract rather high cost and rents. They are mostly owned or occupied by rich businessmen and top civil servants.

### **3.5.0 HOUSING TENURE**

**Table 3. Housing Tenure<sup>5</sup>**

TENURE	PERCENTAGE
Owner-Occupiers	24.5
Tenants	47.6
Rent Free Tenants	26.3
Sub- Tenant	1.6
Total	100

Source: Extracted from HUDA, 1990 Vol.1: 47

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<sup>5</sup>The owner-occupiers are concentrated in bungalows and semi-detached houses, whilst the tenants and rent free tenants are concentrated in the traditional compound houses.



There are three major types of tenure categories in Accra: house owners, renters and occupants who are neither owners nor rent paying tenants. Table 3 tabulates data on sampled housing tenure in Accra. It indicates that about 25 per cent of all respondents were owner-occupiers. It can also be observed that the sampled houses indicate a high rental population (close to 74 per cent were renters of which 47.6 per cent and 26.3 per cent were rent paying and non-rent paying tenants respectively).

### **3.5.1 Owners**

In the Ghanaian context home ownership is a source of social prestige or status that most people irrespective of their background want to achieve. The number of house owners indicated in Table 3 is comprised mostly of indigenous people from the Accra Metropolitan Area, foreign nationals and migrants who are tied to the city owing to their dependence on wage employment.

### **3.5.2 Renters**

As shown in Table 3, Accra has a high percentage of renters. This high rental population is not only common to Accra, but in Kumasi and other West African cities like Lagos, Abidjan, Freetown and Dakar where more than 70 per cent of families rent rooms (Tipple, 1987; Achunine Obi, 1977). Data from various sources suggest that many West African migrants' intention of returning to their hometowns is often a deterrent to acquiring a house in the city.

Pfeffermann's (1968:45) interviews with industrial workers in Dakar-Senegal showed that 75 per cent of those born in villages intended to go home when they retire. Caldwell (1969:186) reports that 92 per cent of migrant households

interviewed in Ghana's three largest cities- Accra, Kumasi and Takoradi, considered their stay in the city as temporary. Thus in Ghana, no matter how long a migrant remained in the city, he/she very seldom considers it as home, with the exception of Kumasi (an ethnic capital which many migrants identify as their hometown). According to Peil (1972), the proportion of Nigerian city migrants intending to return home is generally even higher than among Ghanaian migrants.

Flexibility of location is also considered as one of the important reasons why West Africans are less permanent urbanites than people from other developing regions. The flourishing "informal sector" of self employment in West African cities encourages aspirations for independence and movement into occupations which can readily be transferred from one place to another. The migrant therefore is less tied to a particular town, and there seems little point in going to considerable efforts and trouble to acquire a house in a city, when one may want to move in a few years (Muench, 1972:42). Thus a majority of migrants want cheap rented rooms rather than a house in the city; any money they save is spent on a house in their hometowns (United Nations, 1973:18).

### **3.5.3 Rent-Free Occupants**

Another emerging characteristic feature of housing tenure in the city is rent-free housing. Table 3 shows that about 26 per cent of the sampled houses have rent-free occupants. This trend is not only common to Accra but other Ghanaian cities as well. In Kumasi, Ghana's second city, 25 per cent of all households occupy rent-free accommodation and the population so housed continues to rise as a result of supply constraints (Korboe, 1992). The reason for this third type of housing consumers may be due largely to cultural influences. For example,

according to the Asante culture (i.e., extended family system and matrilineal system of inheritance), a house owner cannot easily turn down requests by extended family members for a room in his/her house (Willis et, al., 1990). These non-rent paying occupants have some family relationship with the house owners. While enjoying rent free accommodation, these occupants may not have any special rights or privileges different from the rent-paying tenants in the house.

### **3.6.0 Summary**

This chapter has given the housing typology and tenure in Accra which are important for policy implications towards the redefinition or reclassification of appropriate building codes. It emphasized that the acceptable standard houses constitute approximately 22 per cent of the surveyed houses in the city, found in the bungalow house types and occupied by the higher income group. These were built according to the building codes and have legal access to the city infrastructure and public utility services.

Merrill(1988) and Korboe(1992) reported that most Ghanaian urban poor occupy single storey traditional courtyard houses. In the case of Accra more than half (51.7 per cent) of the total number of houses are of this type. Ironically most of these houses do not meet the stipulated building standards and codes. They do not therefore have legal access to the city's infrastructure and services like water, electricity and sanitation systems.

This chapter also indicated that, contrary to the notion of "home ownership" associated with most illegal settlements in Latin America, South East Asia, and

other African countries, most urban poor living in substandard houses in Ghana are tenants and non-rent paying tenants (relatives of house owners).

The next chapter examines the housing development processes, materials used in construction and level of services provided in the three urban poor communities. These are related to the operating building codes.

## **CHAPTER FOUR - HOUSING DEVELOPMENT PROCESS**

### **4.1.0 Flexibility and Incrementalism**

The fundamental distinguishing factors about the three communities described above are the varying degree of informality governing their housing development process. They are characterized by a high degree of flexibility and incrementalism in their housing construction. The flexibility allows the people to mobilize their resources, however meager they may be, to develop housing that is affordable and supportive of the changing needs of the family. These two factors enhance the ability of users to be responsibly involved in making decisions affecting their housing. This is similar to a bottom-up approach which Turner (1976) calls "housing by people."

All the three communities developed originally without any layout plans. It is therefore common to find houses closely packed with little or no space in between them. Houses were also not aligned along predetermined grids.

House building in all the three communities was entrusted to small scale builders or local artisans (locally called masons) rather than to incorporated construction firms. A majority of the artisans are illiterate, or at best have only primary school education. They learned their skills of building construction on the job as apprentices. Their lack of education means that they have little knowledge of the technology of building construction (such as the calculation of stress in building, etc.). Nevertheless, they are very skilled and for the simple buildings, such as single storey traditional compound houses where there is no need for high level technology, they have been very proficient (Asiama, 1985). They are also widely employed in the residential building operations throughout

the country because of the competitive prices they offer. The study found that they constructed 95 per cent of the houses in the surveyed area. The rest of the houses were usually constructed by the house owners, often assisted by family labor.

#### **4.2.0 COMPLIANCE WITH BUILDING CODES**

In order to have a clear picture of compliance with municipal building codes, which to a large extent dictate the urban poor's access to services, data on building materials, sanitation facilities and mixed land uses, for the three communities were analyzed.

#### **4.2.1 BUILDING MATERIALS**

##### **4.2.11 Foundation and Floors**

Despite the fact that the three communities studied were often deemed illegal, most of the houses conformed with some building code regulations. Thus, only a small number (about 8 to 14 per cent) of the houses covered in the study area had no "foundations" (compacted earthen floors were used). Over 90 per cent had concrete foundation as stipulated in the building codes.

**Table 4. Materials used for Foundation (in percentage)**

<b>MATERIALS</b>	<b>NIMA</b>	<b>MADINA</b>	<b>ASHIAMAN</b>
Concrete	91.3	90.0	85.4
No Foundation	8.7	10.0	14.6
Total	100	100.0	100.0

Source: Extracted from HUDA, 1990.

As shown in Table 4, the general use of concrete as foundation material is high in all the three communities. The reason for this may not necessarily mean compliance with the building code. Unstructured interviews by the researcher revealed that most of the people did not even know the contents of the codes. They rather saw investment in their houses as a long term permanent nature. A weak foundation could jeopardize incremental addition of rooms in the future. Thus, the concrete foundation were finished as cement screed floors.

#### **4.2.12 Walls**

The municipal building codes stipulate kiln dried bricks or cement blocks as the constructional material for walls in the affected areas of the city. The survey undertaken by HUDA (1990), revealed that about 33.2 per cent of the houses in the three communities did not comply with the code but instead used "landcrete" (a mixture of red soil with some cement as a bonding material) in the construction of the walls. The use of landcrete as a wall construction material was also found to be common in the medium class areas. As much as 51 per cent of the surveyed houses by HUDA had their walls constructed of landcrete. The procedure adopted to outwit building inspectors is that the landcrete walls are rendered internally and externally with cement mortar to conceal the landcrete material.

The expensive cost of constructing walls with cement blocks, as well as the thermal heat produced in a tropical area like Accra may be the compelling reasons for deliberate disregard of this section of the building code. Peil (1972) also confirmed that in such tropical areas it is even more comfortable to stay outdoors during certain seasons of the year. The comparatively reduced room

temperature produced by the landcrete material may be the appropriate adaptation for those who cannot afford electric fans and air conditioners.

#### **4.2.13 Windows**

Whilst the building code stipulates glass louver blades for windows, as much as 91.3 per cent of windows found in the surveyed houses had wooden windows. The wooden windows called "Jalousie" were designed such that even when they are closed, air circulation in the rooms would not be completely impaired. In contrast, in the high class areas, where the residents can afford air conditioners and electric ceiling fans, glass louver blades predominate by as much as 89 per cent.

#### **4. 2.14 Roofing**

The building code specifies iron or aluminum sheets as the roofing material. About 66 per cent of the surveyed houses had corrugated aluminum or iron sheets as the roofing materials though most of them are from salvaged buildings. The rest comprised a combination of thatched roofs, timber and felt.

#### **4.3.0 SANITATION FACILITIES**

The building codes specify a house to be divided into bedrooms, living rooms with exclusive toilet, bathroom and kitchen. In the study communities however the facilities like toilet, bathroom and kitchen were not often found. In houses that had some temporary structures for such purposes, the facilities were often shared with other households.



#### **4.3.1 Toilets**

In the study communities 44 per cent of the houses surveyed had no toilets. In such cases, the residents had to use communal toilets in the neighborhood.

**Table 5. Availability of Toilets in the Houses**

Toilet	Number	Percent
None	48	44.0
Shared	54	49.0
Exclusive	8	7.0
Total	110	100

As shown in Table 5, only 7 per cent of the surveyed houses had toilets for the exclusive use of the residents. The survey further revealed that about 70 per cent of the toilets provided were removable pan type and not the water closets flush type as demanded by the building codes. The facilities were mostly shared with other households, contrary to the exclusive use suggested by the building codes. The larger study by HUDA confirmed the predominance of shared toilets, even in the middle class areas of the city, by as much as 49.4 per cent of the sampled houses.

#### **4.3.2 Bathrooms**

The importance of bathrooms in the study area was manifested in their presence in 95.4 per cent of the houses. Out of this, 86 per cent were shared bathrooms with other households. Contrary to the specification of the building code that, a bathroom should be of permanent structure like cement block and designed to link other parts of the building, the type of bathroom provided was usually a small enclosure at the back of the houses. The remaining 4.6 per cent who had

no access to bathrooms in their houses used communal bathrooms constructed in the neighborhoods.

#### **4.3.3 Kitchens**

The building code specifies that a kitchen should be designed as an integral part of the building, to be constructed in cement blocks or dried kiln bricks with minimum dimensions of 8 feet by 10 feet.

In the study communities, however, the provision of kitchen facilities is another amenity which was not very common. This confirms Peil's (1976) observation that, in a tropical country like Ghana, it is more comfortable to stay out of doors during certain periods of the year. In such a hot climate, cooking in a small enclosed area can create nuisance. It was found that in the study area cooking is usually done in open spaces in the courtyard to ensure proper ventilation and comfort.

Second, most of the residents could not afford an electric or gas stove. The major source of energy is therefore firewood. The smoke and fumes associated with such energy use in a hot equatorial area like Accra (located 5 degrees North of the Equator), could worsen the heat problems and create further health hazards when cooking is done in a small enclosed area called the kitchen.

**Table 6. Availability of "Kitchen"<sup>6</sup> in the Houses**

<b>Kitchen</b>	<b>Number</b>	<b>Percent</b>
None	74	67.0
Shared	23	21.0
Exclusive	13	12.0
<b>Total</b>	<b>110</b>	<b>100</b>

As shown in Table 6, 67 per cent of the surveyed house had no kitchen, whilst 21 per cent that had "kitchen" (temporary structure used as a cooking area) shared it with other households. The remaining 12 per cent that had exclusive use of kitchens in the house design had converted them to bedrooms or retail outlets.

According to the larger study by HUDA, a comparative analysis of the middle class areas revealed that about 32 per cent of the kitchens provided in the houses were shared with other households. It was in the high income areas that the exclusive uses of kitchen facilities per household predominated by 78 per cent. This may indicate that such as a standard could mainly be afforded by the high income group and not the middle and lower income groups.

#### **4.3.4 Facilities and Intensity of Use**

Aside from the different levels of facilities provided, it was found important to look at intensity of the use of the facilities. The number of persons who depend on a single toilet, bathroom and kitchen were assessed against the following Town and Country Planning Standards as derived from the building codes:

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<sup>6</sup>This is not a kitchen as specified in the building codes. It is a temporary structure used as cooking area.

- Toilet: 7 persons per single toilet.
- Bathroom: 8 persons per single bathroom
- Kitchen: 12 persons per single kitchen

Table 7 presents data on the intensity of use of the above facilities in each of the study communities.

**Table 7. Persons Per Single Amenity in a House (Study Communities)**

Community	Toilet	Bathroom	Kitchen
Nima	65.3	31.7	104.5
Madina	13.4	13.1	18.6
Ashiaman	20.1	14.8	21.1
STANDARD	7	8	12

As shown in Table 7 , Nima has the highest average number of persons using a single amenity. This is expected owing to Nima's proximity to the Central Business District which create congestion. Nima has an average of 65.3 persons using a single toilet. The comparative rates for bathroom and kitchen are 31.7 persons and 104.5 persons respectively. Because of the distance from the major source of employment opportunity (The Central Business District), the peripheral communities like Madina and Ashiaman have relative lower densities and lower intensity of use of the amenities, though they are way above the planning standards in the city. The above computations confirm that the building standards are too high for the low income communities.

Compliance with such high uniform building standards can be afforded only by the high income areas, dominated by single family bungalows. This was confirmed by the study of the high income areas as shown in Table 8.

**Table 8. Persons Per Single Facility in a House (High Income Areas)**

<b>Community</b>	<b>Toilet</b>	<b>Bathroom</b>	<b>Kitchen</b>
Airport	4.4	4.7	8.3
Labone	5.1	5.3	9.2
Cantonments	5.3	6.0	11.6
Roman Ridge	6.9	6.5	9.7
STANDARD	7	8	12

Source: Extracted from HUDA, 1990, Vol. 2 : 35.

The implication as indicated in Table 8 is that the high income residential areas are able to meet the accepted standards for the housing amenities like toilet, bathroom and kitchen. For some of the middle class residential areas and the entire low income communities the standards are too high and unrealistic. Ironically these high standards are some of the bases used to determine accessibility to municipal infrastructure and services.

#### **4.4.0 Household and Housing Density**

Before analyzing the services available in the study communities, it is necessary to examine household and housing density data. These are crucial factors in housing analysis, because they determine the pressure put on any unit of services or facility provided.

**Table 9. Average household and housing density Indicators**

INDICATORS	NIMA	MADINA	ASHIAMAN
Household Size	3.6	5.3	6.2
Households living in one house	6.6	4.6	6.5
No. of Rooms per house	15.2	8.2	10.7
Persons living in one house	39.4	24.3	33.9
Households occupying one room	25.0	33.0	11.0

Source: Extracted from HUDA Study, 1990.

As shown in Table 10, the numbers of households living in one house are high in these communities (about 5 households per house). This situation conforms with the general observation in the country. Because people in low income groups tend to congregate in large compound houses where several households live together and share existing facilities whilst developing networking for their survival strategies. By comparison the high income areas in the city have an average of less than 2 households per house (HUDA, op cit., Vol. 2:13).

#### **4.5.0 SERVICES**

According to Harvey (1972) and others, housing is not limited only to the physical structure or the dwelling unit, but it also includes the associated infrastructure and public services like water, electricity, drainage, access to place of work, etc. It is the adequate provision of the services which turns a shelter to a house. Are the buildings in the three communities, houses or shelter?

#### **4.5.1 Water**

The study revealed that, most of the existing areas in the city have municipal water lines passing through their communities. In the case of the three study communities, the survey indicated that 38 per cent of the houses do not have access to water.<sup>7</sup> The residents are compelled to arrange tank water services through informal suppliers at prices 400 per cent higher than the municipal supply rate (HUDA, 1990).

The effects of such informal arrangements on poor household without direct access to public water supply are obvious. They pay a much higher price (for a commodity of lesser quality) than consumers who are connected to public supply. More frequently, the water supply from private vendors has to be carried by household members over a considerable distance from the source to their houses, with consequent loss of valuable time. Table 10 portrays the informal water supply situation in Ghana and confirms the World Bank's (1978b) observation that, in most developing countries the poorest households who have no direct access to public water supply spend more on water than the rich who have legal access.

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<sup>7</sup>Access to water is defined as households who obtain municipal water supply from a public stand pipe in their neighborhood.

**Table 10. Costs of Public and Private Water Supply  
in Selected Developing Countries/Cities  
(US. Dollars per cubic meter).**

COUNTRY OR CITY	In-house Connection (Public Water Supply)	Private Vendors (Water Carriers)
Ghana	0.10	1.3 - 2.5
Nairobi	0.20	1.4 - 2.1
Senegal	Free	1.6 - 2.4
Kampala	0.33	1.3 - 3.0
Upper Volta	0.30	1.0 - 1.5
Abidjan	1.0	5.0
Karachi	1.0	10.0
Lima	1.0	16.0

Source: World Bank, 1978b (cited in Linn, 1983:148)

Those who cannot afford such high prices depend on dug wells within the communities. This is the predominate source of water for most of the residents of inner city slum like Nima. In the case of the peripheral slums like Madina and Ashiaman a combination of stream water and dug wells are the major source of water for the residents. It was surprising to note that the main water lines pass through these communities to serve higher income neighborhoods and industries beyond. The consequences of untreated water and the high occurrence of associated waterborne diseases such as typhoid, cholera and general debility will continue to drain the already limited health services in the



city . Sanders and Warford (1976) survey of the evidence of health effects of water supply and sewerage disposal facilities indicate that, substantial health benefits can be achieved from good or safe water and sewerage services.

#### **4.5.2 Electricity**

About 10 per cent of the houses surveyed in the three communities had no electricity. The study also revealed that 85 per cent of houses had illegal electricity connection. Such houses were characterized by low voltage and frequently experienced power cuts and failures. Hence the electrical power is only used in the night to illuminate between one to three 60 watts bulbs.

In the study communities the major reliable source of energy was firewood and kerosene. Like the water supply situation, where it was observed that the poorest households pay more per litre consumed than the richest households, the energy situation is not much different. This observation agrees with the Findley (1977:45) report that, "Squatters pay more for light using kerosene lamps than those who have legal access to electricity." Confirming Findley's report, Thomas(1978) estimates that alternative sources of light are over twice as expensive.

#### **4.5.3 Sanitation**

For the purpose of this study the sanitation aspects of the communities were limited to examining access to roads, drainage and garbage collection.

The study revealed that Nima has only one all season motorable road which runs through the center of the community. Apart from this access; roads and drains are basically non existent. In terms of garbage collection Nima's

proximity to the Central Business District has compelled the municipality to extend its garbage collection system to cover those areas where the accumulation of the garbage is seen by the City Officials as an eye sore. Within the community itself heaps of garbage not collected for months are a conspicuous phenomenon.

The study indicated that over 56.8 per cent of the garbage is burnt by the residents after months of accumulation. Since the residents occasionally burn this garbage to reduce the stench, most parts of the community are sometimes filled with smog. The burning of the garbage near houses also builds up dangerous concentrations of toxic gases to which women and children are in particular exposed during the many hours of the day. The risk of accidents to children, such as burns from the fires is also high.

The situation is worst in the peripheral communities like Madina and Ashiaman. Perhaps because of their peripheral location, they are completely neglected on the municipal agenda. Apart from a major road which abuts the settlements, access roads and drains have not been constructed. Most of the houses do not even have any vehicular access. The major feature of these communities is therefore periodic flooding. The inhabitants also burn the garbage near their houses. The hazardous health effects of these unsanitary conditions on their major source of drinking water (rivers and streams), poor air quality and other environmental degradations are obvious.

#### **4.6.0 Summary**

This chapter provides some data and analysis which indicate that, the way the urban poor communities build and use their houses is divergent from the municipal building codes as adopted by the government and interpreted by the housing technocrats and policy makers. The next chapter ties together the major conclusions of the study and examines their policy implications for housing development in Accra.

## **CHAPTER FIVE - FINDINGS, CONCLUSIONS AND POLICY IMPLICATIONS**

The study questions the appropriateness of the adopted building codes in Accra in meeting the variable needs of all the segments of the city's population, particularly the urban poor. The research question is, are the building codes preventing or encouraging the growth of slum settlements?

The review of the literature indicates that the building codes and housing standards are not based on the situation and current realities faced by the urban poor residents of the city. They are typically old and outmoded. Many aspects of the codes or norms date from British colonial regulations which were instituted to ensure that houses built for expatriate staff were to standards comparable to those of their country of origin. Unfortunately, since the country obtained independence in 1957; these same building codes enacted during the colonial era continue in force with little reform, if any.

The effect is that technically, the city government will not build roads or extend city services like water, electricity and sanitation to substandard neighborhoods because of their non-compliance with the codes. The affected residents are therefore compelled through informal arrangements to provide for these services which are rarely adequate for the entire communities. In some areas the services are basically non-existent and hence the proliferation of squalid and slum settlement conditions in the urban poor neighborhoods.

The study examined the housing development processes, conditions and the level of services in three urban poor communities in Accra, namely: Nima, Madina and Ashiaman. Specifically it analyzed their housing design, construction materials, housing space utilization and services provided vis-à-vis the stipulations of the building codes. The major source of data extracted from HUDA (1990) survey covered 110 houses indicating a sample size of 1.9 per cent within the three communities.

#### **5.1.0 Summary of Findings**

The study found that the household size and housing density was very high in the area. The average household size for the study area was 5.2 persons, whilst the number of households occupying a house was averaged at 5.9 households.

Analysis of data on the construction materials used revealed that apart from the foundations which were mostly concrete as specified in the building codes, most of the component parts of the buildings did not conform with the specifications of the codes. Whilst the codes specify cement walls, about 33.2 per cent of the houses in the communities were built of landcrete walls. Similarly whilst the building codes specify glass louver sheets for window, 91.3 per cent of the windows were made of wood, locally called "Jalousie." In connection with greenery or lawns, there was no single house in the community which met the code requirement.

Regarding facilities like toilets, bathrooms and kitchen, which the codes specify for exclusive use per household, 44 per cent had no toilets and 67 per cent had no kitchen. In the houses which had these facilities, 49.2 per cent shared toilets with other households, 86.0 per cent shared bathrooms with other households

and 21.8 per cent shared kitchen facilities. The consequence of such open violation of the code specification was poor infrastructure services.

Poor infrastructure service was common in all the three communities. As confirmed by Asiama (1985), the problem of poor infrastructure like water, electricity, roads and sanitation in the low income areas are primarily due to the question of unequal access to municipal services. The case of the urban poor is worsened by the fact that, their housing types fall short of the specifications of the building codes. It was also found that most of the residents of the study communities are northern migrants who normally isolate themselves from municipal politics. The City Officials use the non-compliance with the building codes as the reason for denying the urban poor of the city's infrastructure and services. However, the researcher's unstructured interviews with other town planning officials revealed other plausible reasons like politics and the lack of finance.

The analysis of the study showed that, despite the illegal connection or pirating of electricity from the main lines 90 per cent of Ashiaman residents had no electricity or water. The comparable rate for Madina was 38 per cent and that for Nima 10 per cent. The relatively low percentage for Nima is due to its proximity to the Central Business District. The government sees Nima as an eye sore and occasionally turns a blind eye to illegal power connections.

Sanitation problems, particularly lack of roads and drainage, and accumulations of garbage were the commonest characteristics in the three study communities. Apart from Nima, whose proximity to the Central Business District occasionally attracts the City Government's attention, Madina and Ashiaman are completely

cut off the city's sanitation collection system. The residents are sometimes compelled to burn the garbage to reduce the stench associated with months of garbage accumulation. The health hazards and other environmental degradation need no emphasis. What then are the effects of the building codes and standards on urban poor housing?

## **5.2.0 CONCLUSIONS**

### **5.2.1 Non-compliance with Standards**

The study revealed that whilst the building codes and associated municipal policies pursue a certain desirable standard housing, the urban poor communities disregard this perception of ideal standard house; they build houses as their survival strategy in the urban setting. Ironically, because of their non-compliance with the municipal building codes and standards, the poor are denied access to basic infrastructure like water, electricity, roads, drainage and garbage collection which ultimately creates unsanitary conditions. Such a divergence between the interpretation of the building codes and the way the urban poor build may be a contributing factor to the proliferation of slums and squalid settlements in the city.

### **5.2.2 Standards hinder housing improvements**

Another effect of the building codes as noted from similar experiences in Africa is that, they hinder housing improvement. Housing is conceived as a finished product by virtue of the provisions of the codes. Progressive housing development through self help construction skills are not encouraged whilst the use of secondary building materials are not permitted. By insisting on such rigid uniform standards, and the denial of infrastructure and services for non-compliance, the municipalities have tended to inhibit the further improvement of

urban poor housing. Thus in a Third World city like Accra, where the urban poor cannot afford "western standard houses", the building codes and standards have become a barrier to the progressive improvement of housing for the urban poor. There is therefore the need for reformulating the building codes to allow flexible and multiple building standards in the city.

### **5.2.3 Reformulation of Building Codes**

The case study of some of the urban poor communities in Accra revealed that, the urban poor are not necessarily homeless. Most of them, having obtained the consent of the landowners, build their houses through incremental and informal development. The study indicated that 99.3 per cent of the houses were financed through personal sources and family assistance.

The potential for "self - help" which these substandard settlements suggest, reinforces the belief by some housing researchers that; shelter as such is not the main problem for large sections of low income groups in the Third World. Rather, serviced settlements integrated within a comprehensive urban planning policy would be more appropriate. For, even when the urban poor are excluded from official housing programs, they evolve a positive and imaginative form of urban settlements which are mostly constrained by lack of infrastructure services and facilities. The role of Planners and other public related housing agencies, should therefore be conceived as providing those elements which the urban poor cannot provide for themselves.

In a city like Accra, the study has indicated that one of such central elements is access to infrastructure and services like water supply, electricity and sanitation. Though there may be other political and socio-economic reasons for the neglect



of the urban poor communities, technically access to these services is denied the urban poor because of their non-compliance with the existing building codes and regulations borrowed from British colonial administration. To circumvent this problem, there is the need to revise the codes and regulations to make them realistic and relevant to all segments of the city's population, particularly the urban poor.

The argument for revision of the building codes is not intended to be an all encompassing solution, but rather on a continuous basis to gradually improve the quality of life of the urban poor. In this direction, the revision of the codes and regulations should:

- Be substantially comprehensive to cover new construction, maintenance, improvement and upgrading of existing housing stock.
- Make provision for variation in the culture of the people.
- Be appropriate to present needs of all segments of the city's population and be easily adaptable to future requirements.
- Make optimum use of local resources, skills and traditional housing techniques.

The above propositions call for identification of all the resources available for housing and adjust standards to achieve as balanced an approach as possible.

What can be done to make the operative building codes more pragmatic to the housing development of the urban poor?

### **5.3.0 GUIDELINES FOR AN APPROPRIATE BUILDING CODE**

A review of the literature and findings from the pattern of housing development in Accra indicate that abolishing the entire building code is likely to meet resistance from the influential elite who control politics in the city. Having substantially benefited from the inherited building codes through their use in selectively providing services, the powerful elite may resist any attempt of "no standard in housing development". They would also not like their neighborhoods to be invaded by what they perceive as "substandard housing" mostly built by the urban poor. Instead of a uniform standard, however, there is the need to develop multiple standards in housing development to accommodate the divergent and conflicting needs of residents in the city. It is suggested that the codes should be reformulated to introduce some flexibility that will cater for the needs of the urban poor, without hindering the needs of the rich and affluent who can afford such standards.

Though the drafting of an appropriate building code is beyond the scope of this study, this section provides some guidelines which could be further researched and developed into an appropriate building code for the urban poor. The suggested guidelines are based on the findings of this study which among other things indicate that, contrary to the rich and elite who patronize in imported or foreign housing standards and design, the urban poor communities patronize in informal or traditional methods of construction and the use of locally available building materials.

In the past decades building activities in the urban poor housing sector had to a large extent dependent upon the skills, initiatives and resources of the households themselves. The technical knowledge guiding the households own

planning and building activities is based on local traditions, common sense and long experience of locally available materials and the socio-economic situation. Such unwritten rules based on experience should not be disregarded, but encouraged and developed into an appropriate building code. On the basis of the findings of the study it is suggested that emphasis for an appropriate building code for the urban poor should include the following:

### **5.3.1 Landcrete Blocks**

Houses built in landcrete block walls (stabilized earth blocks using cement as a stabilizing agent) is common in the urban poor communities. Research by the Building and Road Research Institute at University of Science and Technology, Kumasi Ghana (cited in HUDA, 1990), has shown that landcrete blocks have the following advantages over cement blocks ( the specification of the existing codes).

- Many local builders are able to build with it without supervision.
- Many local people are able to mould landcrete blocks with little or no expertise.
- A much wider range of soils, available country-wide can be used to make landcrete blocks.

In addition to the above advantages, the research further indicated that landcrete blocks have compressed strength that compares favorably with cement blocks, and suitably adequate for single storey buildings constructed by the urban poor. The adoption of the landcrete block as an acceptable building material is likely to create jobs for new urban migrants who have had previous experience of building with mud in the rural areas.

### **5.3.2 Wooden Windows**

Contrary to glass windows specified by the existing codes, wooden windows which are predominantly used by the urban poor have been found to be more appropriate in ensuring proper ventilation in tropical countries, cheaper and more durable (Peil, 1976). The availability of local wood and local expertise in manufacturing such building component is a big asset which should be developed.

### **5.3.3 Traditional Housing Design**

As indicated in the study, the traditional compound house type predominates in the city's housing stock by about 52 per cent. This type of housing design does not only cover the low income areas, but indigenous communities as well. The review of the literature indicates that this house design is more environmentally and culturally appropriate for the urban poor. The open courtyard inherent in this house design facilitates cooking in a tropical environment and other outdoor activities. This should be included as an acceptable house design in the urban poor communities.

In the case of Accra, the Government's supportive role in this direction is to

- Formulate appropriate building codes or planning regulations applicable to low income areas.
- Strengthen those informal housing systems already serving low income needs.
- Recognize the need for local communities to exercise more influence over the development of their dwelling units and neighborhood.

These and other related forms of intervention may offer a realistic prospect for regulating urban growth and assisting low income groups as a whole. What are some of the obstacles towards the implementation of such a building code for the urban poor?

#### **5.4.0 IMPLEMENTING AN APPROPRIATE BUILDING CODE**

Overcoming such an institutionalized building code with the possibility of extending infrastructure to the urban poor communities is likely to face some implementation obstacles. Some of the hindrances will be the bureaucratic development control procedures, convincing the elite or politicians for the change in attitude towards the urban poor, and the excuse of inadequate financial resources.

##### **5.4.1 Community Participation and Development Controls**

In the city, the municipal office is presently responsible for issuing planning and building permits, prior to the commencement of building activities. The municipal office is located in the centre of the city, at considerable distance from most urban poor settlements. Kasanga (1991), noted that a person has to wait for many hours at the municipal office before one can submit the application papers. Sometimes after hours, one is told to come back some other day. On average it took about two years for one to obtain a building permit. For the urban poor who depend on daily wages or are self employed, repeated return visits and waiting may mean considerable loss of income.

It is accepted that the investment of “sweat equity” in shelter will increase the likelihood that the occupant will maintain the shelter properly. It appears logical that those benefits will be greatest, when a person is permitted to

participate in the planning, design and construction processes. Thus, in implementing an appropriate building code for the urban poor, it is suggested that the procedure for the issuance of development permits should be simplified and brought to the community level with the local residents and the Chiefs having control over the process.

This “community empowerment”, apart from strengthening the self-reliant and co-operative character and spirit of the communities, has the added advantage of curtailing the delays, costs and other administrative bottlenecks associated with the current practice where the land is allocated by the chiefs and development permits are issued by technical bureaucrats at the municipal office. Local housing groups should be merged with the Chief’s land allocation office to further reduce the administrative expenses of housing development at the local level. To ensure joint planning with the municipal office, such local housing groups should be assisted by personnel from the municipal office (re-educated to understand the urban poor) in providing free advice, information and technical assistance to potential house-builders at the local level.

#### **5.4.2 Politicians and Public Health**

There will be the need to educate the politicians on the need to incorporate the slums in the city's infrastructure and services. One of the justifications for extending services to these communities is on public health grounds. The health benefits obtained from clean water, access to electricity and sanitary urban environment accrue to all the city's inhabitants (and even to people living outside the city). A squalid residential environment is a constant threat to health and life itself and therefore constitutes a drain on human resources, one of a nation's most valuable assets.

A standard argument is that if individuals are compelled by economic, social and political reasons to live in unsanitary areas and permitted to indiscriminately degrade and pollute the environment, the consequences affect not only themselves but others as well. This externality can be best dealt with by collective action. Hence the need to extend infrastructure and services to the urban poor.

#### **5.4.3 Finance and Gradual Improvement of Infrastructure**

Having recognized that the urban poor communities are permanent settlements, the city should lay emphasis on the provision of basic services as an essential and integral component of the basic strategy to improve shelter conditions in the city. Finance is one of the factors which prevent actions to change the present conditions.

Financial constraints in a developing country like Ghana, may demand that, the city cannot provide all the resources necessary to rebuild infrastructure according to standards that pertain in the high or medium income communities. To cope with this problem, the city can concentrate its limited resources on providing those physical infrastructures which the urban poor find most difficult or impossible to organize or construct by themselves. That is, it can concentrate on providing roads and footpaths, drainage ditches, communal water taps, sanitary latrines, garbage bins and social services such as schools, and health clinic as was undertaken under the Kampung Improvement Program in Jakarta, Indonesia (Taylor and Williams, 1982). These services may even be provided on a gradual improvement basis.

An improvable standard can be established on a sliding scale which would permit frequent if not continuous improvement. An example of such an improvable services standard is indicated in Table 11 below:

**Table 11 Improvable Services Standards (An Example)**

<b>FACILITY</b>	<b>STEP 1</b>	<b>STEP 2</b>	<b>STEP 3</b>	<b>STEP 4</b>
<b>Water</b>	Standpipe(e.g. 1p er 100 people)	Standpipe(eg. 1 per 50 people)	Individual connection of standpipe on plots	Individual connection of multiple outlets
<b>Electricity</b>	2 No. 60 watts bulbs	2 No. 100 watts bulbs	Full Supply	Full Supply
<b>Toilets</b>	Pit Latrine: Ventilated	Pit Latrine: Ventilated	Pour- flush: Septic Tank	Central Water Carriage System
<b>Roads</b>	All weather road compacted gravel	All weather road compacted gravel	All weather sealed and chipped roads	Sealed all weather roads and side walk
<b>Drainage</b>	Earth drains	Earth drains	Concrete drains	Concrete drains

The establishment of a sliding scale of standards in infrastructure would provide a step-by-step improvement of settlements and would permit higher standards to be used in developments which can bear the relevant costs. By providing these basic community infrastructures, the residents themselves would be encouraged to improve their own dwellings as improvements are made in their environment. In meeting such a public health need as extension of services to the poor, the cost of such a public service should be shared by all residents through a combination of governmental subsidies, general taxation and user charges.



This could be a dynamic approach of improving the unsanitary housing conditions of the urban poor, through progressive development approaches without neglecting the goal of developing a stable and pleasant environment.

#### **5.4.4 Appropriate Technology and Gradual Improvement of Infrastructure**

Flowing from inadequate financial resources, another obstacle towards the gradual improvement of infrastructure is inappropriate technology. While knowledge about appropriate technologies for infrastructure is increasing, and governments are becoming aware of the coverage, much still remain to be done in order to incorporate and promote their use in general practice. Legislative instruments such as public health acts, regulations and services codes and standards currently being used in Ghana present serious shortcomings. A majority of these instruments are based on high imported standards and contain recommendations to adopt inappropriate technologies.

Efforts to adhere to these regulatory procedures and standards cause construction to become too costly or simply inappropriate to given cultural context. In their attempts to reduce costs, service agencies and housing agencies have come into conflict with public health authorities, whose role it is to enforce the legislations as they stand. The inconsistency between standards and needs has restrained progress in the delivery of infrastructure services in the city. The urban poor communities bear the brunt of the resulting deficiencies, because the demand to use exaggerated standards often results in excluding this social group from benefiting infrastructure investment made with limited national resources. Thus to make gradual improvement of infrastructure more feasible, there is an imperative need to produce up-to-date regulations and

standards for infrastructure services that are suited to the requirements of the urban poor communities

#### **5.4.5 Use of Special Zones**

Another possible approach of improving the housing conditions of the urban poor through the building codes is the use of special zones. This may be done using an approach which is based on multiple standards and allows planning and housing authorities to designate certain areas where certain provision of the codes and standards apply. This calls for pragmatic building codes of practice and standards that are based on actual situation in urban poor neighborhoods rather than some ideal statement of minimum requirement. Such a flexibility, as performance standards would allow various households to have access to municipal services without having to build to standards that they cannot afford to meet or maintain.

It is suggested therefore, that actual conditions in substandard (slum) areas be incorporated in the building codes. Such flexible building codes and standards have been used in Philippines, Kenya, Zambia and Jamaica through an areal approach that makes it possible to designate an area as 'special development zone' where make shift dwellings to other structures considered 'substandard' elsewhere have been allowed (Laquian, 1983:219). Such flexible codes tend to formalize existing conditions and make possible the gradual improvement of conditions in substandard or slum communities.

The extension of services and infrastructure to the special zones could further allow the city authority room for some guidance of the settlements. Such guidance could prevent peripheral slum communities like Ashiaman and Madina

from expanding haphazardly over valuable agricultural land, and also prevent unnecessarily sprawled urban patterns.

#### **5.5.0 Policy Implications**

The policy implications of the study on housing development in Accra are clear, in that 53 per cent of the houses are in the popular (informal) sector and mostly constructed by the low income groups (Ghosh, 1984). It is an indication that low income urban dwellers have the potential to develop their own accommodation. The irony that people with least resources (the lower income groups) are at present responsible for most new housing construction in the city, despite little or no governmental support and often in the face of considerable hostility, should be a challenge to housing technocrats and policy makers. The study suggests that building codes and housing standards have to be reformulated to create the enabling environment for improving the actual building process of the urban poor.

As Accra's population increases due to natural increase and unprecedented net in migration; urban decision makers, planners and housing technocrats will be forced not only to include the urban poor in their planning models, but develop innovative approaches to deal with their housing problems within the growing city crisis. The alternative will be further social and economic disintegration in the urban center.

Without a positive government intervention, taken in support of the urban poor efforts, initiative, cultural and environmental circumstance, the growth of urban poor settlements will continue to be unplanned, uncontrolled, illegal, unhealthy, difficult and costly to upgrade, thus adding to already massive existing urban

problems in the city. The review of the existing building codes to reflect the realities, needs and circumstances of the urban poor could be a way ahead. This road is by no means easy, since in the past the building codes have been used to selectively provide service in the city. But at least the direction would be current and some of the key bottlenecks restricting the access of the urban poor to basic infrastructure and services would be eliminated.

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## **APPENDIX**

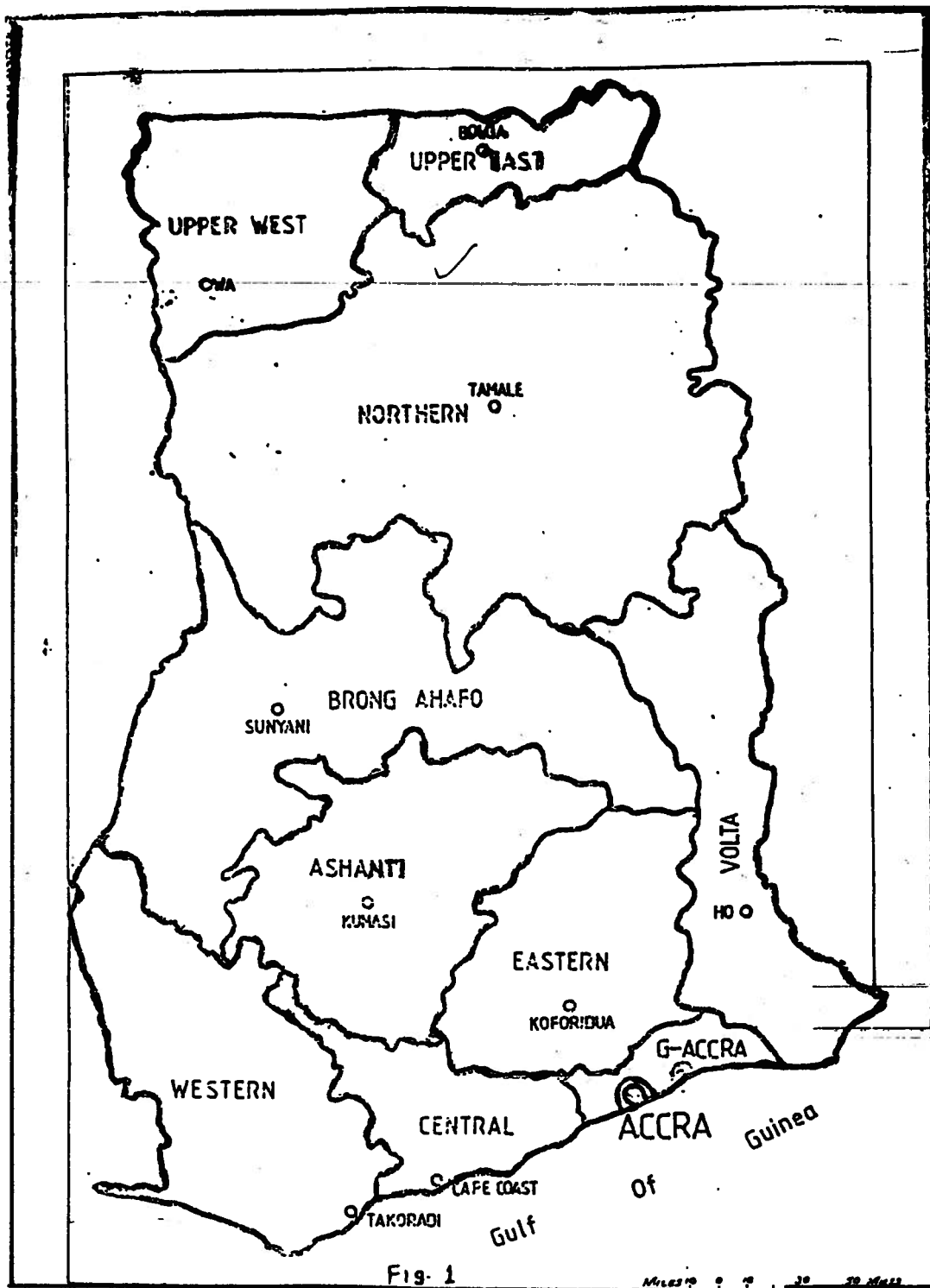


Fig. 1  
MAP OF GHANA

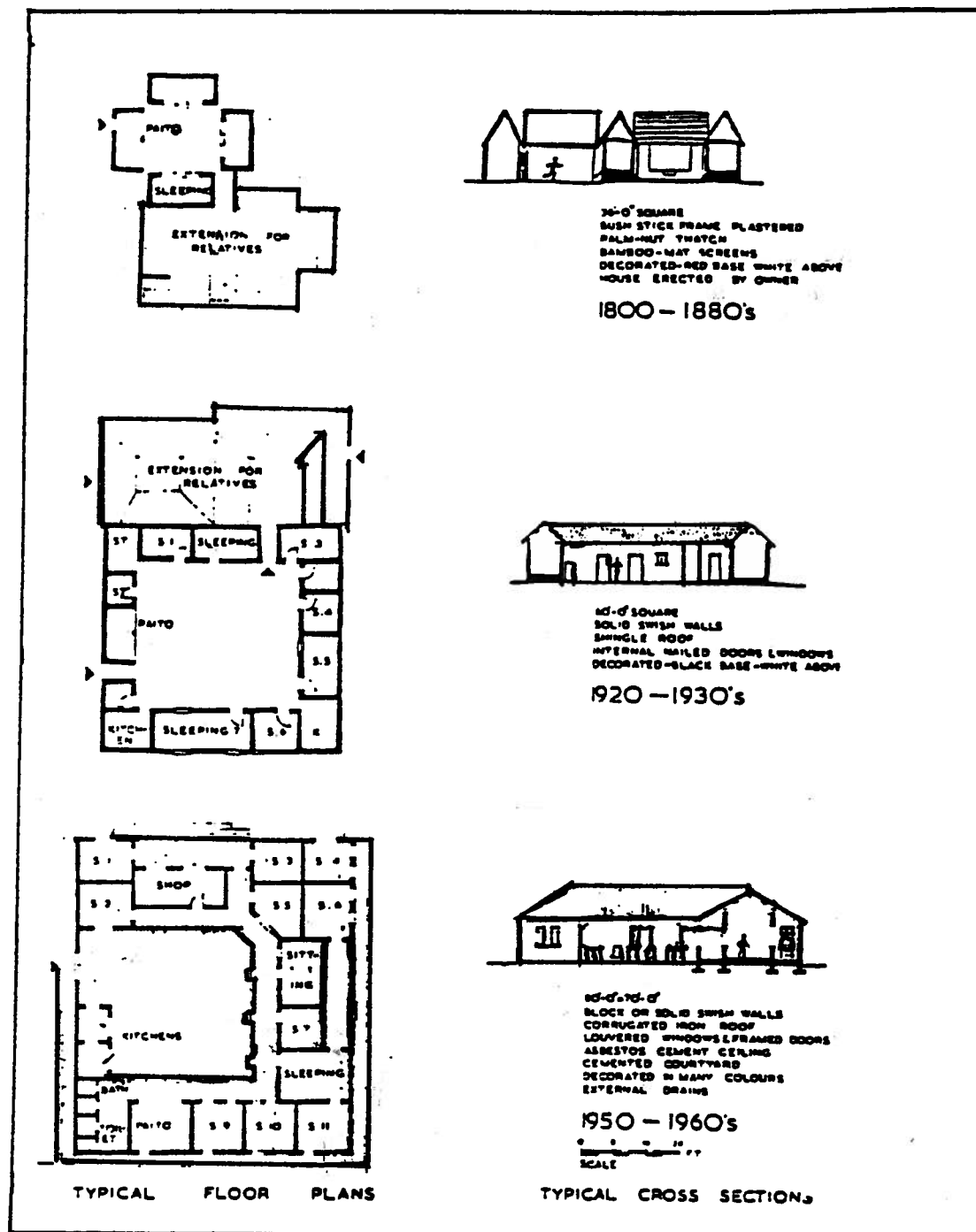


Figure 3.1 (a) Sketch plans of typical Ashanti single-storey compound house  
Source: Tipple, 1987.





Figure 3.2(b) Multi-storey compound house

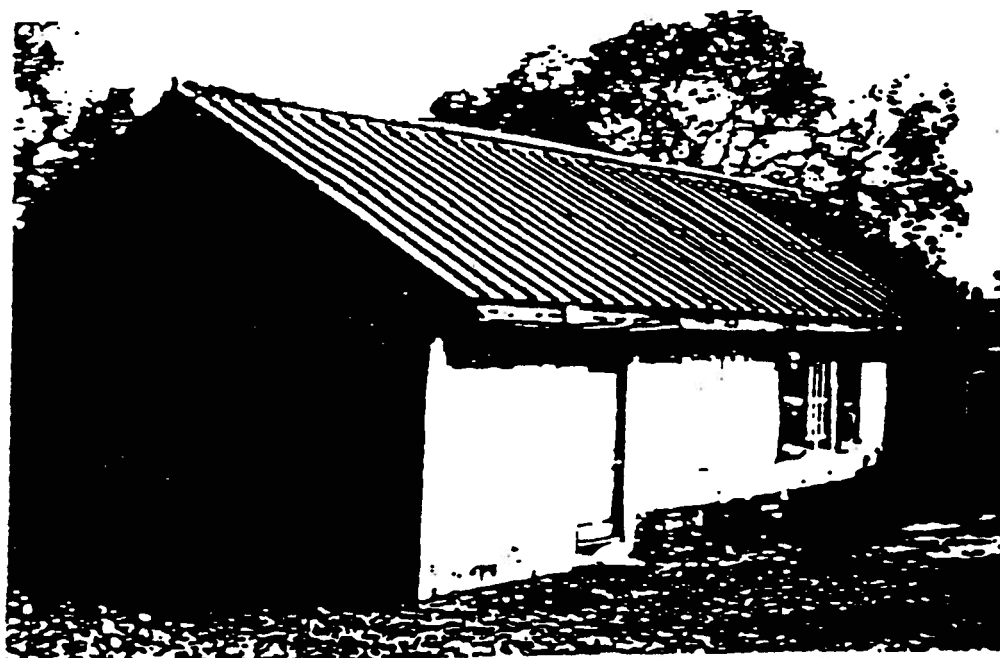


Figure 3.2(c) Government-built semi-detached estate house



Figure 3. (d) Large bungalow on large plots



Figure 3. (e) Large block of flats

